# VMS Master Index

Order Number: AA-LA01C-TE

### November 1991

This index includes entries for all manuals in the VMS Version 5.5 General User, System Management, Programming, and Obsolete Features documentation subkits, plus the VMS License Management Utility Manual, Building Dependable Systems: The VMS Approach, VMS Version 5.5 New Features Manual, and VMS Version 5.5 Release Notes.

**Revision/Update Information:** 

This manual supersedes the VMS

Master Index, Version 5.4.

**Software Version:** 

VMS Version 5.5

#### November 1991

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

© Digital Equipment Corporation 1991.

All Rights Reserved.

The postpaid Reader's Comments forms at the end of this document request your critical evaluation to assist in preparing future documentation.

The following are trademarks of Digital Equipment Corporation: ACMS, ALL-IN-1, BI, CDA, CI, CMI, COHESION, DATATRIEVE, DBMS, DDCMP, DEC, DECalert, DECdecision, DECdtm, DECforms, DECmcc, DECnet, DECSA, DECscheduler, DECset, DECspell, DECstart, DECtalk, DECtp, DECtrace, DEC VUIT, DECwindows, DELNI, DELUA, DEQUA, DEUNA, Digital, DNA, DSSI, EDT, HSC, IAS, KDA, LAT, LN01, LN03, MASSBUS, MicroVAX, MSCP, Q22-bus, RA, RALLY, RB, RC, RD, Rdb/VMS, ReGIS, RK, RL, RM, RP, RQDX, RRD50, RSTS/E, RSX, RT-11, RX, SBI, TA, TMSCP, TOPS-10, TOPS-20, TU, UDA, UETP, ULTRIX, UNIBUS, VAX, VAX Ada, VAX APL, VAX BASIC, VAXBI, VAX C, VAXcluster, VAX COBOL, VAX DIBOL, VAX DOCUMENT, VAX ETHERnim, VAX FORTRAN, VAXft, VAX LISP, VAX MACRO, VAXmate, VAX OPS5, VAX Pascal, VAX RMS, VAX SCAN, VAXsimPLUS, VAX SQL, VAXstation, VMS, and the DIGITAL logo.

Microsoft, MS, and MS-DOS are registered trademarks of Microsoft Corporation.

UNIX is a registered trademark of UNIX System Laboratories, Inc.

ZK4516

This document was prepared using VAX DOCUMENT, Version 2.0.

### 1 Introduction to the Master Index

The VMS Master Index is an edited compilation of individual indexes from all the books in the VMS Version 5.5 General User, System Management, and Programming documentation subkits, plus the indexes from the VMS Obsolete Features Manual (located in the Obsolete Features Kit), the VMS License Management Utility Manual and Building Dependable Systems: The VMS Approach (both located in the VMS Base Set), and the VMS Version 5.5 Release Notes and VMS Version 5.5 New Features Manual (both located in the Release Notes Kit).

Each main entry in the VMS Master Index appears in the following format:

Symbol • (U) VMS Intro, 5-1

The letter code, (U), indicates which documentation subkit the manual belongs to;  $VMS\ Intro$  is the abbreviated name of the manual. In this example, then, the index entry indicates that you can find information about symbols on page 5–1 of the  $Introduction\ to\ VMS$ , which is located in the General User (U) documentation subkit.

Table 1 provides the following information to help you easily locate each book referenced in the *VMS Master Index*:

- Abbreviated name used in the master index to reference the manual
- Corresponding letter code (which also appears on the spine of the binder) that identifies which subkit the manual belongs to, as follows:
  - U General User Subkit
  - M System Management Subkit
  - P Programming Subkit
- Volume number of the binder that contains the manual
- Full manual title that corresponds to the abbreviated name

**Table 1 Master Index Directory** 

Index Abbreviation	Subkit	Volume	Title of Manual
Accounting	M	4	VMS Accounting Utility Manual
ACL Editor	$\mathbf{M}$	3	VMS Access Control List Editor Manual
Analyze/Disk	M	2	VMS Analyze/Disk_Structure Utility Manual
Analyze/RMS_File	P	6A	VMS Analyze/RMS_File Utility Manual
Audit Analysis	M	3	VMS Audit Analysis Utility Manual
Authorize	$\mathbf{M}$	3	VMS Authorize Utility Manual
Backup	$\mathbf{M}$	2	VMS Backup Utility Manual
Bad Block	$\mathbf{M}$	2	VMS Bad Block Locator Utility Manual
Command Def	P	2B	VMS Command Definition Utility Manual
Command Procedures	U	3	Guide to Using VMS Command Procedures
Convert	P	6A	VMS Convert and Convert/Reclaim Utility Manual
DCL Concepts	U	3	VMS DCL Concepts Manual

(continued on next page)

Table 1 (Cont.) Master Index Directory

Index Abbreviation	Subkit	Volume	Title of Manual
DCL Dictionary	U	$4^1$	VMS DCL Dictionary
Debugger	P	2A	VMS Debugger Manual
DECnet-VAX Guide	${f M}$	5A	Guide to DECnet-VAX Networking
DECthreads	${ m P}^2$		Guide to DECthreads
Delta/XDelta	P	7B	VMS Delta/XDelta Utility Manual
Dependability Handbook	3		Building Dependable Systems: The VMS Approach
Device Support (A)	P	8A	VMS Device Support Manual
Device Support (B)	P	8B	VMS Device Support Reference Manual
DSR	U	5B	VAX DIGITAL Standard Runoff Reference Manual
DTS/DTR	M	5B	VMS DECnet Test Sender/DECnet Test Receiver Utility Manual
EDT	U	5A	VAX EDT Reference Manual
Error Log	$\mathbf{M}$	2	VMS Error Log Utility Manual
EVE	U	5B	VMS EVE Reference Manual
Exchange	${f M}$	1B	VMS Exchange Utility Manual
File Applications	P	6A	Guide to VMS File Applications
File Def Language	P	6A	VMS File Definition Language Facility Manual
Files and Devices	U	2A	Guide to VMS Files and Devices
I/O User's I	P	7A	VMS I/O User's Reference Manual: Part I
I/O User's II	P	7A	VMS I/O User's Reference Manual: Part II
Install	${f M}$	1B	VMS Install Utility Manual
LADCP	$\mathbf{M}$	1B	VMS LAD Control Program (LADCP) Manual
LATCP	${f M}$	1B	VMS LAT Control Program (LATCP) Manual
Librarian	P	2B	VMS Librarian Utility Manual
License Management	4		VMS License Management Utility Manual
Linker	P	2B	VMS Linker Utility Manual
MACRO	P	9	VAX MACRO and Instruction Set Reference Manual
Mail	$\mathbf{U}^{\cdot}$	2B	VMS Mail Utility Manual
Maintaining VMS	${f M}$	2	Guide to Maintaining a VMS System
Message	P	2B	VMS Message Utility Manual
Modular Procedures	P	1	Guide to Creating VMS Modular Procedures
Monitor	$\mathbf{M}$	4	VMS Monitor Utility Manual
Mount	$\mathbf{M}$	2	VMS Mount Utility Manual
National Char Set	P	6A	VMS National Character Set Utility Manual
Network Control Program	$\mathbf{M}$	5B	VMS Network Control Program Manual
Networking	M	5A	VMS Networking Manual

 $<sup>\</sup>frac{}{}^{1}\text{Page number prefix DCL1 indicates Volume 4A; DCL2 indicates Volume 4B}$ 

(continued on next page)

 $<sup>^2</sup>$ Perfect-bound 7x9 book

 $<sup>^3</sup>Building\ Dependable\ Systems:\ The\ VMS\ Approach\ is\ located\ in\ the\ VMS\ Base\ Set.$ 

<sup>&</sup>lt;sup>4</sup>The VMS License Management Utility Manual is located in the VMS Base Set.

Table 1 (Cont.) Master Index Directory

Index Abbreviation	Subkit	Volume	Title of Manual
Obsolete Features	5	and the second of the second o	VMS Obsolete Features Manual
Patch	P	2B	VMS Patch Utility Manual
Performance Management	$\mathbf{M}$	4	Guide to VMS Performance Management
Phone	U	2B	VMS Phone Utility Manual
Programming Resources	P	1	Guide to VMS Programming Resources
RMS	P	6B	VMS Record Management Services Manual
Routines Intro	P	3	Introduction to VMS System Routines
RTL DECtalk	P	5A	VMS RTL DECtalk (DTK\$) Manual
RTL General Purpose	P	5A	VMS RTL General Purpose (OTS\$) Manual
RTL Intro	P	5A	Introduction to the VMS Run-Time Library
RTL Library	P	5B	VMS RTL Library (LIB\$) Manual
RTL Math	P	5A	VMS RTL Mathematics (MTH\$) Manual
RTL Parallel Processing	P	5A	VMS RTL Parallel Processing (PPL\$) Manual
RTL Screen Management	P	5C	VMS RTL Screen Management (SMG\$) Manual
RTL String Manipulation	P	5C	VMS RTL String Manipulation (STR\$) Manual
Security	$\mathbf{M}$	3	Guide to VMS System Security
Setting Up VMS	M	1A	Guide to Setting Up a VMS System
Show Cluster	M	4	VMS Show Cluster Utility Manual
Sort/Merge	U	2B	VMS Sort/Merge Utility Manual
SUMSLP	P	2B	VMS SUMSLP Utility Manual
SYSMAN	$\mathbf{M}$	1A	VMS SYSMAN Utility Manual
System Dump Analyzer	P	7B	VMS System Dump Analyzer Utility Manual
System Generation	$\mathbf{M}$	1B	VMS System Generation Utility Manual
System Management Intro	$\mathbf{M}$	1A	Introduction to VMS System Management
System Services Intro	P	4A	Introduction to VMS System Services
System Services Ref	P	4B	VMS System Services Reference Manual
Terminal Fallback	M	1B	VMS Terminal Fallback Utility Manual
Text Processing	U	5A	Guide to VMS Text Processing
Using VMS	U	2A	Guide to Using VMS
Utility Routines	P	3	VMS Utility Routines Manual
VAXcluster	$\mathbf{M}$	1B	VMS VAXcluster Manual
VAXTPU	P	10	VAX Text Processing Utility Manual
VMS Intro	U	2A	Introduction to VMS
V5.5 New Features	6	-	VMS Version 5.5 New Features Manual
V5.5 Release Notes	6		VMS Version 5.5 Release Notes

 $<sup>\</sup>overline{^{5}}$ The VMS Obsolete Features Manual is located in the Obsolete Features Kit.

 $<sup>^6</sup>$ The VMS Version 5.5 New Features Manual and the VMS Version 5.5 Release Notes are both located in the Release Notes Kit.

NOTE

System services, RMS services, and Run-Time Library routines are indexed by facility prefix. All system services and RMS services are indexed under the prefix "SYS" (for example, the Create service is indexed under SYS\$CREATE).

Run-Time Library routines are organized into the following seven facilities:

DECtalk (DTK\$)
General purpose (OTS\$)
Library (LIB\$)
Math (MTH\$)
Parallel processing (PPL\$)
Screen management (SMG\$)
String manipulation (STR\$)

To reference Run-Time Library routines in this index, look under the corresponding facility prefix (for example, the library routine \$FIND\_FILE is indexed under LIB\$FIND\_FILE).

# Index

	/ABSOLUTE qualifier, (P) Patch, PAT-27, PAT-30
A	Absolute queue, (P) MACRO, 9–82
@ command (II) FVF Paf EVF 2 EVF 2. (D)	manipulating, (P) MACRO, 9–85
@ command, (U) EVE Ref, EVE-2, EVE-3; (P) VAXTPU, 4-32	Absolute time, (P) Programming Resources, 3–23; (P) System Services Intro, 10–2
Abbreviation	as input to SYS\$BINTIM, (P) System Services
in command procedures, (U) DCL Concepts, 1–6	Ref, SYS–37
of commands, (U) DCL Concepts, 1-5	combined with delta time, (U) Using VMS,
of DSR commands, (U) DSR Ref, 1-1, 1-4	1-16; (U) DCL Concepts, 1-16
of EVE commands, (U) Text Processing, 1-7	converting to numeric, (P) System Services Ref, SYS-455
of keywords, (U) DCL Concepts, 1-12	default values, (U) Using VMS, 1-15; (U) DCL
of NCP commands, (M) Network Control	Concepts, 1–14
Program, NCP-2	
of qualifiers, (U) DCL Concepts, 1–12	examples, (U) Using VMS, 1-15; (U) DCL
Abnormal termination of subordinate	Concepts, 1–15 in system format, (P) System Services Intro,
notification of, (P) RTL Parallel Processing, 2-3	10-3
Abort	rules for entering, (U) Using VMS, 1–15; (U)
kernel stack not valid, (P) MACRO, E-10	DCL Concepts, 1–14
resulting from exceeding virtual address space,	syntax, (U) Using VMS, 1-15; (U) DCL
(P) VAXTPU, 5–1	Concepts, 1–14
Abort function, (P) Debugger, 2–7, 10–9, CD–38,	Absolute value, (P) RTL Math, 1-4
CD-121, CD-204	of complex number, (P) RTL Math, MTH-23
with DECwindows, (P) Debugger, 1–20	/AC
Aborting	See /ASCIC qualifier
remote session, (M) DECnet-VAX Guide, 3-4	ACB\$V_QUOTA, (P) Device Support (B), 3-7,
Aborting an I/O request	3–10
See I/O request	ACB (AST control block), (P) Device Support (A),
Aborting a transaction, V5.5 New Features, B-36,	4–20; (P) Device Support (B), 1–38, 1–86, 3–2,
B-40; (P) System Services Intro, 14-2; (P)	3–4
System Services Ref, SYS-3, SYS-5, SYS-7;	contents, (P) Device Support (B), 3-6
$Dependability\ Handbook,\ 8 ext{}15$	ACBB (Add Compare and Branch Byte)
Aborting job state, (M) Maintaining VMS, 5-78	instruction, (P) MACRO, 9-44
Aborting operation	ACBD (Add Compare and Branch D_floating)
in keypad mode, (U) EDT Ref, EDT-32	instruction, (P) MACRO, 9-44
in line mode, (U) EDT Ref, EDT-127	ACBF (Add Compare and Branch F_floating)
in nokeypad mode, (U) EDT Ref, EDT-272	instruction, (P) MACRO, 9-44
ABORT qualifier, (P) Debugger, CD-178	ACBG (Add Compare and Branch G_floating)
Abort reason codes, V5.5 New Features, 16–1; (P)	instruction, (P) MACRO, 9-44
System Services Intro, 14-4, 14-5; (P) System	ACBH (Add Compare and Branch H_floating)
Services Ref, SYS-4, SYS-5, SYS-197	instruction, (P) MACRO, 9-44
ABORT statement, (P) VAXTPU, 3-26, 3-33, 7-16	ACBL (Add Compare and Branch Long)
ABORT subcommand	instruction, (P) MACRO, 9-44
with LMCP REPAIR command, V5.5 New	ACBW (Add Compare and Branch Word)
Features, B-87	instruction, (P) MACRO, 9-44
Absolute expression, (P) MACRO, 3–9	Accept flag, (U) DSR Ref, 3-5
Absolute mode, (P) MACRO, 5-14	recognizing, (U) DSR Ref, 2-41
assembling relative mode as, (P) MACRO, 6–22	, , , , , , , , , , , , , , , , , , ,

Access	Access (cont'd)
See also Random access	to volume
and security alarm, (M) Security, 4–22	on magnetic tape, (U) Files and Devices,
and UIC-based protection code, (M) Security,	4–16
4-4	types of, (U) Files and Devices, 2-2, 4-20
append operation, (U) Files and Devices, 4-19	update operation, (U) Files and Devices, 4-19
CONTROL, (U) Files and Devices, 2-9, 2-11,	WRITE, (U) Files and Devices, 2–9, 2–11
2–12	ACCESS attribute, (P) File Def Language, FDL-2
DELETE, (U) Files and Devices, 2–9, 2–11,	Access category, (M) Security, 4-4; (P) File
2–12	Applications, 4–21
denying through protection code, (M) Security,	summary of, (U) Files and Devices, 2-1
4–6	Access control, (M) Networking, 8–12, 8–13
denying to class of users, (M) Security, 5-5	commands, (M) Networking, 3–93
denying with identifier ACE, (M) Security,	default, (M) Networking, 2–40 default for inbound connection, (M)
4–28	Networking, 2–43
EXECUTE, (U) Files and Devices, 2-9, 2-11	default nonprivileged, (M) Networking, 1–26
file, (P) Routines Intro, A-5t	default nonprivileged, $(M)$ iverworking, 1–20 default nonprivileged DECnet account, $(M)$
file attributes, (U) Files and Devices, 4–18	Networking, 2–41
flowchart, (M) Security, 4–35	default privileged, (M) Networking, 1–26
how system determines, (M) Security, 4–1	for a network, (M) Networking, 2–38
logical I/O, (M) Security, 4–12	for an object, (M) Networking, 2–33
modes, (P) File Applications, 1-2; (P) RMS,	for circuits, (M) DECnet-VAX Guide, 3–36
1–1 network, <i>(M) DECnet-VAX Guide</i> , 1–1, 2–2;	for inbound connections, (M) Networking, 2–41
(M) Networking, 1–24	for logical links, (M) Networking, 2-40
network object, (M) DECnet-VAX Guide, 3-35	for network applications, (M) Networking, 1-25
object, (U) Using VMS, 7-3	for nodes, (M) DECnet-VAX Guide, 3-36
page, (P) Routines Intro, A-10t	for outbound connections, (M) Networking,
physical I/O, (M) Security, 4–12; (P) System	2-40
Services Intro, 7–7	for remote command execution, (M)
protecting network against unauthorized, (M)	Networking,2 extstyle -43,3 extstyle -95
DECnet-VAX Guide, 3–34	for remote file access, (M) Networking, 1–24
proxy, (M) DECnet-VAX Guide, 2-3	for system, (M) DECnet-VAX Guide, 3-36
random, (P) File Applications, 1-2, 3-13	for task-to-task communication, (M)
READ, (U) Files and Devices, 2-9, 2-11	Networking, 1–24
remote file, (M) DECnet-VAX Guide, 2-2; (M)	for VAX PSI Access software, (M) Networking,
Networking, 1-21, 8-1	3–87
remote file through command procedures, $(M)$	LOGINOUT image, (M) Networking, 2–40, 8–13
DECnet-VAX Guide, 2–12	NML, privileges for, (M) Networking, 3–94
remote task, (M) DECnet-VAX Guide, 2-14;	node level, (M) Networking, 2–43, 3–95
(M) Networking, 1–23	nonprivileged string, (M) Networking, 2–40
required for DELETE/QUEUE command, V5.5	on remote files, (M) DECnet-VAX Guide, 2–3
Release Notes, 4–3	privileged string, (M) Networking, 2–40
required for SJC\$_DELETE_QUEUE, V5.5	proxy login, (M) Networking, 1–26, 2–39, 2–44,
Release Notes, 4–18 run-time options, (P) RMS, 1–2	3–96
sequential, (P) File Applications, 1–2, 3–13	routing initialization, (M) Networking, 2–38
shared, (P) File Applications, 10–30	setting default information, (M) Networking,
in a VAXcluster, (P) File Applications,	3–94
3–28	system level, (M) Networking, 2-40, 3-94
system object, (P) Routines Intro, A-11t	use of NONPRIVILEGED parameter, (M)
to disk file, (M) Security, 4–8	Networking, 3-94
to existing node, (M) DECnet-VAX Guide, 3-1	use of PRIVILEGE parameter, (M) Networking,
to file, (U) Files and Devices, B-13	3–94
on magnetic tape, (U) Files and Devices,	user authorization file (UAF), (M) Networking,
4–16	8–13
to process-permanent files, (P) File	Access control list
Applications, 6–20	See ACL

Access mode (cont'd) Access control list buffer field changing to kernel, (P) System Services Ref, See XAB\$L\_ACLBUF field SYS-77 Access control list buffer size field effect on AST delivery, (P) System Services See XAB\$W\_ACLSIZ field Intro, 5-5Access control list context field for a logical name, (U) Using VMS, 4-13; (U) See XAB\$L\_ACLCTX field DCL Concepts, 4-14 Access Control List Editor for a logical name table, (U) Using VMS, 4–13; See ACL Editor (U) DCL Concepts, 4-17 Access Control List Editor routine processor, (P) Routines Intro, A-2 See ACL Editor routine specifying, (P) System Services Intro, 2–2 Access control list entry supervisor, (U) Command Procedures, 2-4 See ACE types of, (P) System Services Intro, 2-2 Access control list error status field user, (U) Command Procedures, 2-4 See XAB\$L\_ACLSTS field using qualifiers to specify, (U) Using VMS, Access control list length field 4-13; (U) DCL Concepts, 1-8, 4-14, 4-17 vector, (P) MACRO, 10–20, 10–43, 10–49 See XAB\$W ACLLEN field with AST, (P) System Services Intro, 5-2 Access control string, (M) Security, 3-17 copying files between nodes with, (U) Using with logical names, (P) System Services Intro, 6 - 7VMS, 2-16Access module definition, (U) Using VMS, 2-11; (U) DCL See X.25 Concepts, 3-2 ACCESS parameter example, (U) Using VMS, 2-11; (U) DCL for SET NODE command, (M) Networking, Concepts, 3-3 2-43, 3-95exposure of password in, (M) Security, 3-13 ACCESS primary format in a node name, (U) DCL Concepts, 3-3 secondary attributes, (P) File Applications, 7-3 in a logical node name, (U) Using VMS, 4-16; /ACCESS qualifier, (M) Security, 5-30 (*U*) *DCL Concepts*, 4–21 to 4–23 Access request to objects, (M) Security, 4–35 in equivalence name, (M) DECnet-VAX Guide, Access rights block invalid, (M) DECnet-VAX Guide, 4-11 See ARB null, (M) DECnet-VAX Guide, 2-3 Access specification rules for entering, (U) Using VMS, 2-11; (U) list of mask values, (P) RMS, 14-6  $DCL\ Concepts,\ 3-3$ Access type, (P) System Services Intro, 1-7 secondary passwords with, (M) Security, 5–17 See also CONTROL access using to protect file, (M) DECnet-VAX Guide, See also DELETE access See also EXECUTE access /ACCESSED qualifier, (M) Mount, MOUNT-6 See also READ access Access entry, (P) Routines Intro, 1-9; (P) System See also WRITE access Services Intro, 1–7 abbreviation of, (M) Security, 4-6 Accessibility field, (U) Files and Devices, 2-12, and security audit, (M) Security, 4-41, 6-11 B-9, B-13CONTROL, (U) Files and Devices, 2-2; (M) ACCESSIBILITY keyword Security, 4–5 BACKUP/IGNORE, V5.5 New Features, A-3 defined for a device, (U) DCL Concepts, 8-6 Accessibility of memory defined for a directory, (U) DCL Concepts, 8-8 See Buffer defined for a file, (U) DCL Concepts, 8-9 Accessing restricted files, (U) DCL Dictionary, defined for a global section, (U) DCL Concepts, DCL2-236 Access matrix, (M) Security, 4-15, 4-17 defined for a logical name table, (U) DCL Access method, (P) Routines Intro, 1-9; (P) Concepts, 8-10System Services Intro, 1–7 defined for a queue, (U) DCL Concepts, 8-7 defined for a volume, (U) DCL Concepts, 8-7 Access mode, (P) System Services Intro, 2–2 DELETE, (U) Files and Devices, 2–2; (M) See also Record access mode Security, 4-5 and the DEFINE command, (U) Using VMS, EXECUTE, (U) Files and Devices, 2-2; (M) 4-13; (U) DCL Concepts, 1-8, 4-14 changing to executive, (P) System Services Ref. Security, 4–5 list, (U) DCL Concepts, 8-4 SYS-75

Accounting (cont'd) Access type (cont'd) meaning for directory file, (M) Security, 4-8 enabling or disabling logging, (U) DCL meaning for disk file, (M) Security, 4-8 Dictionary, DCL2-91 of detached process, (U) DCL Dictionary, meaning for volume, (M) Security, 4-10 DCL2-55 READ, (U) Files and Devices, 2-2; (M) Security, 4-5 of terminal session, (U) DCL Dictionary, WRITE, (U) Files and Devices, 2-2; (M) DCL2-303 ACCOUNTING Security, 4-5 Access violation, (P) System Dump Analyzer, See also Accounting Utility SDA-16, SDA-19 ACCOUNTING.DAT, (M) Accounting, ACC-1 ACCOUNTING command, (U) DCL Dictionary, See also SS\$\_ACCVIO DCL1-14; (M) System Management Intro, 2-4 access\_bit\_names data type, (P) Routines Intro, See also SET ACCOUNTING command A-2access\_mode data type, (P) Routines Intro, A-2 restrictions, (M) Accounting, ACC-5 Account, (U) VMS Intro, 1-1; (M) System Accounting file Management Intro, 2-2 controlling, Obsolete Features, 2-22 Accounting log See also Captive account as security tool, (M) Security, 7-3 See also Proxy account Accounting manager access, (M) Setting Up VMS, 4-9 sending message to, Obsolete Features, 2-22 adding, (M) Setting Up VMS, 4-14, 4-16 Accounting message adding proxy logins, (M) Setting Up VMS, 4-21 format of, (P) System Services Ref, SYS-108 automatic login, (M) Setting Up VMS, 4-17 ACCOUNTING output, (M) Accounting, ACC-1 default DECnet-VAX, (M) DECnet-VAX Guide, Accounting record 2-3, 3-9, 3-13, 3-36 page count, V5.5 Release Notes, 1-3 default nonprivileged DECnet, (M) Networking, Accounting report 1-26, 2-41 interpreting image-level data, (M) Performance deleting, (M) Setting Up VMS, 4-23 Management, 3-4 directory, (M) Setting Up VMS, 4-8 sample image-level data, (M) Performance disabling, (M) Setting Up VMS, 4-25 Management, 3-4 disguising identity, (M) Security, 7-3 using to evaluate VMS resource utilization, emergency and privileges, (M) Security, 5-34 (M) Performance Management, 3-3 expiration, (M) Security, 3-14 Accounting Utility (ACCOUNTING), (M) guest, (M) Security, 5-50 Maintaining VMS, 6-2; (M) Accounting, how to disable with DISUSER flag, (M) Security, 5–31 as network troubleshooting aid. (M) how to set duration, (M) Security, 5-31 DECnet-VAX Guide, 4–15 maintaining, (M) Setting Up VMS, 4-22 DCL qualifiers, (M) Accounting, ACC-6 to multiple ACC-38 security, (M) Security, 3-14 directing output from, (M) Accounting, ACC-5, network, (M) Security, 8-5 ACC-40 network proxy, (M) Setting Up VMS, 4-20 disabling, (M) Maintaining VMS, 6-2 open, (M) Security, 3-7 enabling, (M) Maintaining VMS, 6-2 privileged, (M) Security, 5-35 examples, (M) Accounting, ACC-38 to ACC-41 project, (M) Setting Up VMS, 4-19 listing files, (M) Accounting, ACC-39 proxy, (M) DECnet-VAX Guide, 2-3, 3-9, 3-34, selecting records, (M) Accounting, ACC-39 4-11 sorting records, (M) Accounting, ACC-40 PSI, (M) Networking, 3-81 using DCL symbols, (M) Accounting, restricting use, (M) Setting Up VMS, 4-25 ACC-41 security, (M) Setting Up VMS, 4-9 exiting, (M) Accounting, ACC-5 setting up to use project identifiers, (M) input, (M) Accounting, ACC-1 Security, 5–13 invoking, (M) Accounting, ACC-5 user, (M) Security, 5-1, 5-39 log file, (M) Maintaining VMS, 6-1, 6-2 using ADDUSER.COM, (M) Setting Up VMS, closing, (M) Maintaining VMS, 6-3 error, (M) Maintaining VMS, 6-3 Accounting, (M) System Management Intro, 2-4 purging. (M) Maintaining VMS, 6-3 See also Accounting Utility (ACCOUNTING) log file record format, (M) Accounting, A-1 to A - 14

Accounting Utility (ACCOUNTING) (cont'd) ACL (access control list) (cont'd) compared with UIC protection, (P) File records sorting, selecting, and reporting, (M) Applications, 1-10 conversion methods, (P) RMS, 14-2 Maintaining VMS, 6-3 record types, (M) Maintaining VMS, 6-3 copying, (U) Using VMS, 7-14 creation and maintenance of, (M) Security, report formats, (M) Maintaining VMS, 6-4 vector processing support, V5.5 New Features, 4-17 B-15; (M) Maintaining VMS, 6-17 default protection, (U) Using VMS, 7-10; (U) Files and Devices, 2-8; (M) System ACCOUNTNG.DAT file. (M) Maintaining VMS. Management Intro, 3-6 /ACCOUNT qualifier, (M) Accounting, ACC-7 defining with DCL, (U) Files and Devices, 2-3 definition, (U) Using VMS, 7-1, 7-5 ACE (access control list entry), (U) Files description of, (U) Files and Devices, 2-3 and Devices, 2-8, 2-9, 2-12; (M) System Management Intro, 3-6; (M) Security, 4-20 disadvantages, (M) Security, 5-4 alarm, (P) System Services Intro, 3-18 displaying with SHOW ACL command, (U) ALARM\_JOURNAL, (U) Using VMS, 7–9 Using VMS, 7-12 application, (P) System Services Intro, 3-19 editing, (P) Utility Routines, ACL-3 editing with EDIT/ACL command, (U) Using automatically added, (M) Security, 4-35 VMS, 7-15 creating, (U) Using VMS, 7-7; (M) System entries in, (U) Using VMS, 7-7 Management Intro, 3-6; (P) System Services Intro, 3-17, 3-23 identifier, (U) Using VMS, 7-6; (M) System default protection, (M) Security, 4-21, 4-25, Management Intro, 3-5 5-8; (M) ACL Editor, ACL-17; (P) System introduction to, (M) Security, 4-1 Services Intro, 3-20 items in (access control entries, or ACEs), (M) examples, (M) Security, 5-12, 8-21 System Management Intro, 3-6 DEFAULT\_PROTECTION, (U) Using VMS, maintaining current, (M) Security, 4-28 manipulating, (P) Utility Routines, ACL-1 deleting, (U) Using VMS, 7-14 modifying, (U) Using VMS, 7-14 format, (M) ACL Editor, ACL-13 on public volumes, (M) Maintaining VMS, 2-2 identifier, (M) Security, 4-21, 4-22; (M) ACL on queues, (M) Maintaining VMS, 5-23 Editor, ACL-13; (P) System Services Intro, on vector capability object, V5.5 New Features, 3 - 21B-13 to B-14 IDENTIFIER, (U) Using VMS, 7-8 protecting files with, (U) Using VMS, 7-5 maintaining, (P) System Services Intro, 3-17, protecting objects with, (M) System Management Intro, 3-1 SHOW ACL command, (U) Files and Devices, positioning considerations, (M) Security, 4–21, processing, (U) Using VMS, 7-18 specifying with SET ACL command, (U) Using VMS, 7-13 replacing, (U) Using VMS, 7-14 security alarm, (M) Security, 4-21, 4-26; (M) usage considerations, (M) Security, 4-28 ACL Editor, ACL-18 use with VMS RMS control block, (P) RMS, syntax of, (M) Security, 4-22 to 4-28 translating, (P) System Services Intro, 3-17, using for file sharing over network, (M) Security, 8-18 types of, (M) Security, 4-21; (P) System using on system program files, (M) Security, Services Intro, 3-17 5 - 31VMS RMS limitation, (P) RMS, 14–2 using wildcards in commands, (M) Security, ACF (configuration control block), (P) Device 4 - 35ACL (access control list) Editor, (M) Security, Support (B), 1–2 to 1–4 ACL (access control list), (M) Setting Up VMS, 4-17, 5-6; (M) ACL Editor, ACL-23 4-9, 4-19; (M) Security, 4-14 to 4-28; (P) ACL qualifiers, (M) ACL Editor, ACL-24 to ACL-28 Programming Resources, 6–1; (P) System Services Intro, 3-2 customizing, (M) ACL Editor, ACL-19 deleting text with, (U) Using VMS, 7-18 See also ACL Editor routine exiting, (M) ACL Editor, ACL-12 access rights, (P) Device Support (B), 1-45 exiting with Ctrl/Z, (M) Security, 5-7 alarms, (M) Security, E-2 invoking, (M) ACL Editor, ACL-2 as protection basis, (P) File Applications, 4-21

ACL (access control list) Editor (cont'd) ACP function (cont'd) invoking with EDIT/ACL command, (U) Using disk quotas, (P) I/O User's I, 1-33 VMS, 7-15IO\$\_ACCESS, (P) I/O User's I, 1-7, 1-10, keypad, (U) Using VMS, 7-15 1-14. 1-26keypad editing, (M) ACL Editor, ACL-3 IO\$\_ACPCONTROL, (P) I/O User's I, 1-7, moving the cursor with, (U) Using VMS, 7-17 quitting, (M) ACL Editor, ACL-12 IO\$\_CREATE, (P) I/O User's I, 1-10, 1-11, recovering, (M) ACL Editor, ACL-12 1-14, 1-22 restoring text with, (U) Using VMS, 7-18  $IO\$_DEACCESS$ , (P) I/O User's I, 1–13, 1–14, ACL-based protection, (U) Files and Devices, 2-3 IO\$\_DELETE, (P) I/O User's I, 1–7, 1–29 See also ACL IO\$\_MODIFY, (P) I/O User's I, 1–7, 1–11, definition, (U) DCL Concepts, 8-1 1-13, 1-14, 1-28 ACLEDIT\$EDIT routine, (P) Utility Routines, IO\$\_MOUNT, (P) I/O User's I, 1-30 ACL-3 ACL Editor routine magnetic tape positioning, (P) I/O User's I, example of use in BLISS program, (P) Utility major, (P) I/O User's I, 1-22 Routines, ACL-1 miscellaneous disk, (P) I/O User's I, 1-32 introduction, (P) Utility Routines, ACL-1 quota file transfer block, (P) I/O User's I, 1-33 options available, (P) Utility Routines, ACL-3 ACLEDT\$SECTION logical name ACP-QIO movefile subfunction, Dependability Handbook, defined, (P) Utility Routines, ACL-5 9 - 22ACL section file, (M) ACL Editor, ACL-19 ACP-QIO interface, (P) I/O User's I, 1-1 ACMS (Application Control and Management access file function, (P) I/O User's I, 1-26 System) access subfunction, (P) I/O User's I, 1-10 See also Desktop ACMS ACP function, (P) I/O User's I, 1-30 application failover, Dependability Handbook, ANSI standard, (P) I/O User's I, 1–2, 1–32 arguments, (P) I/O User's I, 1-2 balancing process pools, Dependability disk guota, (P) I/O User's I, 1–33 Handbook, 8-50 attribute control block. (P) I/O User's I, 1-14 dependability features, Dependability attributes, (P) I/O User's I, 1–16 to 1–18 Handbook, 8-50 attributes statistics block, (P) I/O User's I, overview, Dependability Handbook, 8-49 programming technology, Dependability BLISS-32 programming, (P) I/O User's I, 1-2 Handbook, 3-12 create file function, (P) I/O User's I, 1–22 queuing, Dependability Handbook, 8-55 disk, (P) I/O User's I, 1–24 terminal failover, Dependability Handbook, magnetic tape, (P) I/O User's I, 1-26 8-53 deaccess file function, (P) I/O User's I, 1-28 ACNT privilege, (M) Setting Up VMS, 5-10; (M) delete file function, (P) I/O User's I, 1-29 Security, A-1; (M) Networking, 5-2 description, (P) I/O User's I, 1-1 ACP (ancillary control process), (M) Networking, directory entries, (P) I/O User's I, 1-9, 1-26 5-2, 6-1; (P) I/O User's I, 1-1; (P) System FIB (file information block), (P) I/O User's I, Dump Analyzer, SDA-99; (P) Device Support 1-3 (B), 1–12, 1–39, 1–40, 1–74 See also FIB See also XQP file characteristics, (P) I/O User's I, 1–18 class, (P) Device Support (B), 1-28 function codes, (P) I/O User's I, A-1 default, (P) Device Support (B), 1-28 function modifiers, (P) I/O User's I, 1-2 establishing values for, (M) Performance  $IO$M_ACCESS$ , (P) I/O User's I, 1–10, Management, 5-4 1-23, 1-25, 1-26 for ODS-1 disks, (M) Performance  $IO$M_CREATE$ , (P) I/O User's I, 1–23, Management, 5-4 1-24, 1-25, 1-26 removing blockage, (M) Performance IO\$M\_DELETE, (P) I/O User's I, 1-23, Management, 5–13 1-24, 1-30 ACP cache parameters, (M) Maintaining VMS,  ${\tt IO\$M\_DMOUNT}, \ \ (P) \ I/O \ User's \ I, \ 1\text{--}31,$ 3-91 - 32ACP function, (P) I/O User's I, 1–2, 1–30 I/O operations, (P) I/O User's I, 1–1 arguments, (P) I/O User's I, 1-2 I/O status block, (P) I/O User's I, 1-35 attributes, (P) I/O User's I, 1-16 to 1-18 movefile subfunction, V5.5 New Features, 22-1

ACP-QIO interface (cont'd)	ACTIVE INCREMENT parameter, (M)
record attributes area, (P) I/O User's I, 1-19	Networking, 3–43
values, (P) I/O User's I, 1–20	/ACTIVE qualifier, (P) Debugger, 12–10, 12–23,
serious exception (EOT), (P) I/O User's I, 1-23,	CD-179
1–27, 1–32	ACTIVE reserved word
status returns, (P) I/O User's I, A-1	plural form of component name, $(M)$
VAX MACRO programming, (P) I/O User's I,	DECnet-VAX Guide, 4–2
1–1 XQP (extended QIO processor), (P) I/O User's	Active set, (M) Setting Up VMS, 2–19
I, 1–1	displaying, (M) Setting Up VMS, 2–20; (M)
ACP queue block	Maintaining VMS, 6–15
See AQB	Active-standby system kernels, Dependability Handbook, 4–7
ACP subfunction, (P) I/O User's I, 1–7	Active system
access, $(P) I/O User's I$ , 1–10	modifying, (M) Setting Up VMS, 6–15
directory lookup, (P) I/O User's I, 1-7	%ACTIVE_TASK, (P) Debugger, 12–10, 12–14
extend, (P) I/O User's I, 1–11, 1–35	Activity license, License Management, LMF-31
read/write attributes, (P) I/O User's I, 1-14	Actual node name, (M) LATCP, LAT-57
truncate, (P) I/O User's I, 1–13	Actual offset value
ACP system parameters	avoiding use of, (P) RMS, 2-4
See System parameters	Actual port name, (M) LATCP, LAT-57
ACP_DINDXCACHE parameter, (M) Maintaining	Actual service name, (M) LATCP, LAT-57
VMS, 2–6	/AD
ACP_MULTIPLE parameter, (P) Device Support	See /ASCID qualifier
(B), 1-28	Ada
ACP_REBLDSYSD parameter, (M) VAXcluster,	See VAX Ada
5–13	Ada compiler
Acquiring software packages, Dependability	generating reentrant code, (P) DECthreads, 3-2
Handbook, 3–13 Action routine	%ADAEXC_NAME, (P) Debugger, 9–15, D–9
See also FDT routine	Adapter
designating for client messages, (P) VAXTPU,	See I/O adapter
7–357	bus, V5.5 New Features, B-59, B-60, B-61
detached cursor	showing information, <i>V5.5 New Features</i> , B–59,
defining, (P) VAXTPU, 7–367	B-60, B-61
fetching, (P) VAXTPU, 7–197	Adapter control block
for handling client messages	See ADP
fetching, (P) VAXTPU, 7–197	Adapter dispatch table, (P) Device Support (A),
Action routine bit mask, (P) Device Support (A),	14-27, 14-30; (P) Device Support (B), 1-6,
4-12	1–7
Activating an autostart queue, (M) Maintaining VMS, 5–56, 5–68	address, (P) Device Support (B), 1–7
relationship with starting an autostart queue,	examining, (P) Device Support (A), 13-9
(M) Maintaining VMS, 5-5	ADAPTER keyword
/ACTIVATING qualifier, (P) Debugger, 10–12,	Error Log Utility (ERROR LOG), V5.5 New
CD-17, CD-30, CD-125, CD-184	Features, B-62 Adaptive routing, (M) DECnet-VAX Guide, 1-3
Activation	ADAWI (Add Aligned Word Interlocked)
predefined tracepoint, multiprocess program,	instruction, (P) MACRO, 9-7
(P) Debugger, 10–12	ADD (Field) command, (M) Show Cluster,
ACTIVE	SHCL-33 to SHCL-44
plural form of component name, (M)	CIRCUITS class, (M) Show Cluster, SHCL-33
Networking, 3–99	to SHCL-34
Active area, (P) VAXTPU, 7–350	CLUSTER class, (M) Show Cluster, SHCL-34
determining location of, (P) VAXTPU, 7–196 ACTIVE BASE parameter, (M) Networking, 3–43	to SHCL-35
Active component, (M) Networking, 3–49	CONNECTIONS class, (M) Show Cluster,
Active editing point, (P) VAXTPU, 2–4	SHCL-35 to SHCL-37
, , , , , , , , , , , , , , , , , , ,	COUNTERS class, (M) Show Cluster,
	SHCL-37 to SHCL-38

ADD (Field) command (cont'd) Additional routines CREDITS class, (M) Show Cluster, SHCL-38 list of, (P) RTL Math, 1-4 to 1-9 ERRORS class, (M) Show Cluster, SHCL-38 Addition operator (+), (P) System Dump Analyzer, LOCAL\_PORTS class, (M) Show Cluster, SHCL-39 to SHCL-40 ADDL2 (Add Long 2 Operand) instruction, (P) MEMBERS class, (M) Show Cluster, SHCL-40 MACRO, 9-8to SHCL-42 ADDL3 (Add Long 3 Operand) instruction, (P) SYSTEMS class, (M) Show Cluster, SHCL-43 MACRO, 9-8 ADD/IDENTIFIER command, (M) Authorize, ADD LOCAL\_PORTS command, (M) Show AUTH-16 Cluster, SHCL-45 ADD/PROXY command, (M) Authorize, AUTH-18 ADD MEMBERS command, (M) Show Cluster, ADDB2 (Add Byte 2 Operand) instruction, (P) SHCL-47 MACRO, 9-8ADDP4 (Add Packed 4 Operand) instruction, (P) ADDB3 (Add Byte 3 Operand) instruction, (P) MACRO, 9-148 MACRO, 9-8ADDP6 (Add Packed 6 Operand) instruction, (P) ADD CIRCUITS command, (M) Show Cluster, MACRO, 9-148 SHCL-23 ADD/PROXY AUTHORIZE command, (M) ADD CLUSTER command, (M) Show Cluster, Security, 8-19 SHCL-25 ADD/PROXY command, (M) Security, 8-14 ADD command, (M) Install, INS-10; (M) %ADDR, (P) Debugger, CD-10 Authorize, AUTH-14; (P) File Applications, Address 10-28; (P) File Def Language, FDL-59; See also Node address Obsolete Features, 4-6 access type, (P) MACRO, 8-17 ADD CONNECTIONS command, (M) Show area number, (M) Networking, 2-2, 3-9, 3-14, Cluster, SHCL-27 ADD COUNTERS command, (M) Show Cluster, broadcast, (M) Networking, 1-7 SHCL-29 conversion of node, (M) Networking, 2-25, 3-66 ADD CREDITS command, (M) Show Cluster, converting to node address, V5.5 New Features, SHCL-31 ADDD2 (Add D\_floating 2 Operand) instruction, converting to node name, V5.5 New Features, (P) MACRO, 9-107 C - 58ADDD3 (Add D\_floating 3 Operand) instruction, definition of, (P) Routines Intro, 2-3 (P) MACRO, 9-107 depositing into, (P) Debugger, 4-23 ADD ERRORS command, (M) Show Cluster, with DECwindows, (P) Debugger, 1-25 SHCL-32 DTE, (M) Networking, 2-6 ADDF2 (Add F\_floating 2 Operand) instruction, Ethernet hardware, (M) Networking, 2-20, (P) MACRO, 9-107 3 - 13ADDF3 (Add F\_floating 3 Operand) instruction, Ethernet node, (M) Networking, 3-13 (P) MACRO, 9-107 Ethernet physical, (M) Networking, 1-7, 2-20, ADDG2 (ADD G\_floating 2 Operand) instruction, (P) MACRO, 9-107 examining, (P) Debugger, 4-13; (P) System ADDG3 (ADD G\_floating 3 Operand) instruction, Dump Analyzer, SDA-51 (P) MACRO, 9-107 with DECwindows, (P) Debugger, 1-25 ADDH2 (ADD H\_floating 2 Operand) instruction, instructions, (P) MACRO, 9-33 (P) MACRO, 9–107 multicast, (M) Networking, 1-7 ADDH3 (ADD H\_floating 3 Operand) instruction, NML address check, V5.5 Release Notes, 2-15 (P) MACRO, 9-107 node, (M) Networking, 2-2, 2-25 ADD/IDENTIFIER command, (M) Setting Up obtaining, (P) Debugger, 3-12, 4-12 VMS, 4-19; (M) Security, 5-6, 5-13 with DECwindows, (P) Debugger, 1-24 Adding a computer, (M) VAXcluster, 7-7, 7-22, on VAXBI, (P) Device Support (A), 12-9 on XMI, (P) Device Support (A), 12-11 adjusting EXPECTED\_VOTES, (M) Phase III node, (M) Networking, A-12 VAXcluster, 7-22 Phase IV node, (M) Networking, A-12 Addition specifying breakpoint, (P) Debugger, 3-11 of decimal strings, (P) RTL String storage directive (.ADDRESS), (P) MACRO, Manipulation, STR-3 quadword times, (P) RTL Library, LIB-5 symbolizing, (P) Debugger, 4–13 two's complement, (P) RTL Library, LIB-7 with DECwindows, (P) Debugger, 1–25

Addressing mode (cont'd) Address (cont'd) translation vector, (P) MACRO, 10-47 branch, (P) MACRO, 5-18 virtual, (P) MACRO, 8-1 determining, (P) MACRO, 6-68 virtual memory, (P) Programming Resources, displacement, (P) MACRO, 5-8 displacement deferred, (P) MACRO, 5-9 address data type, (P) Routines Intro, A-2t forced-immediate, (P) Patch, PAT-21 .ADDRESS directive, (P) MACRO, 6-4 general, (P) MACRO, 5-15 count of, in map, (P) Linker, 5-2, 5-5 general register, (P) MACRO, 5-1 summary, (P) MACRO, 8-28 effect on position independence, (P) Linker, 4-5 effect on shareability, (P) Linker, 1-10, 4-4 immediate, (P) MACRO, 5-14 guidelines for use of, (P) Linker, 4-5 usage restricted in vector memory image activator's processing of, (P) Linker, instructions, (P) MACRO, 10-51, 10 - 536 - 20index, (P) MACRO, 5-16 linker's processing of, (P) Linker, 6–20 relation to fix-up image section, (P) Linker, literal, (P) MACRO, 5-10, 5-15 6 - 20operand specifier formats, (P) MACRO, 8-18 Address expression program counter, (P) MACRO, 5-12 summary, (P) MACRO, 8-29 See also Address register, (P) MACRO, 5-4 code, (P) Debugger, 3-10, 4-18, 6-4 register deferred, (P) MACRO, 5-5 with DECwindows, (P) Debugger, 1-22 relative, (P) MACRO, 5-12, 6-19, 6-22 compared to language expression, (P) relative deferred, (P) MACRO, 5-13, 6-19 Debugger, 4-7 summary, (P) MACRO, 5-1, C-10 with DECwindows, (P) Debugger, 1-22 Address location composite, (P) Debugger, 3-11 changing the value, (P) Delta/XDelta, vector, (P) Debugger, 11-16 DELTA-18 current entity, (P) Debugger, 4-8, 4-13, D-5 closing current, (P) Delta/XDelta, DELTA-22, with DECwindows, (P) Debugger, 1-9 DELTA-27 DEPOSIT command, (P) Debugger, 4-3, CD-58 command strings in XDELTA, (P) EVALUATE/ADDRESS command, (P) Delta/XDelta, DELTA-9, DELTA-38 Debugger, 3-12, 4-12, CD-79 displaying contents of current, (P) EXAMINE command, (P) Debugger, 4-2, Delta/XDelta, DELTA-17 displaying from other processes, (P) EXAMINE/SOURCE command, (P) Debugger, Delta/XDelta, DELTA-17 displaying in ASCII, (P) Delta/XDelta, logical predecessor, (P) Debugger, 4-8, 4-13, DELTA-25 D-5displaying location pointed to by current with DECwindows, (P) Debugger, 1-9 location, (P) Delta/XDelta, DELTA-24 logical successor, (P) Debugger, 4-8, 4-13, D-5 displaying next, (P) Delta/XDelta, DELTA-22 with DECwindows, (P) Debugger, 1-9 displaying previous, (P) Delta/XDelta, selecting from DEC windows window, (P) DELTA-23 Debugger, 1–22 displaying range of, (P) Delta/XDelta, SET BREAK command, (P) Debugger, 3-8, DELTA-17 CD-124 listing for executive images, (P) Delta/XDelta, SET TRACE command, (P) Debugger, 3-9, DELTA-44 CD-183 PCB, (P) Delta/XDelta, DELTA-9 SET WATCH command, (P) Debugger, 3-15, referencing, (P) Delta/XDelta, DELTA-10 CD-196 using base address and offsets for, (P) symbolic, (P) Debugger, 4-4 Delta/XDelta, DELTA-11 with DECwindows, (P) Debugger, 1-22 ADDRESS parameter, (M) Networking, 3-4 SYMBOLIZE command, (P) Debugger, 4-13, for SET EXECUTOR command, (M) CD-263Networking, 3-9, 3-66 type of, (P) Debugger, 4-4 for SET NODE command, (M) Networking, 3-9 Address extension facility, (M) Networking, 3-83 /ADDRESS qualifier, (M) Accounting, ACC-8; Addressing mode, (P) MACRO, 5-1 (P) Debugger, 8-6, CD-47, CD-79, CD-243; absolute, (P) MACRO, 5-14, 6-22 (P) System Dump Analyzer, SDA-87, SDA-98, autodecrement, (P) MACRO, 5-7 SDA-123 autoincrement, (P) MACRO, 5-5

autoincrement deferred, (P) MACRO, 5-6

Address sort, (U) Using VMS, 1-39 reasons for selecting, (U) Sort/Merge, SORT-29 specifying, (U) Sort/Merge, SORT-70 Address space, (P) Programming Resources, 10-1 allocating by page, (P) Programming Resources, 10-1, 10-3 allocating in zones, (P) Programming Resources, 10–1 deallocating by page, (P) Programming Resources, 10-1, 10-3 zones, (P) Programming Resources, 10-1 Address storage directive (.ADDRESS), (P) MACRO, 6-4 Address symbol current, (P) Delta/XDelta, DELTA-9 address\_range data type, (P) Routines Intro, A-2t ADD SYSTEMS command, (M) Show Cluster, SHCL-48 ADDUSER.COM procedure, (M) Setting Up VMS, 4-16ADDW2 (Add Word 2 Operand) instruction, (P) MACRO, 9-8ADDW3 (Add Word 3 Operand) instruction, (P) MACRO, 9-8ADD\_KEY\_MAP built-in procedure, (P) VAXTPU, 7-17 to 7-18 Adjacent node, (M) Networking, 1-1 on Ethernet, (M) Networking, 2-7 ADJACENT reserved word plural form of component name, (M) DECnet-VAX Guide, 4-2 \$ADJSTK, (P) System Services Ref, SYS-14 ADJUST\_WINDOW built-in procedure, (P) VAXTPU, 7-19 to 7-23 \$ADJWSL, (P) System Services Ref, SYS-17 ADP\$L\_AVECTOR, (P) Device Support (A), 16-9 ADP\$L\_BIMASTER, (P) Device Support (A), 16-10, 16-17 ADP\$L\_BI\_IDR, (P) Device Support (A), 16–10, 16 - 15ADP\$L\_CSR, (P) Device Support (A), 16-9; (P) Device Support (B), 3-82 ADP\$L\_DPQFL, (P) Device Support (A), E-14; (P) Device Support (B), 3-87 ADP\$L\_MBASCB, (P) Device Support (A), 16–10; (P) Device Support (B), 1-7 ADP\$L\_MBASPTE, (P) Device Support (A), 16-10; (P) Device Support (B), 1-8 ADP\$L\_MR2QFL, (P) Device Support (A), E-14 ADP\$L MRQFL, (P) Device Support (A), E-14 ADP\$L\_VECTOR, (P) Device Support (A), 14-30 ADP\$W\_ADPTYPE, (P) Device Support (A), 16-9; (P) Device Support (B), 2–3

ADP\$W\_BI\_VECTOR, (P) Device Support (A),

ADP\$W\_DPBITMAP, (P) Device Support (A), 14-17; (P) Device Support (B), 3-96 ADP\$W\_TR, (P) Device Support (A), 16-9, 16-18 ADP\$W\_XBIA\_TR, (P) Device Support (A), 16-17 ADP (adapter control block), (P) Device Support (A), 1-6, 14-15 to 14-16; (P) Device Support (B), 1–4 to 1–11 address, (P) Device Support (A), 4-7, 14-17, 14-19, 14-30; (P) Device Support (B), 1-26, 1-36 alternate map register allocation information, (P) Device Support (B), 1-10 alternate map register wait queue, (P) Device Support (B), 1-10 data path allocation information, (P) Device Support (A), 14–17; (P) Device Support (B), data path wait queue, (P) Device Support (A), 14-17; (P) Device Support (B), 1-7 fields supporting ADPDISP macro, (P) Device Support (B), 2-3 for generic VAXBI device, (P) Device Support (A), 16-9 to 16-10 for MBA, (P) Device Support (A), 15-4, 15-7 to 15 - 8for VAXBI adapter, (P) Device Support (A), map register allocation information, (P) Device Support (B), 1–9 map register wait queue, (P) Device Support (B), 1–8 size, (P) Device Support (B), 1-4 ADPDISP macro, (P) Device Support (A), 5-5 to 5-6; (P) Device Support (B), 2-2 to 2-4 examples, (P) Device Support (B), 2-4 ADV (advance) command, (U) EDT Ref, EDT-260 See also Cursor direction ADVANCE, (U) EDT Ref, EDT-18 See also Cursor direction ADVANCE (EDT keypad function), (U) Text Processing, 2-10, 2-16ADVANCE command. (U) Using VMS, 8-58 Advanced user of network, (M) DECnet-VAX Guide, 2-12 to ADWC (Add with Carry) instruction, (P) MACRO, AEN (asynchronous event notification), (P) Device Support (A), 17-2, 17-28 to 17-30; (P) Device Support (B), 2-70, 2-73 to 2-90 example, (P) Device Support (A), 17-29 to 17 - 30Affinity See Device affinity /AFTER qualifier, (P) Debugger, CD-125, CD-184,

CD-196

16-10, 16-15

AGAIN command, (P) File Applications, 10–12; ALF (automatic login facility) commands, (M) (P) Analyze / RMS\_File, ARMS-22 SYSMAN, SM-13 AGEN\$MAIL.COM, V5.5 New Features, B-54 ALFMAINT procedure, (M) Setting Up VMS, 4-17 AGEN\$P1 logical name, V5.5 New Features, B-52 Algorithm, (P) RTL Math, 1-3 AGEN\$P2 logical name, V5.5 New Features, B-52 for memory allocation, (P) RTL Library, 5-7 AGEN\$P3 logical name, V5.5 New Features, B-52 for naming buffer change journal file, (P) AGEN\$PARAMS.REPORT, V5.5 New Features, *VAXTPU*, 1–12 password encryption, (M) Security, 3-6 using MAIL to send, V5.5 New Features, B-54 Alias cluster name, (M) SYSMAN, SM-4 ALIAS MAXIMUM LINKS parameter, (M) Aggregate DEPOSIT command, (P) Debugger, 4-16, 4-17, Networking, 3-73 11-6, 11-7, CD-58 Alias node EXAMINE command, (P) Debugger, 4-16, See Alias node identifier 4-17, 11-6, 11-7, CD-81 Alias node address, (M) Networking, 1-12, 2-4, SET WATCH command, (P) Debugger, 3–17, 2-33, 3-11, 8-9 11 - 3Alias node identifier, (M) DECnet-VAX Guide, AID (area identification number) 3-10; (M) Networking, 1-12, 2-4, 2-33, 3-11 program example, (P) RMS, 4-8 to 3-13, 8-9 Air conditioning, Dependability Handbook, 5-4 enabling, (M) Networking, 3-12 Alarm, (M) Security, 6-1 restrictions, (M) Networking, 2-4, 8-9 See also Break-in alarms setting, (M) Networking, 3-12 See also Login alarms specifying maximum logical links, (M) Networking, 3–73 See also Logout alarms use with objects, (M) Networking, 2-33, 3-78 See also SET AUDIT command alarms VAXcluster. (M) DECnet-VAX Guide, 3-17 messages, (M) Security, E-1 Alias node name, (M) DECnet-VAX Guide, 3-10; security applications, (M) Security, 4-41 (M) Networking, 1-12, 2-4, 2-33, 3-11 Alarm ACE, (M) Security, 4-21 for VAXcluster, (M) DECnet-VAX Guide, 2-4, ALARM\_JOURNAL access control list entry, (U) 2-11Using VMS, 7-9 ALIGN command, (P) Patch, PAT-18, PAT-38, ACCESS field, (U) Using VMS, 7-9 ALARM\_JOURNAL keyword, (M) Security, 4-27 with /ABSOLUTE qualifier, (P) Patch, PAT-27 .ALIGN directive, (P) MACRO, 6-5 asynchronous delivery and exception handlers, Aligning preprinted forms, (M) Maintaining VMS, (P) DECthreads, cma-7 5-83, 5-84 delivery, (P) DECthreads, cma-93 Aligning queue status, (M) Maintaining VMS, disabling asynchronous, (P) DECthreads, 5 - 71cma-3 Alignment disabling delivery of, (P) DECthreads, cma-5 data, (P) Programming Resources, 8-4 enabling asynchronous delivery of, (P) Alignment attribute, (P) RTL Library, 5-11 DECthreads, cma-7 enabling delivery of, (P) DECthreads, cma-9 Alignment boundary type field requesting delivery of, (P) DECthreads, cma-13 See XAB\$B ALN field sending to a thread, (P) DECthreads, cma-93 Alignment data, (M) Maintaining VMS, 5-84 using asynchronous delivery with external Alignment of data transfer, (P) Device Support routines, (P) DECthreads, cma-3 (A), 14–3 Alertable Alignment vector, (P) MACRO, 10-29, 10-49 definition of, (P) DECthreads, cma-4 ALL ensuring for matrix multiplication, (P) word in component name, (M) Networking, 3-2, 6-2DECthreads, cma-7 Alert delivery state ALL-IN-1 monitoring restoring, (P) DECthreads, cma-11 and ensuring integrity, Dependability Alertsafe Handbook, B-15 definition of, (P) DECthreads, cma-4 efficient and safe backups, Dependability ALF (automatic login facility) Handbook, B-16 adding records, (M) SYSMAN, SM-23 electronic messaging, Dependability Handbook, automatic login file, (M) Security, 5-27, 5-29 B-1VAXcluster requirements, (M) Security, 9-2

ALL-IN-1 monitoring (cont'd) file cabinet verify and repair, Dependability Handbook, B-16 file protections, Dependability Handbook, B-15 logical name modes, Dependability Handbook, B-12 mail area size, Dependability Handbook, B-9 mail log files, Dependability Handbook, B-5 message router links, Dependability Handbook, sender queue size, Dependability Handbook, B-2SYSGEN parameters, Dependability Handbook, B-12 system checklist, Dependability Handbook, B-1 SYSUAF parameters, Dependability Handbook, B-14VMS system setup, Dependability Handbook, B-11ALL keyword with EXPAND NAME, (P) VAXTPU, 7-135 with REMOVE\_KEY\_MAP, (P) VAXTPU, 7 - 313with SET (BELL), (P) VAXTPU, 7-355 with SET (DEBUG), (P) VAXTPU, 7-364 with UPDATE, (P) VAXTPU, 7-538 AllocAll flag creating colormap with, V5.5 Release Notes, 3-15Allocate access category, (M) System Management Intro, 3-3 definition, (U) Using VMS, 7-4 ALLOCATE command, (U) Using VMS, 2-10; (U) Files and Devices, 3-20; (U) DCL Concepts, 3-6; (U) DCL Dictionary, DCL1-15 to DCL1-17 See also Allocation and DEASSIGN command, (U) DCL Dictionary, DCL1-104 and DISMOUNT command, (U) DCL Dictionary, DCL1-170 debugging with two terminals, (P) Debugger, /GENERIC qualifier, (U) Files and Devices, 3-2 magnetic tape, (U) Files and Devices, 4-15, 5-2 Allocation, (P) File Applications, 3–23, 4–30, A–1 of devices, (U) DCL Dictionary, DCL1-15 of disk drive, (U) Files and Devices, 3-1 generic, (U) Files and Devices, 3-2, 3-3 of disk volume, (U) Files and Devices, 4-8, 4-9 of magnetic tape drive, (U) Files and Devices, of magnetic tape volume, (U) Files and Devices,

ALLOCATION attribute, (P) File Def Language,

Allocation class, (M) VAXcluster, 5-7; (P) System Services Ref, SYS-270; (P) Device Support (B), 1–28 assigning value to computers, (M) VAXcluster, 5-8 assigning value to HSC subsystems, (M) VAXcluster, 5-8 determining for mixed-interconnect cluster, (M) VAXcluster, 7-4 rules for specifying, (M) VAXcluster, 5-7 sample configurations, (M) VAXcluster, 5-9 using in a distributed environment, (M) VAXcluster, 3-7 Allocation class field definition, (U) DCL Concepts, 3-6 Allocation control extended address block See XABALL block Allocation options field See XAB\$B\_AOP field ALLOCATION qualifier, (U) Sort/Merge, SORT-40 Allocation quantity field See FAB\$L\_ALQ field Allocation-quantity option, (P) File Applications, 4 - 30ALLOCATION secondary attribute, (P) File Applications, 3-24, 4-30 ALLOCLASS parameter, (M) VAXcluster, 5-8; (M) System Generation, A-8 function in mixed-interconnect VAXcluster configuration, (M) System Management Intro, 6–10 Allowing for LAN bridge failover, Dependability Handbook, 7-11 ALL parameter with NCP SET command, (M) DECnet-VAX Guide, 3-32 /ALL qualifier, (P) Debugger, CD-158; (P) System Dump Analyzer, SDA-51, SDA-108, SDA-111, SDA-115, SDA-126, SDA-143, SDA-157, SDA-161 CANCEL BREAK command, (P) Debugger, CD-17 CANCEL DISPLAY command, (P) Debugger, CD-20 CANCEL IMAGE command, (P) Debugger, CD-22 CANCEL MODULE command, (P) Debugger, CD-24 CANCEL TRACE command, (P) Debugger, CD-30CANCEL WATCH command, (P) Debugger, CD-34 CANCEL WINDOW command, (P) Debugger, CD-35DELETE command, (P) Debugger, CD-54

FDL-6, FDL-17

/ALL qualifier (cont'd) Alternate record structure, (P) File Applications, DELETE/KEY command, (U) VMS Intro, 6–11; 10 - 22(P) Debugger, CD-56 Alternate root directory EXTRACT command, (P) Debugger, CD-97 adding to an existing system disk, V5.5 Release RECALL command. (U) VMS Intro. 6-13 Notes, B-4 SEARCH command, (P) Debugger, CD-115 Alternate start I/O routine, (P) Device Support SET IMAGE command, (P) Debugger, CD-138 (A), 7-5; (P) Device Support (B), 3-17 SET MODULE command, (P) Debugger, address, (P) Device Support (A), 6-4; (P) CD-152; (P) Patch, PAT-78 Device Support (B), 1-30, 4-2 SET TASK command, (P) Debugger, CD-179 context, (P) Device Support (B), 4-2 SHOW DISPLAY command, (P) Debugger, entry point, (P) Device Support (B), 4-2 CD-212 exit method, (P) Device Support (B), 4-2 SHOW KEY command, (U) VMS Intro, 6-11; input, (P) Device Support (B), 4-2 (P) Debugger, CD-218 register usage, (P) Device Support (B), 4-2 SHOW PROCESS command, (P) Debugger, synchronization requirements, (P) Device CD-229Support (B), 4-2 SHOW TASK command, (P) Debugger, 12–13, Alternation 12-19, CD-246 pattern ( | ), (P) VAXTPU, 2-16 SHOW WINDOW command, (P) Debugger, ALTMODE key, (P) I/O User's I, 8-21 CD-255 ALTPRI privilege, (M) Setting Up VMS, 5-10; ALLSPOOL privilege, (M) Setting Up VMS, 5-10; (M) Security, A-1 (M) Security, A-1 ALWAYS keyword Alphanumeric UIC, (M) Security, 4-3 with GSMATCH option, (P) Programming Alternate adapter booting for satellite nodes, Resources, 5-5 Dependability Handbook, 7-12 AMEND command, License Management, Alternate index, (P) File Applications, 3-19; (P) LMF-15, LMF-52 to LMF-55 File Def Language, FDL-29 entering checksum strings with, License Alternate index structure, (P) Analyze/RMS\_File, Management, LMF-52 ARMS-6 Ampersand (&) Alternate key, (P) File Applications, 3–15, 3–16; as a substitution operator, (U) DCL Concepts, (P) Analyze/RMS File, ARMS-7; (P) File Def 7-3 to 7-4 Language, FDL-5, FDL-29 requesting symbol substitution with, (U) Alternate map registers, (P) Device Support (A), Command Procedures, 2–15 14-3, 14-6, 14-23; (P) Device Support (B), Analysis 1-8, 1-26 to 1-27, 2-3 dump file, (U) DCL Dictionary, DCL1-30 See also Map registers global symbol table, (U) DCL Dictionary, allocating, (P) Device Support (A), 14-19; (P) DCL1-23 Device Support (B), 3–63 to 3–64 image file, (U) DCL Dictionary, DCL1-22 allocating permanent, (P) Device Support (A), image file fixup section, (U) DCL Dictionary, 11-2, 14-20; (P) Device Support (B), 1-26 DCL1-23 loading, (P) Device Support (A), 14-22; (P) image file patch text records, (U) DCL Device Support (B), 2-44, 3-74 to 3-75 Dictionary, DCL1-24 number of active, (P) Device Support (B), 1-10, object file, (U) DCL Dictionary, DCL1-26 1 - 11debugger information records, (U) DCL number of disabled, (P) Device Support (B), Dictionary, DCL1-27 1-11end-of-module records, (U) DCL Dictionary, DCL1-27 releasing, (P) Device Support (A), 14–26; (P) Device Support (B), 2-53, 3-84 to 3-85 global symbol directory records, (U) DCL requesting, (P) Device Support (B), 2-58, 3-92 Dictionary, DCL1-27 to 3-93 link option specification records, (U) DCL Alternate map register wait queue, (P) Device Dictionary, DCL1–28 Support (A), E-14; (P) Device Support (B), module header records, (U) DCL 1-10, 3-93 Dictionary, DCL1-28 module traceback records, (U) DCL Alternate NCS library, specifying Dictionary, DCL1-28 See /LIBRARY qualifier relocation records, (U) DCL Dictionary, Alternate record, (P) Analyze/RMS\_File, ARMS-7 DCL1-29 text, (U) DCL Dictionary, DCL1-29

Analysis (cont'd)

object module, (U) DCL Dictionary, DCL1-26 of remote files and records, (M) DECnet-VAX Guide, 2-9

of security audit records, (M) Security, 6-1 patch text record, (U) DCL Dictionary, DCL1-24

shareable image file, (U) DCL Dictionary, DCL1–22

Analysis back-end converter, (U) DCL Dictionary, DCL1-70

/ANALYSIS qualifier, (P) File Def Language, FDL-42, FDL-47

Analysis section, (P) File Applications, 4–4, 10–1, 10–29

FDL, (P) Analyze/RMS\_File, ARMS-14

ANALYSIS\_OF\_AREA attribute, (P) File Applications, 10–1, 10–25; (P) File Def Language, FDL–2, FDL–3

ANALYSIS\_OF\_KEY attribute, (P) File Applications, 10-1, 10-25; (P) File Def Language, FDL-2, FDL-4

ANALYZE/AUDIT

See Audit Analysis Utility

ANALYZE/AUDIT command, (U) DCL Dictionary, DCL1-18; (M) Security, 6-13

ANALYZE command, (P) System Dump Analyzer, SDA-32

/CRASH\_DUMP qualifier, (P) System Dump Analyzer, SDA-35

/RELEASE qualifier, (P) System Dump Analyzer, SDA-36

/SYMBOL qualifier, (P) System Dump Analyzer, SDA-37

/SYSTEM qualifier, (P) System Dump Analyzer, SDA–38

ANALYZE/CRASH\_DUMP command, (U) DCL Dictionary, DCL1-19; (P) System Dump Analyzer, SDA-6, SDA-32

ANALYZE/CRASH\_DUMP/RELEASE command, (P) System Dump Analyzer, SDA-3

ANALYZE/DISK\_STRUCTURE

See Analyze/Disk\_Structure Utility

ANALYZE/DISK\_STRUCTURE command, (U) DCL Dictionary, DCL1-20

ANALYZE/DISK\_STRUCTURE stages, (M) Analyze/Disk, C-1

Analyze/Disk\_Structure Utility (ANALYZE/DISK\_STRUCTURE), (M) Maintaining VMS, 4–4 command string, (M) Analyze/Disk, ADSK–4 creating a disk usage accounting file, (M) Analyze/Disk, ADSK–10

directing output of, (M) Analyze/Disk, ADSK-4 disk usage accounting file, (M) Analyze/Disk, D-1

exiting, (M) Analyze/Disk, ADSK-4 invoking, (M) Analyze/Disk, ADSK-4

Analyze/Disk\_Structure Utility (ANALYZE/DISK\_STRUCTURE) (cont'd)

modes of operation, (M) Analyze/Disk, ADSK-1

output, (M) Analyze/Disk, ADSK-3, ADSK-4 parameters, (M) Analyze/Disk, ADSK-4 qualifiers, (M) Analyze/Disk, ADSK-5 to ADSK-10

recommended usage, (M) Analyze/Disk, ADSK-1

recovering lost files, (M) Setting Up VMS, 4–24 repairing errors on a disk volume, (M)

Analyze/Disk, ADSK–9

ANALYZE/ERROR\_LOG

See Error Log Utility

ANALYZE/ERROR\_LOG command, (U) DCL Dictionary, DCL1-21; (M) Maintaining VMS, 6-6; (M) Error Log, ERR-3

ANALYZE/IMAGE command, (U) DCL Dictionary, DCL1-22 to DCL1-24

ANALYZE/MEDIA command, (U) DCL Dictionary, DCL1–25; (M) Bad Block, BAD–1, BAD–6

ANALYZE/OBJECT command, (U) DCL Dictionary, DCL1-26 to DCL1-29

ANALYZE/PROCESS\_DUMP command, (U) DCL Dictionary, DCL1-30 to DCL1-31

/ANALYZE qualifier, (P) File Applications, 10–29 ANALYZE/RMS FILE

See Analyze/RMS\_File Utility

ANALYZE/RMS\_FILE command, (U) DCL Dictionary, DCL1-32; (P) Programming Resources, 8-55

using over the network, (M) DECnet-VAX Guide, 2-9

Analyze/RMS\_File Utility (ANALYZE/RMS\_FILE), (P) Programming Resources, 1–38; (P) File Applications, 1–12, 10–1, 10–29; (P) File Def Language, FDL–39

ANALYSIS\_OF\_AREA section, (P) File Def Language, FDL-3

ANALYSIS\_OF\_KEY section, (P) File Def Language, FDL-4

analyzing file structure interactively, (P) Analyze/RMS\_File, ARMS-1

creating FDL files, (P) Analyze/RMS\_File, ARMS-1; (P) File Def Language, FDL-39, FDL-40

directing output from, (P) Analyze/RMS\_File, ARMS-10

duplicate key values, (P) File Def Language, FDL-5

error conditions, (P) Analyze/RMS\_File, ARMS\_7

examining prolog, (P) File Applications, 3–16 examples

analyzing a file interactively, (P)

Analyze/RMS\_File, ARMS-36

Analyze/RMS\_File Utility (ANALYZE/RMS\_FILE) Analyzing (cont'd) examples (cont'd) hardware options, Dependability Handbook, analyzing a remote file, (P) Analyze/RMS\_ 3-4 to 3-6 operational procedures options, Dependability File, ARMS-36 creating an FDL file, (P) Analyze/RMS\_ Handbook, 3-15 to 3-19 personnel options, Dependability Handbook, File, ARMS-36 creating an FDL file from a remote file, (P) 3-19 to 3-20 Analyze/RMS\_File, ARMS-36 running system, (P) System Dump Analyzer, exiting from, (P) Analyze/RMS File, ARMS-10 SDA-38file optimizing, (P) File Applications, 4-4 See also System invoking, (P) Analyze/RMS\_File, ARMS-10 privileges required, (P) System Dump list of functions, (P) Analyze/RMS File, Analyzer, SDA-8, SDA-32 software options, Dependability Handbook, 3-9 ARMS-10 output file default name, (P) Analyze/RMS\_ File, ARMS-16 the sample company, Dependability Handbook, restrictions, (P) Analyze/RMS\_File, ARMS-11 2 - 11user response to errors, (P) Analyze/RMS\_File, user needs, Dependability Handbook, 2-1 ARMS-8 users and business functions, Dependability using to obtain information about VAX RMS Handbook, 2-6 Anchored search, (P) VAXTPU, 7-24 Journaling, (P) Analyze/RMS\_File, ARMS-1 ANCHOR keyword, (P) VAXTPU, 7-24 to 7-25 with DECnet-VAX, (P) Analyze/RMS\_File, with SEARCH, (P) VAXTPU, 7-327, 7-328 ARMS-7 with SEARCH\_QUIETLY, (P) VAXTPU, 7-332 with FDL files, (P) File Applications, 4-2 Ancillary control process ANALYZE/SYSTEM command, (U) DCL See ACP Dictionary, DCL1-33; (P) System Dump .AND. Analyzer, SDA-2, SDA-32 in a logical operation, (U) DCL Concepts, 6-8 Analyzing AND operator, (P) System Dump Analyzer, and collecting requirements, Dependability SDA-12; (P) MACRO, 3-16; (P) VAXTPU, Handbook, 2-6 3 - 7and prioritizing requirements, Dependability ANL file type, (P) File Applications, 10-5; (P) Handbook, 2-9 Analyze/RMS\_File, ARMS-16 communications options, Dependability Annotated command procedures, (U) Command Handbook, 3-6 to 3-9 Procedures, A-1 to A-29 continuous improvement process, Announcement message, (M) Security, 3-4 Dependability Handbook, 2-1 security disadvantage, (M) Security, 5-21 analysis phase, Dependability Handbook, ANSI data, (U) Files and Devices, B-1 2-4 ANSI escape sequence, (P) I/O User's I, B-9 integration phase, Dependability ANSI file name, (U) Files and Devices, 4–18, B–10 Handbook, 2-4 ANSI-labeled volume, (U) Files and Devices, B-1, operational phase, Dependability B-3Handbook, 2-3 accessibility protection, (U) Files and Devices, planning phase, Dependability Handbook, 2-2copying files from, (U) Files and Devices, 5-3 crash dump file specification format, (U) DCL Concepts, See also Crash dump See also System failure format, (U) Files and Devices, B-1 privileges required, (P) System Dump mounting, (U) Files and Devices, 3–12 ANSI standard, (U) Files and Devices, B-1 Analyzer, SDA-32 structure of magnetic tape, (U) Files and requirements, (P) System Dump Analyzer, SDA-6 Devices, 1–6 dependability constraints, Dependability "Ansi\_crt" string constant parameter to GET\_ INFO, (P) VAXTPU, 7-196 Handbook, 4-1dependability needs, Dependability Handbook, ANSWER command, (U) Mail, MAIL-26 See also REPLY command environment options, Dependability Handbook, ANSWER command (PHONE), (U) VMS Intro, 3-2 to 3-4 1-15

Answering a call, (U) Phone, PHONE-9 ANY built-in procedure, (P) VAXTPU, 7-26 to ANY\_CYLINDER option, (P) File Applications, AOBLEQ (Add One and Branch Less Than or Equal) instruction, (P) MACRO, 9-46 AOBLSS (Add One and Branch Less Than) instruction, (P) MACRO, 9-47 %AP, (P) Debugger, 4-22, D-3 AP (argument pointer), (P) System Dump Analyzer, SDA-13 APL See VAX APL Apostrophe (') as a substitution operator, (U) DCL Concepts, ASCII string delimiter, (P) Debugger, 4-15 instruction delimiter, (P) Debugger, 4-21 requesting symbol substitution with, (U) Command Procedures, 2-14 Apparently not broken condition exhibiting, Dependability Handbook, 1-12 Append access, (U) Files and Devices, 4-19 APPEND command, (U) VMS Intro, 6-6; (U) DCL Dictionary, DCL1-34 to DCL1-38; (U) EDT Ref, EDT-20, EDT-261 See also Moving text using over the network, (M) DECnet-VAX Guide, 2-6 using with DECwindows compound documents. (U) DCL Dictionary, DCL1-34 Appendix creating with DSR, (U) Text Processing, 3-36; (U) DSR Ref. 2-2 DSR example, (U) DSR Ref. 2-16 DSR header formats, (U) DSR Ref, 2-16, 2-87 formatting with DSR, (U) DSR Ref, A-3 .APPENDIX command, (U) Using VMS, 9-14; (U) DSR Ref. 2-2 APPEND key EDT, (U) Text Processing, 2-19 APPEND/PROTECTION command, (M) Security, /APPEND qualifier, (P) Debugger, CD-97; (P) Convert, CONV-1, CONV-7 with OPEN command, (U) Command Procedures, 6–9 APPEND\_LINE built-in procedure, (P) VAXTPU, 7-28 to 7-29 Application characteristics of parallel, (P) RTL Parallel Processing, 1-3 characterization services from Digital, Dependability Handbook, 10-1

creating, (P) RTL Parallel Processing, 2-1

Application (cont'd) DATATRIEVE prototypes, Dependability Handbook, 8-24 DBQ prototype, Dependability Handbook, 8-24 DECforms prototypes, Dependability Handbook, 8-23 deleting, (P) RTL Parallel Processing, 2-2 dependability characteristics, Dependability Handbook, 8-1 dependability features of application software, Dependability Handbook, 8-27 to 8-57 failover, Dependability Handbook, 8-51 forms interfaces, Dependability Handbook, items to consider when developing, (P) RTL Parallel Processing, 5-1 managing shared information, Dependability Handbook, 8-57 to 8-60 naming, (P) RTL Parallel Processing, 2-4 prototyping, Dependability Handbook, 8-23 to 8 - 24RALLY prototypes, Dependability Handbook, RDO prototype, Dependability Handbook, 8-24 running locally, (U) DCL Dictionary, DCL2-133 running remotely, (U) DCL Dictionary, DCL2-133 scaling considerations, Dependability Handbook, 8-6 software performance, Dependability Handbook, 4-17 SQL prototype, Dependability Handbook, 8-24 synchronization techniques, Dependability Handbook, 8-10 testing for dependability, Dependability Handbook, 8-25 to 8-27 testing with DEC Test Manager, Dependability Handbook, 8-58 testing with PCA, Dependability Handbook, 8-58 use of DECwindows VAXTPU built-in procedures in, (P) VAXTPU, B-1 to B-33 VUIT prototypes, Dependability Handbook, Application Control and Management System See ACMS Application design, (P) File Applications, 2-1, 2 - 24shared access consideration, (P) File Applications, 3–3 space consideration, (P) File Applications, 3-2 speed consideration, (P) File Applications, 3-1 Application port, (M) LATCP, LAT-10, LAT-37, LAT-38 displaying, (M) LATCP, LAT-55 mapping, (M) LATCP, LAT-39

AREA attribute, (P) File Def Language, FDL-2, Application programs FDL-6, FDL-27, FDL-28, FDL-40 connecting to LAT ports, (P) I/O User's I, 8-48 Application service, (M) LATCP, LAT-10, LAT-13, Area default extension quantity field LAT-37, LAT-41 See XAB\$W DEQ field defined, (M) LATCP, LAT-14 AREA DESCRIPTOR structure, (P) File setting up, (M) LATCP, LAT-37 Applications, 10–19 Applications user Area extension size, (P) RTL Library, 5-9 function, (M) Networking, 1-3 Area identification number /APPLICATION\_KEYPAD qualifier, (U) VMS See AID Intro, 6-15 Area identification number field Approximate key match, (P) File Applications, See XAB\$B\_AID field 8–11 Area leakage problem, (M) Networking, A-14 AQB (ACP queue block), (P) System Dump AREA MAXIMUM COST parameter, (M) Analyzer, SDA-99 Networking, 3-71 ARB (access rights block), (P) Device Support (A), AREA MAXIMUM HOPS parameter, (M) 4-10; (P) Device Support (B), 1-42 Networking, 3-71 ARB built-in procedure, (P) VAXTPU, 7-30 to AREA primary attribute, (P) File Applications, 7 - 31Arc cosine BEST\_TRY\_CONTIGUOUS secondary in degrees, (P) RTL Math, MTH-6, MTH-70 attribute, (P) File Applications, 4-31 in radians, (P) RTL Math, MTH-3, MTH-68 EXACT\_POSITIONING secondary attribute, Archive file, (M) Security, 6–4, 6–9 (P) File Applications, 4-31 analyzing, (M) Security, 6-10 POSITION secondary attribute, (P) File enabling remote, (M) Security, 6-9 Applications, 4-31 Archiving VOLUME secondary attribute, (P) File backup data, Dependability Handbook, 9-21 Applications, 4–32 Arc sine Area router in degrees, (P) RTL Math, MTH-11, MTH-74 See Level 2 router in radians, (P) RTL Math, MTH-9, MTH-72 Area routing, (M) System Management Intro, 7-2; Arc tangent (M) Networking, 1-2, 2-22 hyperbolic, (P) RTL Math, MTH-21, MTH-84 advantages, (M) Networking, 2-24 in degrees, (P) RTL Math, MTH-15, MTH-19, alternate paths, (M) Networking, A-3 MTH-78, MTH-82 avoiding problems, (M) Networking, A-10 in radians, (P) RTL Math, MTH-13, MTH-17, concepts, (M) Networking, 2-24 MTH-76, MTH-80 configuration guidelines, (M) Networking, A-2 Area, (M) System Management Intro, 7-2; (M) converting to multiple areas, (M) Networking, DECnet-VAX Guide, 1-3; (M) Networking, A-8 1-2; (P) File Applications, 3-23; (P) File Def design considerations, (M) Networking, A-1 Language, FDL-28 design redundancy, (M) Networking, A-2 default number, (M) Networking, 2-2, 3-9 dropping area number, (M) Networking, A-13 definition, (M) Networking, 2-24 example of configuration procedure, (M) leakage, (M) Networking, A-14 Networking, A-4 multiple, (P) File Applications, 3-6, 3-23, 3-25 leakage problem, (M) Networking, A-2, A-14 defining in an FDL file, (P) File limiting number of areas, (M) Networking, Applications, 3-24 3 - 67on a volume set, (P) File Applications, on Ethernet, (M) Networking, A-16 3 - 23partitioned area problem, (M) Networking, multiple areas, (P) File Def Language, FDL-6, FDL-28 Phase III node problem, (M) Networking, A-11 number. (M) DECnet-VAX Guide, 3-14, 3-32; techniques, (M) Networking, A-1 (M) Networking, 2-2, 2-23, 2-25, 3-9, 3-66 Areas option, (P) File Applications, 4-30 number in Ethernet address, (M) Networking, Argument 3-14access mechanism, (P) Modular Procedures, partitioning, (M) Networking, A-11 B - 8path control parameters, (M) Networking, 3-71 actual, (P) MACRO, 4-1 routing, (M) DECnet-VAX Guide, 1-3 adding new, (P) Modular Procedures, 6-3 Area allocation quantity field

See XAB\$L\_ALQ field

Argument (cont'd)	Argument list (cont'd)
characteristics of, (P) Modular Procedures, B-1; (P) System Services Intro, 2-3; (P)	for condition handler, (P) System Services Intro, 11–7
RTL Intro, 3–3, 3–6	format, (P) Routines Intro, 2–4
passing mechanism, (P) System Services	for system services, (P) System Services Intro,
Intro, 1–7	2–3
default, (U) DSR Ref, 1-2	interpreting, (P) Routines Intro, 2-4
definition of, (U) DSR Ref, 1-2	new FAB address field, (P) RMS, 2-5
delimiters, (P) RMS, 3-10	passing to service, (P) RMS, 3-10
device- or function-dependent, $(P) I/O User$ 's $I$ ,	passing to VMS RMS service, (P) RMS, 3-10
1–2	success routine address field, (P) RMS, 2-5
explicit, (P) Modular Procedures, 2–3	using macros, (P) System Services Intro, 2-5
implicit, (P) Modular Procedures, 2–3	Argument passing mechanism, (P) System
in a macro, (P) MACRO, 4-1	Services Intro, 1–8
initialization and control block store macros,	Argument pointer
(P) RMS, 3–8	See AP
length, (P) MACRO, 6–64	Arguments heading, (P) Routines Intro, 1-7; (P)
list, (P) I/O User's I, A-1 to A-9; (P) I/O	System Services Intro, 1–6
User's II, A-1 to A-6	Argument substitution, (P) RTL Screen
LPA11-K subroutine, (P) I/O User's I, 4–16	Management, 5-15
mechanism array, (P) System Services Intro, 11–10	arg_list data type, (P) Routines Intro, A-2t
	Arithmetic
null, (U) DSR Ref, 1–4 number of, (P) MACRO, 6–63	See also Condition handler
optional, (U) DSR Ref, 1-2; (P) Modular	using system routines, (P) Programming
Procedures, 2–11, A–3	Resources, 1–24
order, (P) Modular Procedures, 2–11, A–2	Arithmetic exception
passing, (P) RMS, 1-2	debugging vector, V5.5 New Features, B-19,
passing mechanism, (P) Modular Procedures,	B-28
B–8; (P) RTL Intro, 2–21	Arithmetic expression, (P) VAXTPU, 3–9
rules for separating, (U) DSR Ref, 1-4	evaluating, (P) Patch, PAT-59 special operators for, (P) Patch, PAT-23
separator, (P) RMS, 3-6	Arithmetic instruction
separator in VMS RMS coding, (P) RMS, 3-6	decimal string, (P) MACRO, 9–144
signal array, (P) System Services Intro, 11-10	floating-point, (P) MACRO, 9–101
specifying, (P) System Services Intro, 2–7	integer, (P) MACRO, 9-5
specifying as run-time values, (P) RMS, 3–9	Arithmetic operations, (P) RTL Screen
to FAB, (P) RMS, 1–2	Management, 5–16
to RAB, (P) RMS, 1–4	Arithmetic operators, (P) Delta/XDelta,
VMS data types, (P) Modular Procedures, B-6	DELTA-10; (P) System Dump Analyzer,
VMS usage, (P) System Services Intro, 1–6	SDA-12
VMS Usage, (P) Modular Procedures, B-1; (P)	Arithmetic shift, (P) Delta/XDelta, DELTA-10
RTL Intro, 2–6	Arithmetic shift operator (@), (P) System Dump
Argument blocks, (P) Modular Procedures, 6-4	Analyzer, SDA-13; (P) MACRO, 3-16
Argument data type, (P) Routines Intro, 2–15;	Array
(P) System Services Intro, 1–7	conversion of, (P) RTL Math, MTH-63
Argument keyword delimiting for VMS RMS service, (P) RMS,	mechanism, (P) System Services Intro, 11-10
3–10	signal, (P) System Services Intro, 11-10
Argument list, (P) Routines Intro, 2–4; (P)	virtual address, (P) System Services Intro, 12-4
System Services Intro, 2–3	ARRAY data type, (P) VAXTPU, 2–2 to 2–3
count field, (P) RMS, 2-5	See also CREATE_ARRAY built-in procedure
creating, (P) System Services Intro, 2-7	Array descriptor, (P) Routines Intro, 2–25
definition of, (P) Routines Intro, 2-3	Array type, (P) Debugger, 4–16
description, (P) RMS, 2-4	vector register, (P) Debugger, 11-6
error routine address field, (P) RMS, 2-5	Arrow keys, (U) EDT Ref, EDT-2
evaluation, (P) Routines Intro, 2-6	See also Down arrow key, Left arrow key, Right
for AST service routine, (P) System Services	arrow key, Up arrow key
Intro. 5-3	definition for, (M) Show Cluster, SHCL-79

Arrow keys (cont'd) ASCII string storage directive, (P) MACRO, 6-7 functions of, (M) Show Cluster, SHCL-5 counted (.ASCIC), (P) MACRO, 6-8 to move the cursor, (U) DCL Concepts, 2-5 string (.ASCII), (P) MACRO, 6-10 to recall commands, (U) DCL Concepts, 2-6 string-descriptor (.ASCID), (P) MACRO, 6-9 Artificial intelligence zero-terminated (.ASCIZ), (P) MACRO, 6-11 VAX OPS5, Dependability Handbook, 3-12 ASCII string type, (P) Debugger, 4–15, 4–26, ASB (asynchronous save block), (P) System Dump CD-58, CD-81, CD-191 Analyzer, SDA-76 ASCII time, (P) System Services Intro, 10-7 ASC (ASCII), (U) EDT Ref, EDT-262 /ASCIW qualifier, (P) Debugger, CD-59, CD-82 .ASCIC directive, (P) MACRO, 6-8 .ASCIZ directive, (P) MACRO, 6-11 /ASCIC qualifier, (P) Debugger, CD-58, CD-81 /ASCIZ qualifier, (P) Debugger, CD-59, CD-82 .ASCID directive, (P) MACRO, 6-9 ASHL (Arithmetic Shift Long) instruction, (P) effect on position independence, (P) Linker, 4-5 MACRO, 9-10 effect on shareability, (P) Linker, 1-10, 4-4 ASHP (Arithmetic Shift and Round Packed) /ASCID qualifier, (P) Debugger, CD-59, CD-81 instruction, (P) MACRO, 9-150 ASHQ (Arithmetic Shift Quad) instruction, (P) character set, (P) MACRO, A-1 MACRO, 9-10collating sequence, (U) Using VMS, 1-39 Assembler, (U) VMS Intro, 4-2; (P) Programming depositing string, (P) Delta/XDelta, DELTA-37 Resources, 1-9 displaying contents in, (P) Delta/XDelta, Assembler directives, DELTA-25 summary, (P) MACRO, C-1 operator, (P) MACRO, 3-12 Assembler notation, (P) MACRO, 10-17 ASCII (8-bit) code, (P) I/O User's I, 2-8 Assembly language, (U) VMS Intro, 4–2 /ASCII-/NOASCII qualifier Assembly termination, (P) MACRO, 6–25 with DELETE command, (P) Patch, PAT-53 Assembly termination directive (.END), (P) with DEPOSIT command, (P) Patch, PAT-56, MACRO, 6-25PAT-57 ASSIGN command, (U) VMS Intro, 3-9; (U) with EVALUATE command, (P) Patch, PAT-60 Using VMS, 4-2; (U) Command Procedures, with EXAMINE command, (P) Patch, PAT-63 2-2; (U) DCL Dictionary, DCL1-39 to with REPLACE command, (P) Patch, PAT-72 DCL1-45; (P) Linker, LINK-21; (P) System with SET MODE command, (P) Patch, PAT-76 Services Intro, 6-2; (P) File Applications, with VERIFY command, (P) Patch, PAT-91 4-14 ASCII "a" character set, (U) Files and Devices, See also DEFINE command 5-3, B-1, B-3; (U) DCL Concepts, 3-16 and DEASSIGN command, (U) DCL percent sign, (U) Files and Devices, 4-18 Dictionary, DCL1-104 ASCII built-in procedure, (P) VAXTPU, 7-32 to function, (U) DCL Concepts, 4-2 7 - 34how it handles a colon in a logical name, (U) **ASCII** character DCL Concepts, 4-2 delimiting in control block fields, (P) RMS, 3-6, /TRANSLATION\_ATTRIBUTES qualifier, (P) File Applications, 5–7 ASCII character set, (U) Using VMS, A-1; (U) Assigning characteristics to a queue, (M) DCL Concepts, B-1 Maintaining VMS, 5–26 See also DEC Multinational Character Set Assigning work files, (U) Sort/Merge, SORT-7, ASCII control characters, (U) EDT Ref, EDT-262, SORT-72 Assignment .ASCII directive, (P) MACRO, 6-10 of logical queue to an execution queue, (U) ASCII-NOASCII mode, (P) Patch, PAT-16 DCL Dictionary, DCL1-47 ASCII output, (M) Audit Analysis, AUD-2 of queue name, (U) DCL Dictionary, DCL1-249 ASCII pad character, (P) Convert, CONV-18 of symbols interactively, (U) DCL Dictionary, /ASCII qualifier, (P) Debugger, CD-59, CD-82 DCL1-262 ASCII space character Assignment statement, (P) MACRO, 1-1, 3-17; conversion function, (P) Convert, CONV-3 (P) VAXTPU, 3-21 creating a blank line, (U) Using VMS, 5-17; using as pad character, (P) National Char Set, (U) DCL Concepts, 6-4 NCS-10 ASCII string creating a global symbol, (U) Using VMS, 5-3; converting to binary, (P) System Services Ref, (U) DCL Concepts, 5-3 SYS-36 creating a local symbol, (U) Using VMS, 5-3; entering, (P) Patch, PAT-20 (U) DCL Concepts, 5-3

```
AST (asynchronous system trap) (cont'd)
Assignment statement (cont'd)
                                                         enabling an event, (P) RTL Parallel Processing,
  formatting output records, (U) Using VMS,
      5-17; (U) DCL Concepts, 6-4
                                                         example, (P) System Services Intro, 5-5
  for numeric overlay, (U) Using VMS, 5-17
  including an asterisk, (U) Using VMS, 5-4;
                                                         execution, (P) Programming Resources, 4-7
                                                         for aborted I/O request, (P) Device Support (B),
      (U) DCL Concepts, 5-4
  including a symbol as part of a character string,
                                                         handler, (P) Modular Procedures, 3-19, 3-21
      (U) Using VMS, 5-11; (U) DCL Concepts,
                                                         I/O at AST level, (P) Modular Procedures,
  syntax, (U) Using VMS, 5-2; (U) DCL
                                                             3-25, A-5
      Concepts, 5-2
                                                         in target process, (P) System Services Intro,
      for numeric overlay, (U) Using VMS, 5-16
                                                             9 - 16
      for string overlay, (U) Using VMS, 5-16
                                                         interrupt. (P) Modular Procedures, 3-19
  syntax for numeric overlay, (U) DCL Concepts,
                                                         out of band, (P) Device Support (A), 11-8; (P)
                                                             Device Support (B), 1-86
      6-9
  syntax for string overlay, (U) DCL Concepts,
                                                         parameter, (P) System Services Intro, 5-4
                                                         process-requested, (P) Device Support (A),
= (assignment statement) command, (U) DCL
                                                             4-20; (P) Device Support (B), 3-7, 3-10,
    Dictionary, DCL1-1 to DCL1-4
                                                             3 - 73
ASSIGN/MERGE command. (U) DCL Dictionary.
                                                         process wait state, (P) System Services Intro,
    DCL1-46; (M) Maintaining VMS, 5-76
ASSIGN/QUEUE command, (U) DCL Dictionary,
                                                         queuing, (P) Device Support (A), 3-4; (P)
                                                             Device Support (B), 3-73
    DCL1-47 to DCL1-48
                                                         quota, (P) System Services Intro, 7-3; (P) I/O
   and DEASSIGN/QUEUE command, (U) DCL
                                                             User's I, 3-24, 4-14, 6-13, 7-5, 8-43
      Dictionary, DCL1-109
ASSISTANT PHYSICAL ADDRESS parameter.
                                                         reentrancy. (P) Modular Procedures, 3-19,
                                                             3-20, A-5
    (M) Networking, 7–12
/ASSIST qualifier, (M) Backup, BCK-11, BCK-29;
                                                         restrictions on use, (P) DECthreads, B-1
    (M) Mount, MOUNT-7
                                                         service routine, (P) Modular Procedures, 3-19;
AST (asynchronous system trap), (P)
                                                             (P) System Services Intro, 5-3
                                                         setting for power recovery, (P) System Services
    Programming Resources, 4-7; (P) Debugger,
    9-16; (P) RTL Library, 2-22; (P) Device
                                                             Ref. SYS-522
    Support (B), 3-6 to 3-7
                                                         setting timer for, (P) System Services Ref,
                                                             SYS-519
   See also Attention AST
                                                         SHOW CALLS command, (P) Debugger, 9-16
   See also Synchronization
                                                         special kernel-mode, (P) Device Support (A),
   access mode, (P) System Services Intro, 5-2
                                                             3-4, 3-5, 4-20, 7-8; (P) Device Support
   blocking, (P) System Services Intro, 13-8,
                                                             (B), 1–12
      13 - 14
                                                         specifying quota, (U) DCL Dictionary,
   CALL command, (P) Debugger, 9–16, CD–10
                                                             DCL2-55
   condition handling at AST level, (P) Modular
                                                         system service, (P) System Services Intro, 5-1
      Procedures, 3-26
                                                         thread, (P) Modular Procedures, 3-19
   control, (P) Device Support (B), 1-86
                                                         user specified, (P) Device Support (B), 1-39
   declaring, (P) System Services Intro, 5-3; (P)
                                                         vector processing synchronization issues, V5.5
       System Services Ref, SYS-133
                                                             New Features, B-25
   definition, (P) Modular Procedures, 3–19
                                                         writing, (P) Programming Resources, 4-7
   delivering, (P) Programming Resources, 4-8;
                                                         writing AST-reentrant procedures, (P) Modular
       (P) Device Support (A), 3-4; (P) Device
                                                             Procedures, 3-20
       Support (B), 3-2, 3-11
                                                      AST control block
   delivery, (P) System Services Intro, 5-5
   disabling, (P) Debugger, CD-64; (P) System
                                                         See ACB
                                                      AST-driven program
      Services Ref, SYS-512; (P) RTL Parallel
                                                         debugging, (P) Debugger, 9-16
       Processing, 5–6
   disabling interrupts, (P) Modular Procedures,
                                                      Asterisk (*)
       3 - 24
                                                         HELP command, (P) Debugger, CD-102
   displaying AST handling conditions, (P)
                                                         multiplication operator. (P) Debugger, D-7
       Debugger, CD-205
                                                         wildcard, (U) Files and Devices, 4-17
   enabling, (P) Debugger, CD-76; (P) System
                                                             in directory specifications, (U) Using VMS,
```

2-14; (U) DCL Concepts, 3-18

Services Ref. SYS-512

Asterisk (*)	Asynchronous connection (cont'd)
wildcard (cont'd)	line installation, (M) Networking, 5-8
in input file specifications, (U) DCL	line parameters, (M) Networking, 3-61
Concepts, 3–18	static, (M) DECnet-VAX Guide, 1-10, 3-18,
in output directory specifications, (U) DCL	3-23; (M) Networking, 1-5, 1-8, 1-9
Concepts, 3–20	static DDCMP, (M) DECnet-VAX Guide, 3-18
in output file specification, (U) DCL	static line installation, (M) Networking, 2-15,
Concepts, 3–19	5–9
in UIC format directory specifications, (U)	terminating dynamic, (M) DECnet-VAX Guide,
DCL Concepts, 3–18	3–27
rules for using, (U) Using VMS, 2-14; (U)  DCL Concepts, 3-18	troubleshooting problems, (M) DECnet-VAX Guide, 4-16
used to rename files, <i>(U) DCL Concepts</i> , $3-19$	Asynchronous DDCMP devices, (M) DECnet-VAX Guide, 3–33
Asterisk wildcard	Asynchronous DDCMP driver, (M) DECnet-VAX
in START/QUEUE/MANAGER command, (M)	Guide, 3-19, 3-24; (P) I/O User's II, 5-1
VAXcluster, 6–1	AST service routine address, (P) I/O User's II,
ASTLM (AST queue limit), (M) Setting Up VMS,	5–10
5-2; (M) Networking, 5-38	attention AST, (P) I/O User's II, 5–10
ASTLM (AST queue limit) quota	capabilities, (P) I/O User's II, 5-1
effect of canceling wakeup on, (P) System	characteristics, (P) I/O User's II, 5–7 to 5–8
Services Ref, SYS-54	controller, (P) I/O User's II, 5-7, 5-10
ASTLVL (AST level) processor register, (P) Device	device, (P) I/O User's II, 5-2
Support (A), 3-4 displaying, (P) System Dump Analyzer,	extended, $(P) I/O User$ 's $II$ , 5–8 modifying, $(P) I/O User$ 's $II$ , 5–7
SDA-90	tributary, $(P) I/O User's II, 5-10$
AST procedure (for connect to interrupt facility),	controller
(P) Device Support (A), 19–19	mode, (P) I/O User's II, 5-8
AST qualifier, (P) Debugger, 9–16, CD–11	starting, (P) I/O User's II, 5-6
AST queue limit	controller counter parameter IDs, (P) I/O
See ASTLM	User's II, 5–11
AST reentrant, (P) RTL Screen Management, 4-1	device characteristics, (P) I/O User's II, 5-2
AST routines	duplex modes, (P) I/O User's II, 5-7
global symbols, (P) System Dump Analyzer,	enable attention AST, (P) I/O User's II, 5-9
SDA-60	enable modem, (P) I/O User's II, 5-7
service routine for connect to interrupt facility,	errors, (P) I/O User's II, 5–3
(P) Device Support (A), 19-9, 19-11, 19-12	error summary bits, (P) I/O User's II, 5-3
ast_procedure data type, (P) Routines Intro, A-2t	extended characteristics, (P) I/O User's II, 5-8
Asymmetric vector processing configuration, V5.5	full-duplex mode, (P) I/O User's II, 5–1 function codes, (P) I/O User's II, 5–4, A–4
New Features, B-5	function modifiers, (P) $I/O$ User's $II$ , 5–5, 5–6,
ASYNCHRONOUS attribute, (P) File Def	5–8 to 5–10
Language, FDL–9 Asynchronous cancelability, (P) DECthreads, 2–20	I/O functions, (P) I/O User's II, 5-5, 5-6, 5-10
· ·	I/O status block, (P) I/O User's II, 5-14
Asynchronous circuit	message size, $(P) I/O User's II, 5-2, 5-5, 5-6$
See Circuit	modem
See DDCMP	disabling line, (P) I/O User's II, 5–9
Asynchronous connection, (M) DECnet-VAX Guide, 3-5	modifying characteristics, (P) I/O User's II, 5-7
configuration, (M) DECnet-VAX Guide, 3-18	parameter ID, (P) I/O User's II, 5-7
DDCMP, (M) DECnet-VAX Guide, 3–11; (M)	point-to-point
Networking, 1–9	configuration, $(P) I/O User's II, 5-1$
dynamic, (M) DECnet-VAX Guide, 1-10, 3-18,	privilege, (P) I/O User's II, 5-5
3–28; (M) Networking, 1–5, 1–8, 1–9 dynamic DDCMP, (M) DECnet-VAX Guide,	protocol, (P) I/O User's II, 5-7
3–18	starting, (P) I/O User's II, 5–8
dynamic line installation, (M) Networking,	stopping, (P) I/O User's II, 5–9
2–16, 5–11	quotas, (P) I/O User's II, 5-1
	read function, (P) $I/O$ User's $II$ , 5–5

Asynchronous DDCMP driver (cont'd)	Asynchronous memory management exception
read internal counters, (P) I/O User's II, 5-10	handling, (P) MACRO, 10–19, 10–30
sense mode function, (P) I/O User's II, 5-10	Asynchronous operation, (P) File Applications,
set controller mode, (P) I/O User's II, 5-6	8–17, 8–18
characteristics, $(P) I/O User$ 's $II$ , 5–7 to	contrasted with synchronous operation, (P)
5–8	RMS, 2–7
message size, (P) I/O User's II, 5-8	performance, (P) File Applications, 9-9
P2 buffer, (P) I/O User's II, 5–7	using R0, (P) RMS, 2-5
parameter ID, $(P) I/O User$ 's $II$ , 5–7	Asynchronous option
set mode function, (P) I/O User's II, 5–6	VMS RMS support, V5.5 Release Notes, 4-14;
set tributary mode, (P) I/O User's II, 5-8	V5.5 New Features, B-110
extended characteristics, $(P) I/O User$ 's $II$ ,	Asynchronous programming techniques
5–8	using in a multithreaded program, (P)
P2 buffer, (P) I/O User's II, 5–8	DECthreads, A-6
shutdown controller mode, (P) I/O User's II,	Asynchronous save block
5–9	See ASB
shutdown tributary mode, (P) I/O User's II,	Asynchronous SCSI data transfer mode
5–9	enabling, (P) I/O User's I, 11-7, 11-13; (P)
starting	Device Support (A), 17-13; (P) Device
controller, (P) I/O User's II, 5-7	Support $(B)$ , 2–88
protocol, (P) I/O User's II, 5–8	Asynchronous signals, (P) DECthreads, A-4
tributary, (P) I/O User's II, 5–8	Asynchronous system service, (P) System Services
status returns, (P) I/O User's II, A-5	Intro, 2-11
stopping controller, (P) $I/O$ User's $II$ , 5–9	Asynchronous system trap
modem line, $(P)I/O$ User's $II$ , 5–9	See AST
protocol, (P) I/O User's II, 5–9	Asynchronous terminal
tributary, (P) I/O User's II, 5–9	See X.29 terminal
supported device, (P) I/O User's II, 5–1	ASY option, (P) File Def Language, FDL-9
SYS\$GETDVI, (P) I/O User's II, 5-2	AT\$_GENBI, (P) Device Support (B), 1–33
tributary	AT\$_MBA, (P) Device Support (B), 1–33
starting, (P) I/O User's II, 5-8	AT\$_UBA, (P) Device Support (B), 1–33
stopping, (P) I/O User's II, 5–9	Atomic data type, (P) Routines Intro, 2–15
tributary counter parameter IDs, (P) I/O	Atomic queue, (P) DECthreads, 2–16
User's II, 5–13	Atomic transaction
unit and line status, (P) I/O User's II, 5-3	defined, V5.5 New Features, B-35;
write function, (P) I/O User's II, 5-5	Dependability Handbook, 8–13
Asynchronous DECnet, (M) Setting Up VMS, 6–20	At sign (@)
using virtual terminals, (M) Setting Up VMS,	contents-of operator, (P) Debugger, D-7
6–19	execute-procedure command, (P) Debugger,
Asynchronous device	8–1, CD–7
LAT application ports for, (M) LATCP, LAT-10,	SET ATSIGN command, (P) Debugger, CD-123
LAT-37	SHOW ATSIGN command, (P) Debugger,
Asynchronous event notification	CD-206
See AEN	ATTACH built-in procedure, (P) VAXTPU, 7–35 to
Asynchronous events, (P) RTL Screen	7–36
Management, 4-1	ATTACH command, (U) Using VMS, 1-21, 3-6;
Asynchronous I/O option	(U) Mail, MAIL-28; (U) DCL Dictionary,
See FAB\$V_ASY option	DCL1-49 to DCL1-50; (U) EVE Ref, EVE-4
See RAB\$V_ASY option	to EVE-5; (M) SYSMAN, SM-27; (M)
Asynchronous input/output, (P) Programming	LATCP, LAT-6; (P) Debugger, 3-4, CD-9; (P)
Resources, 7–47	System Dump Analyzer, SDA-41
Asynchronous line	EVE editor, (U) Text Processing, 1–68
See also DDCMP	restriction on using (EVE), (U) Text Processing,
See also Line	1–67
for point-to-point connections, (M) DECnet-VAX	Attached processor, (M) Setting Up VMS, 2–19
Guide, 3–5	See also Secondary processor
	showing state. (U) DCL Dictionary, DCL2-258

Attached processor (cont'd)	Attribute for DNS (cont'd)
starting, (U) DCL Dictionary, DCL2-343	returning value, V5.5 New Features, C-67
stopping, (U) DCL Dictionary, DCL2-361	testing for one, V5.5 New Features, C-33
Attaching to a process, (M) SYSMAN, SM-13	types of, V5.5 New Features, C-12
Attack	Attributes, (P) File Applications, 4–2, 4–9; (P)
forms of security, (M) Security, 7-1	File Def Language, FDL-1, FDL-46
Attention AST	See also Attribute
See also AST	See also Attributes object
asynchronous DDCMP driver, (P) I/O User's	buffer, (P) VAXTPU, 7–60
II, 5–9	buffer-specific (EVE), (U) Text Processing, 1-71
blocking, (P) Device Support (B), 1–82, 1–83	condition variable, (P) DECthreads, 2–9
delivering, (P) Device Support (B), 3-2	dynamic, (M) Security, 4-29
disabling, (P) Device Support (B), 3-6 to 3-7	for TPU
DMC11/DMR11 driver, (P) I/O User's II, 1-7	setting records, (P) VAXTPU, 7–448
DMP11/DMF32 driver, (P) I/O User's II, 2–19 DR11–W/DRV11–WA driver, (P) I/O User's II,	global (EVE), (U) Text Processing, 1–71, 1–72
3–14	guardsize, (P) DECthreads, 2–8
enabling, (P) Device Support (B), 3–6 to 3–7	inherit scheduling, (P) DECthreads, 2–8
Ethernet/802 drivers, (P) I/O User's II, 6–36	listed by startup file (EVE), (U) Text
flushing, (P) Device Support (B), 3-4	Processing, 1-74
mailbox, $(P)$ $I/O$ $User$ 's $I$ , $7-9$	mutex type, (P) DECthreads, 2–8 program section
terminal, $(P) I/O User's I$ , 8–42	absolute, (P) Linker, 6–4
Attention condition, (P) Device Support (A), 15–9	concatenated, (P) Linker, 1–12, 6–4
to 15–10	executable, (P) Linker, 6–5
See also MASSBUS	global, (P) Linker, 1–13, 6–5, 6–12
See also MBA	in image section generation, (P) Linker,
See also MBA\$L_AS	6–15
Attention summary register	in shareable images, (P) Linker, 4-3
See MBA\$L_AS	local, (P) Linker, 1–13, 6–5
Attribute	modification of, (P) Linker, 6–3
See also Attributes	nonexecutable, (P) Linker, 6-5
display, (P) Debugger, 7-3, 7-6, 7-9, 7-18,	nonposition-independent, (P) Linker, 1-13,
CD-117, CD-238	6–6
enumerating, (P) System Services Ref, SYS-173	nonshareable, (P) Linker, 1-13, 6-6
guardsize, (P) DECthreads, cma-19, cma-31	nonvector, $(P)$ Linker, 1–13, 6–6
modifying, (P) System Services Ref, SYS-176	nonwritability, (P) Linker, 6-6
obtaining mutex kind, (P) DECthreads, cma-23	nonwritable, (P) Linker, 1–13
obtaining queuesize, (P) DECthreads, cmalib-7	overlaid, (P) Linker, 1–12, 6–4
priority, (P) DECthreads, cma-25, cma-37,	position-independent, (P) Linker, 1–13, 6–6
pthread-9, pthread-17	relocatable, (P) Linker, 6-4
reading, (P) System Services Ref, SYS-178	shareable, (P) Linker, 1-13, 6-6
scheduling, (P) DECthreads, cma-21, cma-33,	vector, (P) Linker, 1–13, 6–6 writability, (P) Linker, 6–6
pthread-7, pthread-15	writabile, (P) Linker, 1–13
scheduling policy, (P) DECthreads, cma-27,	resource, (M) Security, 4–29
cma-39, pthread-11, pthread-19 setting mutex kind, (P) DECthreads, cma-35	SAVE ATTRIBUTES command, (U) EVE Ref,
setting nuclear kind, (P) DECthreads, cmalib-9	EVE-134
stacksize, (P) DECthreads, cma-29, cma-41,	SAVE SYSTEM ATTRIBUTES command, (U)
pthread–13, pthread–21	EVE Ref, EVE-141
testing for one, (P) System Services Ref,	saving, (U) EVE Ref, 1-2, 1-33
SYS-181	saving in EVE command file, (U) Text
window	Processing, 1–77; (U) EVE Ref, 1–37
with DECwindows, (P) Debugger, 1–10	saving in EVE section file, (U) Text Processing,
Attribute for DNS	1–73; (U) EVE Ref, 1–35
assigning, V5.5 New Features, C-5	saving system defaults, (U) EVE Ref, 1–38
enumerating, V5.5 New Features, C-27	scheduling policy, (P) DECthreads, 2-6
modifying, V5.5 New Features, C-30	scheduling priority, (P) DECthreads, 2-7
reading, V5.5 New Features, C-31	setting (EVE), (U) Text Processing, 1–71

Attributes (cont'd) Audit header packet stacksize, (P) DECthreads, 2-8 fields, (M) Audit Analysis, A-1 thread, (P) DECthreads, 2-5 format, (M) Audit Analysis, A-1 window, (P) VAXTPU, 7-78 Auditing Attributes object See also Security auditing creating, (P) DECthreads, 2-4, cma-15, applications. (M) Security, 7-3 pthread-3 as security feature, (M) Security, 7-3 definition of, (P) DECthreads, 2-4 of security events, (M) Security, 6-1 deleting, (P) DECthreads, 2-5, cma-17 techniques for users, (M) Security, 4-40 Attribute\_Name identifier, V5.5 New Features, Audit log file, (M) Security, 6-7 C-41See also Security audit log file Attribute Name Str identifier, V5.5 New changing location, (M) Security, 6-8 Features, C-41 creating new version, (M) Security, 6-7 Audit, (M) Security, 6-1 system security, (M) Security, 6-2 Audit analysis, (M) Security, 6-1, 6-13 Audit message binary output, (M) Audit Analysis, AUD-4 brief format, (M) Audit Analysis, AUD-2 See Security audit message detailed inspection, (M) Audit Analysis, AUD-6 Audit server database, (M) Security, 6-4 exiting, (M) Audit Analysis, AUD-31 moving, (M) Security, 6-4 full format. (M) Audit Analysis. AUD-3 Audit server process. (M) Maintaining VMS. full format listing, (M) Security, 6-13 6-13; (M) Security, 6-4 changing flush rate, (M) Security, 6-5 generating daily reports, (M) Audit Analysis, final server action, (M) Security, 6-20 AUD-5 output to file, (M) Security, 6-13 Audit trail changing the value of, (P) SUMSLP, SUM-12 output to screen, (M) Security, 6-13 output types. (M) Audit Analysis. AUD-2 in security model. (M) Security, 2-1 performing, (M) Audit Analysis, AUD-4 protecting, (M) Security, D-3 selection criteria, (M) Audit Analysis, AUD-1 role in security, (M) Security, 2-4 selective output, (M) Security, 6-14 AUDIT\_SERVER.DAT, (M) Security, 6-4 summary format, (M) Audit Analysis, AUD-3 Authenticating users, (M) Security, 3-6, 3-12 Authorization database Audit analysis inspection detailed, (M) Audit Analysis, AUD-6 alarms, (M) Security, E-7 example, (M) Audit Analysis, AUD-6 concept of, (M) Security, 4-15 routine, (M) Audit Analysis, AUD-5 considerations on a VAXcluster, (M) Security, Audit analysis report defined, (M) Security, 2-1 creating, (M) Audit Analysis, AUD-4 role in security, (M) Security, 2-4 entering interactive commands, (M) Audit Analysis, AUD-17 AUTHORIZE generating daily, (M) Audit Analysis, AUD-5 See Authorize Utility interrupting, (M) Audit Analysis, AUD-17 AUTHORIZE command, (M) Networking, 5-4 output types, (M) Audit Analysis, AUD-1 Authorize Utility (AUTHORIZE), (U) Using VMS. routine inspections, (M) Audit Analysis, 7-1; (M) System Management Intro, 2-2; (M) AUD-6 Setting Up VMS, 4–14; (M) VAXcluster, B–1; Audit Analysis Utility (ANALYZE/AUDIT), (M) (M) Authorize, AUTH-12 Maintaining VMS, 6-1; (M) Audit Analysis, adding proxy accounts, V5.5 Release Notes, 2-3 AUD-1 ADD/PROXY and MODIFY/PROXY commands, DCL qualifiers, (M) Audit Analysis, AUD-10 V5.5 Release Notes, 2-3 directing output, (M) Audit Analysis, AUD-9 commands, (M) Authorize, AUTH-13 to exiting, (M) Audit Analysis, AUD-9 AUTH-55 interactive mode, (M) Audit Analysis, AUD-7 DCL qualifiers, (M) Authorize, AUTH-3 to interactive mode commands, (M) Audit AUTH-10 Analysis, AUD-27 default password, (M) Authorize, AUTH-14 invoking, (M) Audit Analysis, AUD-9 DEFAULT record, (M) Authorize, AUTH-14 Audit data, (M) Security, 6-23 directing output from, (M) Authorize, Audit data packet AUTH-12 fields, (M) Audit Analysis, A-5 exiting from, (M) Authorize, AUTH-12 format, (M) Audit Analysis, A-5 for network proxy database management, (M) DECnet-VAX Guide, 3-35

Authorize Utility (AUTHORIZE) (cont'd) AUTOGEN (cont'd) using to change system parameters, (M) invoking, (M) Authorize, AUTH-12 login flags, (M) Authorize, AUTH-6 Performance Management, 5-1 restricted flag modifications, V5.5 Release validation of parameter names, V5.5 New Features, B-49 Notes, 2-3 AUTOGEN.COM command procedure restricting login hours with, (M) System enabling or disabling disk server, (M) Management Intro, 5-5 VAXcluster, 7-13 restrictions, (M) Authorize, AUTH-12 Autoanswer executed by CLUSTER\_CONFIG.COM, (M) and backup synchronous dialup, (M) Security, VAXcluster, 7-2 running with feedback option, (M) VAXcluster, 7-24, 7-39 Autobauding, (M) Security, 3-7 specifying dump file, (M) VAXcluster, 7-37 Auto-compose keys, (M) Terminal Fallback, AUTOGEN.PAR parameter file TFU-22, TFU-23 creating, (M) Setting Up VMS, 6-15 Autoconfiguration, (M) System Generation, C-1 modifying, (M) Setting Up VMS, 6–15 See also System Generation Utility AUTOGEN operations driver control of, (P) Device Support (A), 12-21 on a VAX 3100 Model 76, V5.5 Release Notes, of SCSI device, (P) I/O User's I, 11-9; (P) Device Support (A), 17–30 Autoincrement deferred mode, (P) MACRO, 5-6 table, (M) System Generation, C-2 operand specifier format, (P) MACRO, 8-20 AUTOCONFIGURE command, (M) Setting Up Autoincrement mode, (P) MACRO, 5-5 VMS, 6-18; (M) System Generation, SGN-5 operand specifier format, (P) MACRO, 8-19 Autodecrement mode, (P) MACRO, 5-7 .AUTOJUSTIFY command, (U) DSR Ref. 2-3 operand specifier format, (P) MACRO, 8-21 AUTOLOGIN flag, (M) Security, 5-29 Autodial protocol, (M) DECnet-VAX Guide, 3-25 Automatic configuration AUTOGEN, (M) Setting Up VMS, 1-2, 6-1; (M) of DECnet-VAX network, (M) DECnet-VAX Networking, 5-36 Guide, 3-12, 3-13 AGEN\$PARAMS.REPORT, V5.5 New Features, Automatic disconnection B - 50of network link, (M) DECnet-VAX Guide, 3-3 command procedure for automating, V5.5 New Automatic initialization, (P) RTL Parallel Features, B-52 Processing, 2-1 controlling size of page and swap files, V5.5 Automatic login, (U) Using VMS, 1-3 New Features, B-51 Automatic login account functions, (M) Setting Up VMS, 6-1 as security problem, (M) Security, 5–29 including files in MODPARAMS.DAT, V5.5 Automatic login facility New Features, B-50 invoking, (M) Setting Up VMS, 6-2 See ALF LNMSHASHTBL parameter, V5.5 New /AUTOMATIC qualifier, (M) Mount, MOUNT-8 Features, B-52 Automatic start logical names defined by, V5.5 New Features, See also Autostart of queue manager, (M) Maintaining VMS, 5-55 LRPCOUNT parameter, V5.5 New Features, Automatic switching of terminal line, (M) DECnet-VAX Guide, 3-26 modifying calculations, (M) Setting Up VMS, Automatic volume labeling (AVL), (M) Maintaining VMS, 3-5 new feedback parameters, V5.5 New Features, Automatic volume recognition (AVR), (M) Maintaining VMS, 3-5 performance tuning, (M) System Management Automatic volume switching, (M) Maintaining Intro, 5-6 VMS, 3-5 phase parameters, (M) Setting Up VMS, 6-2 Automatic working set adjustment privileges required to run, V5.5 Release Notes, See AWSA .AUTOPARAGRAPH command, (U) DSR Ref, 2–4 running DECW\$STARTUP.COM command example, (U) DSR Ref. 2-4 procedure, V5.5 Release Notes, 2-16 AUTO prefix, (M) Networking, 3-40; (M) Network switching window systems, V5.5 Release Notes, Control Program, A-16 Autostart, V5.5 New Features, 5-7 using MAIL to send reports, V5.5 New description, (M) Maintaining VMS, 5-5

Features, B-54

Autostart (cont'd)	Availability (cont'd)
designating queues, V5.5 New Features, 5-8	of network, (M) VAXcluster, E-3
disabling, V5.5 New Features, 5-10; (M)	of queue manager, V5.5 New Features, 5-1;
Maintaining VMS, 5-63, 5-74	(M) VAXcluster, 6-1; (M) Maintaining
before shutting down a node, (M)	VMS, 5–55, 5–86
Maintaining VMS, 5–74	of queues, V5.5 New Features, 5-7, 5-8; (M)
enabling, V5.5 New Features, 5-9; (M)	Maintaining VMS, 5-5, 5-56
Maintaining VMS, 5-5, 5-61, 5-68, 5-69	surviving LAN component failures, (M)
enabling when creating queues, $(M)$	VAXcluster, 2–11, E–3
Maintaining VMS, 5–58	Availability license, License Management,
of queue manager, V5.5 New Features, 5-6	LMF-28
queue failover, Dependability Handbook, 9-24	Availability of data
recommended use, (M) Maintaining VMS,	with volume shadowing, V5.5 New Features,
5-11, 5-13, 5-17	B-106
related commands, V5.5 New Features, 5-7	Available queue status, (M) Maintaining VMS,
using with LAT queues, (M) Maintaining VMS,	5–71
5–13	Available set, (M) Setting Up VMS, 2–19
Autostart feature, V5.5 Release Notes, 2-49, 2-50	Avoiding user errors
Autostart inactive queue status, (M) Maintaining	general approach, Dependability Handbook,
VMS, 5–71	3–15
Autostart queue	/AW
activating, (M) Maintaining VMS, 5-5, 5-56,	See /ASCIW qualifier
5–68	AWSA (automatic working set adjustment), (M)
creating, (M) Maintaining VMS, 5-56	Performance Management, 2–7
creating and activating, (M) Maintaining VMS,	adjusting, (M) Performance Management, 2-14
5–56	enabling, (M) Performance Management, 5-7
preventing from starting, V5.5 New Features,	in relation to performance management, $(M)$
5-9; (M) Maintaining VMS, 5-74	$Performance\ Management,\ 2-15$
recommended use, (M) Maintaining VMS,	in relation to system parameters, $(M)$
5–11, 5–13, 5–17	$Performance\ Management,\ 2 ext{}14$
relationship between activating and starting,	investigating status, (M) Performance
(M) Maintaining VMS, 5–5	Management, 4-12
restriction, V5.5 New Features, 5–8	overview, (M) Performance Management, 2-7
starting, $V5.5 New Features$ , 5–7, 5–9; (M)	page faulting, (M) Performance Management,
Maintaining VMS, 5–68, 5–69	2–8
starting in startup command procedure, (M)	tuning to respond to increased demand, (M)
Maintaining VMS, 5–61	Performance Management, 5–6
troubleshooting, (M) Maintaining VMS, 5-90	AWSMIN parameter, (M) System Generation, A-8
using with LAT printers, (M) Maintaining	AWSTIME parameter, (M) System Generation,
VMS, 5-13	A-8
AUTOSUBTITLE command, (U) DSR Ref, 2–6	/AZ
AUTOTABLE command, (U) DSR Ref, 2–7	See /ASCIZ qualifier
example, (U) DSR Ref, 2-7	
AUTO window, DECwindows, (P) Debugger, 1–11	В
AUTO_POSITIONING command, (M) Show	
Cluster, SHCL-9	;B command, (P) Delta/XDelta, DELTA-28
AUTO_REPEAT keyword, (P) VAXTPU, 7–353	Babble timer, (M) Networking, 3–44
"Auto_repeat" string constant parameter to	BACK command, (U) Mail, MAIL-30; (U)
GET_INFO, (P) VAXTPU, 7–196	EDT Ref, EDT-263; (P) Analyze/RMS_File,
Availability	ARMS-23
See also Reliability	See also Cursor direction
defined, Dependability Handbook, 1-8,	Back-end converter
Glossary-1	analysis, (U) DCL Dictionary, DCL1-70
of data, (M) VAXcluster, 3-1, 3-5	PostScript, (U) DCL Dictionary, DCL1-68
of data center, (M) VAXcluster, 2-9	text, (U) DCL Dictionary, DCL1-67
of devices	Background scheduling, (P) DECthreads, 2–6
OPCOM message, (M) Maintaining VMS,	Backlink
3–10	definition, $(M)$ Analyze/Disk, ADSK-1

Backplane interconnect, (P) Device Support (A), Backup operations, (U) Files and Devices, 1-8 1-11, 1-16, 14-2 general recommendations, (M) Security, 5-42 See also CMI performed as captive privileged account, (M) Security, 5-35 See also Q22-bus /BACKUP qualifier, (M) Backup, BCK-30 See also SBI EXCHANGE/NETWORK command, V5.5 New See also VAXBI bus Features, E-17 Backplane interconnect interface chip Backup switching See BIIC defined, Dependability Handbook, Glossary-1 Back pressuring, (M) DTS/DTR, DTS-8 Backup Utility (BACKUP), V5.5 Release Notes, Backslash (\) 2-6; V5.5 New Features, A-2, A-3, D-5 to current value, (P) Debugger, 4-6 D-8; (M) System Management Intro, 4-4; (P) global-symbol specifier, (P) Debugger, 5-10, File Applications, 10-2 CD-166, D-7 batch mode, (M) Maintaining VMS, 3-6 path name delimiter, (P) Debugger, 5-9, 6-4, /BUFFER\_COUNT command qualifier, V5.5 New Features, D-7 with DECwindows, (P) Debugger, 1-10, CONTINUE option, (M) Maintaining VMS, 3-8 1 - 26copying system dump file, (P) System Dump BACKSPACE Analyzer, SDA-4 See Cursor movement cyclic redundancy checking, V5.5 New BACKSPACE key, (U) Using VMS, 1–18; (U)Features, D-8 DCL Concepts, 2-5; (U) EDT Ref, EDT-22 /DELETE qualifier, V5.5 New Features, A-3 /BACKSPACE qualifier, (U) DSR Ref, 4-5 directing output from, (M) Backup, BCK-26 Backup documentation, V5.5 Release Notes, 4-2; V5.5 archiving data, Dependability Handbook, 9-21 New Features, 1-4 procedures, Dependability Handbook, 9-18 effect on ACLs, V5.5 Release Notes, 2-6 Rdb/VMS online backups, Dependability eliminating extents, (P) File Applications, 9-8 Handbook, 8-34exiting from, (M) Backup, BCK-27 **BACKUP** files with active transactions, V5.5 Release See Backup Utility Notes, 2-6 BACKUP (EDT keypad function), (U) Text /IGNORE=LABEL\_PROCESSING qualifier, Processing, 2–10, 2–16; (U) EDT Ref, EDT-23 V5.5 New Features, A-4 See also Cursor direction /IGNORE qualifier, V5.5 New Features, A-3 BACKUP.SYS, (U) Files and Devices, A-3 image save operation restriction, V5.5 Release BACKUP attribute, (P) File Def Language, Notes, 2-7 FDL-15 invoking, (M) Backup, BCK-26 BACKUP command, (U) Using VMS, 8-58; (U) label processing, V5.5 New Features, A-3 DCL Dictionary, DCL1-51 making archive copies, (P) File Applications, /MEDIA\_FORMAT qualifier, V5.5 New 10 - 31Features, B-41 /MEDIA\_FORMAT qualifier, V5.5 New using over the network, (M) DECnet-VAX Features, B-41 Guide, 2-9new tape capabilities, V5.5 New Features, A-1 with the TA90E tape drive, V5.5 Release Notes, operator assistance requests, (M) Maintaining 2 - 52VMS, 3–6 Backup date and time field performance enhancements, V5.5 New See XAB\$Q\_BDT field Features, D-5 Backup log file, (U) Files and Devices, A-3 pressing Ctrl/T during BACKUP, V5.5 New **BACKUP** media Features, D-8 Files-11 disk save set, (M) Backup, BCK-7, problems and restrictions, V5.5 Release Notes, BCK-12 QUIT option, (M) Maintaining VMS, 3-8 magnetic tape save set, (M) Backup, BCK-8 multivolume save set, (M) Backup, BCK-14 /RECORD qualifier, V5.5 New Features, A-3 network save set, (M) Backup, BCK-12 recovering from errors, (M) Maintaining VMS, on Files-11 disk attached to a remote node, (M) Backup, BCK-7 relationship with OPCOM, (M) Maintaining sequential-disk save set, (M) Backup, BCK-13 VMS, 3–6 BACKUP operation modes, (M) Backup, BCK-16 /RELEASE TAPE qualifier, V5.5 New Features, A-3

Backup Utility (BACKUP) (cont'd) BALSETCNT parameter (cont'd) RESTART option, (M) Maintaining VMS, 3-8 artificially induced swapping, (M) Performance setting SYSGEN parameters to enhance Management, 3-26 performance of, V5.5 New Features, D-7 increasing, (M) Performance Management, 5-9 setting up BACKUP account, V5.5 New reducing, (M) Performance Management, 5-9 Features, D-5 Banner pages summary of VMS Version 5.2 new features, commands used with, (M) Maintaining VMS, V5.5 New Features, D-5 UAF parameters for BACKUP account, V5.5 file, (M) Maintaining VMS, 5-32 job, (M) Maintaining VMS, 5-32 New Features, D-5 using to restore contiguity on fragmented disks, Barrier (M) Performance Management, 3-36 adjusting a quorum for, (P) RTL Parallel using with compound document files, V5.5 Processing, 4-4 Release Notes, 2-7 creating, (P) RTL Parallel Processing, 4-2 Backward indexing, (P) RTL Math, 2-6 definition of, (P) RTL Parallel Processing, 4-2 deleting, (P) RTL Parallel Processing, 4-3 BAD reading, (P) RTL Parallel Processing, 4-3 See Bad Block Locator Utility setting a quorum for, (P) RTL Parallel BADBLK.SYS, (U) Files and Devices, A-2 Processing, 4-4 Bad block data waiting at, (P) RTL Parallel Processing, 4-3 on disks, (U) DCL Dictionary, DCL1-247 Barrier synchronization Bad block file, (U) Files and Devices, A-2 Bad Block Locator Utility (BAD), (M) Maintaining See also Parallel processing VMS, 4-5advantages and disadvantages, (P) RTL Parallel Processing, 5-7 directing output from, (M) Bad Block, BAD-13 exiting, (M) Bad Block, BAD-6 PPL\$ routines for, (P) RTL Parallel Processing, invoking, (M) Bad Block, BAD-6 4-2 to 4-4 on converted device, (M) Bad Block, BAD-2 Base of numeric constant Bad blocks devices requiring analysis, (M) Bad Block, specifying, (P) VAXTPU, 3-37 BAD-4 Base address locating, (M) Exchange, EXCH-25, EXCH-26, cluster, (P) Linker, 6-15 EXCH-32; (M) Bad Block, BAD-1 defaults for images, (P) Linker, 1-7, 3-5 location code, (M) Bad Block, BAD-8 defining for images, (U) DCL Dictionary, recording, (M) Bad Block, BAD-1 DCL1-390 replacing, (M) Exchange, EXCH-32 image section in map, (P) Linker, 5-5 testing for, (M) Bad Block, BAD-1 specification of, (P) Linker, 3-6 test patterns, (M) Bad Block, BAD-8 system image, (P) Linker, 1-7, 3-5, LINK-19 Bad block support for SCSI disks, V5.5 Release Based image creation of, (P) Linker, 1-7, 3-5 Notes, 2-37 BADDALRQSZ bugcheck, (P) Device Support (B), memory allocation for, (P) Linker, 1-7, 3-5, BADLOG.SYS, (U) Files and Devices, A-3 rules for upward compatibility, (P) Linker, Bad page list 1-11, 4-9 displaying, (P) System Dump Analyzer, Base message number directive (.BASE) in message source file, (P) Message, MSG-16 SDA-115 Base operand specifier, (P) MACRO, 8-26 /BAD qualifier, (P) System Dump Analyzer, SDA-115 Base priority /BAD\_BLOCKS qualifier, (M) Bad Block, BAD-1, establishing for batch job. (U) DCL Dictionary, BAD-8 DCL1-252, DCL2-203 Balance of circuit, (M) Networking, 3-43 as a function of dependability, Dependability Base register Handbook, 1-22 loading, (P) Delta/XDelta, DELTA-40 symbol for, (P) Delta/XDelta, DELTA-9 Balance set swapping, (P) System Services Intro, 12-6 BASIC BALSETCNT parameter, (M) System Generation, See VAX BASIC

adjusting, (M) Performance Management, 5-8

Batch job (cont'd) Basic concepts of dependability, Dependability deleting log file, (U) DCL Dictionary, Handbook, 1-10 DCL1-267, DCL2-380 **Basic Linear Algebra Subroutines** end of job on cards, (U) DCL Dictionary, See BLAS DCL1-208 Batch establishing values for, (M) Performance restarting, Dependability Handbook, 9-24 Management, 5-5 Batch and print queues executing, (M) Maintaining VMS, 5-4 dependability features, Dependability flushing output buffer, (U) DCL Dictionary, Handbook, 9-23DCL2-183 **BATCH** clause holding, (U) DCL Dictionary, DCL1-267, for QUALIFIER clause, (P) Command Def, DCL2-380 CDU-25, CDU-33 holding and releasing, (M) Maintaining VMS, Batch editing, (U) EVE Ref, 1-10 5-79 EVE, (U) DCL Dictionary, DCL1-191, job card, (M) Maintaining VMS, 5-94 DCL1-194 job number of, (U) Using VMS, 3-8 VAXTPU, (U) DCL Dictionary, DCL1-191, keeping log file, (U) DCL Dictionary, DCL1-194 DCL2-380 Batch execution limiting CPU time of, (U) DCL Dictionary, as startup mode, (M) SYSMAN, SM-12 DCL1-267, DCL2-380 of command procedure, (U) Command log file, (U) Using VMS, 3-9; (U) DCL Procedures, 1–6 Dictionary, DCL2-376 on remote nodes, (M) SYSMAN, SM-19; (M) modifying, (M) Maintaining VMS, 5-78 DECnet-VAX Guide, 2-12, 2-13 monitoring, (M) Maintaining VMS, 5-77 Batch execution queue on remote network node, (U) DCL Dictionary, See also Execution queue DCL2-382 description, (M) Maintaining VMS, 5-4 output, (U) Using VMS, 3-9 BATCH identifier, (M) Security, 4-19, 5-4 passing parameters to, (U) Using VMS, 6-7, Batch job, (U) VMS Intro, 5-10; (M) System 6-8; (U) DCL Dictionary, DCL2-381 Management Intro, 4-5; (P) VAXTPU, 5-5 password, (U) DCL Dictionary, DCL2-9 accessing devices, (U) Files and Devices, 3-21 priority, (U) DCL Dictionary, DCL2-382 accounting, (M) Maintaining VMS, 6-2 providing input to, (U) Command Procedures, affected by shift restrictions, (M) Security, 3–16 8-4 allowing to complete before stopping a queue, queue (M) Maintaining VMS, 5-75 changing entry, (U) DCL Dictionary, changing scheduling priority, (M) Maintaining DCL2-136; Obsolete Features, 1-20 VMS, 5-80displaying entries, (U) DCL Dictionary, controlling, (M) Maintaining VMS, 5-76 DCL2-275, DCL2-309 defining default working set, (U) DCLentering command procedure in, (U) DCL Dictionary, DCL1-260, DCL1-269, Dictionary, DCL2-376 DCL2-208, DCL2-353, DCL2-383 modifying characteristics of, (U) DCL defining maximum CPU time limit, (U) DCL Dictionary, DCL2-345 Dictionary, DCL1-267 starting, (U) DCL Dictionary, DCL2-345 defining working set extent, (U) DCL requeuing an executing, (M) Maintaining VMS, Dictionary, DCL1-260, DCL1-269, 5-80 DCL2-208, DCL2-353, DCL2-383 requeuing a pending, (M) Maintaining VMS, defining working set quota, (U) DCL 5 - 81Dictionary, DCL1-269, DCL2-208, restarting, (U) Using VMS, 3-9, 6-32; (U) DCL2-353, DCL2-383 Command Procedures, 8-9 definition, (U) VMS Intro, 1-1, 6-3; (U) Using retaining in a queue, (M) Maintaining VMS, VMS, 3-8 deleting, V5.5 Release Notes, 1-2, 1-4; saving log file, (U) DCL Dictionary, DCL1-267 (U) Command Procedures, 8–8; (M) scheduling, (M) Maintaining VMS, 5-5 Maintaining VMS, 5-82 specifying a queue, (U) Command Procedures, deleting files 8-3 after processing, (U) DCL Dictionary, starting, (U) VMS Intro, 6-3 DCL2-379 states, (M) Maintaining VMS, 5-78 stopping, (U) Command Procedures, 8-8

Batch job (cont'd)	Batch queue (cont'd)
stopping process, (U) DCL Dictionary,	defining default CPU time limit, (U) DCL
DCL2-358	Dictionary, DCL1-253, DCL2-204,
submitting, (U) Using VMS, 3-8	DCL2-347
submitting at startup, (M) Setting Up VMS,	defining default working set, (U) DCL
2–13	Dictionary, DCL1-260, DCL1-269,
submitting command procedure as, (U) Using	DCL2-208, DCL2-353, DCL2-383
VMS, 1-6, 3-4; (U) Command Procedures,	defining maximum CPU time limit, (U)
8–1	DCL Dictionary, DCL1-253, DCL2-205,
submitting program as, (U) Using VMS, 1-6	DCL2-348
submitting sort operation as, (U) Using VMS,	defining working set extent, (U) DCL
1–41	Dictionary, DCL1–260, DCL1–269,
submitting through cards, (U) DCL Dictionary, DCL1-266	DCL2–208, DCL2–353, DCL2–383
synchronizing multiple procedures, (U)	defining working set quota, (U) DCL Dictionary, DCL1-269, DCL2-208,
Command Procedures, 8–10	DCL2-353, DCL2-383
synchronizing with process, (U) DCL	deleting, (U) DCL Dictionary, DCL1-143; (M)
Dictionary, DCL2–387	Maintaining VMS, 5-76
uses of, (U) Command Procedures, 8–1	deleting entries, (U) DCL Dictionary,
working set	DCL1-136
defining default, (U) DCL Dictionary,	establishing base priority for jobs, (U) DCL
DCL1-260, DCL1-269, DCL2-208,	Dictionary, DCL1-252, DCL2-203
DCL2-353, DCL2-383	for memory constrained systems, (M)
defining extent for, (U) DCL Dictionary,	Maintaining VMS, 5–30
DCL1-260, DCL1-269, DCL2-208,	generic, (M) System Management Intro, 6-3
DCL2-353, DCL2-383	initializing, (U) DCL Dictionary, DCL1–249;
defining quota for, (U) DCL Dictionary,	(M) VAXcluster, 6–8
DCL1–269, DCL2–208, DCL2–353,	optimizing for SORT, (M) Maintaining VMS,
DCL2-383	5–30
Batch job command procedure	options, (M) Maintaining VMS, 5-17
using a card reader, (P) I/O User's I, 2-2	controlling job performance and resources,
Batch job log file, (U) Command Procedures, 8–5 Batch-like editing, (P) VAXTPU, 5–3	(M) Maintaining VMS, 5-27
Batch login, (M) Security, 3–3	qualifiers for specifying, (M) Maintaining VMS, 5–18
Batch log time-stamps, V5.5 New Features, 3–5	restricting access, (M) Maintaining VMS,
to set prefix, V5.5 New Features, 3-5	5–21
to verify prefix control string, V5.5 New	retaining jobs, (M) Maintaining VMS, 5–24
Features, 3–5	using characteristics, (M) Maintaining
Batch mode	$V\!MS,5$ – $25$
definition, (U) Using VMS, 1-6	pausing, (M) Maintaining VMS, 5-73
Batch-oriented editor, (U) DCL Dictionary,	sample configuration, (M) VAXcluster, 6-5
DCL1-185	setting up, (M) VAXcluster, 6-7
Batch/Print changes	starting, (M) VAXcluster, 6-8; (M)
supported versions, V5.5 Release Notes, 2-7	Maintaining VMS, 5–56
system startup and shutdown, V5.5 Release	status, (M) Maintaining VMS, 5-71
Notes, 2–49	stopping, (M) Maintaining VMS, 5-73, 5-74
Batch/Print Facility, V5.5 Release Notes, 2–9	stopping before shutting down a node, (M)
supported versions, V5.5 Release Notes, 2-7	Maintaining VMS, 5–75
Batch queue, (M) VAXcluster, 6-5 allowing jobs to complete before stopping, (M)	SYS\$BATCH, (M) VAXcluster, 6–8 Batch queuing system
Maintaining VMS, 5–75	sample configurations, (M) Maintaining VMS,
assigning unique name to, (M) VAXcluster, 6–7	5–7 to 5–11
clusterwide generic, (M) VAXcluster, 6–8	single queue, (M) Maintaining VMS, 5–8
control commands, (M) Maintaining VMS,	steps for setting up, (M) Maintaining VMS,
5–67	5–7
creating, (U) DCL Dictionary, DCL1-249; (M)	using generic queues in a VAXcluster, (M)
Maintaining VMS, 5-56	Maintaining VMS, 5-9
default, (P) File Def Language, FDL-24	

Batch queuing system (cont'd) BEQLU (Branch on Equal Unsigned) instruction, with specialized queues, (M) Maintaining (P) MACRO, 9-48 VMS, 5-8BEST\_TRY\_CONTIGUOUS attribute, (P) File Def Baud rate Language, FDL-6, FDL-18 terminal, (P) I/O User's I, 8-40 BEST TRY CONTIGUOUS secondary attribute, BBC (Branch on Bit Clear) instruction, (P) (P) File Applications, 3-23, 4-31 MACRO, 9-50 "Beyond eob" string constant parameter to BBCC (Branch on Bit Clear and Clear) instruction, GET\_INFO, (P) VAXTPU, 7-185 (P) MACRO, 9-51 "Beyond\_eol" string constant parameter to BBCCI (Branch on Bit Clear and Clear GET\_INFO, (P) VAXTPU, 7-185, 7-220 Interlocked) instruction, (P) MACRO, 9-52 BGEQ (Branch on Greater Than or Equal) BBCS (Branch on Bit Clear and Set) instruction, instruction, (P) MACRO, 9-48 (P) MACRO, 9-51 BGEQU (Branch on Greater Than or Equal BBS (Branch on Bit Set) instruction, (P) MACRO, Unsigned) instruction, (P) MACRO, 9-48 BGTR (Branch on Greater Than) instruction, (P) BBSC (Branch on Bit Set and Clear) instruction, MACRO, 9-48 (P) MACRO, 9-51 BGTRU (Branch on Greater Than Unsigned) BBSS (Branch on Bit Set and Set) instruction, (P) instruction, (P) MACRO, 9-48 MACRO, 9-51 BBSSI (Branch on Bit Set and Set Interlocked) See VAXBI bus instruction, (P) MACRO, 9-52 Bibliography BCC (Branch on Carry Clear) instruction, (P) dependability MACRO, 9-48 publications from Digital, Dependability BCS (Branch on Carry Set) instruction, (P) Handbook, C-1 MACRO, 9-48 publications from other sources, BCUG (bilateral closed user group), (M) Dependability Handbook, C-4 Networking, 2-6, 3-33, 3-82 suggested readings for further study, BDB (buffer descriptor block), (P) System Dump Dependability Handbook, C-1 Analyzer, SDA-76 BICB2 (Bit Clear Byte 2 Operand) instruction, (P) BDB summary page (BDBSUM), (P) System MACRO, 9-11Dump Analyzer, SDA-76 BICB3 (Bit Clear Byte 3 Operand) instruction, (P) Beepers for system managers and programmers, MACRO, 9-11Dependability Handbook, 3-17 BICL2 (Bit Clear Long 2 Operand) instruction, /BEFORE qualifier, (M) Backup, BCK-31; (P) MACRO, 9–11 (M) Error Log, ERR-5; (M) Audit Analysis, BICL3 (Bit Clear Long 3 Operand) instruction, AUD-11; (M) Accounting, ACC-9; (P) (P) MACRO, 9-11 Librarian, LIB-14; (P) National Char Set, BICPSW (Bit Clear PSW) instruction, (P) NCS-23 MACRO, 9-71 EXCHANGE/NETWORK command, V5.5 New BICW2 (Bit Clear Word 2 Operand) instruction, Features, E-18 (P) MACRO, 9–11 .BEGIN BAR command, (U) DSR Ref, 2-26 BICW3 (Bit Clear Word 3 Operand) instruction, example, (U) DSR Ref, 2-26 (P) MACRO, 9-11 Beginning-of-tape marker BID (block identifier) field, (P) RMS, 2-1 See BOT marker Big-endian /BEGINNING qualifier, (M) Monitor, MON-18; byte handling, V5.5 New Features, A-20, A-21, (M) Show Cluster, SHCL-16 A-34, A-35 BEGINNING\_OF built-in procedure, (P) VAXTPU, VMEbus, V5.5 New Features, A-10 7-37 to 7-38 BIIC\$L BCICR, (P) Device Support (A), 16–16, BELL command, (U) EDT Ref, EDT-264 16 - 28BELL keyword, (P) VAXTPU, 7-355 BIIC\$L\_BER, (P) Device Support (A), 16-7, with SET (MESSAGE\_ACTION\_TYPE), (P) 16-15, 16-16, 16-26 *VAXTPU*, 7–426 BIIC\$L\_BICSR, (P) Device Support (A), 16-13, "Bell" string constant parameter to GET\_INFO, 16-24 to 16-26 (P) VAXTPU, 7-205 BIIC\$L\_DTREG, (P) Device Support (A), 16-7, BEQL (Branch on Equal) instruction, (P) MACRO, 9-48 BIIC\$L EAR, (P) Device Support (A), 16-28

```
BIIC$L_EICR, (P) Device Support (A), 16-11,
                                                     BINARY option
                                                        record format, (M) Exchange, EXCH-7
    16-15, 16-26 to 16-27
BIIC$L_GPR0, (P) Device Support (A), 16-30
                                                     Binary output, (M) Audit Analysis, AUD-2,
BIIC$L_GPR1, (P) Device Support (A), 16-30
                                                         AUD-4, AUD-12; (M) Accounting, ACC-1,
BIIC$L_GPR2, (P) Device Support (A), 16-30
                                                         ACC-4
BIIC$L_GPR3, (P) Device Support (A), 16-30
                                                     Binary qualifier, (M) Accounting, ACC-4
BIIC$L_IDR, (P) Device Support (A), 16-15,
                                                     /BINARY qualifier, (M) Error Log, ERR-6; (M)
                                                         Audit Analysis, AUD-12; (M) Accounting,
BIIC$L_IPIDR, (P) Device Support (A), 16–27
                                                         ACC-10; (P) Debugger, 4-11, CD-77, CD-79,
BIIC$L_IPIMR, (P) Device Support (A), 16-27
                                                         CD-82
BIIC$L_IPISR, (P) Device Support (A), 16-27
                                                     Binary semaphore, (P) Programming Resources,
BIIC$L_IPISTPF, (P) Device Support (A), 16-29
                                                         4-17; (P) RTL Parallel Processing, 4-10
BIIC$L_SAR, (P) Device Support (A), 16-27
                                                        operations on, (P) RTL Parallel Processing,
BIIC$L_UICR, (P) Device Support (A), 16-11,
                                                            4-10
    16-15, 16-29 to 16-30
                                                     Binary value
BIIC$L_WSR, (P) Device Support (A), 16-28 to
                                                        converting to ASCII string, (P) System Services
                                                            Ref, SYS-221
    16 - 29
BIIC$V_ARBCNTRL, (P) Device Support (A),
                                                     BIND command, (M) LADCP, LADCP-5
    16-14
                                                     /BIND qualifier, (M) Mount, MOUNT-9
BIIC$V_BROKE, (P) Device Support (A), 16-13
                                                     BIOCNT (buffered I/O count), (P) Convert,
                                                          CONV-24; (P) Device Support (A), 2-3
BIIC$V_SST, (P) Device Support (A), 16–13,
                                                     BIOLM (buffered I/O count limit), (M) Setting Up
    16-14
BIIC$V_STS, (P) Device Support (A), 16-13,
                                                          VMS, 5-3; (M) Networking, 5-38
    16 - 14
                                                        adjusting, (P) Device Support (A), 4-20
BIIC (backplane interconnect interface chip), (P)
                                                        charging, (P) Device Support (A), 4-9, 4-12
    Device Support (A), 16-5
                                                        checking, (P) Device Support (A), 4-9
  clearing error register, (P) Device Support (A),
                                                        for mailbox, (P) Device Support (B), 1-73
      16-14, 16-15
                                                     BIOLM (buffered I/O count limit) quota, (P)
  CSR space, (P) Device Support (A), 16-5
                                                          System Services Intro, 7-3
  enabling error interrupts, (P) Device Support
                                                     BIO option, (P) File Def Language, FDL-2, FDL-9
      (A), 16-16, 16-26
                                                     BIRQ level, (P) Device Support (A), 14-33, 14-34
                                                     BISB2 (Bit Set Byte 2 Operand) instruction, (P)
  enabling options, (P) Device Support (A), 16-16
  initializing, (P) Device Support (A), 11-2
                                                         MACRO, 9-12
  self-test, (P) Device Support (A), 16-13 to
                                                     BISB3 (Bit Set Byte 3 Operand) instruction, (P)
      16-14; (P) Device Support (B), 2-5
                                                         MACRO, 9-12
  setting interrupt vectors, (P) Device Support
                                                     BISL2 (Bit Set Long 2 Operand) instruction, (P)
      (A), 16–15
                                                         MACRO, 9-12
                                                     BISL3 (Bit Set Long 3 Operand) instruction, (P)
$BIICDEF macro, (P) Device Support (A), 16-5,
    16-23
                                                         MACRO, 9-12
BIIC registers
                                                     BISPSW (Bit Set PSW) instruction, (P) MACRO,
  accessing, (P) Device Support (A), 16-5
  symbolic names, (P) Device Support (A), 16-23
                                                     BISW2 (Bit Set Word 2 Operand) instruction, (P)
      to 16-30
                                                         MACRO, 9-12
Bilateral closed user group
                                                     BISW3 (Bit Set Word 3 Operand) instruction, (P)
                                                         MACRO, 9-12
  See BCUG
                                                     Bit
%BIN, (P) Debugger, 4-11, D-5
                                                        definition, (U) Using VMS, 5-1
BIN2 value, (P) File Def Language, FDL-30
                                                     BITB (Bit Test Byte) instruction, (P) MACRO,
BIN4 value, (P) File Def Language, FDL-30
                                                         9 - 13
BIN8 value, (P) File Def Language, FDL-30
                                                     8-bit characters, (U) DSR Ref. 2-14
Binary data, (U) Files and Devices, B-1
                                                     4-bit field, (P) File Def Language, FDL-31
  compression of, (P) Utility Routines, DCX-1
                                                     Bit field
Binary file, (U) DSR Ref, 4-14
                                                        replace field, (P) RTL Library, LIB-253
  MAIL incompatibility, (M) Security, 8-18
                                                        return sign extended to longword, (P) RTL
Binary operator, (P) Message, MSG-7; (P) System
                                                            Library, LIB-142
    Dump Analyzer, SDA-12 to SDA-13; (P)
                                                     Bit field operator (<p,s,e>), (P) Debugger, D-7
    MACRO, 3-15
  summary, (P) MACRO, C-8
```

BLINK keyword (cont'd) BITL (Bit Test Long) instruction, (P) MACRO, with SET (STATUS\_LINE), (P) VAXTPU, 9 - 137-476 Bit map with SET (VIDEO), (P) VAXTPU, 7-492 index file, (U) Files and Devices, A-2 "Blink\_status" string constant parameter to storage, (U) Files and Devices, A-2 GET\_INFO, (P) VAXTPU, 7-221 BITMAP.SYS, (U) Files and Devices, A-2; (M) "Blink\_video" string constant parameter to Analyze/Disk, B-3 GET\_INFO, (P) VAXTPU, 7-221 Bit operation examples, (U) DCL Concepts, 6-8 to 6-9 BLISS rules, (U) DCL Concepts, 6-8 to 6-9 See VAX BLISS BLISS-32 Bits per inch See VAX BLISS-32 See bpi BLK option, (P) File Def Language, FDL-33 BITW (Bit Test Word) instruction, (P) MACRO, BLN (block length) field See NAM\$B BLN field Bitwise AND operator, (P) RTL Math, 1-5 Bitwise complement operator, (P) RTL Math, 1-8 Block, (P) File Applications, 1-4, 3-6 Bitwise exclusive OR operator, (P) RTL Math, 1-5 I/O, (P) File Applications, 8–13 to 8–14 Bitwise inclusive OR operator, (P) RTL Math, 1-6 specifying cluster size on disk, (U) DCL Bitwise shift, (P) RTL Math, 1-9 Dictionary, DCL1-242 BIX file, (U) DSR Ref. 6-6 Block-addressable device, (M) Bad Block, BAD-4 BI\_NODE\_RESET macro, (P) Device Support (A), Block allocation 16–13; (P) Device Support (B), 2–5 specifying, (U) Sort/Merge, SORT-40 BJOBLIM parameter, (M) System Generation, Block boundary option See FAB\$V\_BLK option Black box testing, (P) Modular Procedures, 4-2 Block cluster, (M) Analyze/Disk, B-2 .BLANK command, (U) Text Processing, 3-3, Block code field 3-12, 3-22, 3-26; (U) DSR Ref. 2-9 See XAB\$B COD field BLANK\_TABS keyword, (P) VAXTPU, 7-483 Blocked BLAS (Basic Linear Algebra Subroutine) definition of, (P) RTL Parallel Processing, 1-2 definition of, (P) RTL Math, 2-1 Blocked record, (U) Files and Devices, B-13 BLAS (Basic Linear Algebra Subroutines), V5.5 Block I/O New Features, B-7, B-21, B-23 additional services that use, (P) RMS, 4-23 BLAS Level 1 applicable services, (P) RMS, 4-23 BLAS1\$VIxAMAX, (P) RTL Math, MTH-149 description, (P) RMS, 4-23 BLAS1\$VxASUM, (P) RTL Math, MTH-152 how implemented by VMS RMS services, (P) BLAS1\$VxAXPY, (P) RTL Math, MTH-155 RMS, 4-23 BLAS1\$VxCOPY, (P) RTL Math, MTH-160 how to execute, (P) RMS, 4-24 BLAS1\$VxDOT, (P) RTL Math, MTH-165 how to specify for relative and indexed files, BLAS1\$VxNRM2, (P) RTL Math, MTH-170 (P) RMS, 4-24BLAS1\$VxROT, (P) RTL Math, MTH-173 program example. (P) RMS, 4-25 BLAS1\$VxROTG, (P) RTL Math, MTH-178 requirements for mixing with record I/O, (P) BLAS1\$VxSCAL, (P) RTL Math, MTH-183 RMS, 4-23BLAS1\$VxSWAP, (P) RTL Math, MTH-187 restrictions to, (P) RMS, 4-23 BLB (buffer lock block), (P) System Dump services, (P) RMS, 3-5 Analyzer, SDA-76 specifying, (P) RMS, 4-23 BLBC (Branch on Low Bit Clear) instruction, (P) use of NBP for sequential files, (P) RMS, 4-25 MACRO, 9-53with multiple record streams. (P) RMS, 4-25 BLBS (Branch on Low Bit Set) instruction, (P) with record I/O processing, (P) RMS, 4-25 MACRO, 9-53 Block I/O execution BLEQ (Branch on Less Than or Equal) instruction, contrasted with record I/O execution, (P) RMS, (P) MACRO, 9-48 4 - 24BLEQU (Branch on Less Than or Equal Unsigned) Block I/O option instruction, (P) MACRO, 9-48 See FAB\$V\_BIO option BLINK keyword See RAB\$V\_BIO option with MARK, (P) VAXTPU, 7-261 with SELECT, (P) VAXTPU, 7-337 Block identifier field with SET (PROMPT\_AREA), (P) VAXTPU, See BID field

7 - 446

Block identifier field (cont'd) BLOCK\_SPAN secondary attribute, (P) File See FAB\$B\_BID field Applications, 4-29 See NAM\$B\_BID field BLSS (Branch on Less Than) instruction, (P) See RAB\$B\_BID field MACRO, 9-48 Blocking AST BLSSU (Branch on Less Than Unsigned) description, (P) System Services Intro, 13-8 instruction, (P) MACRO, 9-48 using, (P) System Services Intro, 13-14 BMB summary page (BLBSUM), (P) System Block length (BLN) field, (U) Files and Devices, Dump Analyzer, SDA-76 B - 14BNEQ (Branch on Not Equal) instruction, (P) See NAM\$B\_BLN field MACRO, 9-48 Block length field in allocation XAB BNEQU (Branch on Not Equal Unsigned) instruction, (P) MACRO, 9-48 See XAB\$B\_BLN field Boldfacing text, (U) DSR Ref, 2-29 Block length field in date and time XAB See also Emphasizing text See XAB\$B\_BLN field example, (U) DSR Ref. 3-6 Block length field in file access block with DSR, (U) Text Processing, 3-46 See FAB\$B BLN field Bold flag, (U) DSR Ref, 3-6 Block length field in file header characteristics default, (U) DSR Ref, 3-6 XAB pairing, (U) DSR Ref, 3-6 See XAB\$B BLN field recognizing, (U) DSR Ref, 2-43 Block length field in item list XAB **BOLD** keyword See XAB\$B\_BLN field with MARK, (P) VAXTPU, 7-261 Block length field in key XAB with SELECT, (P) VAXTPU, 7-337 with SET (PROMPT\_AREA), (P) VAXTPU, See XAB\$B BLN field 7-446 Block length field in protection XAB with SET (STATUS\_LINE), (P) VAXTPU, See XAB\$B BLN field 7-476 Block length field in record access block with SET (VIDEO), (P) VAXTPU, 7-492 See RAB\$B\_BLN field /BOLD qualifier, (U) DSR Ref. 4-6, 5-3 Block length field in revision date and time XAB "Bold status" string constant parameter to GET INFO, (P) VAXTPU, 7-221 See XAB\$B BLN field "Bold\_video" string constant parameter to Block length field in summary XAB GET\_INFO, (P) VAXTPU, 7-221 See XAB\$B\_BLN field boolean data type, (P) Routines Intro, A-2t Block length field in terminal XAB Boolean expression, (P) VAXTPU, 3-11 See XAB\$B BLN field Boolean identifier, V5.5 New Features, C-41 Block or record I/O option Boolean value flag, (P) Routines Intro, A-2t See FAB\$V\_BRO option Boot command procedure, (M) Setting Up VMS, Block size, (P) RTL Library, 5-10 1 - 1for files, (U) DCL Dictionary, DCL1-164 conversational, (M) Setting Up VMS, 3-1 for magnetic tape default, (M) Setting Up VMS, 3-1 default, (U) Sort/Merge, SORT-43 nonstop, (M) Setting Up VMS, 3-1 restrictions, (U) Sort/Merge, SORT-43 BOOTED processor state, (P) Device Support (B), Block-size option, (P) File Applications, 4-28 1 - 16/BLOCKSIZE qualifier, (M) Mount, MOUNT-10 Boot events, (M) VAXcluster, C-1 Block spanning option, (P) File Applications, 3-10 Boot node Block storage allocation directives (.BLKx), (P) See also Boot server MACRO, 6-12 restrictions for MicroVAX II and VAXstation II BLOCK\_COUNT attribute, (P) File Def Language, computers, (M) System Management Intro, FDL-32 BLOCK\_IO attribute, (P) File Def Language, Boot procedures for XDELTA FDL-2, FDL-9 See entries for specific computers BLOCK\_IO secondary attribute, (P) File Boot server Applications, 7-3 function in local area VAXcluster configuration, /BLOCK\_SIZE qualifier, (M) Backup, BCK-32 (M) System Management Intro, 6-6 BLOCK\_SPAN attribute, (P) File Applications, functions, (M) System Management Intro, 6-6; 3-10; (P) File Def Language, FDL-33 (M) VAXcluster, 2-2

Boot server (cont'd) Bound cursor movement (cont'd) with the MOVE UP command, (U) EVE Ref, legal systems, (M) System Management Intro, EVE-90 Boot stack, (P) Device Support (B), 1-15 with WPS keypad, (U) EVE Ref, EVE-186 Bound marker, (P) VAXTPU, 2-9 to 2-10 Bootstrap primary, (M) Networking, 4-5, 4-17 Bound procedure value, (P) Modular Procedures, ROM, (M) Networking, 4-5 3 - 12Bootstrap block, (U) Files and Devices, 1-5, A-1 "Bound" string constant parameter to GET\_INFO, **Bootstrapping** (P) VAXTPU, 7-171, 7-185, 7-221 multiprocessing system, (M) Setting Up VMS, BOX COPY command, (U) EVE Ref, EVE-7 2 - 19EVE editor, (U) Text Processing, 1-22 with XDELTA, (P) Device Support (A), 13-1 to using with search string (EVE), (U) Text 13-5Processing, 1-20 BOX CUT command, (U) EVE Ref, EVE-8 to Bootstrap procedures for XDELTA, (P) Delta/XDelta, DELTA-2 to EVE-10 EVE editor, (U) Text Processing, 1-22 DELTA-8 BOOT\_REJECTED processor state, (P) Device using with search string (EVE), (U) Text Support (B), 1-16 Processing, 1-20 BOX CUT INSERT command, (U) EVE Ref, Border virtual display, (P) Programming Resources, **EVE-11** to **EVE-12** EVE editor, (U) Text Processing, 1–22 Borrowing BOX CUT OVERSTRIKE command, (U) EVE Ref, analyzing problems, (M) Performance EVE-13 Management, 4-11 EVE editor, (U) Text Processing, 1-22 deciding when too generous, (M) Performance Box editing Management, 4-22EVE editor, (U) Text Processing, 1–22 tuning to make more effective, (M) Performance BOX PASTE command, (U) EVE Ref, EVE-14 to Management, 5-6 BORROWLIM parameter, (M) System Generation, EVE editor, (U) Text Processing, 1–22 BOX PASTE INSERT command, (U) EVE Ref. page faulting, (M) Performance Management, EVE-16 EVE editor, (U) Text Processing, 1–22 Boss/worker model, (P) DECthreads, 1-5 BOX PASTE OVERSTRIKE command, (U) EVE work queue variation, (P) DECthreads, 1-5 Ref, EVE-17 EVE editor, (U) Text Processing, 1–22 BOT (beginning-of-tape) BOX SELECT command, (U) EVE Ref, EVE-18 to See Magnetic tape, BOT marker **EVE-20** BOT (beginning-of-tape) marker, (U) Files and EVE editor, (U) Text Processing, 1-22 Devices, B-2; (M) Backup, BCK-81, BCK-84 /BPAGE qualifier BOTTOM command, (U) Using VMS, 8-9, 8-57; in Linker Utility, V5.5 New Features, B-107, (U) EVE Ref, EVE-6 moving the cursor with (EVE), (U) Text bpi (bits per inch), (P) File Applications, 1-8 Processing, 1-8 BPT (Breakpoint) instruction, (P) Device Support BOTTOM keypad function, (U) EDT Ref, EDT-24 (A), 13-6; (P) MACRO, 9-73 See also Cursor positioning Branch access type, (P) MACRO, 8-17 EDT, (U) Text Processing, 2–10 Branch instruction /BOTTOM qualifier, (P) Debugger, CD-112 calculating the location for, (P) Patch, PAT-70 Bottom specifier calculating the relative displacement for, (P) with SET CURSOR, (U) EDT Ref, EDT-175 Patch, PAT-70 Boundary tag, (P) RTL Library, 5-8 Branch mode, (P) MACRO, 5-18 Bound cursor movement operand specifier format, (P) MACRO, 8-29 with EDT keypad, (U) EVE Ref, EVE-172 /BRANCH qualifier, (P) Debugger, CD-17, CD-30, with the MOVE DOWN command, (U) EVE CD-125, CD-184, CD-258 Ref. EVE-87 BRB (Branch Byte Displacement) instruction, (P) with the MOVE LEFT command, (U) EVE Ref, MACRO, 9-54 EVE-88 Breach with the MOVE RIGHT command, (U) EVE

Ref, EVE-89

See Security breach

Breakpoint (cont'd) BREAK built-in procedure, (P) VAXTPU, 7-39 setting in driver code, (P) Device Support (A), .BREAK command, (U) Text Processing, 3–12; 13-6, 13-10, 13-17 (U) DSR Ref, 2-10 showing, (P) Delta/XDelta, DELTA-28 Break flag, (U) DSR Ref, 3-7 simple, (P) Delta/XDelta, DELTA-28 default, (U) DSR Ref. 3-7 source display at, (P) Debugger, 6-7 recognizing, (U) DSR Ref, 2-44 WHEN clause, (P) Debugger, 3-13 Break-in with DECwindows, (P) Debugger, 1-23 detection and evasion, (M) Security, 3-16 XDELTA restriction on breakpoint 1, (P) Break-in alarms, (M) Security, E-10 Delta/XDelta, DELTA-7 Break-in attempts, (M) Security, 3-16 Breakpoint command, (P) Delta/XDelta, auditing, (M) Maintaining VMS, 6-13; (M) DELTA-28 Security, 4-41, 6-11 BREAKPOINTS parameter, (P) Device Support counteraction through dual password, (M) (A), 13–1, 13–5 Security, 5-16 "Breakpoint" string constant parameter to detection and evasion, (M) Security, 5-23 GET\_INFO, (P) VAXTPU, 7-179 Break-in database, (M) Security, 5-25 Bridge, (M) DECnet-VAX Guide, 1-5, 1-7 BREAK key and secure server, (M) Security, 5–26 Brief format listing, (M) Audit Analysis, AUD-2, Breakpoint, (P) Delta/XDelta, DELTA-28 to AUD-13 DELTA-31 Brief image map, (P) Linker, 1-12 canceling, (P) Debugger, 3-15, CD-17 Brief map, (P) Linker, 5-1, LINK-3 clearing, (P) Delta/XDelta, DELTA-28, module information in, (P) Linker, 5-2, 5-3 DELTA-29; (P) Device Support (A), 13-18 sections in, (P) Linker, 5-2 complex, (P) Delta/XDelta, DELTA-30; (P) BRIEF prompt, (P) File Def Language, FDL-55 Device Support (A), 13–18 /BRIEF qualifier, (U) EDT Ref, EDT-119; (M) defined, (P) Debugger, 3-8 Backup, BCK-33; (M) Error Log, ERR-7; delayed triggering of, (P) Debugger, 3-13, (M) Audit Analysis, AUD-13; (M) Accounting, CD-125 ACC-11; (P) Debugger, CD-218, CD-230; (P) displaying, (P) Debugger, CD-207 Linker, LINK-3 displaying XDELTA breakpoint list, (P) Device with SUBSTITUTE, (U) EDT Ref, EDT-243 Support (A), 13–18 with TYPE, (U) EDT Ref, EDT-251 DO clause, (P) Debugger, 3-13 BR level, (P) Device Support (A), 14-33 exception, (P) Debugger, 9-10, CD-124 relation to SCB vectors, (P) Device Support (B), initial, in XDELTA, (P) Delta/XDelta, 1-9 DELTA-7 BRN file, (U) DSR Ref, 5-1, 5-2, 6-6 initial, in XDELTA multiprocessing with DSR, (U) Text Processing, 3-48, 3-53 environment, (P) Delta/XDelta, DELTA-8 Broadcast address, (M) Networking, 1-7, 3-15 in multiprocessing environment, (P) Broadcasting a wake-up, (P) DECthreads, Delta/XDelta, DELTA-13, DELTA-35 cma-43, pthread-33 in tasking (multithread) program, (P) BROADCAST keyword Debugger, 12–24 with SET (BELL), (P) VAXTPU, 7-355 on activation (multiprocess program), (P) Broadcast message, (M) VAXcluster, 7-12; (M) Debugger, 10–12 Show Cluster, SHCL-11; (P) Programming on task event, (P) Debugger, 12-27 Resources, 7-43; (P) I/O User's I, 8-18, 8-21, on termination (image exit), (P) Debugger, 8-23, 8-46 10 - 12alternate handler, (P) Programming Resources, on vector instruction, (P) Debugger, 11-3 predefined, (P) Debugger, 9-9 default handler, (P) Programming Resources, predefined, tasking (multithread) program, (P) 7 - 43Debugger, 12-29 Broadcast routing timer, (M) Networking, 2–30 proceeding from, (P) Delta/XDelta, DELTA-32; BROADCAST ROUTING TIMER parameter, (M) (P) Device Support (A), 13-5, 13-18 Networking, 3–72 proceeding from XDELTA initial, (P) Broken condition Delta/XDelta, DELTA-8 returning from, Dependability Handbook, 1-12 range for DELTA, (P) Delta/XDelta, DELTA-28 BRO option, (P) File Def Language, FDL-3 range for XDELTA, (P) Delta/XDelta, Browser DELTA-28 See File browser setting, (P) Debugger, 3-8, CD-124; (P)

Delta/XDelta, DELTA-28, DELTA-29

BRW (Branch Word Displacement) instruction, (P) BUCKET\_SIZE secondary attribute, (P) File MACRO, 9-54 Applications, 4-28, 7-19, 7-20 BSBB (Branch to Subroutine Byte Displacement) Buffer See also Global buffer instruction, (P) MACRO, 9-55 BSBW (Branch to Subroutine Word Displacement) allocating, (P) Device Support (A), 1-23, 2-3, instruction, (P) MACRO, 9-55 7-6 to 7-7, E-5; (P) Device Support (B), BTC file, (U) DSR Ref, 5-1, 5-2 3-12 to 3-13, 3-14, 3-15, 3-22 to 3-23 Bucket, (P) File Applications, 3-6, 3-17; (P) allocating a physically contiguous, (P) Device Analyze / RMS\_File, ARMS-2; (P) File Def Support (B), 3-16 Language, FDL-5, FDL-27 attributes, (P) VAXTPU, 7-60 defined, (P) File Applications, 2-1 choosing from buffer list (EVE), (U) Text Processing, 1-51 examining, (P) Analyze/RMS\_File, ARMS-6 fill, (P) File Def Language, FDL-28 controlling modification indicator, (P) VAXTPU, fill percentage, (P) Convert, CONV-14 list of free, (P) Convert, CONV-4 converting contents of to string format using reclaiming, (P) File Applications, 3-17, 10-30; STR, (P) VAXTPU, 7-520 (P) Convert, CONV-1 converting name to journal file name, (P) reclaiming with CONV\$RECLAIM routine, (P) VAXTPU, 7-172 Utility Routines, CONV-18 creating reclamation statistics, (P) Utility Routines, with EDT, (U) Text Processing, 2-35 with EVE command NEW, (U) EVE Ref, CONV-18 size, (P) File Applications, A-1 EVE-91 considering performance, (P) File current, (P) VAXTPU, 7-59 Applications, 3-25 data area, (P) Device Support (A), 7-7 deallocating, (P) Device Support (A), 2-7, 4-20, for indexed files, (P) File Applications, 7-8; (P) Device Support (B), 3-3, 3-19 7 - 20for relative files, (P) File Applications, definition, (U) Using VMS, 8-2 EVE, (U) Text Processing, 1-2 7 - 19deleting, (P) VAXTPU, 7-107 option, (P) File Applications, 4-28 relative to index depth, (P) File with EDT, (U) Text Processing, 2-35 Applications, 3-24 with EVE, (U) Text Processing, 1-49, 1-51; (U) EVE Ref, EVE-40 with multiple areas, (P) File Applications, determining if unmodifiable records are present 3 - 23split, (P) Analyze/RMS\_File, ARMS-6 in, (P) VAXTPU, 7-175 Bucket boundary, (P) File Applications, 3-19; (P) direction current, (P) VAXTPU, 7-85 File Def Language, FDL-35 file organization considerations, (P) RMS, 5-4 setting, (P) VAXTPU, 7-379 displaying Bucket code field with EDT, (U) Text Processing, 2-34 See RAB\$L\_BKT field with EVE, (U) Text Processing, 1-51 Bucket size, (P) File Applications, A-1 displaying list of system buffers (EVE), (U) Bucket size field Text Processing, 1-51 See FAB\$B BKS field editing multiple buffers (EVE), (U) Text Bucket size field in allocation XAB Processing, 1-52 See XAB\$B\_BKZ field editing two buffers with two files (EVE), (U) Bucket size field in file header characteristics XAB Text Processing, 1-56 See XAB\$B\_BKZ field EDT commands for using, (U) Using VMS, Bucket split, (P) File Applications, 3-6, 3-22, 8-69 9-13, 10-31 erasing, (P) VAXTPU, 2-4, 7-117 minimizing, (P) File Applications, 3-26; (P) erasing unmodifiable records from RMS, 13-4 preventing or allowing, (P) VAXTPU, BUCKET\_IO attribute, (P) File Def Language, 7 - 375EVE commands for using, (U) Using VMS, BUCKET\_SIZE attribute, (P) File Def Language, 8-31 to 8-33 FDL-6, FDL-18 format, (P) Device Support (A), 7-7 /BUCKET\_SIZE qualifier, (U) Sort/Merge, \$GETJPI SORT-41 using for multiple requests for information, (P) System Services Ref, SYS-463

Buffer (cont'd) Buffer (cont'd) getting file name of journal, (P) VAXTPU, writing 7 - 172with EDT, (U) Using VMS, 8-69 header area, (P) Device Support (A), 7-7, 7-8 with EVE, (U) Using VMS, 8-34 I/O, (P) File Applications, 7–16 Buffer-1 specifier size, (P) File Applications, 3-2 with MOVE, (U) EDT Ref, EDT-150 in EVE editor, (U) Text Processing, 1-1 Buffer-2 specifier journal file, (P) VAXTPU, 1-11 with MOVE, (U) EDT Ref, EDT-150 key, (P) File Applications, 9–13, 9–15, 9–18 Buffer address register, (P) Device Support (A), listing 14 - 23with EVE, (U) Text Processing, 1-51 Buffer area requirement for Get service, (P) File local, (P) File Applications, 3-9, 3-27, 7-20 locking, (P) Device Support (A), 1-23, 6-7; Applications, 8-2 Buffer cache, (P) File Applications, 7-5, 7-18 (P) Device Support (B), 1-42, 1-43, 3-31 to 3-33, 3-34 to 3-36, 3-40 to 3-42, 3-45 to for storing index levels, (P) File Applications, 3-47, 3-54 to 3-55, 3-58 to 3-60 7 - 20locking multiple areas, (P) Device Support (B), types, (P) File Applications, 7–20 3-34, 3-45, 3-58 using with multistreaming, (P) File MAIN. (U) Using VMS, 8-69 Applications, 7-4 Buffer change journaling, (U) EVE Ref, 1-2, 1-12, margin action settings, (P) VAXTPU, 7-414, 1-19, 1-20; (P) VAXTPU, 1-11 7 - 456margin settings, (P) VAXTPU, 7-412, 7-419, and keystroke journaling, (P) VAXTPU, 7-307 7 - 454converting buffer to journal file name, (P) moving data to from system to user, (P) Device VAXTPU, 7-172 Support (B), 3-80 to 3-81 default file naming, (P) VAXTPU, 1-12 moving data to from user to system, (P) Device enabling, (P) VAXTPU, 7-405 Support (B), 3-79 EVE editor, (U) Text Processing, 1-36 multiple, (P) File Applications, 3-7; (P) getting file name of journal, (P) VAXTPU, VAXTPU, 2-4, 7-59 7 - 172number of, (P) File Applications, 3-11, 3-26, getting information on journal file, (P) VAXTPU, 7-203 3-27recovery, (P) VAXTPU, 7-307 PASTE, (U) Using VMS, 8-66 reading file into sensing safe state, (P) VAXTPU, 7-175 with EDT, (U) Using VMS, 8-69 sensing the enable, (P) VAXTPU, 1-12, 5-10 with EVE, (U) Using VMS, 8-34 specifying file name, (P) VAXTPU, 7-405 record header, (P) File Applications, 9-17, BUFFER command, (U) Using VMS, 8-9, 8-31; 9-18, 9-20 (U) EVE Ref. EVE-21 to EVE-22 recovering contents of, (P) VAXTPU, 7-307 changing buffers using (EVE), (U) Text saving contents of, (U) EVE Ref, EVE-250 Processing, 1-53 selecting for optimum performance, (P) File creating a new buffer with (EVE), (U) Text Applications, 7-17 to 7-18 Processing, 1–52 sensing safe journaling, (P) VAXTPU, 7-175 displaying contents of Messages buffer (EVE), sensing unmodifiable records erasable state, (U) Text Processing, 1–52 (P) VAXTPU, 7-169 for buffer manipulation (EVE). (U) Text size, (P) Device Support (A), 7-6 Processing, 1-47 storing address of, (P) Device Support (A), 7-7 for message buffer, (P) VAXTPU, 4-18 tab stops, (P) VAXTPU, 7-481 putting specific buffer into current window testing accessibility of, (P) Device Support (A), (EVE), (U) Text Processing, 1–52 7-6; (P) Device Support (B), 2-39 to 2-40, writing buffer to a file using (EVE), (U) Text 3-31 to 3-33, 3-34 to 3-36, 3-40 to 3-42, Processing, 1-54 3-43 to 3-44, 3-45 to 3-47, 3-54 to 3-55, BUFFER data type, (P) VAXTPU, 2-3 to 2-4 3-56 to 3-57, 3-58 to 3-60 Buffer descriptor block unlocking, (P) Device Support (B), 3-109 See BDB user, (P) File Applications, 9-17 Buffered data path, (P) Device Support (A), 14-8; variables, (P) VAXTPU, 2-4 (P) Device Support (B), 1-8 visible, (P) VAXTPU, 7-59 See also Data path VMS RMS space allocation, (P) File Applications, 7–17

Buffered data path (cont'd) Buffer List buffer allocating permanent, (P) Device Support (A), displaying (EVE), (U) Text Processing, 1-51 11-2, 14-18, E-12; (P) Device Support (B), in EVE editor, (U) Text Processing, 1-51 1 - 26selecting a buffer from (EVE), (U) Text flow of read operation using, (P) Device Processing, 1-51 Support (A), 14-12 to 14-13 using REMOVE command (EVE), (U) Text flow of write operation using, (P) Device Processing, 1–48 Support (A), 14-12 using SELECT command (EVE), (U) Text functions, (P) Device Support (A), 14-11 Processing, 1-48 odd transfer, (P) Device Support (B), 1-8 Buffer lock block purging, (P) Device Support (A), 14-14, 14-19, See BLB 14-24 to 14-25; (P) Device Support (B), Buffer names, (P) VAXTPU, 2-4 3-82 to 3-83 Buffer-offset length field, (U) Files and Devices, releasing, (P) Device Support (A), 10-2, 14-19, B - 1514–25; (P) Device Support (B), 2–55, 3–87 Buffer overrun requesting, (P) Device Support (A), 14-11, with LPA11-K, (P) I/O User's I, 4-12 14-17 to 14-18; (P) Device Support (B), Buffer size 2-60, 3-96 to 3-97 changing for executor, (M) Networking, 3-21 rules for using, (P) Device Support (A), 14-11, decreasing, (M) Networking, 3-21 14 - 15for executor, (M) Networking, 2-3 speed, (P) Device Support (A), 14–15 for line, (M) Networking, 3-20, 3-57 Buffered data path wait queue increasing, (M) Networking, 3-21 See Data path wait queue requirements, (M) Networking, 3-20 Buffered function bit mask, (P) Device Support setting for executor, (M) Networking, 3–9, 3–20 (A), 4–11, 6–7 **BUFFER SIZE** parameter Buffered I/O, (M) Error Log, ERR-22; (P) Device for executor, (M) Networking, 3-9, 3-20 Support (A), 1-22, 1-23, 2-3, 4-11, 11-7, for line, (M) Networking, 3-57 16-19; (P) Device Support (B), 1-40, 1-41, **Buffer-specific attributes** 1 - 79See also Initialization file chained, (P) Device Support (B), 1-40 EVE editor, (U) Text Processing, 1-71, 1-78 complex, (P) Device Support (B), 1-40 Buffer specifier FDT routines for, (P) Device Support (A), 7-6 equal sign (=) in line mode, (U) EDT Ref, EDT-120 functions, (P) Device Support (A), 6-4 in nokeypad mode, (U) EDT Ref, EDT-265 in relation to terminal operation problems, (M) in line mode, (U) EDT Ref, EDT-120 Performance Management, 4-31 with <null>, (U) EDT Ref, EDT-154 postprocessing, (P) Device Support (A), 7-8; with APPEND, (U) EDT Ref, EDT-261 (P) Device Support (B), 3-72 with CHANGE, (U) EDT Ref, EDT-122 reasons for using, (P) Device Support (A), 1–22 with CLEAR, (U) EDT Ref, EDT-124 to 1-23, 6-7, 6-8 with CUT, (U) EDT Ref, EDT-275 Buffered I/O byte count limit with DELETE, (U) EDT Ref, EDT-135 with FILL, (U) EDT Ref, EDT-141 See BYTLM with FIND. (U) EDT Ref. EDT-143 Buffered I/O count with INCLUDE, (U) EDT Ref, EDT-147 See BIOCNT with INSERT, (U) EDT Ref, EDT-148 Buffered I/O count limit with PASTE, (U) EDT Ref, EDT-298 See BIOLM with PRINT, (U) EDT Ref, EDT-157 Buffered I/O operation, (P) Programming with REPLACE, (U) EDT Ref, EDT-165 Resources, 3-20 with RESEQUENCE, (U) EDT Ref, EDT-167 Buffered I/O quota, (P) I/O User's I, 3–24, 6–13, with SUBSTITUTE, (U) EDT Ref, EDT-243 7-5with TAB ADJUST, (U) EDT Ref, EDT-249 Buffered read function bit with TYPE, (U) EDT Ref, EDT-251 See IRP\$V\_FUNC with WRITE, (U) EDT Ref, EDT-253 Buffering mode, (P) RTL Screen Management, "Buffer" string constant parameter to GET INFO, (P) VAXTPU, 7-185, 7-193, 7-222 Buffering technique, (P) File Applications, 7–16 to

7 - 22

```
BUFFER_BEGIN keyword, (P) VAXTPU, 7-69, 7-273
with POSITION. (P) VAXTPU. 7-287
```

with POSITION, (P) VAXTPU, 7–287 with SEARCH, (P) VAXTPU, 7–327

with SEARCH\_QUIETLY, (P) VAXTPU, 7–332

BUFFER\_COUNT qualifier, (M) Backup, BCK-34; (P) File Applications, 7-19, 7-20

BUFFER\_END keyword, (P) VAXTPU, 7-69, 7-273

with POSITION, (P) VAXTPU, 7–287 with SEARCH, (P) VAXTPU, 7–327

with SEARCH\_QUIETLY, (P) VAXTPU, 7-332

Bugcheck, (P) Device Support (A), 13-21

BADDALRQSZ, (P) Device Support (B), 3–3, 3–19

code, (P) System Dump Analyzer, SDA-15 examining information regarding, (P) Device Support (A), 13-5

fatal conditions, (P) System Dump Analyzer, SDA-16 to SDA-20

halt/restart, (P) System Dump Analyzer, SDA-7

handling routines

global symbols, (P) System Dump Analyzer, SDA-60

identifying, (P) System Dump Analyzer, SDA-21

ILLQBUSCFG, (P) Device Support (B), 1–22 INCONSTATE, (P) Device Support (B), 3–88, 3–97

information, (P) Delta/XDelta, DELTA-8 reason, (P) System Dump Analyzer, SDA-94 SPLACQERR, (P) Device Support (A), 13–28,

13–30, E–18; (P) Device Support (B), 3–111 SPLIPLHIGH, (P) Device Support (A), 13–28,

E-18; (P) Device Support (B), 3-111, 3-113 SPLIPLLOW, (P) Device Support (A), 13-28,

E-18; (P) Device Support (B), 3-114, 3-115, 3-116, 3-117

SPLRELERR, (P) Device Support (A), 13–29, 13–30, E–18; (P) Device Support (B), 3–114, 3–115

SPLRSTERR, (P) Device Support (A), 13–29, 13–30, E–18; (P) Device Support (B), 3–116, 3–117

UBMAPEXCED, V5.5 New Features, A-26, A-31; (P) Device Support (B), 3-74, 3-78 UNSUPRTCPU, (P) Device Support (B), 2-10

BUGCHECKFATAL parameter, (M) System Generation, A-9

BUGCHK privilege, (M) Setting Up VMS, 5–10; (M) Security, A–2

BUGL (Bugcheck Longword Message Identifier) instruction, (P) MACRO, 9-197

BUGREBOOT parameter, (M) System Generation, A-9; (P) Device Support (A), 13-2, 13-5, 13-22 BUGW (Bugcheck Word Message Identifier) instruction, (P) MACRO, 9-197

Building applications on EVE, (P) VAXTPU, G-1 to G-12

Building blocks, Dependability Handbook, 1-1, 1-18

applying dependability strategies error correction, Dependability Handbook,

failure recovery, Dependability Handbook, 1-21

fault tolerance, Dependability Handbook, 1-21

communications, Dependability Handbook, 1–19, 7–1

allowing for LAN bridge failover, Dependability Handbook, 7–11

alternate adapter booting for satellite nodes,  $Dependability\ Handbook,\ 7-12$ 

applying dependability strategies, Dependability Handbook, 1–21

DECalert, Dependability Handbook, 7-22

DECelms, Dependability Handbook, 7-24

DECrack Maritan Depart debility Handbook, 7–25

DECnet Monitor, Dependability Handbook, 7–23

degrees of protection from faults, Dependability Handbook, 7-3

Ethernet and FDDI options, *Dependability Handbook*, 7–10

ETHERnim, Dependability Handbook, 7–23

LAN Traffic Monitor, Dependability Handbook, 7–23

large packet support on FDDI, Dependability Handbook, 7-11

local area VAXcluster failure analysis program, Dependability Handbook, 7–22

options, Dependability Handbook, 3–6 to 3–9

proactive network monitoring and analysis products, *Dependability Handbook*, 7–22

providing multiple paths to Ethernet and FDDI, Dependability Handbook, 7–5

providing multiple WAN connections for VAXft systems, Dependability Handbook, 7-19

recommendations for local area VAXclusters, *Dependability Handbook*, 7–6

sample local area VAXcluster failure analysis program, *Dependability Handbook*, 7–12, 7–13

sample multiadapter connections to LAN segments, *Dependability Handbook*, 7–7

Building blocks	Building blocks
communications (cont'd)	software (cont'd)
using DECnet cluster alias, Dependability	options, Dependability Handbook, 3-9 to 3-15
Handbook, 7–19 using DFS, Dependability Handbook, 7–22	prototyping applications, <i>Dependability</i>
using DNS, Dependability Handbook, 7–20	Handbook, 8–23 to 8–24
using FDDI as VAXcluster interconnect,	testing applications, Dependability
Dependability Handbook, 7–16	Handbook, 8-25 to 8-27
VAXcluster satellite synonym,	VMS features, Dependability Handbook,
Dependability Handbook, 7–12	8-2 to 8-19
VCS, Dependability Handbook, 7–24	writing dependable code, Dependability
dependability considerations, Dependability	Handbook, 8–19 to 8–23
Handbook, 3-1	Building dependable systems, V5.5 Release Notes,
environment, Dependability Handbook, 1–19	4–2; V5.5 New Features, 1–4; Dependability
applying dependability strategies,	Handbook, 1–1
Dependability Handbook, 1–21	achieving balance, Dependability Handbook,
maintaining dependable environment,	1–22
Dependability Handbook, 5–1	analyzing system requirements, Dependability
options, Dependability Handbook, 3-2 to	Handbook, 2–1
3–4	application software features, Dependability
hardware, Dependability Handbook, 1–19	Handbook, 8–27 to 8–57
applying dependability strategies,	building blocks, Dependability Handbook, 1–18
Dependability Handbook, 1–21	characteristics, Dependability Handbook, 1–12
conventional VAX systems, Dependability	fault tolerance, Dependability Handbook,
Handbook, 6-6	1–12
dependability characteristics summary,	recoverability, Dependability Handbook,
Dependability Handbook, 6–29	1–12
eliminating single points of failure,	reliability, Dependability Handbook, 1–12
Dependability Handbook, 6–2	communications, Dependability Handbook,
examples, Dependability Handbook, 6-1	1–19
fault tolerant VAXft systems,	applying dependability strategies,
Dependability Handbook, 6–10	Dependability Handbook, 1–21
MIRA AS systems, Dependability	options, Dependability Handbook, 3–6 to
Handbook, 6–12	3–9
options, Dependability Handbook, 3–4 to	considerations for applications, Dependability
3–6	Handbook, 8-1
VAXcluster topologies, Dependability	construction phase, Dependability Handbook,
Handbook, 6-15	1–16
operational procedures, Dependability	conventional level, Dependability Handbook,
Handbook, 1-19	1–2
applying dependability strategies,	business example, Dependability
$Dependability\ Handbook,\ 1 ext{}21$	Handbook, 1–3
options, Dependability Handbook, 3-15 to	cross-training personnel, Dependability
3–19	Handbook,1–5
personnel, Dependability Handbook, 1–19	defining impact of security breaches,
applying dependability strategies,	$Dependability\ Handbook,\ 1 ext{}6$
$Dependability\ Handbook,\ 1 ext{}21$	designing emergency drills, Dependability
help from Digital services, Dependability	Handbook, 1-6
Handbook,101	disaster tolerant level, Dependability
options, $Dependability\ Handbook,\ 3-19$ to	Handbook,1–2
3–20	business example, Dependability
software, Dependability Handbook, 1–19, 8–1	Handbook,1–4
application software dependability features,	documenting procedures, Dependability
Dependability Handbook, 8–27 to 8–57	Handbook, 1-5
applying dependability strategies,	downsizing groups sensitively, Dependability
Dependability Handbook, 1–21	Handbook, 1–6
managing shared information,	environment, Dependability Handbook, 1–19
Dependability Handbook, 8–57 to 8–60	

Building dependable systems environment (cont'd) applying dependability strategies, Dependability Handbook, 1-21 options, Dependability Handbook, 3-2 to 3-4fault tolerant level, Dependability Handbook, general approach, Dependability Handbook, hardware, Dependability Handbook, 1-19 applying dependability strategies, Dependability Handbook, 1-21 options, Dependability Handbook, 3-4 to highly available level, Dependability Handbook, 1-2 business example, Dependability Handbook, 1-3, 1-4 identifying application requirements, Dependability Handbook, 1-5 identifying business requirements, Dependability Handbook, 1–5 identifying constraints, Dependability Handbook, 1-6 maintaining dependable environment,  $Dependability\ Handbook,\ 5-1$ managing shared information, Dependability Handbook, 8-57 to 8-60 matching vendor products with requirements, Dependability Handbook, 1-6 meeting changing requirements, Dependability Handbook, 1-5 networks, Dependability Handbook, 7-1 allowing for LAN bridge failover, Dependability Handbook, 7-11 alternate adapter booting for satellite nodes, Dependability Handbook, 7-12 DECalert, Dependability Handbook, 7-22 DECelms, Dependability Handbook, 7-24 DECmcc, Dependability Handbook, 7-25 DECnet Monitor, Dependability Handbook, 7 - 23degrees of protection from faults, Dependability Handbook, 7-3 Ethernet and FDDI options, Dependability Handbook, 7-10 ETHERnim, Dependability Handbook, 7 - 23LAN Traffic Monitor, Dependability Handbook, 7-23 large packet support on FDDI, Dependability Handbook, 7–11 local area VAXcluster failure analysis

program, Dependability Handbook,

networks (cont'd) proactive network monitoring and analysis products, Dependability Handbook, providing multiple paths to Ethernet and FDDI, Dependability Handbook, 7-5 providing multiple WAN connections for VAXft systems, Dependability Handbook, 7-19 recommendations for local area VAXclusters, Dependability Handbook, sample local area VAXcluster failure analysis program, Dependability Handbook, 7-12, 7-13 sample multiadapter connections to LAN segments, Dependability Handbook, using DECnet cluster alias, Dependability Handbook, 7-19 using DFS, Dependability Handbook, 7-22 using DNS, Dependability Handbook, 7-20 using FDDI as VAXcluster interconnect, Dependability Handbook, 7-16 VAXcluster satellite synonym, Dependability Handbook, 7-12 VCS, Dependability Handbook, 7-24 operational phase, Dependability Handbook, operational procedures, Dependability Handbook, 1-19 applying dependability strategies, Dependability Handbook, 1-21 options, Dependability Handbook, 3-15 to 3 - 19personnel, Dependability Handbook, 1-19 applying dependability strategies, Dependability Handbook, 1-21 options, Dependability Handbook, 3-19 to planning ahead, Dependability Handbook, 1-5 primary strategies, Dependability Handbook, 1 - 12error correction, Dependability Handbook, 1-12, 1-13, 1-16 failure recovery, Dependability Handbook, 1-12, 1-13, 1-16 fault prevention, Dependability Handbook, 1-12, 1-13, 1-16 protecting against environmental factors, Dependability Handbook, 1-6 prototyping applications, Dependability Handbook, 8-23 to 8-24 redundant functional units, Dependability Handbook, 1-16 automatic, Dependability Handbook, 1-17

Building dependable systems

7 - 22

Building dependable systems	Bus grant, (P) Device Support (A), 14-33, 14-34
redundant functional units (cont'd)	Business considerations
capacity related, $Dependability Handbook$ , 1–17	coping with disasters, Dependability Handbook, 5–15
computing systems, Dependability	
Handbook,1–18	Bus request
manual, Dependability Handbook, 1-17	See BR level, BIRQ level
requirements levels, Dependability Handbook,	Busy bit
1–2	See UCB\$V_BSY
services from Digital, Dependability Handbook, 10–1	Busy queue status, (M) Maintaining VMS, 5–71 Busy wait, (P) Modular Procedures, 3–21
software, Dependability Handbook, 1–19	BVC (Branch on Overflow Clear) instruction, (P)
applying dependability strategies,	MACRO, 9-48
Dependability Handbook, 1–21	BVS (Branch on Overflow Set) instruction, (P)
options, Dependability Handbook, 3–9 to	MACRO, 9–48
3–15	BYPASS privilege, (U) DCL Concepts, 8-6;
testing applications, Dependability Handbook,	(M) Setting Up VMS, 5-11; (M) Security,
8–25 to 8–27	4-6, A-2; (M) Networking, 5-2; (P) System
testing procedures, Dependability Handbook,	Services Intro, 7–6
1–5	effect on ownership privilege, (M) Security,
training personnel, Dependability Handbook,	4–31
1-5	for network operations, (M) DECnet-VAX
understanding your options, Dependability	Guide, 3-9
Handbook, 3-1	BYTCNT (byte count) quota, (P) Device Support
VMS features, Dependability Handbook, 8-2 to	(A), 3-13
8–19	checking, (P) Device Support (A), E-5
writing dependable code, Dependability	crediting, (P) Device Support (A), E-5; (P)
Handbook, 8–19 to 8–23	Device Support (B), 3–18
Built-in command	debiting, (P) Device Support (A), E-5; (P)
definition, (U) Using VMS, 1–6; (U) DCL	Device Support $(B)$ , 3–12, 3–20 to 3–21,
Concepts, 1-1	3–22 to 3–23
interrupting and canceling, (U) Using VMS, 1–20 to 1–21; (U) DCL Concepts, 2–2	system maximum, (P) Device Support (B), $3-20, 3-22$
table of DCL, (U) Using VMS, 1-7; (U) DCL	verifying, (P) Device Support (B), 3-20 to 3-21, 3-22 to 3-23
Concepts, 1–2 Built-in definition	Byte, (P) File Applications, 1–1
function of, (P) National Char Set, NCS-7	definition, (U) Using VMS, 5-1
_IDENTITY conversion function, (P) National	
Char Set, NCS-8	Byte count quota
_NATIVE collating sequence, (P) National	See BYTCNT
Char Set, NCS-7	Byte count register
Built-in procedure	See MBA\$L_BCR
descriptions, (P) VAXTPU, 7–15 to 7–548	Byte data type, (P) MACRO, 8–1
functions listed, (P) VAXTPU, 7–1 to 7–15	BYTE directive, (P) MACRO, 6–14
name of as reserved word, (P) VAXTPU, 3–12	Byte dump, (U) DCL Dictionary, DCL1-175
occluded, (P) VAXTPU, 3–12	Byte limit
Built-in symbol, (P) Debugger, D-2	See BYTLM
Built-in value type, (P) Command Def, CDU-6,	BYTE mode, (P) Patch, PAT-16
CDU-24	Byte offset register, (P) Device Support (A), 14–13
Bulleted list	Byte order pattern, V5.5 New Features, A-10
See List	swapping, V5.5 New Features, A-20, A-21
Burst bar, (M) Maintaining VMS, 5-32	/BYTE qualifier, (P) Debugger, CD-59, CD-82
Burst page, (M) Maintaining VMS, 5-32	with ALIGN command, (P) Patch, PAT-38
file, (M) Maintaining VMS, 5-34	with DELETE command, (P) Patch, PAT-52
job, (M) Maintaining VMS, 5-32	with DEPOSIT command, (P) Patch, PAT-55,
Bus	PAT-57
device assignments, (P) Device Support (A),	with EVALUATE command, (P) Patch, PAT-59
12–10	with EXAMINE command, (P) Patch, PAT-62

/BYTE qualifier (cont'd) Cache (cont'd) disk volume information, (M) Maintaining with REPLACE command, (P) Patch, PAT-71 VMS, 3-9with SET MODE command, (P) Patch, PAT-76 memory, (P) File Applications, 3-12, 3-15, with VERIFY command, (P) Patch, PAT-90 Byte storage directive (.BYTE), (P) MACRO, 6-14 3-26Byte swap longword for file sharing, (P) File Applications, 3–14 for VME support, V5.5 New Features, A-34 for random processing, (P) File Byte swap routine Applications, 3-14 for storing index, (P) File Applications, for VME support, V5.5 New Features, A-34, 3-25Byte swap word process local, (P) File Applications, 3-9 for VME support, V5.5 New Features, A-35 relative to bucket size, (P) File byte\_signed data type, (P) Routines Intro, A-2t Applications, 3-25 tape, (P) I/O User's I, 6-8 BYTLM, V5.5 Release Notes, 2-13 BYTLM (buffered I/O byte count limit), (M) write-back volatile, (P) I/O User's I, 6-8 Setting Up VMS, 5-3; (M) Networking, 5-38; Cache control block, (P) Device Support (B), 1–83 (P) File Applications, 9-8; (P) Device Support CACHE keyword Error Log Utility (ERROR LOG), V5.5 New (A), 3–13 checking, (P) Device Support (A), E-5 Features, B-62 crediting, (P) Device Support (A), E-5; (P) /CACHE qualifier, (M) Mount, MOUNT-11 Device Support (B), 3-18 Caching, (P) System Services Intro, 13–13; (P) debiting, (P) Device Support (A), E-5; (P) Device Support (B), 1–75 Device Support (B), 3-12, 3-20 to 3-21, Calculator 3-22 to 3-23 hexadecimal mode, V5.5 New Features, B-48 BYTLM (buffered I/O byte count limit) quota, (P) octal mode, V5.5 New Features, B-48 System Services Intro, 7-3 Calendar limiting size of user's ACL buffer, (P) RMS. See DECwindows applications 14 - 3CALENDAR.SPLIT improvement, V5.5 Release using with \$GETJPI buffers, (P) System Notes, 3-31Services Ref, SYS-463 Call /BY\_NODE qualifier, (M) Monitor, MON-19 destination of X.25, (M) Networking, 2-35 /BY\_OWNER qualifier DLM incoming and outgoing, (M) Networking, as input file qualifier, (M) Backup, BCK-35 as output file qualifier, (M) Backup, BCK-36 outgoing from DTE, (M) Networking, 3-29 as output save-set qualifier, (M) Backup, testing for successful completion of, (P) System BCK-37 Services Intro, 2-14 EXCHANGE/NETWORK command, V5.5 New Callable interface, (P) VAXTPU, 4-1, 7-41 Features, E-18 /CALLABLE\_EDT qualifier, (P) Debugger, CD-134 /CALLABLE\_LSEDIT qualifier, (P) Debugger, C CD-134 C CALLABLE TPU qualifier, (P) Debugger, See VAX C CD-134 C2 environment, (M) Security, D-1 Callback data structure C2 security of widget Rdb/VMS compliance with, Dependability using in VAXTPU, (P) VAXTPU, 7-496 Handbook, 8-44 Callback routines Cable, (M) DECnet-VAX Guide, 1-2, 1-7 levels of, (P) VAXTPU, 4-9 Ethernet, (M) DECnet-VAX Guide, 1-6 Callbacks, (P) VAXTPU, 4-8 to 4-10 null modem, (M) DECnet-VAX Guide, 3-18 handling in EVE, (P) VAXTPU, 4-11 Cache CALL command, (U) Using VMS, 6-26; (U) buffer, (P) File Applications, 7-4 DCL Dictionary, DCL1-52 to DCL1-55; (P) for file sharing, (P) File Applications, 9-6 Debugger, 8-10, CD-10 global, (P) File Applications, 7-21 and ASTs, (P) Debugger, 9-16, CD-10 specifying as read-only, (P) File multiprocess program, (P) Debugger, 10-5 Applications, 7-22 vectorized program, (P) Debugger, 11-22 with multiple buffers, (P) File Applications, with DECwindows, (P) Debugger, 1-8 9-9

```
Call stack (cont'd)
Caller access mode, (P) RMS, 5-5
                                                        used to control symbol search, (P) Debugger,
%CALLER_TASK, (P) Debugger, 12-14
                                                            5-10, CD-166
Call frame, (P) MACRO, 9-64
                                                            with DECwindows, (P) Debugger, 1-9,
  condition handler, (P) Programming Resources,
                                                                1 - 26
                                                     CALL TIMER parameter, (M) Networking, 3-31
  displaying in SDA, (P) System Dump Analyzer,
                                                     CALL VALUE parameter
      SDA-79
                                                        for incoming X.25 calls, (M) Networking, 3-83
  field and buttons in main window
                                                     CALL_USER built-in procedure, (P) VAXTPU,
      with DECwindows, (P) Debugger, 1-9,
                                                         7-40 to 7-43
          1-21, 1-26
                                                     CAN$C_CANCEL, (P) Device Support (A), 11-8
  following a chain, (P) System Dump Analyzer,
                                                     CAN$C_DASSGN, (P) Device Support (A), 11-8
      SDA-79
                                                     Cancel
  removing from stack, (P) System Services Ref.
                                                        asynchronous delivery and exception handlers,
      SYS-655
                                                            (P) DECthreads, pthread-91
CALLG (Call Procedure with General Argument
                                                        delivery, (P) DECthreads, pthread-23
   List) instruction, (P) MACRO, 9-65
                                                        enabling and disabling asynchronous delivery
  example, (P) System Services Intro, 2-10
                                                            of, (P) DECthreads, pthread-91
  RTL routine to access, (P) RTL Library,
                                                        enabling and disabling delivery of, (P)
      LIB-23
                                                            DECthreads, pthread-93
  using MACRO, (P) System Services Intro, 2-9
                                                        obtaining noncancelable versions of cancelable
Call handler
                                                            routines, (P) DECthreads, pthread-93
  server module, (M) Networking, 2-35
                                                        possible dangers of disabling, (P) DECthreads,
Calling convention, (P) RTL Math, 1-2
                                                            pthread-93
Calling sequence, (P) Routines Intro, 2-4; (P)
                                                        requesting delivery of, (P) DECthreads,
    RMS, 2-4
                                                            pthread-103
Calling services, (P) RMS, 1-1
                                                        sending to a thread, (P) DECthreads,
Calling standard, (P) Routines Intro, 2–1; (P)
                                                            pthread-23
    RTL Intro, 1–1, 3–1
                                                     Cancelability
Call-in-progress count, (P) Modular Procedures,
                                                        asynchronous, (P) DECthreads, pthread-91
    3 - 24
                                                        general, (P) DECthreads, pthread-93
CALL MASK parameter
                                                     CANCEL ALL command, (P) Debugger, CD-15
  for incoming X.25 calls, (M) Networking, 3-83
                                                     CANCEL BREAK command, (P) Debugger, 3-15,
/CALL qualifier, (P) Debugger, CD-17, CD-30,
                                                         CD-17
    CD-125, CD-184, CD-258
                                                     CANCEL command, (U) DCL Dictionary,
Call redirection facility, (M) Networking, 3-84
                                                         DCL1-56 to DCL1-57; License Management,
CALLS (Call Procedure with Stack Argument List)
                                                         LMF-56 to LMF-58
   instruction, (P) MACRO, 9-67
                                                     Cancel Ctrl/O option
  argument, (P) System Services Intro, 2-6
                                                        See RAB$V CCO option
  example, (P) System Services Intro, 2-9
                                                     CANCEL DISPLAY command, (P) Debugger,
  using MACRO, (P) System Services Intro, 2-9
                                                         7-12, CD-20
/CALLS qualifier, (P) Debugger, 12-27, CD-152,
    CD-246
                                                     Cancel I/O bit
Call stack
                                                        See UCB$V_CANCEL
  See also Scope
                                                     Cancel I/O routine, (P) System Dump Analyzer,
  displaying, (P) Debugger, 2-13, 9-12, CD-209,
                                                         SDA-99; (P) Device Support (A), 1-4, 9-8,
      CD-241
                                                         11-6 to 11-9; (P) Device Support (B), 1-30
      with DECwindows, (P) Debugger, 1–23
                                                        address, (P) Device Support (A), 6-4, 11-1; (P)
  removing frame from, (P) System Services Ref.
                                                            Device Support (B), 4-4
      SYS-655
                                                        context, (P) Device Support (A), 11-7 to 11-8;
  unwinding, (P) System Services Intro, 11-12
                                                            (P) Device Support (B), 4-4
  used to control instruction display, (P)
                                                        device dependent, (P) Device Support (A), 11-9
      Debugger, 7–9, CD–166
                                                        device independent, (P) Device Support (A),
      with DECwindows, (P) Debugger, 1-9,
                                                            11-8 to 11-9
                                                        entry point, (P) Device Support (B), 4-4
  used to control source display, (P) Debugger,
                                                        exit method, (P) Device Support (B), 4-5
      7-6, CD-166
                                                        flushing ASTs in, (P) Device Support (B), 3-4
      with DECwindows, (P) Debugger, 1-9,
                                                        for connect to interrupt facility, (P) Device
          1 - 21
                                                            Support (A), 19-8, 19-10, 19-18 to 19-19
```

Cancel I/O routine (cont'd) Capability field (cont'd) input, (P) Device Support (B), 4-5 used by SMG, (P) RTL Screen Management, of CONINTERR.EXE, (P) Device Support (A), 5-2219–12, 19–18 user-defined renditions, (P) RTL Screen of SCSI third-party class driver, (P) Device Management, 5–13 Support (A), 17-28 Capacity diagrams register usage, (P) Device Support (B), 4-4 system kernel, Dependability Handbook, 4–11 synchronization requirements, (P) Device Capacity license Support (B), 4-4 See Availability license when unneeded, (P) Device Support (A), 11-8 Capacity planning CANCEL IMAGE command, (P) Debugger, 5–14, service from Digital, Dependability Handbook, 10 - 2Canceling a thread Capitalization, (U) DSR Ref, 2-45 See Thread, canceling See also Changing case Canceling characteristics on a queue, (M) CAPITALIZE command, (U) Using VMS, 8-30 Maintaining VMS, 5-26 EVE editor, (U) Text Processing, 1-46 Cancellation Capitalize flag, (U) DSR Ref, 3-8 of detached process wakeup request, (U) DCL default, (U) DSR Ref, 3-8 Dictionary, DCL2-55 recognizing, (U) DSR Ref. 2-45 of logical name assignments, (U) DCL CAPITALIZE WORD command, (U) Using VMS, Dictionary, DCL1-104 8–36; (U) EVE Ref, EVE–23 of subprocess wakeup request, (U) DCL formatting text with (EVE), (U) Text Dictionary, DCL2-55 Processing, 1–39 CANCEL MODE command, (P) Debugger, CD-23; using with search string (EVE), (U) Text (P) Patch, PAT-40 Processing, 1-20CANCEL MODULE command, (P) Debugger, 5-7, Captive account CD-24; (P) Patch, PAT-41 and Ctrl/Y, (M) Security, 5-45 CANCEL PATCH AREA command, (P) Patch, and locked password, (M) Security, 5-45 PAT-19, PAT-43 as target for penetrators, (M) Security, 5-44 CANCEL RADIX command, (P) Debugger, 4–11, creation of, (M) Security, 5-45 CD-26defined, (M) Security, 3-7 CANCEL SCOPE command, (P) Debugger, 5-11, disabling mail and notification of delivery, (M) CD-27; (P) Patch, PAT-44 Security, 5-21 CANCEL SOURCE command, (P) Debugger, 6-3, example of production account, (M) Security, 5 - 37CANCEL TRACE command, (P) Debugger, 3-15, privileged, (M) Security, 5-35 CD-30CAPTIVE flag (UAF), V5.5 Release Notes, 2–45 CANCEL TYPE/OVERRIDE command, (P) new interpretation, V5.5 Release Notes, 2-44 Debugger, 4–24, CD–33 Card CANCEL WATCH command, (P) Debugger, 3-15, decks, (M) Maintaining VMS, 5-94 CD-34defective, (M) Maintaining VMS, 5-95 CANCEL WINDOW command, (P) Debugger, submitting batch job on, (U) DCL Dictionary, 7-14. CD-35 DCL1-266 \$CANDEF macro, (P) Device Support (A), 11-8 Card reader, (P) Device Support (B), 1-76 Capability card punch combinations, (P) I/O User's I, 2-1 See also Vector capability 026 card reader code, (P) I/O User's I, 2-2, 2-8 defined, V5.5 New Features, B-8 029 card reader code, (P) I/O User's I, 2-2, 2-8 Capability field, (P) RTL Screen Management, 5-3 code, (P) I/O User's I, 2-8 Boolean, (P) RTL Screen Management, 5-4 device characteristics, (P) I/O User's I, 2-5 characters with normal ASCII value, (P) RTL device driver, (P) Device Support (A), 9-6 to Screen Management, 5-15 creating, (P) RTL Screen Management, 5-17 driver, (P) I/O User's I, 2-1 delimiters, (P) RTL Screen Management, 5-3 end of batch job, (U) DCL Dictionary, nonprinting characters, (P) RTL Screen DCL1-208 Management, 5-14 end-of-file status, (P) I/O User's I, 2-2 numeric, (P) RTL Screen Management, 5-6 error recovery, (P) I/O User's I, 2-3 padding, (P) RTL Screen Management, 5-15 failure categories, (P) I/O User's I, 2-4 string, (P) RTL Screen Management, 5-7

Card reader (cont'd)	Carry condition code (C), (P) MACRO, 8-15
features, $(P) I/O User's I, 2-1$	Case
for batch job command procedures, (P) I/O User's I, 2-2	using upper and lower, (P) Modular
function codes, $(P) I/O User's I$ , 2–5, A–2	Procedures, A–6
function modifiers	CASE
IO\$M_BINARY, (P) I/O User's I, 2–1, 2–6	See also COHESION
IO\$M_PACKED, (P) I/O User's I, 2-1, 2-6	See also DECset
I/O functions	DECset products, Dependability Handbook,
IO\$_READLBLK, (P) I/O User's I, 2-6	3–11
IO\$_READPBLK, (P) I/O User's I, 2–6	writing custom applications, Dependability
IO\$_READVBLK, (P) I/O User's I, 2-6	Handbook, 3–10
IO\$_SENSEMODE, (P) I/O User's I, 2–7	CASEB (Case Byte) instruction, (P) MACRO,
IO\$_SETCHAR, (P) I/O User's I, 2–10	9–56
IO\$_SETMODE, (P) I/O User's I, 2-8	Case control flags
I/O status block, (P) $I/O$ User's $I$ , 2–11	capitalize flag, (U) DSR Ref, 3–8
operating, (M) Maintaining VMS, 5–93, 5–95	lowercase flag, (U) DSR Ref, 3–13
read function, (P) I/O User's I, 2–6	uppercase flag, (U) DSR Ref, 3-20
read modes, (P) I/O User's I, 2–1	Case-exact search, (U) EVE Ref, 1–2 CASEL (Case Long) instruction, (P) MACRO,
sense mode function, (P) I/O User's I, 2-7	9–56
set mode function, (P) I/O User's I, 2-7	CASE macro, (P) Device Support (B), 2–6
set translation mode, (P) I/O User's I, 2-2	example, (P) Device Support (B), 2-6
status returns, $(P) I/O User$ 's $I$ , $A-2$	Case sensitivity, (P) Debugger, 9–9
supported device, (P) I/O User's I, 2-1	MACRO global symbol definitions, V5.5 New
SYS\$GETDVI returns, (P) I/O User's I, 2-5	Features, 19–2
tending, (M) Maintaining VMS, 5-95	of widget names, (P) VAXTPU, 7–74
translation modes, (M) Maintaining VMS, 5-95	search strings (EVE), (U) Text Processing, 1–27
Carriage control, (P) Convert, CONV-2; (P)	specifying, V5.5 New Features, 19–2, 19–6
$Device\ Support\ (B),\ 1 ext{}74$	with REPLACE command (EVE), (U) Text
converting formats, (P) Convert, CONV-2	Processing, 1–34
effect of CARRIAGE_RETURN keyword, (P)	CASE statement, (P) VAXTPU, 3-23 to 3-25
File Def Language, FDL-33	Case study
formats listed, (P) Convert, CONV-2	lights out data center, Dependability
line printer, (P) I/O User's I, 5–6	Handbook, 11–1 to 11–24
terminal, (P) I/O User's I, 8–36	using DCM, Dependability Handbook,
types of, (U) Using VMS, 2-5	11–22
Carriage control device, (P) File Def Language,	using DECalert, Dependability Handbook,
FDL-33	11–15
Carriage control option CARRIAGE_RETURN, (M) Exchange,	using DECmcc, Dependability Handbook,
EXCH-10	11–22
FORTRAN, (M) Exchange, EXCH-10	using DECnet Monitor, Dependability
NONE, (M) Exchange, EXCH-10	Handbook, 11–21
Carriage return	using ETHERnim, Dependability
keypad mode, (U) EDT Ref, EDT-42, EDT-90	Handbook, 11–21
Carriage return option	using LAN Traffic Monitor, Dependability
See FAB\$V_CR option	Handbook, 11–21 using Storage Library System,
CARRIAGE_CONTROL attribute, (P) File Def	Dependability Handbook, 11–23
Language, FDL-33	using VAXcluster Console System,
CARRIAGE_CONTROL secondary attribute, (P)	Dependability Handbook, 11–22
File Applications, 4–29	using VAXsimPLUS, Dependability
CARRIAGE_RETURN keyword, (P) File Def	Handbook, 11–23
Language, FDL-33	Case-style error handler, (P) VAXTPU, 3–28 to
Carrier sense, multiple access with collision detect	3–31
	CASEW (Case Word) instruction, (P) MACRO,
See CSMA/CD Corrier sense on Ethernet (M) Naturating 1.7	9–56
Carrier sense on Ethernet, (M) Networking, 1–7	CASE_SENSITIVE option
	in linker option file, <i>V5.5 New Features</i> , 19–1

CDU (cont'd) Catastrophic failures See Command Definition Utility in hardware components, Dependability Cell, (P) Analyze/RMS\_File, ARMS-2; (P) File Handbook, 9-15 Def Language, FDL-35 Catchall handler, (P) Programming Resources, fixed-length, (P) File Applications, 3-12 9-5, 9-13; (P) Debugger, 9-13 CELL AND RECORD structure, (P) File CATCH exception, (P) DECthreads, 4-5 Applications, 10–16 CATCH\_ALL exception, (P) DECthreads, 4-9 .CENTER command, (U) Text Processing, 3-3; CBT option, (P) File Def Language, FDL-6, (U) DSR Ref, 2-11 FDL-18 CENTER LINE command, (U) Using VMS, 8-30, CCB\$B\_AMOD, (P) Device Support (B), 3–103 8-36; (U) EVE Ref, EVE-24 CCB\$L\_UCB, (P) Device Support (A), 4-5 EVE editor, (U) Text Processing, 1-46 CCB (channel control block), (P) Device Support formatting text with (EVE), (U) Text (A), 1-6, 4-5; (P) Device Support (B), 1-11 to Processing, 1–39 Central processing unit address, (P) Device Support (B), 3-103 displaying in SDA, (P) System Dump Analyzer, See CPU SDA-76 CF keyword CCITT recommendation, (M) Networking, 1-3, description, (P) National Char Set, NCS-15 1-13Chaining, (P) RTL Library, 2–5 C compiler vector instructions, (P) MACRO, 10-22 generating reentrant code, (P) DECthreads, Change bars, (U) DSR Ref, 2-26, 4-7 CHANGE command, (U) Using VMS, 8-52; (U) CCO option, (P) File Def Language, FDL-14 EDT Ref, EDT-122 **CDA** Base Services CHANGE DIRECTION command, (U) EVE Ref, get and put routines, V5.5 Release Notes, 3-10 EVE-25 to EVE-26 CDA toolkit moving the cursor with (EVE), (U) Text new qualifier, V5.5 Release Notes, 1-16 Processing, 1-8 **CDA Viewer** Change Direction key EVE editor, (U) Text Processing, 1-30 See also DECwindows in DECwindows, V5.5 New Features, B-46 CHANGE MODE command, (U) EVE Ref. new processing options EVE-27 to EVE-28 orientation radio box, V5.5 New Features, EVE editor, (U) Text Processing, 1-12 B-47Change mode handler, (P) System Services Intro, Scale Factor, V5.5 New Features, B-47 11-5Use Bitmap Widths toggle button, V5.5 declaring, (P) System Services Ref, SYS-135 New Features, B-47 CHANGES attribute, (P) File Def Language, Use Comments toggle button, V5.5 New FDL-26 /CHANGE\_BARS qualifier, (U) DSR Ref, 4-7 Features, B-47 Use Fake Trays toggle button, V5.5 New CHANGE\_CASE built-in procedure, (P) VAXTPU, Features, B-48 7-44 to 7-46 Watch Progress toggle button, V5.5 New Changing case Features, B-48 keypad mode, (U) EDT Ref, EDT-26 PostScript file support, V5.5 New Features, lower, (U) DSR Ref, 2-50, 3-13 B-46nokeypad mode, (U) EDT Ref, EDT-266, EDT-267, EDT-268 CDD/Repository, Dependability Handbook, 8-58 CDDB (class driver data block), (P) System Dump upper, (U) DSR Ref, 2-57, 3-8, 3-20 Analyzer, SDA-99 Changing print characteristics, V5.5 Release /CDD\_PATH\_NAME qualifier, (U) Sort/Merge, Notes, 2-9 SORT-50 Changing print forms, V5.5 Release Notes, 2-9 **CDROM** Changing print stock, V5.5 Release Notes, 2-9 Changing scheduling priority for a batch or print See Disk CDRP (class driver request packet), (P) System job, (M) Maintaining VMS, 5-80 Dump Analyzer, SDA-87, SDA-148 Changing the DEFAULT form, (M) Maintaining CDT (connection descriptor table), (P) System VMS, 5-43Dump Analyzer, SDA-87, SDA-148 Channel, (M) Networking, 1-5, 1-8, 8-12; (P) CDT argument, (P) RMS, B-16 RTL Library, 2–23; (P) Device Support (A), CDU

See also Process I/O channel

Channel (cont'd)	Character (cont'd)
assigning for logical link, (M) Networking,	literal translation of, (U) DSR Ref, 2-41
8–12, 8–21, 8–34	pad, (P) Convert, CONV-18
assigning I/O, (P) System Services Intro, 7–12;	printable, V5.5 Release Notes, 1-1
(P) System Services Ref, SYS-31	terminal terminator, (P) I/O User's I, 8–28
canceling I/O, (P) System Services Ref, SYS-48 deassigning, (M) Networking, 8-15, 8-21; (P)	Character case, (P) Librarian, LIB-2 Character-cell measuring system
System Services Intro, 7–18	converting to coordinate system, (P) VAXTPU,
information, Obsolete Features, 2–12	7–50
input/output, (P) Programming Resources, 7–45	Character data
_NET:, (M) Networking, 8-27	See also Character string
Channel access mode protection option, (P) RMS,	alphanumeric, (U) Using VMS, 5–7
5–5	expression, (U) Using VMS, 5-12
Channel access mode subfield	nonprintable, (U) Using VMS, 5–8
See FAB\$V_CHAN_MODE option	special, (U) Using VMS, 5–8
Channel control block	Characteristic
See CCB	See also Device characteristics
channel data type, (P) Routines Intro, A-2t	See also Queue characteristics changing, <i>V5.5 Release Notes</i> , 2–9
Channel index number, (P) Device Support (A),	getting information about
4-5, 11-8; (P) Device Support (B), 3-68, 3-103, 4-5	asynchronously, (P) System Services Ref,
CHANNEL parameter	SYS-323
for PVC, (M) Networking, 3–47	synchronously, (P) System Services Ref,
/CHANNEL qualifier, (P) System Dump Analyzer,	SYS-365
SDA-131	CHARACTERISTICS display type, (M)
Channel request block	Networking, 3–99
See CRB	Characteristics of created condition variable
CHANNELS parameter	specifying, (P) DECthreads, pthread-29
for DTE, (M) Networking, 3–29	Characteristics of created mutex specifying, (P) DECthreads, pthread-70
Channel wait queue	Characteristics of created object
See Device controller data channel wait queue	specifying, (P) DECthreads, cma-15, pthread-3
Chapter	Characteristics of dependable systems,
formatting, (U) DSR Ref, A-3	Dependability Handbook, 1–12
example, (U) DSR Ref, 2–18	fault tolerance, Dependability Handbook, 1–12
header, (U) DSR Ref, 2–18	recoverability, Dependability Handbook, 1–12
numbering, (U) DSR Ref, 2–13, 2–88 .CHAPTER command, (U) Using VMS, 9–14; (U)	reliability, Dependability Handbook, 1–12
DSR Ref, 2–13	Character-oriented output, (P) RTL Screen
Chapter format (DSR), (U) Text Processing, 3–33	Management, 2–8 Character set (II) FDT Ref. A. 1. (P) WYTDU
Chapter number	Character set, (U) EDT Ref, A-1; (P) VAXTPU,
letter (DSR), (U) Text Processing, 3-33	See also DEC Multinational Character Set
Roman numeral (DSR), (U) Text Processing,	See also Multinational Character Set
3–33	See also National Replacement Character Set
CHAR, $(U)$ EDT Ref, EDT-25	See also SPECINS
See also Cursor movement	ASCII, (U) Using VMS, A-1; (M) Terminal
Character	$Fallback, { m TFU-1}, { m TFU-2}$
auto-compose, (M) Terminal Fallback, TFU-22	DEC Multinational, (U) Using VMS, A-5
BELL, (M) Terminal Fallback, TFU-23 7-bit, (M) Terminal Fallback, TFU-22	incompatible, (M) Terminal Fallback, TFU-1
8-bit, (M) Terminal Fallback, TFU-22	in source statement, (P) MACRO, 3-1
converting, (M) Terminal Fallback, TFU-1,	special characters, (P) MACRO, C-6
TFU-2, TFU-7	table, (P) MACRO, A-1
decimal value, (U) EDT Ref, A-1	terminal lowercase, (P) I/O User's I, 8–21 Character specifier
formatting on line printer, $(P) I/O User's I$ ,	with circumflex (^), (U) EDT Ref, EDT–269
5–2	Character string, (U) Using VMS, 5–7; (P)
how to compose, (M) Terminal Fallback,	Routines Intro, A-2t
TFU-2 to TFU-6	See also String

Character string (cont'd)	Checklists
as arguments to linker options	evaluation of data centers (cont'd)
case-sensitivity, V5.5 New Features, 19-1	suggested use of, Dependability Handbook,
comparison operators in expression, (U) Using	A-1
VMS, 5-11	CHECK NOT ECO command, (P) Patch, PAT-47
concatenation, (U) Using VMS, 5-12	Checkpointing RSX-11S tasks, (M) Networking,
creating, (U) Using VMS, 5–8	4-24
data type, (P) MACRO, 8-7	/CHECK qualifier, (P) File Applications, 10–1;
evaluation of, (U) Using VMS, 5-3	(P) Analyze/RMS_File, ARMS-13
expression, (U) Using VMS, 5-12	limitation, (P) Analyze/RMS_File, ARMS-14,
finding in file, (U) DCL Dictionary, DCL2–81	ARMS-20
instructions, (P) MACRO, 9–126	using with /OUTPUT qualifier, (P)
length, (P) MACRO, 6–64	Analyze/RMS_File, ARMS_16
multiple string values in an expression, $(U)$ Using VMS, 5-12	with wildcard characters, (P) Analyze/RMS_ File, ARMS-10
passing to command procedure, (U) Using	Check report, (P) File Applications, 10–1, 10–5
VMS, 6–7	Checksum error
reduction, (U) Using VMS, 5-12	avoiding, License Management, LMF-7,
specifying case for search, (U) DCL Dictionary,	LMF-49, LMF-55, LMF-97
DCL2-81	/CHECK_SEQUENCE qualifier, (U) Sort/Merge,
substring replacement in, (U) Using VMS,	SORT-12, SORT-51
5-16	CHG (change) option
symbol assignment, (U) DCL Dictionary, DCL1–5	in XAB\$B_FLG field, (P) RMS, B-21
symbol substitution in, (U) Using VMS, 5–6	Child directory DNS, V5.5 New Features, C-6
used as symbol, (U) Using VMS, 5–2	Children
values stored in, (U) Using VMS, 5-7	of widget
'Character' string constant parameter to	fetching in VAXTPU, (P) VAXTPU, 7–210
GET_INFO, (P) VAXTPU, 7–171	"children" string constant parameter to GET_
Character string routine, (P) RTL Library, 2–14	INFO, (P) VAXTPU, 7–210
LIB\$CHAR, (P) RTL Library, LIB-25	CHME (Change Mode to Executive) instruction,
Character string translation routine, (P) RTL	(P) MACRO, 9–190
Library, 2–14	CHMK (Change Mode to Kernel) instruction, (P)
Character symbol, (U) EDT Ref, A-1	Device Support (A), 4-1; (P) MACRO, 9-190
Character_cell display, (P) VAXTPU, 5-8	CHMS (Change Mode to Supervisor) instruction,
CHAR command, (U) Using VMS, 8-54, 8-63	(P) MACRO, 9–190
CHAR keypad function	CHMU (Change Mode to User) instruction, (P)
EDT, (U) Text Processing, 2–11	MACRO, 9-190
char_string data type, (P) Routines Intro, A-2t	CHNGCASE keypad function
CHECK ECO command, (P) Patch, PAT-45,	EDT, (U) Text Processing, 2–21
PAT-46	\$CHOICES\$ buffer, (U) EVE Ref, EVE-43
Checklists	with input files, (U) EVE Ref, 1–6
evaluation of data centers	with journal files, (U) EVE Ref, 1–22
application software, Dependability	with NEXT WINDOW command, (U) EVE Ref,
Handbook, A-18	EVE-94
compliance summary table, Dependability	with PREVIOUS WINDOW command, (U)
Handbook, A-21	EVE Ref, EVE-104 with RESET command, (U) EVE Ref, EVE-122
environmental management, Dependability Handbook, A-5	Choices buffer
general planning, Dependability	with journal files (EVE), (U) Text Processing,
Handbook, A-3	1–38
in SYS\$EXAMPLES, Dependability	CI (computer interconnect), (M) System
Handbook, A-1	Management Intro, 6-4; (M) VAXcluster, 1-3,
organization, Dependability Handbook,	C-1; (M) DECnet-VAX Guide, 1–8
A–8	analyzing error log entry, (M) VAXcluster,
security, Dependability Handbook, A-10	C-15
service and support, Dependability	as DECnet line, (M) Networking, 5-7
Handbook, A-20	as VAXcluster connector, (M) Networking, 1–11

CT (	
CI (computer interconnect) (cont'd)	Circuit (cont'd)
as VAXcluster data link, (M) Networking, 1–11,	cost, $(M)$ DECnet-VAX Guide, 1-3; $(M)$
2–27	Networking, 2-29, 3-68
cable, (M) Networking, 1–11	counters, (M) Networking, 3-51; (M) Network
cable repair, (M) VAXcluster, C-14	Control Program, A-1, A-3
circuit, (M) Networking, 2-6	database, (M) Networking, 3-1
circuit device, (M) Networking, 2–10	database guidelines, (M) Security, 8–6
communication path, (M) VAXcluster, C-10	DDCMP, (M) Networking, 1–8, 2–6, 3–37
configuration, (M) Networking, 1–5;	definition, $(M)$ Networking, 2-6
Dependability Handbook, 6–21	detecting failure, (M) DECnet-VAX Guide, 4–2
configuring multiple adapters, (M) VAXcluster,	determining cost, (M) Networking, 3–68
2–9	determining status, (M) DECnet-VAX Guide,
connected computer	4–2
adding, (M) VAXcluster, 7–7	device name, (M) Networking, 3-35
failure to boot, (M) VAXcluster, C-3	devices, (M) Network Control Program, A-15,
failure to join the cluster, (M) VAXcluster,	A-16
C-6	controllers, $V5.5 New Features$ , B-105
connection, (M) DECnet-VAX Guide, 3–11	DEMNA controller, V5.5 New Features,
controller, (M) Networking, 2–10	B-105
device-attention entry, (M) VAXcluster, C-16	Second Generation Ethernet Controller
driver, (M) Networking, 2-10	(SGEC), V5.5 New Features, B-105
end node, (M) Networking, 2-27	displaying counter information with NCP, (M)
end node backup circuit, (M) Networking, 2-28,	DECnet-VAX Guide, 4–1
3–72	DLM, (M) Networking, 1-1, 2-12, 3-37, 3-48
error log entry, (M) VAXcluster, C-21	dynamic asynchronous, (M) Networking, 2–8
formats, (M) VAXcluster, C-16	Ethernet, (M) Networking, 1–7, 2–6, 3–36,
line, (M) Networking, 2–13	3–37
line device, (M) Networking, 2–20	identification, (M) Networking, 3-34, 3-36
	identifier, (M) DECnet-VAX Guide, 3–32
logged message entry, (M) VAXcluster, C-19	
MSCP server accesses shadow sets, (M)	logging failures, (M) DECnet-VAX Guide, 4-4
VAXcluster, 3–8	loopback test, (M) DECnet-VAX Guide, 4-7;
node addressing, (M) Networking, 3–36	(M) Networking, 7–6
port	multiaccess, (M) Networking, 2-6
controller, (M) VAXcluster, 1-3	multipoint control, (M) Networking, 2-6
loopback datagram facility, (M) VAXcluster,	multipoint tributary, (M) Networking, 2–6
C-12	name, (M) Networking, 2–7
polling, (M) VAXcluster, C-9	parameters, $(M)$ Networking, 3–37
verifying function, (M) VAXcluster, C-11	point-to-point, (M) Networking, 2-6
router, (M) Networking, 2–27	polling, $(M)$ Networking, 3-42
using multiple CI interfaces, V5.5 New	service, (M) Networking, 4-2
Features, B-55	service operations, (M) Networking, 3-40
using multiple STAR couplers, V5.5 New	setting base priority, (M) Networking, 3-43
Features, B–55	states, $(M)$ Networking, 2-7, 3-40; $(M)$
CI-750 device, (M) Networking, 2-10, 2-13	Network Control Program, A-16 to A-18
CI-780 device, (M) Networking, 2-10, 2-13	static asynchronous, (M) Networking, 1–10
CIBCA device, (M) Networking, 2–10	synchronous DDCMP devices, (M) Networking,
CIBCI device, (M) Networking, 2–10	2–8
CIF option, (P) File Def Language, FDL-19	timers, (M) Networking, 3-41
\$CINDEF macro, (P) Device Support (A), 19–10	transitions, (M) Network Control Program,
Circuit, (M) System Management Intro, 7-1; (M)	A-16 to A-18
DECnet-VAX Guide, 1–2; (M) Networking,	types, $(M)$ Networking, 3–37
1–1, 1–20	verification, $(M)$ Security, 8–6; $(M)$
•	Networking, 3–41
access control, (M) DECnet-VAX Guide, 3–36	<del>-</del> '
asynchronous DDCMP devices, (M)	virtual, (M) Networking, 1-1, 1-3, 1-7, 1-8
Networking, 2–8, 5–8	X.25, (M) Networking, 2–6, 2–12, 3–37, 3–47
CI, (M) Networking, 2–6	Circuit cost, V5.5 Release Notes, 2–16
commands, $(M)$ Networking, 3–34	

Circuit counter summary, (M) Network Control Program, A-1, A-3 Circuit-level loopback test, (M) Networking, 7-1 Ethernet, (M) Networking, 7-9 Circuit level redundancy, Dependability Handbook, 4-4 CIRCUITS class adding, (M) Show Cluster, SHCL-23 fields belonging to, (M) Show Cluster, SHCL-33 to SHCL-34 removing, (M) Show Cluster, SHCL-61 Circuit timer, (M) LATCP, LAT-28 Circumflex (^), (U) EDT Ref, EDT-269; (P) Debugger, 4-8, 4-13, D-5 CIXCD, V5.5 Release Notes, 2-56 Class of widget fetching in VAXTPU, (P) VAXTPU, 7-214 of widget resource fetching in VAXTPU, (P) VAXTPU, 7-215 Class driver, (P) Device Support (A), 17-4 See also Terminal class driver SCSI template, (P) Device Support (A), 17-9 Class driver data block See CDDB Class driver entry vector table, (P) Device Support (B), 1-34Class driver request packet See CDRP Class driver vector table, (P) Device Support (A), 18-5 to 18-6; (P) Device Support (B), 1-89 address, (P) Device Support (A), 18-9; (P) Device Support (B), 2-8 relocating, (P) Device Support (B), 2-7 Class-name qualifier, (M) Monitor, MON-2 /ALL, (M) Monitor, MON-38 /AVERAGE, (M) Monitor, MON-38 /CPU, (M) Monitor, MON-61 /CURRENT, (M) Monitor, MON-38 /ITEM, (M) Monitor, MON-46, MON-78 /MAXIMUM, (M) Monitor, MON-38 /MINIMUM, (M) Monitor, MON-38 /PERCENT, (M) Monitor, MON-46 /TOPBIO, (M) Monitor, MON-71 /TOPCPU, (M) Monitor, MON-71 /TOPDIO, (M) Monitor, MON-71 /TOPFAULT, (M) Monitor, MON-71 Class of data, (M) Show Cluster, SHCL-2 adding to report, (M) Show Cluster, SHCL-7 belonging to each window, (M) Show Cluster, SHCL-3 description, (M) Show Cluster, SHCL-2 removing, (M) Show Cluster, SHCL-9 "class" string constant parameter to GET\_INFO, (P) VAXTPU, 7-214

component classes, (M) Monitor, MON-2

Class type (cont'd) system classes, (M) Monitor, MON-2 CLASS CTRL INIT macro, (P) Device Support (A), 18–12; (P) Device Support (B), 1–89, 2–7 CLASS\_DDT vector table entry, (P) Device Support (A), 18-19 CLASS\_DISCONNECT service routine, (P) Device Support (A), 18-19 CLASS\_DS\_TRANS service routine, (P) Device Support (A), 18-13, 18-20 CLASS\_FORK service routine, (P) Device Support (A), 18-14, 18-20 CLASS\_GETNXT service routine, (P) Device Support (A), 18-20, 18-21; (P) Device Support (B), 1–89, 2–8 address, (P) Device Support (A), 18-9 Class Name identifier. V5.5 New Features, C-41 Class\_Name\_Str identifier, V5.5 New Features, CLASS\_POWERFAIL service routine, (P) Device Support (A), 18-13, 18-22 CLASS\_PUTNXT service routine, (P) Device Support (A), 18–18, 18–21; (P) Device Support (B), 1-89, 2-8 address, (P) Device Support (A), 18-9 CLASS\_READERROR service routine, (P) Device Support (A), 18-18, 18-22 CLASS\_SET\_LINE service routine, (P) Device Support (A), 18–13 CLASS SETUP UCB service routine, (P) Device Support (A), 18-12, 18-22 CLASS\_UNIT\_INIT macro, (P) Device Support (A), 18-9, 18-12, 18-19; (P) Device Support (B), 2-8Class\_Version identifier, V5.5 New Features, C-41 summary of, (P) Command Def. CDU-19 to CDU-22 Cleanup routine establishing, (P) DECthreads, pthread-27 executing, (P) DECthreads, pthread-25 CLEAR CIRCUIT command, (M) Network Control Program, NCP-15 CLEAR command, (U) EDT Ref, EDT-124; (M) DECnet-VAX Guide, 3-13 to delete configuration database entries, (M) DECnet-VAX Guide, 3-33 CLEAR EXECUTOR command, (M) Networking, 3-19; (M) Network Control Program, NCP-18 CLEAR EXECUTOR NODE command, (M) Network Control Program, NCP-22 Clearinghouse, V5.5 New Features, C-13 CLEAR LINE command, (M) Network Control Program, NCP-23 CLEAR LOGGING command, (M) Network Control Program, NCP-26

Class type

```
CLEAR LOGGING EVENTS command, (M)
                                                   "client_message" string constant parameter to
   Network Control Program, NCP-28
                                                       GET_INFO, (P) VAXTPU, 7-197
CLEAR LOGGING NAME command, (M)
                                                   "client_message_routine" string constant
   Network Control Program, NCP-30
                                                       parameter to GET_INFO, (P) VAXTPU, 7-197
CLEAR MAIN command
                                                   Clipboard
  EDT editor, (U) Text Processing, 2-35
                                                      See also SET CLIPBOARD command
CLEAR MODULE X25-ACCESS command, (M)
                                                      commands and keys affected, (U) EVE Ref.
   Network Control Program, NCP-31
                                                          EVE-152
CLEAR MODULE X25-PROTOCOL command,
                                                      fetching data from, (P) VAXTPU, 7-149
   (M) Network Control Program, NCP-33
                                                      overview of, (P) VAXTPU, 7-149
CLEAR MODULE X25-SERVER command, (M)
                                                      reading data from, (P) VAXTPU, 7-295
   Network Control Program, NCP-36
                                                      writing data to, (P) VAXTPU, 7-540
CLEAR MODULE X29-SERVER command, (M)
                                                   CLI routines, (P) Command Def, CDU-1
   Network Control Program, NCP-36
                                                      See also Command string
CLEAR NODE CIRCUIT command, (M) Network
                                                      example of use in FORTRAN program, (P)
    Control Program, NCP-43
                                                          Utility Routines, CLI-2
CLEAR NODE command, (M) Networking, 3–19,
                                                      introduction, (P) Utility Routines, CLI-1
    7-3; (M) Network Control Program, NCP-39
                                                      list of, (P) Utility Routines, CLI-1
CLEAR OBJECT command, (M) Network Control
                                                      types of, (P) Command Def, CDU-17
   Program, NCP-44
                                                      use of, (P) Command Def, CDU-45, CDU-46
/CLEAR qualifier, (P) Debugger, CD-67
                                                      when to use, (P) Utility Routines, CLI-1
Clear search string
                                                   CLI symbol, (P) RTL Library, LIB-343
  See CLSS
                                                      deleting, (P) RTL Library, LIB-116
CLEAR TIMER parameter, (M) Networking, 3-32
                                                      getting value of, (P) RTL Library, LIB-219
CLI$DCL_PARSE routine, (P) Command Def,
                                                      RTL routines, (P) RTL Library, LIB-116,
   CDU-17, CDU-46; (P) Utility Routines,
                                                          LIB-219
   CLI-6
                                                   CLISYMTBL parameter, (M) System Generation,
CLI$DISPATCH routine, (P) Command Def,
   CDU-17, CDU-46; (P) Utility Routines,
                                                   /CLITABLES qualifier, (M) Security, 5-31, 5-46
                                                   Clock
CLI$GET_VALUE routine, (P) Command Def.
                                                      See also DECwindows
   CDU-17, CDU-45, CDU-46; (P) Utility
                                                      See also Interval clock
   Routines, CLI-10
                                                      menu bar, V5.5 New Features, B-48
CLI$PRESENT routine, (P) Command Def.
                                                      setting system, (P) System Services Intro, 10–8
   CDU-17, CDU-45, CDU-46; (P) Utility
                                                   Clock rate
   Routines, CLI-13
                                                      with LPA11-K, (P) I/O User's I, 4-10
CLI (command language interpreter), (P)
                                                   Cloned UCB routine, (P) Device Support (A),
   Command Def, CDU-1; (P) RTL Library, 2-2
                                                       11-12 to 11-13; (P) Device Support (B), 1-78
CLI access routine, (P) RTL Library, 2–2
                                                      address, (P) Device Support (A), 6-4; (P)
Client, (P) DECthreads, 1-4
                                                          Device Support (B), 1-31, 4-6
  defined, Dependability Handbook, Glossary-1
                                                      context, (P) Device Support (B), 4-6
Client message
                                                      exit method, (P) Device Support (A), 11-13; (P)
  designating routine to handle, (P) VAXTPU,
                                                          Device Support (B), 4-7
                                                      input, (P) Device Support (A), 11-12; (P)
  fetching action routine for handling, (P)
                                                         Device Support (B), 4-6
      VAXTPU, 7-197
                                                      register usage, (P) Device Support (A), 11-12;
  finding out type of, (P) VAXTPU, 7-197
                                                          (P) Device Support (B), 4–6
  sending from VAXTPU, (P) VAXTPU, 7-344
                                                      synchronization requirements, (P) Device
Client/server
                                                          Support (B), 4-6
  defined, Dependability Handbook, Glossary-1
                                                   CLOSE command, (U) Using VMS, 6-14;
Client/server computing
                                                       (U) Command Procedures, 6-1; (U) DCL
  paradigm, Dependability Handbook, 8-9
                                                       Dictionary, DCL1-58 to DCL1-59
CLIENT_MESSAGE
                                                      See also OPEN command
  keyword parameter to SET built-in procedure,
                                                      for remote file, (M) DECnet-VAX Guide, 2-13
```

(P) VAXTPU, 7-357

Close Current Location, Open Next command, (P)

Delta/XDelta, DELTA-22

Cluster (cont'd) Closed queue status, (M) Maintaining VMS, 5-71 communication mechanisms, (M) VAXcluster, Closed user group 1-5See CUG configuration planning, (M) VAXcluster, 1-5 Close operation, (U) Files and Devices, 4-19, 4-20 configuration type, (M) VAXcluster, 2-1 CLOSE procedures (VAX Ada), V5.5 Release changing to mixed-interconnect, (M) Notes, 3–31 VAXcluster, 7-18 Close service configuring, (M) VAXcluster, 7-5, 7-32 condition values, (P) RMS, RMS-5 connection manager, (M) VAXcluster, 1-4 See also Completion status code creation of, (P) Linker, 1-7, 1-8, 3-6, 6-8, 6-11 contrasted with Disconnect service, (P) RMS, current, (P) Linker, 6-12 default, (P) Linker, 6-9 control block input fields, (P) RMS, RMS-4 defining environment, (M) SYSMAN, SM-4 control block output fields, (P) RMS, RMS-4 disk class driver, (M) VAXcluster, 1-4 function, (P) RMS, 4-1 disk devices, (M) VAXcluster, 5-1 introduction, (P) RMS, 4-1 dismounting volumes on, (U) DCL Dictionary, limitations with XABs, (P) RMS, RMS-4 DCL1-171 use restrictions, (P) RMS, RMS-4 displaying group number, (M) SYSMAN, Closing a queue, (M) Maintaining VMS, 5-73 SM-33Closing the accounting log file, (M) Maintaining displaying multicast address, (M) SYSMAN, VMS, 6–3 Closing the operator log file, (M) Maintaining displaying time, (M) SYSMAN, SM-34 VMS, 6-7distributed file system, (M) VAXcluster, 1-4 Closures, (P) VAXTPU, 4-11 distributed job controller, (M) VAXcluster, 1-4 CLRB (Clear Byte) instruction, (P) MACRO, 9-14 distributed lock manager, (M) VAXcluster, 1-4 CLRD (Clear D\_floating) instruction, (P) MACRO, distributed processing, (M) VAXcluster, 1-1 9 - 108empty, (P) Linker, 6-11 CLRF (Clear F\_floating) instruction, (P) MACRO, error log entries for VAXport device, (M) 9 - 108VAXcluster, C-15 CLRG (Clear G\_floating) instruction, (P) MACRO, executing commands, (M) SYSMAN, SM-4 failure of computer to boot, (M) VAXcluster, CLRH (Clear H floating) instruction, (P) MACRO, C-19 - 108failure of computer to join the cluster, (M)CLRL (Clear Long) instruction, (P) MACRO, 9-14 VAXcluster, C-1, C-6 CLRO (Clear Octa) instruction, (P) MACRO, 9-14 for transfer vector, (P) Linker, 4-8 CLRQ (Clear Quad) instruction, (P) MACRO, group number, (M) SYSMAN, SM-29; (M) 9 - 14VAXcluster, 7-30 CLRW (Clear Word) instruction, (P) MACRO, hang condition, (M) VAXcluster, C-7 9 - 14hardware components, (M) VAXcluster, 1-3 CLSS (clear search string) command, (U) EDT in a based image, (P) Linker, 1-7, 3-5 Ref, EDT-270 installing license, (M) VAXcluster, 4-4 See also Locating text interconnect devices, (M) VAXcluster, 1-3 CLUB (cluster block), (P) System Dump Analyzer, local and nonlocal, (M) SYSMAN, SM-4 maintaining, (M) VAXcluster, 7-24 SDA-83 CLUDCB (cluster quorum disk control block), (P) management, (M) SYSMAN, SM-2 System Dump Analyzer, SDA-83 managing queues, (M) VAXcluster, 6-1 CLUEXIT bugcheck memory allocation for, (P) Linker, 6-15 diagnosing, (M) VAXcluster, C-8 MSCP server, (M) VAXcluster, 1-4 multiple-environment, (M) VAXcluster, 4-1 CLUFCB (cluster failover control block), (P) System Dump Analyzer, SDA-83 operating environment types, (M) VAXcluster, Cluster 4-1order of processing, (P) Linker, 6-9, 6-12 See also VAXcluster adding proxy accounts, V5.5 Release Notes, 2-3 organization, (M) VAXcluster, 1-1 partitioning, (M) VAXcluster, 3-1 architecture, (M) VAXcluster, 1-1 boot events, (M) VAXcluster, C-1 password, (M) SYSMAN, SM-29; (M) CLUEXIT bugcheck, (M) VAXcluster, C-8 VAXcluster, 7-30 command execution, (M) SYSMAN, SM-52 preparing operating environment, (M) common-environment, (M) VAXcluster, 4-1 VAXcluster, 4-1

Cluster (cont d)	Cluster authorization file (CLUSTER_
protection of, (P) Linker, 1–8, 3–10	AUTHORIZE.DAT), (M) VAXcluster, 2–15,
queues, (M) VAXcluster, 1-2	7–30
quorum disk, (M) VAXcluster, 3–2	function in local area VAXcluster configuration,
quorum disk watcher, (M) VAXcluster, 3–2	(M) System Management Intro, 6–12
quorum file (QUORUM.DAT), (M) VAXcluster,	function in mixed-interconnect VAXcluster
3–3	configuration, (M) System Management
rebooting after configuration change, (M)	
VAXcluster, 7–22	Intro, 6–12
reconfiguring, (M) VAXcluster, 7–22	Cluster-based shareable image, (P) Linker, 6–15
	Cluster-based user, (P) Linker, 6–15
recording configuration data, (M) VAXcluster,	Cluster block
7–25	See CLUB
recovering from startup procedure failure, (M)	CLUSTER class
VAXcluster, C-6	adding, (M) Show Cluster, SHCL-25
resource access, (M) VAXcluster, 1–4	fields belonging to, (M) Show Cluster,
resource locking, (M) VAXcluster, 1-4	SHCL-34 to SHCL-35
restoring quorum, (M) VAXcluster, 7–26	removing, (M) Show Cluster, SHCL-62
security management, (M) VAXcluster, 2–15,	CLUSTER class record, (M) Monitor, A-12
7–29	
setting time, (M) SYSMAN, SM-31	Cluster common files, (M) System Management
shareable image, (P) Linker, 6-7	Intro, 6–6
shared disk resources, (M) VAXcluster, 1–2	Cluster device name
shared processing and printer resources, $(M)$	allocation class field, (U) DCL Concepts, 3-6
VAXcluster, 1–1	cluster node field, (U) DCL Concepts, 3-6
	format for dual-pathed device, $(U)$ $DCL$
shutdown, (M) VAXcluster, 7–27	Concepts, 3-6
software, (M) VAXcluster, 1-1	format in a file specification, (U) DCL
software component, (M) VAXcluster, 1-4	Concepts, 3–6
summary of configuration procedures, (M)	Cluster failover control block
VAXcluster, 1–5	See CLUFCB
system communications services (SCS), (M)	Clustering algorithm, (P) Linker, 6–8
VAXcluster, 1–4, C–9	
tape class driver, (M) VAXcluster, 1-5	Cluster management code
tape devices, (M) VAXcluster, 5–1	global symbols, (P) System Dump Analyzer,
TMSCP server, (M) VAXcluster, 1–5	SDA-60
troubleshooting, (M) VAXcluster, C-1	Cluster manager
types of operating environments, (M)	and security administrator, (M) Security, 9–1
VAXcluster, 4–1	Cluster node field
updating MODPARAMS.DAT files, (M)	definition, (U) DCL Concepts, 3–6
VAXcluster, 7–22	CLUSTER option, (P) Programming Resources,
updating security data, (M) SYSMAN, SM-29	5–6
	See also Linker Utility
VAXport device error log entries, (M)	Cluster performance statistics, (M) Monitor,
VAXcluster, C-15	MON-40
VAXport driver, (M) VAXcluster, 1–4, C–9	/CLUSTER qualifier, (M) Mount, MOUNT-13
voting member, (M) VAXcluster, 3-1	Cluster queues, (M) System Management Intro,
adding, (M) VAXcluster, 7-2, 7-7, 7-22	6–15
removing, (M) VAXcluster, 7-2, 7-12, 7-22	
workload balancing, (M) VAXcluster, 1–1	Cluster quorum disk control block
Cluster-accessible disk, (M) System Management	See CLUDCB
Intro, 6–14; (M) VAXcluster, 5–1	Cluster size, (M) Analyze/Disk, B-2
and MSCP server, (M) VAXcluster, 5–2	specifying on disk, (U) DCL Dictionary,
Cluster-accessible disks, (M) VAXcluster, 1–2	DCL1-242
Cluster-accessible tape, V5.5 New Features, 7–1;	Cluster SYSGEN parameters, (M) VAXcluster,
(M) VAXcluster, 1–2, 5–1	A-1 to A-3
and TMSCP server, (M) VAXcluster, 5–2	Cluster system block
Cluster alias	See CSB
See DECnet-VAX, cluster alias	Cluster system identification number
Cluster alias node identifier	See CSID
See Alias node identifier	

Clusterwide device

dismounting, (U) DCL Dictionary, DCL1-171

Clusterwide node name, (M) DECnet-VAX Guide, 2-4

using with Mail Utility, (M) DECnet-VAX Guide, 2-11

Clusterwide queue manager, V5.5 New Features, 5-1; (M) VAXcluster, 6-1

CLUSTER window, (M) Show Cluster, SHCL-2 classes of data, (M) Show Cluster, SHCL-3

CLUSTER\_AUTHORIZE.DAT, (M) SYSMAN, SM-29, SM-33

CLUSTER\_CONFIG.COM command procedure, (M) SYSMAN, SM-29

adding computers, (M) VAXcluster, 7-6

change options, (M) VAXcluster, 7-14

converting standalone computer to cluster computer, (M) VAXcluster, 7-19

creating a duplicate system disk, (M) VAXcluster, 7–20

enabling disk server, (M) VAXcluster, 5–3, 7–15 functions, (M) VAXcluster, 7–1

modifying satellite LAN hardware address, (M) VAXcluster, 7–13

preparing to execute, (M) VAXcluster, 7-5

removing computers, (M) VAXcluster, 7-12 required information, (M) VAXcluster, 7-5

system files created for satellite, (M)
VAXcluster, 7-2

CLUSTER\_SIZE attribute, (P) File Def Language, FDL-18

CLUSTRLOA.STB, (P) System Dump Analyzer, SDA-60

CLUSTRLOA symbol, (P) System Dump Analyzer, SDA-13

cma.h, (P) DECthreads, B-2

cma\_debug, (P) DECthreads, cma-58, B-3

CMEXEC privilege, (M) Setting Up VMS, 5–11; (M) Security, A–2

for analyzing VAX RMS Journaling files, (P) Analyze/RMS\_File, ARMS-11

CMI (CPU-to-memory interconnect), (P) Device Support (A), 1–11

CMKRNL privilege, (M) Setting Up VMS, 5–11; (M) Security, A–2; (M) Networking, 5–2 for network operations, (M) DECnet-VAX Guide, 3–10

CMPB (Compare Byte) instruction, (P) MACRO,

CMPC3 (Compare Characters 3 Operand) instruction, (P) MACRO, 9–128

CMPC5 (Compare Characters 5 Operand) instruction, (P) MACRO, 9–128

CMPD (Compare D\_floating) instruction, (P) MACRO, 9–109 CMPF (Compare F\_floating) instruction, (P) MACRO, 9–109

CMPG (Compare G\_floating) instruction, (P) MACRO, 9–109

CMPH (Compare H\_floating) instruction, (P) MACRO, 9–109

CMPL (Compare Long) instruction, (P) MACRO, 9-15

CMPP3 (Compare Packed 3 Operand) instruction, (P) MACRO, 9-152

CMPP4 (Compare Packed 4 Operand) instruction, (P) MACRO, 9–152

CMPV (Compare Field) instruction, (P) MACRO, 9–38

CMPW (Compare Word) instruction, (P) MACRO, 9-15

CMPZV (Compare Zero Extended Field) instruction, (P) MACRO, 9-38

CMS (Code Management System)

See VAX DEC/CMS CNDRIVER, (M) Networking, 5-3, 5-7

Coarse granularity, (P) RTL Parallel Processing, 5-1

COBOL

See VAX COBOL

COBOL compiler

generating nonreentrant code, (P) DECthreads, 3-2

COBOL intermediate temporary data type, (P) Routines Intro, 2–20

COBRTL installation, V5.5 Release Notes, 2–13 Code

See Instruction, Address expression

AST-reentrant, (P) Modular Procedures, 3–19 fully reentrant, (P) Modular Procedures, 3–19

license type, License Management, LMF-26,

LMF-28, LMF-94, LMF-95 maintaining readability, (P) Modular

Procedures, 3–7 position-independent, (P) Modular Procedures,

system service status return, (M) Networking, 8–21, 8–34

writing AST-reentrant procedures, (P) Modular Procedures, 3–20

Code generated for saving attributes, (U) EVE Ref, 1–37

Code Management System (CMS)

See VAX DEC/CMS

Code sharing

overview, (M) Performance Management, 1-4

Coding conventions

See Device driver

Coding guidelines, (P) Modular Procedures, 3–1 COHESION

DEC LSE/SCA, Dependability Handbook, 8–57 DEC PCA, Dependability Handbook, 8–58

COHESION (cont'd) Collating sequence table field DECset products, Dependability Handbook, See XAB\$L\_COLTBL field COLLATING SEQUENCE attribute, (P) File Def DEC Test Manager, Dependability Handbook, Language, FDL-27 /COLLATING\_SEQUENCE qualifier, (U) dependable software development, Sort/Merge, SORT-13, SORT-52 Dependability Handbook, 8-57 Collection interval, (M) Monitor, MON-25 support services from Digital, Dependability Collection points Handbook, 10-2 for network events, (M) DECnet-VAX Guide, VAX DEC/CMS, Dependability Handbook, 4-4 8-57, 8-58 Collision detect VAX DEC/MMS, Dependability Handbook, Ethernet, (M) Networking, 1-7 8-58 Colon (:) writing custom applications, Dependability in label field, (P) MACRO, 2-2 Handbook, 3-10 range delimiter, (P) Debugger, 4-16, 11-4, Collating key data type, (P) RMS, 13-6 11-6, 11-7, CD-81 Collating sequence, (U) Sort/Merge, SORT-4 Color name file. V5.5 New Features, A-62 ASCII, (U) Using VMS, 1-39; (U) Sort/Merge, Column format SORT-4, SORT-13, SORT-54 EDT, (U) Text Processing, 2-37 table of, (U) Sort/Merge, SORT-14 COLUMN\_MOVE\_VERTICAL keyword, (P) creating VAXTPU, 7-359 limitation, (P) National Char Set, NCS-9 "Column\_move\_vertical" string constant parameter using appended, (P) National Char Set, to GET INFO, (P) VAXTPU, 7-206 NCS-9 COM\$DELATTNAST, (P) Device Support (B), 3-2 using modified, (P) National Char Set, COM\$DRVDEALMEM, (P) Device Support (A), NCS-9 16-21; (P) Device Support (B), 3-3 using name of existing, (P) National Char COM\$FLUSHATTNS, (P) Device Support (B), Set, NCS-8 3-4, 3-6using reordered, (P) National Char Set, COM\$POST, (P) Device Support (A), 7-5; (P) NCS-10 Device Support (B), 3-5, 4-2 using reversed, (P) National Char Set, COM\$POST NOCNT. (P) Device Support (B), 3-5 NCS-10 COM\$SETATTNAST, (P) Device Support (B), 3-6 using series of expressions, (P) National to 3-7 Char Set, NCS-8 Combination model, (P) DECthreads, 1-7 default, (U) Sort/Merge, SORT-4 Combination rules, License Management, LMF-36 EBCDIC, (U) Using VMS, 1-39; (U) used with dates and version numbers, License Sort/Merge, SORT-4, SORT-13, SORT-54 Management, LMF-37 expression forms listed, (P) National Char Set, Combination time, (U) Using VMS, 1-16 NCS-8 examples, (U) DCL Concepts, 1-17 folding, (U) Sort/Merge, SORT-55 rules for entering, (U) DCL Concepts, 1-16 ignoring characters in, (U) Sort/Merge, syntax, (U) DCL Concepts, 1-16 SORT-54 Command, (P) System Dump Analyzer, SDA-10 to MODIFICATIONS keyword clause formats SDA-14 listed, (P) National Char Set, NCS-17 See also Command procedure modifying, (U) Sort/Merge, SORT-53, See also Foreign command SORT-54 See also Interactive mode command MULTINATIONAL, (U) Using VMS, 1-40; (U) See also SCSI command Sort/Merge, SORT-4, SORT-13, SORT-54 abbreviating, (U) Using VMS, 1-10; (U) DCL table of, (U) Sort/Merge, SORT-14 Concepts, 1-5; (U) DSR Ref, 1-4; (M) restriction DTS/DTR, DTS-1 in user-defined, (U) Sort/Merge, SORT-53 in command procedures, (U) Using VMS, specifying, (U) Sort/Merge, SORT-54 1-10 Collating sequence name field in HELP, (U) Using VMS, 1-7 See XAB\$L\_COLNAM field built-in, (U) Using VMS, 1-6 Collating sequence size field See also Built-in command See XAB\$L\_COLSIZ field canceling, (U) Using VMS, 1-11, 1-20, 1-21; (U) DCL Concepts, 1-4, 2-1

Command (cont'd) Command definition file (cont'd) ! command, (P) Delta/XDelta, DELTA-20 changing syntax, (P) Command Def, CDU-5 to 'command, (P) Delta/XDelta, DELTA-37 CDU-6 creating, (P) Command Def, CDU-4 to = command, (P) Delta/XDelta, DELTA-42 CDU-14 [command, (P) Delta/XDelta, DELTA-16 / command, (P) Delta/XDelta, DELTA-17 defining verbs in, (P) Command Def, CDU-8 to CDU-9 " command, (P) Delta/XDelta, DELTA-25 conditional, (U) DSR Ref, 4-8 for sample program, (P) Command Def, continuing, (M) Network Control Program, CDU-45, CDU-46 processing, (P) Command Def, CDU-14 to NCP-2 continuing to a second line, (U) Command CDU-16 statements in, (P) Command Def, CDU-19 to Procedures, 1–3 CDU-37 DCL syntax line, (U) Using VMS, 1-8; (U) DCL Concepts, 1–3 Command Definition Language statements, (P) DSR, (U) DSR Ref, 1–1 Command Def, CDU-5 entering, (M) Network Control Program, Command Definition Utility (CDU), (P) Command NCP-2 Def, CDU-1 executing, (U) Using VMS, 1-19; (U) DCL CDU command, (P) Programming Resources, Concepts, 2-11 - 16for Analyze/RMS\_File Utility, (P) File creating command table, (P) Programming Applications, 10–11 Resources, 1-17for EDIT/FDL, (P) File Applications, 4-3 defining commands, (P) Programming format of, (U) DSR Ref, 1–2 Resources, 1-16 in command procedures, (U) Command directing output from, (P) Command Def. CDU-18 Procedures, C-1 to C-3 exiting, (P) Command Def, CDU-18 interactive, (P) Analyze/RMS\_File, ARMS-21 format, (P) Command Def, CDU-18 interrupting, (U) Using VMS, 1-20 to 1-21; (U) DCL Concepts, 2-1 to 2-3 invoking, (U) DCL Dictionary, DCL2-117; (P) list of commands, (P) Delta/XDelta, DELTA-15 Command Def, CDU-18 multiple on same line. (U) DSR Ref. 1-3 modifying command table, (P) Programming NCP command verbs, (M) Networking, 3–3 Resources, 1–16 NCP functions, (M) Networking, 3-3 overview, (P) Command Def, CDU-18 parsing commands, (P) Programming parts of, (U) DSR Ref, 1-2 qualifiers, (M) DTS/DTR, DTS-1 Resources, 1-17 recalling, (M) LATCP, LAT-24; (M) Network Command descriptions, (P) Patch, PAT-38 to Control Program, NCP-2 PAT-91 remote execution of, (M) Networking, 3-7 Command execution, (M) SYSMAN, SM-4 rules for entering, (U) Using VMS, 1-10; (U) on remote nodes, (M) SYSMAN, SM-14 Command file, (U) EVE Ref, 1-8; (P) VAXTPU, DCL Concepts, 1-3 separating arguments, (U) DSR Ref, 1-4 4-29 to 4-31 creating (EVE), (U) Text Processing, 1-77 summary, (M) LATCP, LAT-3 syntax, (M) Networking, 3-4; (M) DTS/DTR, debugging, (P) VAXTPU, 4-34 DTS-1 default, (P) VAXTPU, 4-21 definition, (P) VAXTPU, 1-10 syntax of, (U) DSR Ref. 1-1 terminating, (U) DSR Ref, 1-3 EDT, (U) Using VMS, 8-71 EVE editor, (U) Text Processing, 1-71 types, (U) Using VMS, 1-6; (U) DCL Concepts, running SUMSLP from a, (P) SUMSLP, usage restrictions, (M) Security, 5-31 SUM-12 using in a batch job, (M) DTS/DTR, DTS-1 sample, (P) VAXTPU, 4-30 COMMAND, (U) EDT Ref, EDT-28 saving attributes in, (U) EVE Ref, 1-37 saving attributes in (EVE), (U) Text Processing, Command address register 1-71, 1-75, 1-77 See MBA\$L\_CAR TPU\$COMMAND.TPU, (U) EVE Ref, 1-8, Command arguments separating, (U) DSR Ref, 1-4 TPU\$COMMAND logical name, (U) EVE Ref, Command chaining, (P) I/O User's II, 4-2 Command definition file, (P) Command Def, VAXTPU, (U) DCL Dictionary, DCL1-191; (U) CDU-4 EVE Ref, 1-8

Command format	Command line (cont'd)
debugger, (P) Debugger, CD-3	recalling, (U) Using VMS, 1-21 to 1-22; (U)
Command image	DCL Concepts, 2–6 to 2–7
definition, (U) Using VMS, 1-6, 1-20, 3-4; (U)	/RECOVER command qualifier, (P) VAXTPU,
DCL Concepts, 1–1, 2–1	1-11, 7-307
interrupting and canceling, (U) Using VMS, 1–20 to 1–21	rules for entering parameters, (U) DCL Concepts, 1-6
privileged and nonprivileged, (U) Using VMS, 1–20; (U) DCL Concepts, 2–1	rules for entering qualifiers, (U) DCL Concepts, 1-7
Command input scanning	syntax, (U) Using VMS, 1–8
definition, (U) DCL Concepts, 7–4	terminators, (U) Using VMS, 1-19; (U) DCL
Command interface	Concepts, 2-1
COMMAND box, DECwindows, (P) Debugger,	Command node, (M) Networking, 4-1
1–19, 1–27	Command packet, (P) I/O User's II, 4-4
debugger, (P) Debugger, 2–1	Command parsing
with DECwindows, (P) Debugger, 1-27,	definition, (U) $DCL$ $Concepts$ , 7–4
1–33	Command procedure, (U) VMS Intro, 2-1, 5-1,
debugger commands disabled in DECwindows,	5–3; (U) Files and Devices, 1–8
(P) Debugger, 1–27	See also DCL command procedure
Command interpreter, (U) VMS Intro, 1-3	See also Initialization file, debugger
controlling error checking of, (U) DCL	accessing foreign volumes, (U) Files and
Dictionary, DCL2–182	Devices, 4-20
specifying alternate, $(U)$ DCL Dictionary,	and file I/O, (U) Using VMS, 6–13
DCL1-392	building, (M) Show Cluster, SHCL-73
symbol table, (M) System Generation, A-9	case statement in, (U) Using VMS, 6-23
COMMAND keypad function	cleanup, (U) Using VMS, 6–33
EDT, (U) Text Processing, 2–21	comments in, (U) Using VMS, 1-29, 6-1
Command language interpreter	continuing execution of, (U) DCL Dictionary,
See CLI	DCL1-63
Command language routines	controlling error checking in, (U) DCL
See CLI routines	Dictionary, DCL2–182
Command level	correcting system time, (M) SYSMAN, SM-31
definition, (U) Using VMS, 1-2; (U) Command	creating, (U) VMS Intro, 5–3 global symbol in, (U) Using VMS, 6–11
Procedures, 1-7	using CREATE command, (P) Patch,
nesting, (U) Using VMS, 6-3	PAT-4, PAT-48
Command line	creating using text editor, (P) Patch, PAT-5
See also Editing the command line	data line in, (U) Using VMS, 6-6
continuation over multiple lines, (U) Using	DCL commands to access remote files, $(M)$
VMS, 1–10; (U) DCL Concepts, 1–4	DECnet-VAX Guide, 2–13
DCL	debugger, (P) Debugger, 8-1
determining whether /RECOVER specified	debugging, (U) Using VMS, 6-27, 6-28
on, (P) VAXTPU, 7–408	default directory for, (P) Debugger, CD-123,
editing	CD-206
enabling, (U) Using VMS, 1–22 in insert mode, (U) Using VMS, 1–23	default file type, (M) Show Cluster, SHCL-13
in overstrike mode, (U) Using VMS, 1–23	definition, (U) Using VMS, 3-4, 6-1
list of keys for, (U) Using VMS, 1–17 to	delaying process of, (U) DCL Dictionary, DCL2-397
1–19	description, (M) Show Cluster, SHCL-13
fetching values from, (P) VAXTPU, 7–176, 7–177	directing output to terminal, (U) Using VMS, 6-12
indicating a comment, (U) DCL Concepts, 1-5	displaying command lines of, (U) DCL
/JOURNAL command qualifier, (P) VAXTPU,	Dictionary, DCL2–237
1–11, 1–12	displaying commands in, (P) Debugger, CD-155
/NOJOURNAL command qualifier, (P) VAXTPU, 1–12	displaying prompts of, (U) DCL Dictionary,
parts of, (U) Using VMS, 1–8; (U) DCL Concepts, 1–3	DCL1–262 error handling, (U) Using VMS, 6–30
- 0.000pv0, - 0	

Command procedure (cont'd) Command procedure (cont'd) executing, (U) DCL Dictionary, DCL1-9: position of a label in a command line, (U) DCL (M) SYSMAN, SM-21; (M) Show Cluster, Concepts, 1-3 SHCL-22 processing selected patches in, (P) Patch, interactively, (U) Using VMS, 6-2 PAT-33 to PAT-34 on remote node, (U) Using VMS, 6-2 recreating displays with, (P) Debugger, 7-21, executing at system startup, (M) SYSMAN, CD-97 SM-80 redirecting output, (U) Using VMS, 6-11 executing DCL commands with DO, (M) resuming execution of, (U) DCL Dictionary, SYSMAN, SM-8, SM-52 DCL1-63 executing in SYSMAN, (M) SYSMAN, SM-8 returning status value in, (U) Using VMS, 6-4 exiting, (U) Using VMS, 6-4; (P) Debugger, SET DEFAULT command in, (U) Using VMS, CD-7, CD-90, CD-106 file specification, (P) Patch, PAT-48 setting up disk volume, (U) Files and Devices, format, (U) Using VMS, 6-1 3-21formatting the display, (M) Show Cluster, setting up magnetic tape volume, (U) Files and SHCL-4 Devices, 3-22for object, (M) Networking, 3-79 setting up volume, (U) Files and Devices, 3-20 for remote batch execution, (M) DECnet-VAX SHOW\_CLUSTER\$INIT, (M) Show Cluster, Guide, 2–12, 2–13 SHCL-13 STARTNET.COM, (M) DECnet-VAX Guide, for remote file access, (M) DECnet-VAX Guide, 3-15, 3-21, 3-25, 3-31, 3-32 for running remote task, (M) DECnet-VAX stopping Guide, 2-12, 2-14 and returning to command level 0, (U) for system startup, (M) SYSMAN, SM-1, DCL Dictionary, DCL2-358 submitting as batch job, (U) Using VMS, 3-8 SM-11 I/O errors in, (U) Using VMS, 6-18 submitting batch jobs, (U) DCL Dictionary, identification, (M) Networking, 3-79 DCL2-376 input, (U) Using VMS, 6-6 subroutines in, (U) Using VMS, 6-25 from file, (U) Using VMS, 6-10 symbol substitution, (U) DCL Concepts, 7-4 from terminal, (U) Using VMS, 6-10 SYSTARTUP\_V5.COM, (M) DECnet-VAX interrupting with Ctrl/Y, (U) Using VMS, 6-32 Guide, 3-19, 3-24, 3-31, 4-4 terminating, (U) DCL Dictionary, DCL1-222 invoking, (P) Debugger, CD-7 invoking within a command procedure, (U) testing expressions, (U) DCL Dictionary, Using VMS, 6-2 DCL1-237 label, (U) DCL Dictionary, DCL1-52. to invoke EXCHANGE, (M) Maintaining VMS, DCL1-227, DCL1-229 log file as, (P) Debugger, 8-5 transferring control within, (U) DCL login, (U) Files and Devices, 2-8 Dictionary, DCL1-52, DCL1-227, LOGIN.COM, (M) SYSMAN, SM-5 DCL1-229 loop in, (U) Using VMS, 6-24 use of dollar sign prompt, (U) DCL Concepts, magnetic tape restriction, (U) Files and Devices, 4-1 using DEFINE command in, (P) Patch, PAT-5 nested, (U) Using VMS, 6-3 using over the network, (M) DECnet-VAX NETCONFIG.COM, (M) DECnet-VAX Guide, Guide, 2–12 2-27, 3-9, 3-12, 3-13, 3-15, 3-32, 3-37, using stubs in, (U) Using VMS, 6-27 using symbolic references in, (P) Patch, PAT-4 parameters for, (U) DCL Dictionary, DCL1-9 to PAT-6 passing character string to, (U) Using VMS, using to copy files. (U) Files and Devices, 5–12 using TYPE command to execute, (U) Using passing data to, (U) Using VMS, 6-6 VMS. 6-2passing parameters to, (U) Using VMS, using user-defined symbols in, (P) Patch, 5-3, 6-7; (U) DCL Concepts, 5-1; (P) PAT-5 Debugger, 8-2, CD-44 variables in, (U) Using VMS, 6-19 passing symbols to, (U) Using VMS, 6-7 with DECwindows, (P) Debugger, 1-28 passing symbol to interactively, (U) DCL writing file from a, (U) Using VMS, 6-13 Dictionary, DCL1-262 Command processing, (P) Linker, 6-8

See also DCL

Command processing (cont'd) Command table (cont'd) first phase, (U) DCL Concepts, 7-4 deleting commands from, (P) Command Def, CDU-15, CDU-39 parsing a foreign command, (U) DCL Concepts, input, (P) Command Def, CDU-44 5-8listing file for, (P) Command Def, CDU-40 second phase, (U) DCL Concepts, 7-4 third phase, (U) DCL Concepts, 7-4 object module for, (P) Command Def, CDU-16, CDU-41 Command prompting output file, (P) Command Def, CDU-42 See Prompt syntax process, (P) Command Def, CDU-2 Command qualifier, (U) Using VMS, 1-12 system, (P) Command Def, CDU-2 definition, (U) Using VMS, 1-12; (U) DCL with CLI routines, (P) Utility Routines, CLI-1, Concepts, 1-7 CLI-7 rules for entering, (U) Using VMS, 1-12 Command values /COMMAND qualifier, (U) EVE Ref, 1-8; (P) date and time formats, (U) Using VMS, 1-14; Debugger, 8-6, CD-47; (P) VAXTPU, 4-25, (U) DCL Concepts, 1–13 5-3 to 5-4, 5-6 to 5-7 Command verb Command string, (U) VMS Intro, 1-4; (P) See DEFINE VERB statement Command Def, CDU-1 to CDU-2 Command verb and qualifier length, V5.5 Release See also CLI routines *Notes*, 1–16 action routine, (P) Utility Routines, CLI-9 Command window checking for presence of command string in EVE editor, (P) VAXTPU, 4-16 entities, (P) Utility Routines, CLI-13 "Command\_file" string constant parameter to dispatching to action routine, (P) Utility GET\_INFO, (P) VAXTPU, 7-176 Routines, CLI-9 Comment editing, (U) VMS Intro, 1-5 block, (P) Modular Procedures, 3-9, A-6 keyword path, (P) Utility Routines, CLI-13 character, (U) Command Procedures, 1-3; (P) labels File Def Language, FDL-40 list of label names, (P) Utility Routines, delimiters, (P) Modular Procedures, 3-9 CLI-12 entering a, (P) Patch, PAT-23 obtaining values of command string entities, format, (P) Debugger, CD-4 (P) Utility Routines, CLI-10 in a command line, (U) DCL Concepts, 1-5 parsing a DCL command string, (P) Utility in a command procedure, (U) Using VMS, Routines, CLI-6 1-29, 6-1parts of, (U) VMS Intro, 1-4 in FDL files, (P) File Def Language, FDL-40 positional qualifiers, (P) Utility Routines, Comment character, (P) VAXTPU, 1-5 **CLI-14** Comment flag, (U) DSR Ref, 3-9 processing with CLI routines, (P) Utility default, (U) DSR Ref, 3-9 Routines, CLI-1 pairing, (U) DSR Ref, 3-9 prompting for input, (P) Utility Routines, recognizing, (U) DSR Ref, 2-46 CLI-7 COMMENT keyword symbol substitution, (P) Utility Routines, with LOOK\_UP\_KEY, (P) VAXTPU, 7-254 CLI-6 Comment lines "Command" string constant parameter to in help files. (P) Librarian, LIB-6 GET\_INFO, (P) VAXTPU, 7-176 /COMMENT qualifier, (M) Backup, BCK-38; (M) Command summary, (M) SYSMAN, SM-15; (M) Mount, MOUNT-15; (M) Monitor, MON-20 LADCP, LADCP-2; (M) Authorize, AUTH-2 Comment separator, (P) RMS, 3-6 Command symbol use in VMS RMS coding, (P) RMS, 3-6 invoking EVE with, (U) Text Processing, 1-3 COMMIT subcommand Command synonyms, (P) VAXTPU, G-5 to G-7 with LMCP REPAIR command, V5.5 New Command syntax, (M) Backup, BCK-2 Features, B-88 See also Syntax Committing a transaction, V5.5 New Features, Command table B-36, B-40; (P) System Services Intro, 14-2; adding commands to, (P) Command Def. (P) System Services Ref, SYS-196, SYS-198, CDU-15, CDU-43 SYS-201; Dependability Handbook, 8-15 creating a new, (P) Command Def. CDU-16 Common block, (P) Programming Resources, 3-6 creating an object module for, (P) Command aligning, (P) Programming Resources, 8-4 Def, CDU-4 installing as a shared image, (P) Programming Resources, 5-13

Common block (cont'd) interprocess, (P) Programming Resources, 5–13 modifying, (P) Programming Resources, 3-6 per-process, (P) Programming Resources, 3-6 Common command procedure coordinating, (M) VAXcluster, 4-9 creating, (M) VAXcluster, 4-10 executing, (M) VAXcluster, 4-10 on cluster-accessible disks, (M) VAXcluster, 4-9 SYLOGIN.COM, (M) VAXcluster, 4-11 Common Data Dictionary, (P) Programming Resources, 1-8, 1-9, 1-10 Common-environment cluster, (M) VAXcluster, 4-1, 4-10 Common event flag cluster, (P) System Services Intro, 4-4 permanent, (P) Programming Resources, 4-5 temporary, (P) Programming Resources, 4-4 Common file coordinating for multiple boot servers, (M) VAXcluster, 4-14 coordinating for multiple system disks, (M) VAXcluster, 4-14 mail database, (M) VAXcluster, 4-14 moving off system disk, (M) VAXcluster, 7-37 NETPROXY.DAT, (M) VAXcluster, 4–12 QMAN\$MASTER.DAT, (M) VAXcluster, 4–15, RIGHTSLIST.DAT. (M) VAXcluster, 4-13 system, (M) VAXcluster, 4-11 SYSUAF.DAT, (M) VAXcluster, 4-12 VMSMAIL\_PROFILE.DATA, (M) VAXcluster, Common MAIL database, (M) VAXcluster, 4-14 Common rights database, (M) VAXcluster, 4-13 Common source files, (P) Modular Procedures, 3-7, A-6declarations, (P) Modular Procedures, 3-7 Common system disk directory structure, (M) VAXcluster, 4-2 /COMMSYNC qualifier in SET TERMINAL DCL command, V5.5 New Features, 18-2Communication controller device, (M) DECnet-VAX Guide, 3-4 hardware, (M) DECnet-VAX Guide, 3-4 intersystem, (P) Programming Resources, 3–26 port, (M) DECnet-VAX Guide, 3-4 task-to-task. (M) DECnet-VAX Guide, 2-12: (M) Networking, 1-3, 1-21, 8-1 Communications analyzing options, Dependability Handbook, 3-6 to 3-9 building block, Dependability Handbook, 1-19 applying dependability strategies. Dependability Handbook, 1–21

dependability characteristics, Dependability

Handbook, 7-1

dependability characteristics (cont'd) allowing for LAN bridge failover, Dependability Handbook, 7-11 alternate adapter booting for satellite nodes, Dependability Handbook, 7-12 DECalert, Dependability Handbook, 7-22 DECelms, Dependability Handbook, 7-24 DECmcc, Dependability Handbook, 7-25 DECnet Monitor, Dependability Handbook, 7 - 23degrees of protection from faults, Dependability Handbook, 7–3 Ethernet and FDDI options, Dependability Handbook, 7-10 ETHERnim, Dependability Handbook, 7 - 23LAN Traffic Monitor, Dependability Handbook, 7-23 large packet support on FDDI, Dependability Handbook, 7-11 local area VAXcluster failure analysis program, Dependability Handbook, 7 - 22proactive network monitoring and analysis products, Dependability Handbook, providing multiple paths to Ethernet and FDDI, Dependability Handbook, 7-5 providing multiple WAN connections for VAXft systems, Dependability Handbook, 7-19 recommendations for local area VAXclusters, Dependability Handbook, sample local area VAXcluster failure analysis program, Dependability Handbook, 7-12, 7-13 sample multiadapter connections to LAN segments, Dependability Handbook, using DECnet cluster alias. Dependability Handbook, 7-19 using DFS, Dependability Handbook, 7-22 using DNS, Dependability Handbook, 7-20 using FDDI as VAXcluster interconnect, Dependability Handbook, 7–16 VAXcluster satellite synonym, Dependability Handbook, 7-12 VCS, Dependability Handbook, 7-24 system network considerations, Dependability Handbook, 3-9 Compact Disc Read-Only Memory (CDROM) See Disk Compaction of data See Data record compaction

Communications

Completion status code field in FAB Compare operation, (M) Backup, BCK-21, BCK-39 See FAB\$L STS field /COMPARE qualifier, (M) Backup, BCK-39 Completion status code field in RAB Comparing two handles, (P) DECthreads, cma-65 See RAB\$L\_STS field Comparison Completion status code value field of characters in records, (U) DCL Dictionary, use with debugger, (P) RMS, A-2 DCL1-151 Completion status field of files, (U) DCL Dictionary, DCL1-151 as alternative to use of R0, (P) RMS, 2-4 Compatibility mode handler, (P) System Services for signaling errors, (P) RMS, 2-6 Intro, 11-5 Completion status value field, (P) File declaring, (P) System Services Ref, SYS-135 Applications, 5–12 Compilation as alternative to use of R0, (P) RMS, 2-4 conditional, (P) VAXTPU, 3-36 for signaling errors, (P) RMS, 2-6 COMPILE built-in procedure, (P) VAXTPU, 4-19, Completion status value field in FAB 7-47 to 7-49 See FAB\$L\_STV field Compiler, (U) VMS Intro, 4-2; (P) Programming Completion status value field in RAB Resources, 1-5 to 1-11 compiler generated type, (P) Debugger, 4-4 See RAB\$L STV field /DEBUG qualifier, (P) Debugger, 5-2, 6-1 Complex breakpoint, (P) Delta/XDelta, with DECwindows, (P) Debugger, 1-3 DELTA-30 generating nonreentrant code, (P) DECthreads, Complex number, (P) RTL Math, 1-4, MTH-57, 3-2MTH-59, MTH-110, MTH-120 generating reentrant code, (P) DECthreads, absolute value of, (P) RTL Math, MTH-23 3-2complex exponential of, (P) RTL Math, /LIST qualifier, (P) Debugger, 6-1 MTH-31, MTH-33 /NOOPTIMIZE qualifier, (P) Debugger, 5-2, conjugate of, (P) RTL Math, MTH-44, MTH-45 cosine of, (P) RTL Math, MTH-26, MTH-28 with DECwindows, (P) Debugger, 1-3 division of, (P) RTL General Purpose, OTS-40 restricting use with ACLs, (M) Security, 5-40 made from floating-point, (P) RTL Math, vectorizing, V5.5 New Features, B-7, B-21 MTH-40, MTH-42 Compiler limits, (P) VAXTPU, 7-47 multiplication of, (P) RTL General Purpose, Compiling OTS-53in a VAXTPU buffer, (P) VAXTPU, 4–19 natural logarithm of, (P) RTL Math, MTH-35, in EVE editor, (P) VAXTPU, 4–19 MTH-37programs, (P) VAXTPU, 4-18 to 4-19 sine of, (P) RTL Math, MTH-53, MTH-54 to create section file, (P) VAXTPU, 4-24 complex\_number data type, (P) Routines Intro, Compiling fonts A-3tfor DECwindows server, V5.5 New Features, Component, (M) Networking, 3-1; (P) Routines Intro, A-8t Compiling VAXTPU procedures failures in, Dependability Handbook, 9-13 with the EXTEND ALL command, (U) EVE in network configuration database, (M) Ref, EVE-54 DECnet-VAX Guide, 3-32 Complement operator, (P) MACRO, 3-14 Component name Completion routine plural forms, (M) Networking, 3-99 condition for AST execution, (P) RMS, 3-11 using wildcards with, (M) Network Control service macro arguments, (P) RMS, 3-11 Program, NCP-2 Completion status code Compose characters order sensitivity of, (M) Terminal Fallback, description, (P) RMS, 2-5, A-9 to A-20 errors for inaccessible control block condition, TFU-6 (P) RMS, 2-6purpose of, (M) Terminal Fallback, TFU-2 handling, (P) RMS, 3-12replacement key, (M) Terminal Fallback, hexadecimal values, (P) RMS, A-2 to A-9 TFU-6 listing conditions when not returned, (P) RMS, with the LATIN\_1 table, (M) Terminal Fallback, TFU-3 severity codes, (P) RMS, 2-6 with the LK01 keyboard, (M) Terminal testing, (P) RMS, 2–5 Fallback, TFU-3 Completion status code field Composed input use with debugger, (P) RMS, A-2 See also Key table

Composed input (cont'd) CONCATENATE clause terminating, (P) Programming Resources, 7-28 for VALUE clause, (P) Command Def, CDU-24, Compose sequence CDU-33 signal when invalid, (M) Terminal Fallback, Concatenating files, (U) DCL Dictionary, TFU-23 DCL1-34, DCL1-74 Compose sequence tables, (M) Terminal Fallback, Concatenating input files, (P) Convert, CONV-5 TFU-1, TFU-2 Concatenation LATIN\_1, (M) Terminal Fallback, TFU-3 See also String Composition operations, (P) RTL Screen of character strings, (U) DCL Concepts, 5-5 Management, 2-1 of symbol names, (U) DCL Concepts, 7-2 Compound document pattern (+), (P) VAXTPU, 2-15 See also DDIF string, (P) VAXTPU, 3-4 defined, V5.5 New Features, E-1 Concealed device name sending, V5.5 Release Notes, 3-10 definition, (U) DCL Concepts, 4-13 Comprehensive training, Dependability Concealed logical name, (P) File Applications, 5-7 Handbook, 5-7 Concepts of dependability, Dependability COMPRESS command, (U) Mail, MAIL-31 Handbook, 1-10 Compression, (P) File Def Language, FDL-5, Concurrent user FDL-28 See Activity license negative values, (P) File Def Language, FDL-4 Condition of data record, (P) File Def Language, FDL-27 for exception, (P) System Services Intro, 11-1 within data record, (P) File Def Language, Conditional assembly block directive FDL-4 .ENDC, (P) MACRO, 6-26 within primary key, (P) File Def Language, (.IF), (P) MACRO, 6-40 FDL-4, FDL-27 listing unsatisfied code, (P) MACRO, 6-89 /COMPRESS qualifier, (P) Librarian, LIB-15; Conditional commands, (U) DSR Ref, 2-66, 4-8 (P) National Char Set, NCS-24 controlling execution of, (U) DSR Ref, 4-26 See also /DATA qualifier example, (U) DSR Ref, 2-126 list of, (U) DSR Ref, 2-68 See also /SQUEEZE qualifier variables in, (U) DSR Ref, 2-126 using with OUTPUT, (P) Librarian, LIB-36 Conditional compilation, (P) VAXTPU, 3-36 Compute-bound process Conditional statements, (P) VAXTPU, 3-22 to controlling growth, (M) Performance Management, 5-10 Conditional tests, (U) Sort/Merge, SORT-58 curtailing, (M) Performance Management, 5-9 Condition code, (P) Programming Resources, 9-1; suspending, (M) Performance Management, 5-9 (P) MACRO, 8-14, 9-4 Compute queue as symbol \$SEVERITY, (U) Command measure of CPU responsiveness, (M) Procedures, 7-2 Performance Management, 3-10 as symbol \$STATUS, (U) Command Computer-aided software engineering Procedures, 7-1 See CASE carry (C), (P) MACRO, 8-15 Computer-aided software engineering (CASE) chaining, (P) Programming Resources, 9-23 See COHESION defining, (P) Programming Resources, 9-7 See DECset definition, (U) Command Procedures, 7-1 Computer interconnect modifying, (P) Programming Resources, 9-20 See CI negative (N), (P) MACRO, 8-15 Computer-specific startup functions, (M) overflow (V), (P) MACRO, 8-15 VAXcluster, 4-11 signaling, (P) Programming Resources, 9-5 Computing components SS\$\_EXQUOTA, (P) Programming Resources, defined, Dependability Handbook, 1-7, Glossarv-1 SS\$\_NOPRIV, (P) Programming Resources, 9-3 managing resources, Dependability Handbook, zero (Z), (P) MACRO, 8-15 Condition code and message, (P) Programming options of system building blocks, Resources, 9-1 Dependability Handbook, 3-1 Condition handler, (P) Routines Intro, 1-12, 2-45; Computing system, (M) DECnet-VAX Guide, 1-1, (P) RTL Library, 4-12 1-2 See also Signal argument vector

Condition handler (cont'd)	Condition handler (cont'd)
argument list, (P) System Services Intro, 11-7	user-supplied, (P) RTL Library, 4–13
arithmetic, (P) Programming Resources, 9-26	writing, (P) Programming Resources, 9-14; (P)
call frame, (P) Programming Resources, 9–13	$RTL\ Library,\ 4 ext{}20$
catchall, (P) Programming Resources, 9–13;	Condition handling, (P) RTL Math, 1–3; (P) RTL
$(P)\ RTL\ Library,\ 4 ext{}14$	$Library,4 ext{}2$
condition code, (P) Programming Resources,	See also Condition handler
9–16	See also Condition Handling Facility
continuing execution of, (P) RTL Library, 4-21	See also Condition value
course of action, (P) System Services Intro,	See also Exception
11–11	See also Exception condition
debugging, (P) Programming Resources, 9-20;	See also Message Utility
(P) Debugger, 9–10	at AST level, (P) Modular Procedures, 3–26
declaring, (P) DECthreads, B-1	continuing, (P) RTL Library, 4–14
default, (P) Routines Intro, 2–51; (P) RTL	default, (P) Programming Resources, 9-5
Library, 4–13	displaying messages, (P) RTL Library, 4–16
deleting, (P) Routines Intro, 2–47	logging error messages, (P) RTL Library, 4–4
establishing, (P) Programming Resources,	logging error messages to a file, (P) RTL
9–14; (P) Routines Intro, 2–46; (P) RTL Library, 4–20, LIB–140	Library, 4–27
example, (P) System Services Intro, 11–11	resignaling, (P) Programming Resources, 9–18;
example, (1) System Services Intro, 11–11 exceptions, (P) Routines Intro, 1–12, 2–45	(P) RTL Library, 4–14
exit, (P) Routines Intro, A-5t	return status, (P) Programming Resources, 9-3
exiting, (P) Programming Resources, 9–17	signal, (P) Programming Resources, 9-5
interaction between default and user-supplied	stack traceback, (P) RTL Library, 4-3
handlers, (P) RTL Library, 4–15	stack unwind, (P) RTL Library, 4-4, 4-14
last-chance, (P) RTL Library, 4–14	unwinding, (P) Programming Resources, 9-18
last-chance exception vector, (P) Programming	user-defined messages, (P) RTL Library, 4-4
Resources, 9–13	vector processor, (P) Routines Intro, 2-51
	Condition Handling Facility, (P) RTL Library,
mechanism array, (P) Programming Resources, 9-15	4–19
mechanism array, (P) Programming Resources,	4–19 defined, (P) RTL Library, 4–1
mechanism array, (P) Programming Resources, 9–15	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2
mechanism array, (P) Programming Resources, 9-15 memory	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer,
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49	4-19 defined, (P) RTL Library, 4-1 function of, (P) RTL Library, 4-2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA-60 Condition-handling services, (P) System Services Intro, 1-2, 11-1 Condition Handling Standard, (P) Routines Intro,
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49 primary exception vector, (P) Programming	4–19 defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49 primary exception vector, (P) Programming Resources, 9-13	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49 primary exception vector, (P) Programming Resources, 9-13 properties of, (P) Routines Intro, 2-49	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49 primary exception vector, (P) Programming Resources, 9-13 properties of, (P) Routines Intro, 2-49 register values, (P) Routines Intro, 2-53	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P)
mechanism array, (P) Programming Resources, 9-15 memory use of, (P) Routines Intro, 2-51 multiple active signals, (P) Routines Intro, 2-54 operations involving, (P) Routines Intro, 2-46 options, (P) Routines Intro, 2-45 parameters and invocation, (P) Routines Intro, 2-49 primary exception vector, (P) Programming Resources, 9-13 properties of, (P) Routines Intro, 2-49 register values, (P) Routines Intro, 2-53 request to unwind, (P) Routines Intro, 2-52	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref,
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52	defined, (P) RTL Library, 4-1 function of, (P) RTL Library, 4-2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA-60 Condition-handling services, (P) System Services Intro, 1-2, 11-1 Condition Handling Standard, (P) Routines Intro, 2-44 /CONDITION qualifier, (U) Sort/Merge, SORT-57 Condition value, V5.5 New Features, C-44 to C-47; (P) Modular Procedures, 3-3; (P) Routines Intro, A-4t; (P) System Services Intro, 1-6, 1-9, 2-13; (P) System Services Ref, SYS-191; (P) RTL Intro, 3-6, 3-15; (P) RTL
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources,	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA-60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT-57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS-191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB-272
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA-60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT-57 Condition value, V5.5 New Features, C-44 to C-47; (P) Modular Procedures, 3–3; (P) Routines Intro, A-4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS-191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB-272 See also Completion status code definition of, (P) Routines Intro, 2–3
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8 evaluating, (P) System Dump Analyzer,
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14 software supplied, (P) RTL Library, 4–13	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8 evaluating, (P) System Dump Analyzer, SDA–48
mechanism array, (P) Programming Resources, 9–15  memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14 software supplied, (P) RTL Library, 4–13 specifying, (P) System Services Intro, 11–6	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8 evaluating, (P) System Dump Analyzer,
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14 software supplied, (P) RTL Library, 4–13 specifying, (P) System Services Intro, 11–6 stack usage, (P) Routines Intro, 2–46	defined, (P) RTL Library, 4-1 function of, (P) RTL Library, 4-2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA-60 Condition-handling services, (P) System Services Intro, 1-2, 11-1 Condition Handling Standard, (P) Routines Intro, 2-44 /CONDITION qualifier, (U) Sort/Merge, SORT-57 Condition value, V5.5 New Features, C-44 to C-47; (P) Modular Procedures, 3-3; (P) Routines Intro, A-4t; (P) System Services Intro, 1-6, 1-9, 2-13; (P) System Services Intro, 1-6, 1-9, 2-13; (P) System Services Ref, SYS-191; (P) RTL Intro, 3-6, 3-15; (P) RTL Library, 4-5 to 4-7, 4-24, LIB-272 See also Completion status code definition of, (P) Routines Intro, 2-3 description of, (P) Routines Intro, 2-8 evaluating, (P) System Dump Analyzer, SDA-48 examining, (P) System Dump Analyzer,
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–46 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14 software supplied, (P) RTL Library, 4–13 specifying, (P) System Services Intro, 11–6 stack usage, (P) Routines Intro, 2–46 traceback, (P) Programming Resources, 9–13;	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8 evaluating, (P) System Dump Analyzer, SDA–48 examining, (P) System Dump Analyzer, SDA–51
mechanism array, (P) Programming Resources, 9–15 memory use of, (P) Routines Intro, 2–51 multiple active signals, (P) Routines Intro, 2–54 operations involving, (P) Routines Intro, 2–46 options, (P) Routines Intro, 2–45 parameters and invocation, (P) Routines Intro, 2–49 primary exception vector, (P) Programming Resources, 9–13 properties of, (P) Routines Intro, 2–49 register values, (P) Routines Intro, 2–53 request to unwind, (P) Routines Intro, 2–52 resignaling, (P) RTL Library, 4–21 returning from, (P) Routines Intro, 2–52 searching for, (P) Programming Resources, 9–12 secondary exception vector, (P) Programming Resources, 9–13 signal array, (P) Programming Resources, 9–14 software supplied, (P) RTL Library, 4–13 specifying, (P) System Services Intro, 11–6 stack usage, (P) Routines Intro, 2–46	defined, (P) RTL Library, 4–1 function of, (P) RTL Library, 4–2 Condition-handling routines global symbols, (P) System Dump Analyzer, SDA–60 Condition-handling services, (P) System Services Intro, 1–2, 11–1 Condition Handling Standard, (P) Routines Intro, 2–44 /CONDITION qualifier, (U) Sort/Merge, SORT–57 Condition value, V5.5 New Features, C–44 to C–47; (P) Modular Procedures, 3–3; (P) Routines Intro, A–4t; (P) System Services Intro, 1–6, 1–9, 2–13; (P) System Services Ref, SYS–191; (P) RTL Intro, 3–6, 3–15; (P) RTL Library, 4–5 to 4–7, 4–24, LIB–272 See also Completion status code definition of, (P) Routines Intro, 2–3 description of, (P) Routines Intro, 2–8 evaluating, (P) System Dump Analyzer, SDA–48 examining, (P) System Dump Analyzer, SDA–51 field

Condition value Configuration (cont'd) field (cont'd) changes for network, (M) DECnet-VAX Guide, facility, (P) Routines Intro, 2-9 message number, (P) Routines Intro, 2-9 changing type from CI-only to mixedseverity code, (P) Routines Intro, 2-9 interconnect, (M) VAXcluster, high-level language, (P) System Services Intro, changing type from local area to mixedinformation provided by, (P) System Services interconnect, (M) VAXcluster, Intro, 2-14 7 - 19interpreting severity codes, (P) Routines Intro, CI, (M) Networking, 1-5 2 - 10command procedure NETCONFIG.COM, (M) registers DECnet-VAX Guide, 2-27 use of, (P) Routines Intro, 2-12 database. (M) System Management Intro, 7-4 returned, (P) Routines Intro, 1-14 See also Configuration database in I/O status block, (P) Routines Intro, DECnet-VAX node, (M) DECnet-VAX Guide, 2-26, 3-10, 3-12 in mailbox, (P) Routines Intro, 1-14 end node, (M) Networking, 2-24 in R0, (P) Routines Intro, 1-5 Ethernet, (M) Networking, 1-5 signaled in register, (P) Routines Intro, for area routing, (M) Networking, A-1 1-7, 1-15for volume shadowing, V5.5 New Features, severity, (P) RTL Library, 4-6 B - 106signaled, (P) Routines Intro, 1-7, 1-15 guidelines for area routing, (M) Networking, symbols for, (P) Routines Intro, 2-9 A-2testing, (P) System Services Intro, 2-14 guidelines for system, (M) Networking, 5-35 to use of, (P) Routines Intro, 2-11 5-42Condition values returned heading, (P) Routines independently recoverable, Dependability Intro, 1-12 Handbook, 4–8 Condition variable, (P) DECthreads, 2–12 loosely coupled, Dependability Handbook, 4–7 comparing to mutex, (P) DECthreads, 3-6 manual network, (M) DECnet-VAX Guide, 3-13 creating, (P) DECthreads, cma-45, pthread-37 multiple adapters on local area VAXcluster, definition of, (P) DECthreads, pthread-37 (M) VAXcluster, 2–10; Dependability definition of predicate, (P) DECthreads, Handbook, 7-6 pthread-37 multipoint, (M) Networking, 1-5, 1-8 deleting, (P) DECthreads, cma-47, pthread-35 NETCONFIG.COM, (M) System Management signaling, (P) DECthreads, 3-8 Intro, 7-4; (M) Networking, 1-18, 5-4 to waiting for, (P) DECthreads, cma-56, 5-7pthread-45 network, (M) Networking, 1-5, 5-1 waiting for a specified time, (P) DECthreads, of a DDCMP dynamic asynchronous network, cma-53, pthread-42 (M) Networking, 5–21 Condition variable attributes, (P) DECthreads, of a DDCMP multipoint network, (M) Networking, 5–17 Condition variable attributes object of a DDCMP point-to-point network, (M) creating, (P) DECthreads, pthread-29 Networking, 5–15 deleting, (P) DECthreads, pthread-31 of a DDCMP static asynchronous network, (M) /CONDITION\_VALUE qualifier, (P) Debugger, Networking, 5–19 CD-77, CD-82; (P) System Dump Analyzer, of a DECnet-VAX node, (M) System SDA-48 Management Intro, 7-4; (M) Networking, cond\_value data type, (P) Routines Intro, A-4t Conference call, (U) Phone, PHONE-2 of a DLM (data link mapping) network, (M) Confidence identifier, V5.5 New Features, C-41 Networking, 5–25 Confidence level, V5.5 New Features, C-15 of a multiple-area network, (M) System Configuration Management Intro, 7-2; (M) Networking, active standby, Dependability Handbook, 4-7 1-2, A-3automatic, (M) System Management Intro, 7-4; of an Ethernet network, (M) Networking, 5–23 (M) Networking, 1–18 of an X.25 multihost mode network, (M) automatic network, (M) DECnet-VAX Guide, Networking, 5-30 2-27, 3-12, 3-13 of an X.25 multinetwork connection, (M)

Networking, 5–33

Configuration (cont'd) Configuration database (cont'd) of an X.25 native mode network, (M) X.25 protocol module entry, (M) Networking, Networking, 5-28 of a PSI DTE, (M) Networking, 1-16, 1-18, 2-5 X.25 server module entry, (M) Networking, of a single-area network, (M) System 2 - 35Management Intro, 7-2; (M) Networking, CONFIGURATION keyword Error Log Utility (ERROR LOG), V5.5 New planning node, (M) DECnet-VAX Guide, 3-10 Features, B-62 point-to-point, (M) Networking, 1-5, 1-8 Configuration register prerequisites, (M) Networking, 5-1 See CSR procedure examples, (M) Networking, 5-14 to See MBA\$L\_CSR 5 - 33Configurator module procedure for automatic, (M) Networking, 5-4 disabling surveillance, (M) Networking, 3-46 to 5-7 enabling surveillance, (M) Networking, 3-45 recording data, (M) VAXcluster, 7-25 Ethernet, (M) DECnet-VAX Guide, 4-6; (M) required privileges, (M) Networking, 5-2 Networking, 1-20, 2-11, 3-45 routing considerations, (M) Networking, 2-21 NICONFIG, (M) Networking, 1–16 sample batch queuing system, (M) Maintaining CONFIGURE command, (M) System Generation, VMS, 5-7 to 5-11 SGN-8 sample Phase IV DECnet-VAX, (M) Configuring a printer, (M) LATCP, LAT-10, Networking, 1–5 LAT-37 sample print queuing system, (M) Maintaining /CONFIRM qualifier, (M) Analyze/Disk, VMS, 5-11 to 5-17 ADSK-6; (M) Backup, BCK-41; (M) Mount, SMP, Dependability Handbook, 4–5 MOUNT-16 software integration, Dependability Handbook, EXCHANGE/NETWORK command, V5.5 New 8 - 22Features, E-18 three LAN segments in a local area VAXcluster, CONFREGL array, (P) Device Support (A), 16-7 (M) VAXcluster, 2–12; Dependability CONINTERR.EXE, (P) Device Support (A), 19-8, Handbook, 7-8 19 - 13tightly coupled system kernels, Dependability cancel I/O routine of, (P) Device Support (A), Handbook, 4-6 19-12two LAN segments in a local area VAXcluster, connecting to, (P) Device Support (A), 19-9 (M) VAXcluster, 2–11; Dependability Conjugate of complex number, (P) RTL Math, Handbook, 7-7 MTH-44, MTH-45 type, (M) VAXcluster, 2-1 CONNECT/ADAPTER=adapter-spec command, typical VAXcluster, (M) Networking, 1-11 (M) System Generation, SGN-10 VAX PSI, (M) Networking, 1-5, 5-1, 5-2 CONNECT/ADAPTER command CONFIGURATION commands, (M) SYSMAN, change to syntax, V5.5 Release Notes, 4-18 SM-10CONNECT attribute, (P) File Def Language, See also Local area cluster FDL-2, FDL-8 Configuration control block CONNECT command, (U) DCL Dictionary, See ACF DCL1-60 to DCL1-62; (M) Setting Up VMS, Configuration database, (M) DECnet-VAX Guide, 6-18; (M) DTS/DTR, DTS-5; (P) Debugger, 4-12; (M) Networking, 2-1, 3-1, 5-4, 5-14 10-4, 10-13, CD-36; (P) I/O User's I, 8-17 circuit entry, (M) Networking, 2-7 See also System Generation Utility DECnet-VAX, (M) System Management Intro, CONNECT CONSOLE command, (M) Setting Up 7-4; (M) DECnet-VAX Guide, 2-26, 2-27, VMS, 6–18; (M) System Generation, SGN-13 3-12, 3-33; (M) Networking, 1-18, 3-1 CONNECT/CONTINUE command, (M) Security, for local node, (M) DECnet-VAX Guide, 2-26 line entry, (M) Networking, 2-13 Connection, (M) LATCP, LAT-33, LAT-58; (P) logging entry, (M) Networking, 2–38 Device Support (A), 17-5, 17-9 node entry, (M) Networking, 2-2, 3-6 See also Asynchronous connection permanent, (M) DECnet-VAX Guide, 3-32 breaking, (P) Device Support (B), 2-73 tailoring with NCP, (M) DECnet-VAX Guide, CI, (M) DECnet-VAX Guide, 3-11 3 - 31count of requests for, (M) DECnet-VAX Guide, VAX PSI, (M) Networking, 1–18, 3–3

4-3

volatile, (M) DECnet-VAX Guide, 3-32

X.25 access module entry, (M) Networking, 2-6

Connection (cont'd) displaying SDA information, (P) System Dump Analyzer, SDA-87, SDA-123, SDA-148 Ethernet, (M) DECnet-VAX Guide, 3-5, 3-11 multipoint, (M) DECnet-VAX Guide, 1-10 obtaining characteristics of, (P) Device Support (B), 2-75 to 2-76 of communications hardware, (M) DECnet-VAX Guide, 3-4 point-to-point, (M) DECnet-VAX Guide, 1-10 requesting, (P) Device Support (A), 17–26; (P) *Device Support* (B), 2–70 to 2–71 setting characteristics of, (P) Device Support (B), 2-88 to 2-89 specifying type of, (M) LATCP, LAT-28 synchronous, (M) DECnet-VAX Guide, 3-5 synchronous DDCMP, (M) DECnet-VAX Guide, verification of network, (M) DECnet-VAX Guide, 3-28, 3-29 Connection characteristics buffer, (P) Device Support (B), 2–88 Connection descriptor table See CDT Connection manager, (M) System Management Intro, 6-2, 6-12 to 6-14; (M) VAXcluster, 1-4, displaying SDA information, (P) System Dump Analyzer, SDA-82 /CONNECTION qualifier, (P) System Dump Analyzer, SDA-148 CONNECTIONS class adding or restoring, (M) Show Cluster, SHCL-27 fields belonging to, (M) Show Cluster, SHCL-35 to SHCL-37 removing, (M) Show Cluster, SHCL-63 Connections management database See CLUSTER window Connection test, (M) DTS/DTR, DTS-5 invoking, (M) DTS/DTR, DTS-5 types of, (M) DTS/DTR, DTS-5 CONNECT/NOADAPTER command, (M) System Generation, SGN-12 CONNECT NODE command, (M) Networking, 4-25; (M) Network Control Program, NCP-46 PHYSICAL ADDRESS parameter, (M) Networking, 4-25

SERVICE PASSWORD parameter, (M)

VIA parameter, (M) Networking, 4-25

ASYNCHRONOUS secondary attribute, (P)

File Applications, 9-9, 9-15, 9-18, 9-19,

Networking, 4–25

CONNECT primary attribute

END\_OF\_FILE secondary attribute, (P) File Applications, 9–10 FAST\_DELETE secondary attribute, (P) File Applications, 9-9, 9-12, 9-20 FILL BUCKETS secondary attribute, (P) File Applications, 9-13, 9-18 GLOBAL\_BUFFER\_COUNT secondary attribute, (P) File Applications, 9-9 KEY\_GREATER\_EQUAL attribute, (P) File Applications, 8-9 KEY\_GREATER\_EQUAL secondary attribute, (P) File Applications, 9–12, 9–15 KEY\_GREATER\_THAN attribute, (P) File Applications, 8-9, 8-10 KEY\_GREATER\_THAN secondary attribute, (P) File Applications, 9–13, 9–15 KEY LIMIT secondary attribute, (P) File Applications, 9-13, 9-16 KEY\_OF\_REFERENCE secondary attribute, (P) File Applications, 9-13, 9-15 LOCATE\_MODE secondary attribute, (P) File Applications, 9-9, 9-16 LOCK\_ON\_READ secondary attribute, (P) File Applications, 7-11, 9-16LOCK ON WRITE secondary attribute, (P) File Applications, 7–11, 9–16, 9–18 MANUAL LOCKING secondary attribute, (P) File Applications, 9–16 MANUAL\_UNLOCKING secondary attribute, (P) File Applications, 7–15 MULTIBLOCK\_COUNT secondary attribute, (P) File Applications, 3–11, 7–18, 9–9 MULTIBUFFER COUNT secondary attribute. (P) File Applications, 3–11, 3–13, 3–26, 7-17, 7-18, 7-19, 7-20, 9-9 NOLOCK secondary attribute, (P) File Applications, 7-11, 9-15 NONEXISTENT\_RECORD attribute, (P) File Applications, 8-9 NONEXISTENT RECORD secondary attribute. (P) File Applications, 7–15, 9–16 READ AHEAD secondary attribute, (P) File Applications, 9-9, 9-16 READ REGARDLESS secondary attribute, (P) File Applications, 7–12, 9–16 TIMEOUT PERIOD secondary attribute, (P) File Applications, 7-12, 9-17, 9-19 TRUNCATE\_ON\_PUT secondary attribute, (P) File Applications, 9–11, 9–19 UPDATE IF attribute, (P) File Applications, UPDATE IF secondary attribute, (P) File Applications, 9–11, 9–19 WAIT FOR RECORD secondary attribute, (P) File Applications, 7-12, 9-17

CONNECT primary attribute (cont'd)

File Applications, 9–12

DELETE\_ON\_CLOSE secondary attribute, (P)

Connector node

9 - 20

See X.25

```
CONNECT primary attribute (cont'd)
                                                     Console terminal, (M) System Management Intro,
  WRITE_BEHIND secondary attribute, (P) File
                                                         1-2, 4-3; (P) I/O User's I, 8-1
      Applications, 9-10, 9-19
                                                     Console volumes
Connect service, (P) File Applications, 8-5; (P)
                                                        transferring information to and from, (M)
   RMS, RMS-6
                                                            Maintaining VMS, 2-8
  and asynchronous operations, (P) File
                                                     Constant, (P) VAXTPU, 3-5 to 3-6
      Applications, 8-18
                                                        local, (P) VAXTPU, 3-20
  and next record, (P) File Applications, 8-15,
                                                        predefined, (P) VAXTPU, 3-13
      8-16
                                                        specifying radix of, (P) VAXTPU, 3-37
  comparing positioning for various file
                                                        TPU$K_DISJOINT, (P) VAXTPU, 7-198, 7-368
      organizations, (P) RMS, RMS-7
                                                        TPU$K_INVISIBLE, (P) VAXTPU, 7-198,
  condition values, (P) RMS, RMS-9
                                                            7 - 368
  connecting record stream, (P) RMS, 4-4
                                                        TPU$K_OFF_LEFT, (P) VAXTPU, 7-198,
  control block input fields, (P) RMS, RMS-7
                                                            7 - 368
  control block output fields, (P) RMS, RMS-8
                                                        TPU$K_OFF_RIGHT, (P) VAXTPU, 7-198,
  effect on next-record position, (P) File
      Applications, 8-16
                                                        TPU$K_UNMAPPED, (P) VAXTPU, 7-198,
  program example, (P) RMS, 4-12
                                                            7-368
  use with multiple keys, (P) RMS, 4-12
                                                     CONSTANT declaration, (P) VAXTPU, 3-35
Connect to interrupt driver
                                                     Constraints
  See CONINTERR.EXE
                                                        putting into perspective, Dependability
                                                            Handbook, 4-3
Connect to interrupt facility
                                                        to achieve dependability, Dependability
  cancel I/O routine, (P) Device Support (A),
                                                            Handbook, 4-1
       19-18 to 19-19
                                                     Construction phase
  condition values returned, (P) Device Support
                                                        applying dependability strategies
      (A), 19–11
                                                            error correction, Dependability Handbook,
  CONNECT command, (P) Device Support (A),
                                                                1-21
                                                            failure recovery, Dependability Handbook,
  example of A/D converter using, (P) Device
      Support (A), 19-19, 19-21 to 19-23
                                                            fault tolerance, Dependability Handbook,
  example of time sampling using, (P) Device
      Support (A), 19-19, 19-23 to 19-25
                                                        building dependable systems, Dependability
  example of watchdog timer using, (P) Device
                                                            Handbook, 1-16
      Support (A), 19-19, 19-20 to 19-21
                                                     Contents-of operator, (P) Debugger, 4-6, 4-19,
  interrupt service routine, (P) Device Support
                                                         D-7
      (A), 19-16 to 19-18
                                                     Context
  mapping I/O address space, (P) Device Support
                                                        generating key value for, (P) DECthreads,
      (A), 19–8
                                                            cma-69, pthread-65
  privileges required, (P) Device Support (A),
                                                        obtaining, (P) DECthreads, cma-71,
      19 - 12
                                                            pthread-61
  programming language requirements, (P)
                                                        per-thread, (P) DECthreads, 2–18
      Device Support (A), 19–14
                                                        SDA CPU, (P) System Dump Analyzer, SDA-10
  start I/O routine, (P) Device Support (A), 19-15
                                                        SDA process, (P) System Dump Analyzer,
       to 19-16
                                                            SDA-9
  SYSGEN requirements, (P) Device Support (A),
                                                        setting, (P) DECthreads, cma-73, pthread-101
       19 - 9
                                                        uses for, (P) DECthreads, cma-69, pthread-65
  unit initialization routine, (P) Device Support
                                                      CONTEXT attribute, (P) File Def Language,
      (A), 19–15
                                                          FDL-10, FDL-18
  user-specified routines, (P) Device Support (A),
                                                     context data type, (P) Routines Intro, A-5t
      19-9, 19-13 to 19-19
                                                     Context modes, (P) Patch, PAT-15
CONNECT VIA command, (M) Networking, 4-25;
    (M) Network Control Program, NCP-48
                                                        See also Entry and display modes
Console connection, (M) DECnet-VAX Guide, 2-27
                                                     Context switch
                                                        scalar, (P) MACRO, 10-19, 10-20, 10-43
Console disk
                                                        vector, (P) MACRO, 10-32
  See RX01 console disk
                                                     Context variable
                                                        use with DCX routines, (P) Utility Routines,
                                                            DCX-16
```

Contiguity, (P) File Applications, 10–29 CONTIGUOUS attribute, (P) File Def Language,	CONTROL access, (U) Files and Devices, 2–3; (M) Security, 4–5
FDL-7, FDL-18	See also Access
Contiguous-best-try option, (P) File Applications, 4-30	and directory file, (M) Security, 4–8 and disk file, (M) Security, 4–8
See also FAB\$V_CBT option	and READALL privilege, (M) Security, 4-7
Contiguous option, (P) File Applications, 4–30	and volume, (M) Security, 4-10
See also FAB\$V_CTG option	changing directory protection, (M) Security,
CONTIGUOUS qualifier, (U) Sort/Merge,	4–13
SORT-42; (P) Linker, LINK-4	for a device, (U) DCL Concepts, 8–6
CONTIGUOUS secondary attribute, (P) File	for a file, (U) DCL Concepts, 8–9
Applications, 3-23, 4-30	for a global section, (U) DCL Concepts, 8–10
CONTIN.SYS, (U) Files and Devices, A-3 Contingency planning	for a logical name table, (U) DCL Concepts, 8–10
service from Digital, Dependability Handbook, 10-3	for a volume, (U) DCL Concepts, 8-7 in UIC-based protection, (U) DCL Concepts,
Continuation character (-), (U) Command	8–4
Procedures, 1–3	Control action
in listing file, (P) MACRO, 3–9	inhibiting, (P) Programming Resources, 7-42
in source statement, (P) MACRO, 2-1	Control and status register
use in VMS RMS coding, (P) RMS, 3-6	See CSR
Continuation file, (U) Files and Devices, A–3	Control block, (P) File Def Language, FDL-2
Continuation volumes	See also Data structure
in volume set, (M) Maintaining VMS, 3-5	See also VMS RMS
mounting, (U) Files and Devices, $3-17$	dual purpose, (P) RMS, 1-4
CONTINUE command, (U) Using VMS, 1–21,	field name conventions, (P) RMS, 2–2
3–5, 8–54; ( <i>U</i> ) <i>DCL Dictionary</i> , DCL1–63 to	for extended attributes, (P) RMS, 1–3
DCL1-64; (M) Audit Analysis, AUD-28	for file name operations, (P) RMS, 1-3
resuming command execution, (U) DCL	for file services, (P) RMS, 1–2
Concepts, 2–2, 2–3	formatting, (P) System Dump Analyzer,
CONTINUE option, (M) Maintaining VMS, 3–8	SDA-56
Continuing the command line, (U) DCL Concepts, 1–4	for record services, (P) RMS, 1-4
Continuous improvement process	macro names, (P) RMS, 3-2
defined, Dependability Handbook, Glossary-1	network, (M) DECnet-VAX Guide, 2–15
for dependability, Dependability Handbook, 2-1	requirements for valid default values, (P) RMS, 1–4
analysis phase, Dependability Handbook,	symbolic bit offset, (P) RMS, 2-4
2–4	symbolic constant (keyword) value, (P) RMS,
integration phase, Dependability	2-4
Handbook, 2–4	symbolic naming exceptions, (P) RMS, 2-3
operational phase, Dependability	symbolic offsets, (P) RMS, 2–2
Handbook, 2–3	types of macros, (P) RMS, 3-1
planning phase, Dependability Handbook,	use restrictions, (P) RMS, 2-1
2–2	use with VAX languages, (P) RMS, 2-1
Continuous processing	Control block store macro
multiple system kernels, Dependability	description, (P) RMS, 3-1
Handbook, 4-6	example, (P) RMS, 3-9
CONTINUOUS qualifier, (M) Show Cluster,	placement guidelines, (P) RMS, 3–8
SHCL-17	requirement for number sign, (P) RMS, 3–8
Control	use of R0, (P) RMS, 3-8 Control character, (U) Mail, MAIL-5; (U) Phone
of line traffic, (M) Networking, 3–57	PHONE-2
of logical link activity, (M) Networking, 2-31,	entering, (P) VAXTPU, 3–2
3–74	list, $(P)$ $I/O$ $User$ 's $I$ , $B-1$
of tributaries, (M) Networking, 3-42	terminal, (P) I/O User's I, 8-4 to 8-6, 8-9
station, (M) Networking, 1-8, 2-9	translation
	example, (P) VAXTPU, A-2
	champie, (1) 111111 0,11-2

.CONTROL CHARACTERS command, (U) DSR Controller loopback test, (M) DECnet-VAX Guide, Ref, 2-14, A-5 4-9; (M) Networking, 7-6, 7-8 Control code Controlling data compaction, V5.5 New Features, function key, (P) VAXTPU, 7-241 Control connection routines, (P) I/O User's I, C-1 Controlling of page and line, (M) Maintaining PTD\$CANCEL, (P) I/O User's I, C-2 VMS, 5-51 PTD\$CREATE, (P) I/O User's I, C-3 Control mask PTD\$DELETE, (P) I/O User's I, C-6 See Device activation bit mask PTD\$READ, (P) I/O User's I, C-7 Control region, (P) System Services Intro, 12-2; PTD\$SET\_EVENT\_NOTIFICATION, (P) I/O (P) System Dump Analyzer, SDA-14 User's I, C-9 adding page to, (P) System Services Ref. PTD\$WRITE, (P) I/O User's I, C-12 SYS-218 Control flag, (U) DSR Ref, 3-10 base register, (P) System Dump Analyzer, default, (U) DSR Ref, 3-10 SDA-14 definition, (U) DSR Ref, 1-2 deleting page from, (P) System Services Ref, recognizing, (U) DSR Ref, 2-47 SYS-147; Obsolete Features, 2-6 Control instructions, (P) MACRO, 9-42 examining, (P) System Dump Analyzer, CONTROL key, (U) EDT Ref, A-1 SDA-52Control keys, (U) EDT Ref, EDT-2 length register, (P) System Dump Analyzer, See also SHOW KEY command SDA-14 defining, (U) EDT Ref, EDT-8 Control region operator (H), (P) System Dump restrictions with QUOTE, (U) EVE Ref, Analyzer, SDA-12 EVE-107 Control region page table Controller displaying, (P) System Dump Analyzer, See Device controller SDA-127 Control region space prefix symbol, (P) Controller designation field default value, (U) Using VMS, 2-10; (U) DCL Delta/XDelta, DELTA-9 Concepts, 3-6 Control register definition, (U) Using VMS, 2-9; (U) DCL See CSR Concepts, 3-4 See MBA\$L\_CR Controller designator, (U) VMS Intro, 3-4 Control routine, (P) RMS, 4-27 Controller initialization routine, (P) Device Control sequence Support (A), 1-3, 11-1 to 11-6, 12-4, 12-8 function key, (P) VAXTPU, 7-241 address, (P) Device Support (A), 4-6, 6-3, 11-1, terminal, (P) I/O User's I, 8-8 14-30; (P) Device Support (B), 1-25, 2-26, CONTROL\_C\_INTERCEPTION package, (P) Debugger, 12-32 allocating controller data channel in, (P) Device CONTROL\_FIELD\_SIZE attribute, (P) File Def Support (A), 8-4 Language, FDL-34, FDL-35 context, (P) Device Support (A), 11-1; (P) CONTROL FIELD SIZE secondary attribute, (P) Device Support (B), 4-8 File Applications, 4–29 entry point, (P) Device Support (B), 4-8 CONV\$CONVERT routine, (P) Utility Routines, exit method, (P) Device Support (B), 4-8 CONV-8 for generic VAXBI device, (P) Device Support CONV\$PASS\_FILES routine, (P) Utility Routines, (A), 16-12 to 16-18 CONV-11 forking, (P) Device Support (B), 1-21 CONV\$PASS\_OPTIONS routine, (P) Utility forking in, (P) Device Support (A), 3-24, 11-6 Routines, CONV-14 for terminal port driver, (P) Device Support CONV\$RECLAIM routine, (P) Utility Routines, (A), 18–12; (P) Device Support (B), 2–7 CONV-18; (P) Convert, CONV-4 functions, (P) Device Support (A), 11-1; (P) Conventional computing Device Support (B), 4-9 business example, Dependability Handbook, input, (P) Device Support (A), 11-2; (P) Device 1 - 3Support (B), 4-8 defined, Dependability Handbook, 1-2 register usage, (P) Device Support (B), 4-8 Conventional VAX systems, Dependability synchronization requirements, (P) Device Handbook, 6-6 Support (A), E-11 to E-12; (P) Device Conversation Support (B), 4-8 over the network, (M) DECnet-VAX Guide,

2-11

CONVERT command (cont'd) Conversational boot, (M) Setting Up VMS, 3-1 LMCP Utility, V5.5 New Features, B-77 Conversational bootstrap passing options, (P) Utility Routines, CONV-14 controlling, (M) VAXcluster, 7-31 passing options in an array, (P) Utility Conversation text, (U) Phone, PHONE-2 Routines, CONV-16 Conversion, (P) Convert, CONV-3 setting qualifiers, (P) Utility Routines, binary text to unsigned integer, (P) RTL CONV-14 General Purpose, OTS-18 using over the network, (M) DECnet-VAX floating-point to character string, (P) RTL Guide, 2-9 General Purpose, OTS-4 CONVERT/DOCUMENT command, (U) DCL hexadecimal text to unsigned integer, (P) RTL Dictionary, DCL1-66 to DCL1-72 General Purpose, OTS-37 creating an options file, (U) DCL Dictionary, integer to binary text, (P) RTL General DCL1-67 Purpose, OTS-6 CONVERT/FDL command, (P) Programming integer to FORTRAN L format, (P) RTL Resources, 8-58 General Purpose, OTS-9 Converting audit event message, (P) System integer to hexadecimal, (P) RTL General Services Ref, SYS-262 Purpose, OTS-16 Converting from EDT to EVE, (U) EVE Ref. 1-39 numeric text to binary, (P) RTL Library, equivalent commands, (U) EVE Ref, A-1 LIB-76 Convert option numeric text to floating-point, (P) RTL General See RAB\$V\_CVT option Purpose, OTS-31, OTS-35 of VFC records, (P) Convert, CONV-15 CONVERT/RECLAIM unsigned decimal to integer, (P) RTL General See Convert/Reclaim Utility Purpose, OTS-28 CONVERT/RECLAIM command, (U) DCL unsigned octal to signed integer, (P) RTL Dictionary, DCL1-73 General Purpose, OTS-25 Convert/Reclaim Utility (CONVERT/RECLAIM), Conversion function (P) Programming Resources, 1–39; (P) creating File Applications, 1–14, 3–16; (P) Convert, using inverted conversion function. (P) CONV-1, CONV-3 National Char Set, NCS-12 DCL qualifier, (P) Convert, CONV-24 using modified conversion function, (P) directing output from, (P) Convert, CONV-5 National Char Set, NCS-11 example using name of existing conversion function, reclaiming buckets, (P) Convert, CONV-29 (P) National Char Set, NCS-11 exiting, (P) Convert, CONV-5 using reordered conversion function, (P) invoking, (P) Convert, CONV-5 National Char Set, NCS-12 restrictions, (P) Convert, CONV-5 using series of conversion functions, (P) with DECnet-VAX, (P) Convert, CONV-3 National Char Set, NCS-11 with Prolog 3 files, (P) File Applications, 3-17, expression forms listed, (P) National Char Set, 10-30 NCS-11 Convert routines MODIFICATIONS keyword clause format, (P) See CONV routines National Char Set, NCS-16 CONVERT TABS command, (U) EVE Ref. processing order for multiple, (P) National **EVE-29** Char Set, NCS-11 using with search string (EVE), (U) Text using to create collating sequence, (P) National Processing, 1-20 Char Set, NCS-9 Convert Utility (CONVERT), (M) VAXcluster, Conversion of double to single floating-point value, B-2; (P) Programming Resources, 1-39; (P) RTL Math, 1–9 (P) File Applications, 1–13, 9–8; (P) Convert, Conversion to greatest floating-point integer, (P) CONV-1; (P) File Def Language, FDL-3 RTL Math, 1–6 appending a remote file, (P) Convert, CONV-30 CONVERT converting a carriage control to stream, (P) See Convert Utility Convert, CONV-30 CONVERT built-in procedure, (P) VAXTPU, 7-50 converting a remote file, (P) Convert, CONV-29 example of use, (P) VAXTPU, B-1 to B-4 converting carriage control formats, (P) CONVERT command, (U) DCL Dictionary, Convert, CONV-2 DCL1-65; (M) Monitor, MON-33; (P) RMS, creating data files, (P) File Applications, 4-17, 4-18; (P) File Def Language, FDL-41

list of qualifiers, (P) Utility Routines, CONV-14

Convert Utility (CONVERT) (cont'd) Coordinate measuring system creating output files, (P) Convert, CONV-1 converting to character-cell system, (P) DCL qualifiers, (P) Convert, CONV-5 to *VAXTPU*, 7–50 CONV-28 Coordination directing output from, (P) Convert, CONV-5 of access to data, (M) System Management establishing RFAs, (P) Convert, CONV-4 Intro, 6-12 examples, (P) Convert, CONV-28 to CONV-30 of cluster membership, (M) System converting a carriage control file to variable Management Intro, 6-12 length, (P) Convert, CONV-30 Coping with disasters, Dependability Handbook, converting fixed format to variable length, 5 - 10(P) Convert, CONV-30 business considerations, Dependability converting record formats, (P) Convert, Handbook, 5-15 CONV-29 environment, Dependability Handbook, 5-10 improving a file's performance, (P) Convert, time domain considerations, Dependability CONV-29 Handbook, 5-11 reorganizing a remote file, (P) Convert, COPY command, (U) VMS Intro, 6-8; (U) Using CONV-29 VMS, 1-33, 2-16; (U) Files and Devices, 4-1, exception conditions, (P) Convert, CONV-3 5-1; (U) Mail, MAIL-10, MAIL-32; (U) DCL exiting, (P) Convert, CONV-5 Concepts, 3-5, 3-19, 8-9; (U) DCL Dictionary, FDL output data file, (P) File Def Language, DCL1-74 to DCL1-83; (U) EVE Ref, EVE-30; FDL-41 (M) Exchange, EXCH-15 to EXCH-22; (M) invoking, (P) Convert, CONV-5 Authorize, AUTH-20; (P) System Dump library routine, (P) File Def Language, FDL-41 Analyzer, SDA-3, SDA-4, SDA-42; License loading output files, (P) Convert, CONV-1 Management, LMF-59 to LMF-62 making a file contiguous, (P) File Applications, ANSI-labeled volumes 10 - 30copying from, (U) Files and Devices, 5-3 optimizing data files, (P) File Applications, /CONTIGUOUS qualifier, (P) File Applications, 10 - 299-8, 10-29 populating a file, (P) File Applications, 4-22 disk files, (U) Files and Devices, 5-2 reorganizing files, (P) File Applications, 10-31 EDT editor, (U) Text Processing, 2-30, 2-36 reorganizing noncontiguous files, (P) File /LOG qualifier, (U) Files and Devices, 5-7 Applications, 3-26, 10-30 magnetic tape, (U) Files and Devices, 4-15 restrictions, (P) Convert, CONV-5 copying files from, (U) Files and Devices, using over the network, (M) DECnet-VAX 5 - 3Guide, 2-9copying to, (U) Files and Devices, 5-2 using to merge SYSUAF.DAT files, (M) moving text with (EVE), (U) Text Processing, VAXcluster, B-1 using to restore contiguity on fragmented disks, non-file-structured volumes, (U) Files and (M) Performance Management, 3-36 Devices, 5-6 using to transfer information, (U) Files and printing DSR output with, (U) Using VMS, Devices, 5–8 with corrupted files, (P) File Applications, to rename files, (U) DCL Concepts, 3-19 10-1, 10-2 using for remote files, (M) DECnet-VAX Guide, with DECnet-VAX, (P) Convert, CONV-3 with FDL files. (P) File Applications, 4-2 using with DEC windows compound documents, with Prolog 1 and 2 files, (P) File Applications, (U) DCL Dictionary, DCL1-75 3 - 16using with search string (EVE), (U) Text with Prolog 3 files, (P) File Applications, 3-17 Processing, 1–20 **CONV** routines Copying examples, (P) Utility Routines, CONV-1 to files over the network, (M) DECnet-VAX Guide, CONV-7 2-5.3-29introduction, (P) Utility Routines, CONV-1 vector, (P) RTL Math, MTH-160 list of, (P) Utility Routines, CONV-1 Copying a handle, (P) DECthreads, cma-63 using wildcard characters, (P) Utility Routines, Copying mail CONV-12 to a sequential file, (U) Mail, MAIL-3 Cooling equipment Copying node database, (M) Networking, 1–18, controlling temperature and humidity, 2-3, 3-23, 3-27

Dependability Handbook, 5-4

Counters (cont'd) Copying text displaying for services, (M) LATCP, LAT-58 COPY, (U) EDT Ref, EDT-125 frequency of logging, (M) DECnet-VAX Guide, /DUPLICATE qualifier, (U) EDT Ref, EDT-137 EVE editor, (U) Text Processing, 1-21 line, (M) Networking, 3-64; (M) Network INCLUDE, (U) EDT Ref, EDT-147 Control Program, A-7 PASTE, (U) EDT Ref, EDT-298 logging, (M) Networking, 3-27 PRINT, (U) EDT Ref, EDT-157 network use of, (M) DECnet-VAX Guide, 4-3 WRITE, (U) EDT Ref, EDT-253 node, (M) Networking, 3-27; (M) Network COPY KNOWN NODES command, (M) Control Program, A-11 Networking, 3-23; (M) Network Control resetting, (M) LATCP, LAT-61 Program, NCP-49 resetting to zero, (M) DECnet-VAX Guide, 4-3 FROM parameter, (M) Networking, 3-23 summary of network, (M) Network Control TO qualifier, (M) Networking, 3-24 Program, A-1 USING qualifier, (M) Networking, 3-24 X.25 protocol module, (M) Networking, 3–34; WITH CLEAR qualifier, (M) Networking, 3-24 (M) Network Control Program, A-13 WITH PURGE qualifier, (M) Networking, 3-24 X.25 server module, (M) Network Control Copy operation, (M) Backup, BCK-19 Program, A-14 COPY/PROTECTION command, (M) Security, zeroing, (M) Networking, 3-27 5-12COUNTERS class /COPY qualifier, (M) Mount, MOUNT-17 adding, (M) Show Cluster, SHCL-29 Copy string, (P) RTL General Purpose, OTS-90 fields belonging to, (M) Show Cluster, COPY/TRUNCATE command, V5.5 Release Notes, SHCL-37 to SHCL-38 removing, (M) Show Cluster, SHCL-65 COPY\_TEXT built-in procedure, (P) VAXTPU, COUNTERS display type, (M) Networking, 3-99 7-53 to 7-54 Counter timer, (M) Networking, 3-27 Core image file, (U) Files and Devices, A-3 expiration of, (M) DECnet-VAX Guide, 4-4 CORIMG.SYS, (U) Files and Devices, A-3 COUNTER TIMER parameter Coroutine, (P) Device Support (B), 3-35, 3-46, for circuit, (M) Networking, 3-51 3-59, 3-109 for executor, (M) Networking, 3–27 Corrupted file, (P) Analyze/RMS\_File, ARMS-14 for node, (M) Networking, 3-27 Corruption Counting semaphore. (P) Programming Resources. detecting, (P) Device Support (A), 13-23 to 4-17: (P) RTL Parallel Processing, 4-10 13 - 27operations on, (P) RTL Parallel Processing, of data, (U) Files and Devices, 3-19 Cosine Count specifier hyperbolic, (P) RTL Math, MTH-51, MTH-88 nokeypad mode, (U) EDT Ref, EDT-274 in degrees, (P) RTL Math, MTH-49, MTH-87, with APPEND, (U) EDT Ref, EDT-261 MTH-127 with CHGC (change case), (U) EDT Ref. in radians, (P) RTL Math, MTH-47, MTH-86, EDT-266 MTH-124 with CHGL (change case lower), (U) EDT Ref, of complex number, (P) RTL Math, MTH-26, EDT-267 MTH-28with CHGU (change case upper), (U) EDT Ref, Cost EDT-268 circuit, (M) DECnet-VAX Guide, 1-3; (M) with circumflex (^), (U) EDT Ref, EDT-269 Networking, 3–68 with CUT, (U) EDT Ref, EDT-275 control for circuit, (M) Networking, 2-29 with D (delete), (U) EDT Ref, EDT-276 determining for circuit, (M) Networking, 3-68 with FILL, (U) EDT Ref, EDT-289 equal cost path splitting, (M) Networking, with "move", (U) EDT Ref, EDT-296 with PASTE, (U) EDT Ref, EDT-298 2-29, 3-70for routing, (M) Networking, 2-28 with R (replace), (U) EDT Ref, EDT-302 COST parameter with S (substitute), (U) EDT Ref, EDT-305 for circuit, (M) Networking, 3-68 with SHL (shift left), (U) EDT Ref, EDT-309 Cost tradeoffs, Dependability Handbook, 4-21 with SHR (shift right), (U) EDT Ref, EDT-310 Counters, (M) LATCP, LAT-1 with SN (substitute next), (U) EDT Ref, circuit, (M) Networking, 3-51; (M) Network EDT-311 Control Program, A-1, A-3 with TAB, (U) EDT Ref, EDT-315 displaying for links, (M) LATCP, LAT-43 with TADJ (tab adjust), (U) EDT Ref, EDT-317 displaying for nodes, (M) LATCP, LAT-49

Count specifier (cont'd) CPU ID (CPU identification number), (M) Setting with TD (tab decrement), (U) EDT Ref, Up VMS, 2-19; (P) System Dump Analyzer, EDT-320 SDA-89; (P) Device Support (B), 1-17, 3-70 with TI (tab increment), (U) EDT Ref, **CPU** limitation EDT-323 compensating for, (M) Performance with UNDC (undelete character), (U) EDT Ref, Management, 5-17 EDT-326 isolating, (M) Performance Management, 4-34 with UNDL (undelete line), (U) EDT Ref, CPULOA.EXE EDT-327 global symbols, (P) System Dump Analyzer, with UNDW (undelete word), (U) EDT Ref, SDA-60 EDT-329 CPU power, (M) LATCP, LAT-29 CPU\$L\_PHY\_CPUID, (P) Device Support (B), CPU resource 3 - 70affected by swapping, (M) Performance CPU\$Q\_SWIQFL, (P) Device Support (A), E-14; Management, 3-26 (P) Device Support (B), 3–26, 3–30 equitable sharing, (M) Performance CPU\$Q\_WORK\_IFQ, (P) Device Support (B), 1-17 Management, 3-13 CPU (central processing unit) estimating available capacity, (M) Performance adding capacity, (M) Performance Management, Management, 3-11 4 - 38evaluating responsiveness, (M) Performance defining default time limit for batch jobs, (U) Management, 3-10 DCL Dictionary, DCL1-253, DCL2-204, function, (M) Performance Management, 3-9 DCL2-347 improving responsiveness, (M) Performance defining maximum time limit for batch jobs, Management, 3-13 (U) DCL Dictionary, DCL1-253, DCL1-267, load balancing in a VAXcluster, (M) DCL2-205, DCL2-348 Performance Management, 3-19 determining when capacity is reached, (M) offloading, (M) Performance Management, 3-19 Performance Management, 4-38 reducing consumption by the system, (M) displaying error count for, (U) DCL Dictionary, Performance Management, 3-14 DCL2-279 CPU time, (P) Convert, CONV-24 identification for downline load, (M) limit, (M) Setting Up VMS, 5-3 Networking, 4-16 limiting for batch job, Obsolete Features, 1–22 limiting time for batch job, (U) DCL Dictionary, Crash dump DCL2-138, DCL2-379 See also System failure list, (P) Device Support (A), 1-10 analysis, (P) System Dump Analyzer, SDA-1 to multiple, Dependability Handbook, 4-6 SDA-165 per-CPU database, (P) Device Support (B), incomplete, (P) System Dump Analyzer, SDA-7 1-12 to 1-19 short, (P) System Dump Analyzer, SDA-7 locating, (P) Device Support (A), E-7; (P) System Dump Analyzer, (M) Setting Up VMS, Device Support (B), 2-31 2 - 12SMP configurations, Dependability Handbook, Crash dump file header, (P) System Dump Analyzer, SDA-106 time requirements, (M) Networking, 5-39 /CRASH\_DUMP qualifier, (P) System Dump time spent in compatibility mode, (M) Analyzer, SDA-6 Performance Management, 4-38 CRB\$B\_MASK, (P) Device Support (A), 4-6, 16-8 time spent in supervisor mode, (M) CRB\$L\_DLCK, (P) Device Support (A), 3-22 Performance Management, 4-38 CRB\$L\_INTD, (P) Device Support (A), 4-6; (P) time used by current process, (U) DCL Device Support (B), 1-22 to 1-27 Dictionary, DCL2-319 CRB\$L\_INTD+VEC\$L\_INITIAL, (P) Device CPU context Support (A), 11-5 changing, (P) System Dump Analyzer, SDA-68, CRB\$L\_INTD+VEC\$L\_UNITINIT, (P) Device SDA-74, SDA-89, SDA-93, SDA-126 Support (A), 11-5 displaying, (P) System Dump Analyzer, CRB\$L\_LINK, (P) Device Support (A), 15–13 SDA-89 CRB\$L\_WQBL, (P) Device Support (A), 16-8 CPUDISP macro, (P) Device Support (A), 5-6; (P) CRB\$L\_WQFL, (P) Device Support (A), 4-6, 16-8; Device Support (B), 2-9 to 2-11 (P) Device Support (B), 3-86, 3-91 CRB\$V\_UNINIT, (P) Device Support (A), 16-8

- CRB (channel request block), (P) System Dump Analyzer, SDA-99; (P) Device Support (A), 1-6, 4-6 to 4-7; (P) Device Support (B), 1-19 to 1-27
  - alternate map register allocation information, (P) Device Support (A), 14–20
  - creation, (P) Device Support (A), 12-4
  - data path allocation information, (P) Device Support (A), 14-17 to 14-18
  - for generic VAXBI device, (P) Device Support (A), 16-8
  - fork block, (P) Device Support (A), 3-24, 12-7; (P) Device Support (B), 1-21
  - for MBA, (P) Device Support (A), 15-4, 15-7 to 15-8, 15-13, 15-15
  - initializing, (P) Device Support (A), 6-3; (P) Device Support (B), 2-25
  - map register allocation information, (P) Device Support (A), 14-20
  - periodic wakeup of, (P) Device Support (B), 1–22
  - primary, (P) Device Support (A), 15–13; (P) Device Support (B), 1–73
  - reinitializing, (P) Device Support (A), 6–3; (P) Device Support (B), 2–25
  - secondary, (P) Device Support (A), 15–13; (P) Device Support (B), 1–22
  - synchronizing access to, (P) Device Support (A), 3–16
- CRC (Calculate Cyclic Redundancy Check) instruction, (P) MACRO, 9–142
- CR character, (P) File Def Language, FDL-35 /CRC qualifier
  - as input save-set qualifier,  $\it (M)\ Backup$ , BCK-42
  - as output save-set qualifier, (M) Backup, BCK-43
- CRDENABLE parameter, (M) System Generation, A-9
- Create and Map Section, (P) System Services Ref, SYS-117
- CREATE command, (U) VMS Intro, 2-4; (U)
  Using VMS, 2-16; (U) DCL Dictionary,
  DCL1-84 to DCL1-88; (M) Setting Up VMS,
  6-16; (M) Install, INS-13; (M) System
  Generation, SGN-14; (P) Patch, PAT-4,
  PAT-48; (P) File Def Language, FDL-40,
  FDL-42; (P) System Dump Analyzer, SDA-2;
  Obsolete Features, 4-7; License Management,
  LMF-63
  - LMCP Utility, V5.5 New Features, B-78 magnetic tape, (U) Files and Devices, 4-19 using over the network, (M) DECnet-VAX Guide, 2-7

- CREATE/DIRECTORY command, (U) VMS Intro, 3-8; (U) Using VMS, 2-21, 7-11; (U) Files and Devices, 2-12, 4-15; (U) DCL Concepts, 3-12, 8-8; (U) DCL Dictionary, DCL1-89 to DCL1-91; (M) Security, 4-9
- CREATE/DIRECTORY/OWNER\_UIC command, (M) Security, 4–31
- CREATE DIRECTORY/PROTECTION command, (M) Security, 4–33
- Created local label, (P) MACRO, 4-7 range, (P) MACRO, 3-7
- /CREATED qualifier, (M) Backup, BCK-44 EXCHANGE/NETWORK command, V5.5 New Features, E-18
- CREATE/FDL
  - See Create/FDL Utility
- CREATE/FDL command, (U) DCL Dictionary, DCL1-92; (P) Programming Resources, 8-57; (P) RMS, 4-9
- Create/FDL Utility (CREATE/FDL), (P)
  Programming Resources, 1–39; (P) File
  Applications, 1–14, 4–2, 4–17, 10–1; (P) File
  Def Language, FDL–41, FDL–42
  - creating a data file, (P) Programming Resources, 8–57; (P) File Def Language, FDL-41
  - exiting, (P) File Def Language, FDL-43 invoking, (P) File Def Language, FDL-43 restrictions, (P) File Def Language, FDL-43
- Create file function, (P) I/O User's I, 1–22 directory entry creation, (P) I/O User's I, 1–26
- Create-if option, (P) File Applications, 4-17, 4-27, 5-9; (P) RMS, 4-1
  - See also FAB\$V CIF option
- CREATE LINK command, (M) LATCP, LAT-8 \$CREATE macro, (P) RMS, 3-10
- Create Mailbox and Assign Channel (\$CREMBX), (P) System Services Intro, 8-3, 8-20
- CREATE/NAME\_TABLE command, (U) Using VMS, 4-14; (U) DCL Concepts, 4-15, 8-10; (U) DCL Dictionary, DCL1-93 to DCL1-96
- CREATE PORT command, V5.5 Release Notes, 2-33: (M) LATCP. LAT-10
- CREATE PORT/LOGICAL command, V5.5 Release Notes, 2–33
- CREATE/PROXY command, (M) Security, 8-14; (M) Authorize, AUTH-22
- /CREATE qualifier, (U) EVE Ref, 1–9; (P)
  Librarian, LIB–12, LIB–17; (P) File
  Applications, 4–11; (P) Convert, CONV–8,
  CONV–17; (P) File Def Language, FDL–42;
  (P) National Char Set, NCS–24; (P) VAXTPU,
  5–7
- EDIT/FDL, (P) File Def Language, FDL-48 CREATE/RIGHTS command, (M) Security, 5-5; (M) Authorize, AUTH-23

```
condition values, (P) RMS, RMS-19
  contrasted with Open service, (P) RMS, 4-1
  control block input fields, (P) RMS, RMS-11
  control block output fields, (P) RMS, RMS-15
  for process-permanent files, (P) File
      Applications, 6-21
  function, (P) RMS, 4-1
  handling search list, (P) RMS, RMS-11
  invoking, (P) RMS, 4-1
  program example, (P) RMS, 4-2
  prolog level, (P) RMS, RMS-18
  using the create-if option, (P) RMS, RMS-17
  using the NAM block, (P) RMS, RMS-16
  using to create indexed files, (P) RMS, RMS-18
  XAB override in various fields, (P) RMS,
      RMS-11
CREATE SERVICE command, V5.5 Release Notes,
    2–33; (M) LATCP, LAT-13
"Create" string constant parameter to GET_INFO,
   (P) VAXTPU, 7-177
CREATE/TERMINAL command, (U) DCL
   Dictionary, DCL1-97 to DCL1-102
CREATE_ARRAY built-in procedure, (P)
    VAXTPU, 7-55 to 7-57
CREATE_BUFFER built-in procedure, (P)
    VAXTPU, 7-58 to 7-62, 7-203
CREATE_IF attribute, (P) File Def Language,
   FDL-19
CREATE_IF secondary attribute, (P) File
   Applications, 4-27
CREATE_KEY_MAP built-in procedure, (P)
    VAXTPU, 7-63 to 7-64
CREATE_KEY_MAP_LIST built-in procedure, (P)
    VAXTPU, 7-65 to 7-66
CREATE_PROCESS built-in procedure, (P)
    VAXTPU, 7-67 to 7-68
CREATE_RANGE built-in procedure, (P)
    VAXTPU, 7-69 to 7-71
$CREATE_RDB, (P) System Services Ref, SYS-79
CREATE_WIDGET built-in procedure, (P)
    VAXTPU, 7-72
  example of use, (P) VAXTPU, B-4 to B-11
  using to specify callback routine, (P) VAXTPU,
      4–9
  using to specify resource values, (P) VAXTPU,
CREATE_WINDOW built-in procedure, (P)
    VAXTPU, 2-26, 7-77 to 7-79
Creating
  attributes object, (P) DECthreads, cma-15
  condition variable attributes object, (P)
      DECthreads, pthread-29
  mutex attributes object, (P) DECthreads,
      pthread-70
  thread attributes object, (P) DECthreads,
```

pthread-3

Create service, (P) File Applications, 4–17, 5–9;

(P) RMS, RMS-10

```
Creating a condition variable, (P) DECthreads,
   cma-45, pthread-37
Creating a generic queue, (M) Maintaining VMS,
   5 - 57
Creating a mutex, (P) DECthreads, cma-77,
   pthread-80
Creating a network, (M) DECnet-VAX Guide.
   2-27, 3-1
Creating an execution queue, (M) Maintaining
    VMS, 5-56
  autostart, (M) Maintaining VMS, 5-56
  nonautostart, (M) Maintaining VMS, 5-57
Creating a public volume, (M) Maintaining VMS,
Creating a queue database, (M) Maintaining
   VMS, 5-54
Creating a subprocess, (U) Mail, MAIL-104; (M)
   LATCP, LAT-60
Creating a thread, (P) DECthreads, cma-95,
   pthread-47
  guardsize attribute, (P) DECthreads, cma-19,
      cma-31
  inherit scheduling attribute, (P) DECthreads,
      cma-21, cma-33, pthread-7, pthread-15
  priority attribute, (P) DECthreads, cma-25,
      cma-37, pthread-9, pthread-17
  scheduling policy attribute, (P) DECthreads,
      cma-27, cma-39, pthread-11, pthread-19
  stacksize attribute, (P) DECthreads, cma-29,
      cma-41, pthread-13, pthread-21
Creating a transaction log file, V5.5 New Features,
   B - 69
Creating a volume set, (M) Maintaining VMS, 2-6
Creating distribution lists, (U) Mail, MAIL-6
Creating files, (U) Mail, MAIL-3
  with EDT, (U) EDT Ref, EDT-1
Creating log files
  operator log file, (M) Maintaining VMS, 6-7,
  security audit log file, (M) Maintaining VMS,
Creating per-thread context key value, (P)
   DECthreads, cma-69, pthread-65
CREATION attribute, (P) File Def Language,
   FDL-16
Creation date and time field
  See XAB$Q_CDT field
Creation date field, (U) Files and Devices, B-12
  zero creation date, (U) Files and Devices, B-13
Creation-time option, (P) File Applications, 3-9,
    4-1, 4-2, 4-17, 4-27, 4-28
CREDITS class
  adding, (M) Show Cluster, SHCL-31
  fields belonging to, (M) Show Cluster,
      SHCL-38
  removing, (M) Show Cluster, SHCL-66
$CRETVA, (P) System Services Ref, SYS-114
  See also $EXPREG
```

```
$CRFCTLTABLE macro, (P) RTL Library, 8-1,
$CRFFIELDEND macro, (P) RTL Library, 8-1,
$CRFFIELD macro, (P) RTL Library, 8-1, 8-3
Critical section
  definition of, (P) RTL Parallel Processing, 1-2
$CRMPSC, (P) System Services Ref, SYS-117
.CROSS directive, (P) MACRO, 6-16
Crossed cable, (M) VAXcluster, C-12
Cross-reference directive
  .CROSS, (P) MACRO, 6-16
  .NOCROSS, (P) MACRO, 6-16
  (.NOCROSS), (P) MACRO, 6-66
Cross-reference of symbols, (P) Linker, 5–1,
   LINK-5
  in map, (P) Linker, 5-6
Cross-reference routines, (P) RTL Library, 8–1
Cross-training personnel, Dependability
   Handbook, 1–5
  See also Comprehensive training
  at CSC data center, Dependability Handbook,
      11-7
  relationship to role boundaries, Dependability
      Handbook, 5-9
/CROSS_REFERENCE qualifier, (P) Librarian,
   LIB-19; (P) Linker, LINK-5
  using with /ONLY, (P) Librarian, LIB-35
  using with /OUTPUT, (P) Librarian, LIB-36
CROSS_WINDOW_BOUNDS keyword, (P)
    VAXTPU, 7-361
"Cross_window_bounds" string constant parameter
   to GET_INFO, (P) VAXTPU, 7-197
CSB (cluster system block), (P) System Dump
   Analyzer, SDA-82, SDA-87
CSC data center
  lights out case study, Dependability Handbook,
  using DCM, Dependability Handbook, 11-22
  using DECalert, Dependability Handbook,
      11 - 15
  using DECmcc, Dependability Handbook,
      11 - 22
  using DECnet Monitor, Dependability
      Handbook, 11-21
  using ETHERnim, Dependability Handbook,
      11 - 21
  using LAN Traffic Monitor, Dependability
      Handbook, 11–21
  using Storage Library System, Dependability
      Handbook, 11–23
  using VAXcluster Console System.
      Dependability Handbook, 11–22
  using VAXsimPLUS, Dependability Handbook,
      11 - 23
```

```
CSID (cluster system identification number), (P)
    System Dump Analyzer, SDA-82, SDA-144
CSID qualifier, (P) System Dump Analyzer,
    SDA-82
CS keyword
  description, (P) National Char Set, NCS-13
CSMA/CD (carrier sense, multiple access with
    collision detect), (M) Networking, 1-7
CSR (control and status register), (P) I/O User's
    II, 3-5; (P) Device Support (A), 14-4, 14-23
  See also Device registers
  address, (P) Device Support (A), 4-7, 8-4,
       14-23; (P) Device Support (B), 1-36
  bad address, (P) Device Support (B), 1-36
  bit assignment, (P) I/O User's II, 3-16
  displaying address, (P) Device Support (A),
  fixed space, (M) System Generation, B-1; (P)
      Device Support (A), 12-14
  floating space, (M) System Generation, B-1;
      (P) Device Support (A), 12-14
  loading, (P) Device Support (A), 8-5
  locating device registers from, (P) Device
      Support (A), 14-23
  of LP11 printer, (P) Device Support (A), 2-5
  specifying address, (P) Device Support (A),
  specifying offset for multiunit controller, (P)
      Device Support (A), 12-6
CTDRIVER, (P) I/O User's I, 8-11, 8-35
CTG option, (P) File Def Language, FDL-7,
    FDL-19
CTL$GL_CCBBASE, (P) Device Support (B),
    3 - 103
CTL$GL_PCB, (P) Device Support (A), E-6
Ctrl/A, (U) EDT Ref, EDT-30
  See also Tabbing functions
  changing editing mode with, (U) Text
      Processing, 1-12
  command line editing with, (U) Text Processing,
      1-6
Ctrl/B, (U) DCL Concepts, 2-7
  recalling command line with, (U) Text
      Processing, 1-7
  recalling commands with, (U) Using VMS,
      1-18, 1-21; (U) DCL Concepts, 2-6
Ctrl/C, (U) Mail, MAIL-5; (P) Programming
    Resources, 7-33; (P) Debugger, 2-7, 10-4,
    10-9, CD-38; (P) VAXTPU, 4-20
  See also Ctrl/Y
  See also Sending messages
  and CONTINUE command, (U) DCL
      Dictionary, DCL1-63
  and corrupted EVE journal file, (U) Using
      VMS, 8-24
  canceling a MAIL message with, (U) Using
      VMS, 1-28
```

Ctrl/C (cont'd)	Ctrl/S
canceling EDT command with, (U) Using VMS, 8-51 continuing after, (U) DCL Dictionary, DCL1-63	See also TYPE command stopping scrolling of terminal display, (U) VMS
interrupting or canceling DCL commands with,	Intro, 2–5
(U) Using VMS, 1-17, 1-20, 1-21; (U)	Ctrl/T, (U) EDT Ref, EDT-45
DCL Concepts, 2-1, 2-7	See also Tabbing functions
keypad mode, (U) EDT Ref, EDT-32	checking the status of your process, (U) VMS Intro, 1-7
See also Aborting operation	enabling, (U) Using VMS, 1–20
line mode, $(U)$ EDT Ref, EDT-127	interrupting DCL commands with, (U) Using
See also Aborting operation nokeypad mode, (U) EDT Ref, EDT-272	VMS, 1–18, 1–20; (U) DCL Concepts, 2–1, 2–8
See also Aborting operation restriction with keystroke journaling, (U) DCL	Ctrl/U, (U) DCL Concepts, 2–5, 2–6, 2–8; (U) EDT Ref, EDT-47
Dictionary, DCL1-200	See also Deleting text
with case-style error handler, (P) VAXTPU, 3–29, 3–30	See also FIND keypad function command line editing with, (U) Text Processing
with procedural error handler, (P) VAXTPU,	1–6
3–27, 3–28 Ctrl/D, <i>(U) EDT Ref</i> , EDT–34	erasing text with, (U) Text Processing, 1–14 Ctrl/V
See also Tabbing functions	inserting characters with, (U) Text Processing,
Ctrl/E, (U) EDT Ref, EDT-35	1–12
See also Tabbing functions	inserting escape characters, (U) Text
command line editing with, (U) Text Processing,	Processing, 1–13
1-6 maying the aureau with (II) Tout Processing	Ctrl/W, (U) EDT Ref, EDT-48; (P) Debugger, CD-40, CD-69
moving the cursor with, (U) Text Processing, 1–8	See also Refreshing screen
Ctrl/F, (U) EDT Ref, EDT-67	refreshing screen display in EDT with, (U)
Ctrl/H, (U) EDT Ref, EDT-22	Using VMS, 8–53
See also Tabbing functions	refreshing screen display in EVE with, (U)
moving the cursor with, (U) Text Processing,	Using VMS, 8–23
1–8 Ctrl/I, <i>(U) EDT Ref</i> , EDT–103	refreshing screen display with, (U) Using VMS, 1–18, 3–5
See also Formatting, text	refreshing the screen with, (U) Text Processing,
See also Tabbing functions	1–38
formatting text with, (U) Text Processing, 1–39	Ctrl/x
Ctrl/J, (U) EDT Ref, EDT-79	See Terminal, control characters
See also Deleting text	Ctrl/Y, (P) Programming Resources, 7–33; (P) Debugger, 2–7, 3–3, 3–4, 10–12, CD–41
erasing text with, (U) Text Processing, 1–14	See also Ctrl/C
Ctrl/K, (U) EDT Ref, EDT-37; (M) Terminal Fallback, TFU-23	aborting remote session with, (U) Using VMS,
See also Defining keys	1–4
composing characters using, (M) Terminal	action taken during execution, (U) Command
Fallback, TFU-3	Procedures, 7-6 and CONTINUE command, $(U)$ $DCL$
Ctrl/L, (U) $EDT$ $Ref$ , $EDT$ -40	Dictionary, DCL1–63
formatting text with, (U) Text Processing, 1–39	and EXIT command, (U) DCL Dictionary,
Ctrl/M, (U) EDT Ref, EDT-42  formatting tout with (U) Tout Proceeding 1, 20	DCL1-222
formatting text with, (U) Text Processing, 1–39 Ctrl/O	and login procedure, (U) DCL Dictionary,
See TYPE command	DCL1-392
Ctrl/Q	and ON command, (U) DCL Dictionary, DCL2-2
See also TYPE command	and restricted accounts, (M) Security, 5–48
resuming scrolling of terminal display, (U)	continuing after, (U) DCL Dictionary, DCL1–63
$VMS\ Intro,\ 2-5$	default action for nested procedure, (U)
Ctrl/R, (U) EDT Ref, EDT-44, EDT-128	Command Procedures, 7–9
	disabling, (U) Command Procedures, 7–10

Ctrl/Y (cont'd) CUG (closed user group), (M) Networking, 2-6, interrupting a command procedure with, 3-33, 3-82 (U) Using VMS, 6-30, 6-32; (U) DCL Concepts, 7-6; (U) Command Procedures, Current interrupting an EDT editing session with, (U) Using VMS, 8-54 interrupting an image with, (U) Using VMS, interrupting or canceling DCL commands with, (U) Using VMS, 1-18, 1-20, 1-21; (U) *DCL Concepts*, 2–1, 2–8 interrupting tasks in debugger, (P) Debugger, 12 - 32restriction with SPELL command, (U) EVE Ref, EVE-232 using to abort remote session, (M) DECnet-VAX Guide, 3-3 with DECwindows, (P) Debugger, 1-31 with ON command, (U) Command Procedures, Ctrl/Z, (U) Mail, MAIL-1, MAIL-5; (U) DCL Concepts, 2-1, 2-8; (M) Terminal Fallback, TFU-12; (P) Programming Resources, 7-5, 7–54; (P) Debugger, 3–4, CD–40; (P) File Applications, 4–4 See also Sending messages as command line terminator, (U) Using VMS, as end-of-file terminator, (U) Using VMS, 1–17, 2-16keypad mode, (U) EDT Ref, EDT-49 See also Entering commands line mode, (U) EDT Ref, EDT-129 See also Entering commands nokeypad mode, (U) EDT Ref, EDT-273 See also Entering commands sending a MAIL message with, (U) Using VMS, 1-28 using as end-of-file marker, (P) RMS, RMS-49 using to terminate Get service, (P) RMS, **RMS-49** with I (insert), (U) EDT Ref, EDT-292 8 - 14with INSERT, (U) EDT Ref, EDT-148 with R (replace), (U) EDT Ref, EDT-302 with REPLACE, (U) EDT Ref, EDT-165 writing a file in EDT with, (U) Using VMS, writing a file in EVE with, (U) Using VMS, 8-3 Ctrl functions enabling or disabling Ctrl/C, (U) DCL Dictionary, DCL2-118 Ctrl/T, (U) DCL Dictionary, DCL2-118 Ctrl/Y, (U) DCL Dictionary, DCL2-118

%CURDISP, (P) Debugger, C-6 %CURLOC, (P) Debugger, 4-8, 4-13, D-5 display. (P) Debugger, 7-3, 7-18, CD-117, CD-238 entity, (P) Debugger, 4-8, 4-13, 4-19, D-5 with DECwindows, (P) Debugger, 1-9 image, (P) Debugger, 5-14, CD-138, CD-217 language, (P) Debugger, 4-10, CD-141, CD-220 location. (P) Debugger, 2-10, 6-4, 6-5, 7-6, 7-9 with DECwindows, (P) Debugger, 1-21 radix, (P) Debugger, 4-10, CD-164, CD-234 scope, (P) Debugger, 5-11, CD-166, CD-235 type, (P) Debugger, 4-23, CD-191, CD-252 value, (P) Debugger, 4-6, D-5 Current buffer, (P) VAXTPU, 7-59 active editing point, (P) VAXTPU, 2-4 definition, (P) VAXTPU, 7-80 Current buffer direction, (P) VAXTPU, 7-85 CURRENT command, (U) Mail, MAIL-35 See also Reading Current context current-record position, (P) File Applications, 8 - 15listed for VMS RMS services, (P) File Applications, 8–14 next-record position. (P) File Applications, 8–16 Current date, (P) VAXTPU, 7-138, 7-268, 7-271 Current entity field and buttons in main window with DECwindows, (P) Debugger, 1–9 Current location counter, (P) MACRO, 3-17 Current location symbol (.), (P) System Dump Analyzer, SDA-13 Current pointer position, (P) VAXTPU, 7-252 Current position option See FAB\$V\_POS option /CURRENT qualifier, (P) Debugger, 5-11, CD-166 Current-record context, (P) File Applications, Current-record position, (P) File Applications, 8-3, 8-4 "Current" string constant parameter to GET\_ INFO, (P) VAXTPU, 7-166, 7-167, 7-169, 7-184, 7-191, 7-218 Current time, (P) Programming Resources, 3-23; (P) VAXTPU, 7-138, 7-268, 7-271 Current window, (P) VAXTPU, 2-27, 7-77 CURRENT\_BUFFER built-in procedure, (P) VAXTPU, 7-80 CURRENT\_CHARACTER built-in procedure, (P) VAXTPU, 7-81 to 7-82

Ctrl keys, (U) Using VMS, 1-17 to 1-19; (U)

DCL Concepts, 2-5 to 2-6, 2-7 to 2-8

CURRENT_COLUMN built-in procedure, (P)	Cursor movement (cont'd)
VAXTPU, 7–83 to 7–84	SET WORD DELIMITERS, (U) EDT Ref,
"Current_column" string constant parameter to	EDT-203
GET_INFO, (P) VAXTPU, 7–197, 7–222	TOP, $(U)$ EDT Ref, EDT-105
CURRENT_DIRECTION built-in procedure, (P)	up arrow, (U) EDT Ref, EDT-111, EDT-331
VAXTPU, 7–85	WORD, (U) EDT Ref, EDT-112
CURRENT_LINE built-in procedure, (P)	Cursor patterns, V5.5 Release Notes, 3-12
VAXTPU, 7–86 to 7–87	Cursor position
CURRENT_OFFSET built-in procedure, (P)	compared to editing point, (P) VAXTPU, 6-10
VAXTPU, 7–88 to 7–89	effect of scrolling on, (P) VAXTPU, 7-324
CURRENT_ROW built-in procedure, (P) VAXTPU,	padding effects, (P) VAXTPU, 6-11 to 6-12
7–90 to 7–91	Cursor positioning, (U) EDT Ref, EDT-30,
"Current_row" string constant parameter to	EDT-315
GET_INFO, (P) VAXTPU, 7–197, 7–222	BACKSPACE, (U) EDT Ref, EDT-66
%CURRENT_SCOPE_ENTRY, (P) Debugger,	BOTTOM, (U) EDT Ref, EDT-24
D-10	KS (KED substitute), (U) EDT Ref, EDT-294
CURRENT_WINDOW built-in procedure, (P)	SET PARAGRAPH WPS, (U) EDT Ref,
VAXTPU, 7–92 to 7–93	EDT-185
	SHOW CURSOR, (U) EDT Ref, EDT-210
%CURSCROLL, (P) Debugger, C-6 Cursor	Cursor screen boundaries, V5.5 Release Notes,
	3–12
detached	CURSOR_HORIZONTAL built-in procedure, (P)
defining routine to handle, (P) VAXTPU,	VAXTPU, 7–94
7–367	CURSOR_VERTICAL built-in procedure, (P)
fetching action routine to handle, (P)	VAXTPU, 7–96 to 7–98
VAXTPU, 7–197	%CURVAL, (P) Debugger, 4-6, D-5
fetching reason for, (P) VAXTPU, 7–198	Customer Support Center data center
moving, (P) RTL Screen Management, 4-3	<del></del>
turning on and off, (P) RTL Screen	See CSC data center
Management, SMG-347	Customer training
Cursor colors	advice package from Digital, Dependability
updating, V5.5 Release Notes, 3-14	Handbook, 10-4
Cursor control	comprehensive training solutions,
in EDT, (U) Using VMS, 8-54, 8-58; (U) Text	Dependability Handbook, 10-4
Processing, 2–10	course formats, Dependability Handbook
in EVE, (U) Using VMS, 8-8; (U) Text	10–4
Processing, 1–8	purchase options, Dependability
Cursor direction	Handbook, 10–4
ADV (advance), (U) EDT Ref, EDT-260	Customizing editing sessions
ADVANCE, (U) EDT Ref, EDT-18	EVE editor, (U) Text Processing, 1-71, 1-75
BACK, (U) EDT Ref, EDT-263	CUT command, (U) Using VMS, 8-65; (U)
BACKUP, (U) EDT Ref, EDT-23	EDT Ref, EDT-50, EDT-275; (U) EVE Ref,
Cursor movement, (P) Programming Resources,	EVE-31
7–20; (P) VAXTPU, 7–94, 7–96	See also Deleting text
BACKSPACE, (U) EDT Ref, EDT-22	See also Moving text
CHAR, $(U)$ EDT Ref, EDT-25	See also REMOVE command
down arrow, (U) EDT Ref, EDT-63, EDT-283	moving text with (EVE), (U) Text Processing,
EOL, (U) EDT Ref, EDT-66	1–19
free, $(P)$ VAXTPU, 7–95	using with search string (EVE), (U) Text
in EVE	Processing, 1–20
commands and keys affected, (U) EVE Ref,	CUT keypad function
EVE-153	EDT, (U) Text Processing, 2-14, 2-18, 2-20
left arrow, (U) EDT Ref, EDT-77, EDT-295	CVTBD (Convert Byte to D_floating) instruction,
LINE, (U) EDT Ref, EDT-78	(P) MACRO, 9–110
"move", (U) EDT Ref, EDT-296	CVTBF (Convert Byte to F_floating) instruction,
PAGE, (U) EDT Ref, EDT-82	(P) MACRO, 9–110
right arrow, (U) EDT Ref, EDT-92, EDT-304	(1) 111110100, 0 110
SECT, (U) EDT Ref, EDT-93	
SET CURSOR, (U) EDT Ref, EDT-175	

- CVTBG (Convert Byte to G\_floating) instruction, (P) MACRO, 9-110
- CVTBH (Convert Byte to H\_floating) instruction, (P) MACRO, 9-110
- CVTBL (Convert Byte to Long) instruction, (P) MACRO, 9-16
- CVTBW (Convert Byte to Word) instruction, (P) MACRO, 9-16
- CVTDB (Convert D\_floating to Byte) instruction, (P) MACRO, 9-110
- CVTDF (Convert D\_floating to F\_floating) instruction, (P) MACRO, 9-110
- CVTDH (Convert D\_floating to H\_floating) instruction, (P) MACRO, 9-110
- CVTDL (Convert D\_floating to Long) instruction, (P) MACRO, 9-110
- CVTDW (Convert D\_floating to Word) instruction, (P) MACRO, 9–110
- CVTFB (Convert F\_floating to Byte) instruction, (P) MACRO, 9–110
- CVTFD (Convert F\_floating to D\_floating) instruction, (P) MACRO, 9–110
- CVTFG (Convert F\_floating to G\_floating) instruction, (P) MACRO, 9-110
- CVTFH (Convert F\_floating to H\_floating) instruction, (P) MACRO, 9-110
- CVTFL (Convert F\_floating to Long) instruction, (P) MACRO, 9-110
- CVTFW (Convert F\_floating to Word) instruction, (P) MACRO, 9-110
- CVTGB (Convert G\_floating to Byte) instruction, (P) MACRO, 9–110
- CVTGF (Convert G\_floating to F\_floating) instruction, (P) MACRO, 9-110
- CVTGH (Convert G\_floating to H\_floating) instruction, (P) MACRO, 9-110
- CVTGL (Convert G\_floating to Long) instruction,  $(P)\ MACRO,\ 9{-}110$
- CVTGW (Convert G\_floating to Word) instruction, (P) MACRO, 9-110
- CVTHB (Convert H\_floating to Byte) instruction, (P) MACRO, 9-110
- CVTHD (Convert H\_floating to D\_floating) instruction, (P) MACRO, 9–110
- CVTHF (Convert H\_floating to F\_floating) instruction, (P) MACRO, 9–110
- CVTHG (Convert H\_floating to G\_floating) instruction, (P) MACRO, 9-110
- CVTHL (Convert H\_floating to Long) instruction, (P) MACRO, 9-110
- CVTHW (Convert H\_floating to Word) instruction, (P) MACRO, 9-110
- CVTLB (Convert Long to Byte) instruction, (P) MACRO, 9–16
- CVTLD (Convert Long to D\_floating) instruction, (P) MACRO, 9–110

- CVTLF (Convert Long to F\_floating) instruction, (P) MACRO, 9-110
- CVTLG (Convert Long to G\_floating) instruction, (P) MACRO, 9–110
- CVTLH (Convert Long to H\_floating) instruction, (P) MACRO, 9-110
- CVTLP (Convert Long to Packed) instruction, (P) MACRO, 9-153
- CVTLW (Convert Long to Word) instruction, (P) MACRO, 9-16
- CVT option, (P) File Def Language, FDL-14
- CVTPL (Convert Packed to Long) instruction, (P) MACRO, 9–154
- CVTPS (Convert Packed to Leading Separate Numeric) instruction, (P) MACRO, 9-155
- CVTPT (Convert Packed to Trailing Numeric) instruction, (P) MACRO, 9-157
- CVTRDL (Convert Rounded D\_floating to Long) instruction, (P) MACRO, 9–110
- CVTRFL (Convert Rounded F\_floating to Long) instruction, (P) MACRO, 9-110
- CVTRGL (Convert Rounded G\_floating to Long) instruction, (P) MACRO, 9-110
- CVTRHL (Convert Rounded H\_floating to Long) instruction, (P) MACRO, 9-110
- CVTSP (Convert Leading Separate Numeric to Packed) instruction, (P) MACRO, 9-159
- CVTTP (Convert Trailing Numeric to Packed) instruction, (P) MACRO, 9-161
- CVTWB (Convert Word to Byte) instruction, (P) MACRO, 9–16
- CVTWD (Convert Word to D\_floating) instruction, (P) MACRO, 9–110
- CVTWF (Convert Word to F\_floating) instruction, (P) MACRO, 9-110
- CVTWG (Convert Word to G\_floating) instruction, (P) MACRO, 9–110
- CVTWH (Convert Word to H\_floating) instruction, (P) MACRO, 9–110
- CVTWL (Convert Word to Long) instruction, (P)
  MACRO, 9–16
- Cyclic redundancy checking, V5.5 New Features, D-8
- Cyclic redundancy check instruction, (P) MACRO, 9–141
- Cyclic redundancy check table, (P) RTL Library, LIB-33
- Cylinder, (P) File Applications, 1–5 boundary, (P) File Applications, 3–13 options, (P) File Applications, 4–31

- D (delete) command, (U) EDT Ref, EDT-276 See also Deleting text DAD virtual disk unit, (M) LADCP, LADCP-1
- DAN (data bucket area number) program example, (P) RMS, 4–8

Database (cont'd) DAP (data access protocol), (P) RMS, 1-1 memory-resident (volatile), (M) DECnet-VAX DAP (DECnet file access protocol) Guide, 3-34 extensions, V5.5 Release Notes, 3-10 module, (M) Networking, 3-1, 3-3 Data node, (M) DECnet-VAX Guide, 3-11; (M) aligning, (P) Programming Resources, 8-4 Networking, 3–1 availability, Dependability Handbook, 8-57 object, (M) Networking, 3-2, 3-3 availability with volume shadowing, V5.5 New online restructuring of Rdb/VMS database Features, B-106 characteristics, Dependability Handbook, corruption, (P) Analyze/RMS\_File, ARMS-14 ensuring against loss, V5.5 New Features, permanent, (M) Networking, 1-16, 3-2, 5-42 B - 106permanent network, (M) DECnet-VAX Guide, interprocess, (P) Programming Resources, 5-13 3–12, 3–13 logical, (U) Using VMS, 5-10, 5-15 permanent proxy, (M) DECnet-VAX Guide, numeric, (U) Using VMS, 5-8, 5-13 3 - 35passing to command procedure, (U) Using queue VMS, 6–6 sharing, (P) Programming Resources, 5-13 See Queue database Rdb/VMS as resource manager with DECdtm storing, (U) Using VMS, 5-1 services, Dependability Handbook, 8-15 thread-specific, (P) DECthreads, 2-18 Rdb/VMS automatic cleanup, Dependability Data access protocol Handbook, 8-41 See DAP Rdb/VMS database security, Dependability Data availability, (M) VAXcluster, 3-5 Handbook, 8-44 Database Rdb/VMS failover in VAXclusters, See also Service Dependability Handbook, 8-28 See LICENSE database Rdb/VMS online backup, Dependability accessing when public, (M) DECnet-VAX Guide, Handbook, 8-34 Rdb/VMS use of two-phase commit protocol, authorization, (M) Security, 4-15 Dependability Handbook, 8-39 considerations on a VAXcluster, (M) RDO utility as prototyping tool, Dependability Security, 9-2 Handbook, 8-24 circuit, (M) Networking, 3-1 record, (P) Programming Resources, 8-10 clearing or purging before copying node entries, replication across wide area networks, (M) Networking, 3-24 Dependability Handbook, 3-8 compressing, (P) Programming Resources, 8-26 rights, (M) Security, 4-4, 4-15, 5-5, 5-7 configuration use of transaction sequence numbers in See Configuration database Rdb/VMS online backup, Dependability copying node, (M) Networking, 1-18, 2-3, 3-23, Handbook, 8-35 3 - 27using DECtrace with Rdb/VMS, Dependability creating (volatile node), (M) DECnet-VAX Handbook, 8-46 Guide, 3-17 VAX PSI, (M) Networking, 1–16, 3–3 DECnet node and circuit, (M) Security, 8-6 volatile, (M) Networking, 1-16, 3-2 DECnet-VAX, (M) System Management Intro, volatile network, (M) DECnet-VAX Guide, 7-4; (M) Networking, 1-18 3-12, 3-25DECnet-VAX configuration, (M) DECnet-VAX Database administrator Guide, 2-26, 2-27, 3-12, 3-31, 3-33, 4-12 defined, Dependability Handbook, Glossary-1 default object, (M) DECnet-VAX Guide, 3-12 Data bucket, (P) File Def Language, FDL-27 dependability features, Dependability reclaiming, (P) Convert, CONV-24 Handbook, 8-27 to 8-46 Data bucket area number expanding, (P) Programming Resources, 8-32 See DAN failover of Rdb/VMS databases in VAXclusters Data bucket area number field minimizing impact of component failure, See XAB\$B\_DAN field Dependability Handbook, 8-33 Data bucket fill size placement of files, Dependability See DFL Handbook, 8-31 Data bucket fill size field line, (M) Networking, 3-1 See XAB\$W\_DFL field logging, (M) Networking, 3-1 Data bucket size field

Data compression Data bucket size field (cont'd) See XAB\$B\_DBS field compression algorithm (cont'd) DATA BUCKET structure, (P) File Applications, submitting all data records, (P) Utility 10-16, 10-20 Routines, DCX-15 Data buffer, LPA11-K, (P) I/O User's I, 4-14 size of data after compression, (P) Utility Data card deck, (M) Maintaining VMS, 5-94 Routines, DCX-1 **Data Center Monitor** Data Compression/Expansion routines See DCM See DCX routines Data centers Data compression facility, (P) Programming backup procedures, Dependability Handbook, Resources, 8-25 9 - 18Data dependence, (P) RTL Parallel Processing, evaluation checklists 5-2 to 5-4 application software, Dependability antidependence, (P) RTL Parallel Processing, Handbook, A-18 5-2compliance summary table, Dependability control dependence, (P) RTL Parallel Handbook, A-21 Processing, 5-2, 5-3 environmental management, Dependability output dependence, (P) RTL Parallel Handbook, A-5 Processing, 5-2, 5-3general planning, Dependability true dependence, (P) RTL Parallel Processing, Handbook, A-3 5-2in SYS\$EXAMPLES, Dependability **Data Distributor** Handbook, A-1 use in wide area networks, Dependability organization, Dependability Handbook, Handbook, 3-8 Data-expanded format security, Dependability Handbook, A-10 using /DATA qualifier, (P) National Char Set, service and support, Dependability NCS-26 Handbook, A-20 Data expansion, (P) Utility Routines, DCX-22 suggested use of, Dependability Handbook, See also DCX routines initializing, (P) Utility Routines, DCX-25 locking the computer, Dependability Handbook, Data field, (M) Show Cluster, SHCL-2 Data file management techniques, Dependability creating, (P) File Applications, 4-17; (P) Handbook, 9-1 Convert, CONV-1; (P) File Def Language, operations overview, Dependability Handbook, FDL-39 9 - 10creating with FDL\$CREATE routine, (P) File security policies, Dependability Handbook, Applications, 4-15, 4-18 9 - 25reorganizing, (P) File Applications, 10-29 software environment, Dependability Data format in NCS library Handbook, 9-18 specifying with /DATA qualifier, (P) National Data chaining, (P) I/O User's II, 4-2, 6-26 Char Set, NCS-26 Data check **Datagrams** changing default, (U) DCL Dictionary, Ethernet, (M) Networking, 1-7 DCL2-240 Data integrity disk, (P) I/O User's I, 3-15, 3-29, 3-30 defined, Dependability Handbook, Glossary-1 magnetic tape, (P) I/O User's I, 6-8, 6-17, Data integrity checking, (M) DTS/DTR, DTS-8 6 - 18Data level Data circuit-terminating equipment comparing for primary and alternate keys, (P) See DCE RMS, 13-4 DATA command, (M) DTS/DTR, DTS-7 Data lines, (U) Command Procedures, 1-2 Data compaction in command procedures, (U) Command controlling, V5.5 New Features, B-41 Procedures, 3–5 volume mount, V5.5 New Features, B-43 Data link Data compression, (P) File Applications, 3-16 creating, (M) LATCP, LAT-8 See also DCX routines modifying characteristics of, (M) LATCP, analysis preceding compression. (P) Utility LAT-26 Routines, DCX-13 number supported by LAT, (M) LATCP, LAT-9 compression algorithm problems, (M) DECnet-VAX Guide, 4-13

Data link control, (M) Networking, 2-3, 3-20 Data storage, (P) Device Support (A), 5-1 Data Link layer events, (M) Network Control and file organization, (P) File Applications, 3-2 Program, A-31 device specific, (P) Device Support (A), 4-5, 11-3; (P) Device Support (B), 1-41, 1-68, Data link mapping 2-22 See DLM Data storage directive Data message length, (M) DTS/DTR, DTS-7, .ADDRESS, (P) MACRO, 6-4 DTS-12 .ASCIC, (P) MACRO, 6-8 Data network, (M) Networking, 1-1 .ASCID, (P) MACRO, 6-9 Data packet transmission .ASCII, (P) MACRO, 6-10 and circuit counters, (M) DECnet-VAX Guide, .ASCIZ, (P) MACRO, 6-11 .BYTE, (P) MACRO, 6-14 Data path. (P) Device Support (A), 1-22, 14-7 to .D\_FLOATING, (P) MACRO, 6-20 14-15, 14-17 to 14-19; (P) Device Support .F. FLOATING, (P) MACRO, 6-35 (B), 1-25 to 1-26.G\_FLOATING, (P) MACRO, 6-36 See also Buffered data path .H\_FLOATING, (P) MACRO, 6-38 See also Direct data path .LONG, (P) MACRO, 6-56 autopurging, (P) Device Support (B), 1-8, 2-3 OCTA, (P) MACRO, 6-70 buffered, (P) Device Support (A), 14-3; (P) .PACKED, (P) MACRO, 6-74 Device Support (B), 1-8, 2-3 .QUAD, (P) MACRO, 6-82 direct, (P) Device Support (B), 2-3 .SIGNED\_BYTE, (P) MACRO, 6-91 mixed use of direct and buffered, (P) Device .SIGNED\_WORD, (P) MACRO, 6–92 Support (A), 14-19 .WORD, (P) MACRO, 6-102 purging, (P) Device Support (A), 10-2, 14-14, Data stream 14-19, 14-24 to 14-25; (P) Device Support marking beginning of, (U) DCL Dictionary, (B), 2-51, 3-82 to 3-83 DCL1-111 speed, (P) Device Support (A), 14-10, 14-11, marking end of, (U) DCL Dictionary, 14 - 15DCL1-206 Data path allocation bit map, (P) Device Support Data structure, (P) Analyze/RMS\_File, ARMS-1; (B), 1-9(P) Device Support (B), 1-1 Data path register, (P) Device Support (A), 14-8, See also I/O database 14 - 15cma\_t\_once, (P) DECthreads, cma-87 purge error, (P) Device Support (B), 3-83 DECdtm programming routines, V5.5 New Data path wait queue, (P) Device Support (A), Features, B-40 14-25, E-14; (P) Device Support (B), 1-7, defining bit field within, (P) Device Support 3-88, 3-97 (B), 2-102 to 2-103 /DATA qualifier, (U) Sort/Merge, SORT-60; (P) defining field within, (P) Device Support (B), Librarian, LIB-20; (P) National Char Set, 2-14, 2-15, 2-16 NCS-26 FAB (file access block), (P) Programming See also /COMPRESS qualifier Resources, 1-36 using with /OUTPUT, (P) Librarian, LIB-36 formatting, (P) System Dump Analyzer, Data record, (P) Analyze/RMS\_File, ARMS-6; SDA-56 (P) File Def Language, FDL-5 global symbols, (P) System Dump Analyzer, analysis, (P) Utility Routines, DCX-11 SDA-60 compression, (P) Utility Routines, DCX-1 initializing, (P) Device Support (A), 6-1; (P) conversion, (P) Utility Routines, CONV-1 Device Support (B), 2-24 to 2-26 conversion statistics, (P) Utility Routines, NAM (name block), (P) Programming CONV-8 Resources, 1-36 expansion, (P) Utility Routines, DCX-1 pthread\_once\_t, (P) DECthreads, pthread-88 Data record compaction, V5.5 New Features, B-42 RAB (record access block), (P) Programming TA90E support, V5.5 Release Notes, 2-52; (U) Resources, 1-36 DCL Dictionary, DCL1-246, DCL2-177 stepping through a linked list, (P) System Data-reduced format Dump Analyzer, SDA-64 using /DATA qualifier, (P) National Char Set, XAB (extended attribute block), (P) NCS-26 Programming Resources, 1–36 Data reliability, (P) File Applications, 9–11 Data terminal equipment Data security erase See DTE See DSE

Data test, (M) DTS/DTR, DTS-7 Data transfer See also DMA transfer, PIO transfer alignment, (P) Device Support (A), 14-3 buffering mechanisms, (P) Device Support (A), 17 - 15byte aligned, (P) Device Support (A), 14-3, 14–22; (P) Device Support (B), 2–3, 3–78 byte count, (P) Device Support (B), 1-79, 1-83 byte offset, (P) Device Support (A), 14-13, 14-18; (P) Device Support (B), 1-79, 3-77 incomplete, (P) Device Support (A), 17-19 in reverse direction, (P) Device Support (A), 15-4, 15-15 longword-aligned 32-bit random-access, (P) Device Support (A), 14-11 mapping local buffer for, (P) Device Support (A), 17–27 mapping local buffer for SCSI port, (P) Device Support (A), 17-16 to 17-17; (P) Device Support (B), 2–77 to 2–79 maximum size of, (P) Device Support (A), 17-14, 17-19 meaning of terms read and write, (P) I/OUser's II, 3-5 mixing read and write functions in, (P) Device Support (A), 14-10 negative byte count, (P) Device Support (B), 3-32, 3-35, 3-41, 3-43, 3-46, 3-55, 3-56, 3 - 59overlapping with seek operation, (P) Device Support (A), 8-2 performing, (P) Device Support (A), 17-13 to 17 - 19size, (P) Device Support (A), 14-23 speed, (P) Device Support (A), 14-10, 14-11, starting address, (P) Device Support (A), 14-22 to 14-23; (P) Device Support (B), 1-79 to randomly ordered addresses, (P) Device Support (A), 14-10 unmapping local buffer, (P) Device Support (A), 17-17, 17-28; (P) Device Support (B), 2-91 word aligned, (P) Device Support (A), 14-3; (P) Device Support (B), 3-78 zero byte count, (P) Device Support (B), 3-32, 3-41, 3-55 Data transfer command table LPA11-K, (P) I/O User's I, 4-11 Data transfer mode, (P) I/O User's II, 3-4 as controlled by a third-party SCSI class driver, (P) Device Support (A), 17–13; (P) Device

Data transfer mode (cont'd) determining setting of, (P) Device Support (B), 2-75synchronous, (P) I/O User's I, 11-7, 11-13; (P) Device Support (A), 17–13; (P) Device Support (B), 2-88 Data transfer start command LPA11-K, (P) I/O User's I, 4-12 Data transfer stop command LPA11-K, (P) I/O User's I, 4-14 Data transmission media, (M) DECnet-VAX Guide, 1-6 DATATRIEVE prototyping tool, Dependability Handbook, Data type, (U) Using VMS, 2-4; (P) Modular Procedures, B-6; (P) Routines Intro, 2-15; (P) File Applications, 3–16; (P) MACRO, 8–1; (P) VAXTPU, 1-6 to 1-7 See also Type Ada declaration, (P) Routines Intro, A-13 APL declaration, (P) Routines Intro, A-15 atomic, (P) Routines Intro, 2–15 DSC\$K\_DTYPE\_B, (P) Routines Intro, 2-16DSC\$K\_DTYPE\_BU, (P) Routines Intro, DSC\$K DTYPE CIT, (P) Routines Intro, DSC\$K DTYPE D, (P) Routines Intro, DSC\$K\_DTYPE\_DC, (P) Routines Intro, DSC\$K\_DTYPE\_F, (P) Routines Intro, DSC\$K\_DTYPE\_FC, (P) Routines Intro, 2-16DSC\$K\_DTYPE\_G, (P) Routines Intro, 2 - 16DSC\$K DTYPE GC, (P) Routines Intro, DSC\$K\_DTYPE\_H, (P) Routines Intro, 2 - 16DSC\$K\_DTYPE\_HC, (P) Routines Intro, 2-17DSC\$K\_DTYPE\_L, (P) Routines Intro, DSC\$K DTYPE LU, (P) Routines Intro, 2 - 16DSC\$K\_DTYPE\_O, (P) Routines Intro, 2-16DSC\$K\_DTYPE\_OU, (P) Routines Intro, DSC\$K\_DTYPE\_Q, (P) Routines Intro, DSC\$K DTYPE QU, (P) Routines Intro, 2 - 16

Support (B), 2-88

Support (B), 2-88

as controlled by the generic SCSI class driver,

asynchronous, (P) I/O User's I, 11–7, 11–13;

(P) Device Support (A), 17–13; (P) Device

(P) I/O User's I, 11–7, 11–13

Data type Data type atomic (cont'd) miscellaneous (cont'd) DSC\$K\_DTYPE\_W, (P) Routines Intro, DSC\$K\_DTYPE\_ZI, (P) Routines Intro, 2 - 192-16DSC\$K\_DTYPE\_WU, (P) Routines Intro, octaword, (P) MACRO, 8-3 packed decimal string, (P) MACRO, 8-13 2 - 16DSC\$K\_DTYPE\_Z, (P) Routines Intro, Pascal declaration, (P) Routines Intro, A-38 2-16PL/I declaration, (P) Routines Intro, A-42 quadword, (P) MACRO, 8-2 BASIC declaration, (P) Routines Intro, A-18 BLISS declaration, (P) Routines Intro, A-22 RPG II declaration, (P) Routines Intro, A-48 byte, (P) MACRO, 8-1 SCAN declaration, (P) Routines Intro, A-51 C declaration, (P) Routines Intro, A-25 specifying, (U) Sort/Merge, SORT-62 character string, (P) MACRO, 8-7 string, (P) Routines Intro, 2-17; (P) MACRO, checking, (P) VAXTPU, 4-12, 7-432 DSC\$K\_DTYPE\_NL, (P) Routines Intro, COBOL declaration, (P) Routines Intro, A-28 COBOL intermediate temporary, (P) Routines Intro, 2-20 DSC\$K\_DTYPE\_NLO, (P) Routines Intro, code, (P) Routines Intro, 1-8 2 - 18facility-specific, (P) Routines Intro, 2-19 DSC\$K DTYPE\_NR, (P) Routines Intro, reserved, (P) Routines Intro, 2-20 2-18DCL conversion rules, (U) Command DSC\$K\_DTYPE\_NRO, (P) Routines Intro, Procedures, 2–13 2-18definition, (P) VAXTPU, 2-1 DSC\$K\_DTYPE\_NU, (P) Routines Intro, floating-point, (P) MACRO, 8-3, 8-4, 8-5, 2-18DSC\$K\_DTYPE\_NZ, (P) Routines Intro, 9 - 101FORTRAN declaration, (P) Routines Intro, 2-18DSC\$K\_DTYPE\_P, (P) Routines Intro, A - 31integer, (P) MACRO, 8-1 DSC\$K\_DTYPE\_T, (P) Routines Intro, keywords ARRAY, (P) VAXTPU, 2-2 to 2-3 BUFFER, (P) VAXTPU, 2-3 to 2-4 DSC\$K DTYPE\_V, (P) Routines Intro, INTEGER, (P) VAXTPU, 2-5 2 - 18KEYWORD, (P) VAXTPU, 2-5 to 2-7 DSC\$K\_DTYPE\_VT, (P) Routines Intro, LEARN, (P) VAXTPU, 2-7 to 2-8 2-17, 2-21MARK, (P) VAXTPU, 2-8 to 2-10 DSC\$K\_DTYPE\_VU, (P) Routines Intro, PATTERN, (P) VAXTPU, 2-11 to 2-20 2-18PROCESS, (P) VAXTPU, 2-20 to 2-21 trailing numeric string, (P) MACRO, 8-8 PROGRAM, (P) VAXTPU, 2-21 variable-length bit field, (P) MACRO, 8-6 varying character string, (P) Routines Intro, RANGE, (P) VAXTPU, 2-21 to 2-22 STRING, (P) VAXTPU, 2-23 to 2-24 UNSPECIFIED, (P) VAXTPU, 2-24 DSC\$K\_DTYPE\_VT, (P) Routines Intro, WIDGET, (P) VAXTPU, 2-24 to 2-25 WINDOW, (P) VAXTPU, 2-25 to 2-29 VAX standard, (P) Routines Intro, 1-8 leading separate numeric string, (P) MACRO, VMS, (P) Routines Intro, A-1 8-11 access\_bit\_names, (P) Routines Intro, A-2 longword, (P) MACRO, 8-2 access\_mode, (P) Routines Intro, A-2 address, (P) Routines Intro, A-2t MACRO declaration, (P) Routines Intro, A-36 miscellaneous, (P) Routines Intro, 2-18 address\_range, (P) Routines Intro, A-2t DSC\$K\_DTYPE\_ADT, (P) Routines Intro, arg\_list, (P) Routines Intro, A-2t 2 - 19ast\_procedure, (P) Routines Intro, A-2t DSC\$K DTYPE BLV, (P) Routines Intro, boolean, (P) Routines Intro, A-2t byte\_signed, (P) Routines Intro, A-2t DSC\$K\_DTYPE\_BPV, (P) Routines Intro, channel, (P) Routines Intro, A-2t 2 - 19char\_string, (P) Routines Intro, A-2t DSC\$K\_DTYPE\_DSC, (P) Routines Intro, complex\_number, (P) Routines Intro, A-3t 2 - 19cond value, (P) Routines Intro, A-4t DSC\$K\_DTYPE\_ZEM, (P) Routines Intro, context, (P) Routines Intro, A-5t 2 - 19date time, (P) Routines Intro, A-5t

Data type Data type VMS (cont'd) VMS (cont'd) device\_name, (P) Routines Intro, A-5t vector\_longword\_unsigned, (P) Routines ef\_cluster\_name, (P) Routines Intro, A-5t Intro, A-13t ef\_number, (P) Routines Intro, A-5t vector\_quadword\_signed, (P) Routines exit\_handler\_block, (P) Routines Intro, Intro, A-13t A-5tvector\_quadword\_unsigned, (P) Routines fab, (P) Routines Intro, A-5t Intro, A-13t file\_protection, (P) Routines Intro, A-5t vector\_word\_signed, (P) Routines Intro, floating\_point, (P) Routines Intro, A-6t A-13t function\_code, (P) Routines Intro, A-7t vector\_word\_unsigned, (P) Routines Intro, identifier, (P) Routines Intro, A-7t io\_status\_block, (P) Routines Intro, A-7t word\_signed, (P) Routines Intro, A-13t item\_list\_2, (P) Routines Intro, A-8t word\_unsigned, (P) Routines Intro, A-13t item\_list\_3, (P) Routines Intro, A-8t VMS Usage, (P) Routines Intro, 1-7 item\_list\_pair, (P) Routines Intro, A-9t word, (P) MACRO, 8-2 item\_quota\_list, (P) Routines Intro, A-9t Data type of key field lock\_id, (P) Routines Intro, A-9t See XAB\$B\_DTP field lock\_status\_block, (P) Routines Intro, A-9t Data underrun/overrun lock\_value\_block, (P) Routines Intro, A-10t with LPA11-K, (P) I/O User's I, 4-12 logical\_name, (P) Routines Intro, A-10t DATA\_AREA attribute, (P) File Def Language, longword\_signed, (P) Routines Intro, A-10t FDL-27, FDL-28 longword\_unsigned, (P) Routines Intro, DATA AREA secondary attribute, (P) File A-10t Applications, 3-24 mask\_byte, (P) Routines Intro, A-10t /DATA\_CHECK qualifier, (M) Mount, MOUNT-18 mask\_longword, (P) Routines Intro, A-10t DATA\_FILL attribute, (P) File Def Language, mask\_word, (P) Routines Intro, A-10t FDL-4, FDL-27 null\_arg, (P) Routines Intro, A-10t DATA KEY\_COMPRESSION attribute, (P) File octaword\_signed, (P) Routines Intro, A-10t Def Language, FDL-4, FDL-27 octaword\_unsigned, (P) Routines Intro, DATA RECORD COMPRESSION attribute, (P) A-10t File Def Language, FDL-4, FDL-27 page\_protection, (P) Routines Intro, A-10t DATA\_RECORD\_COUNT attribute, (P) File Def procedure, (P) Routines Intro, A-11t Language, FDL-5 process\_id, (P) Routines Intro, A-11t DATA\_SPACE\_OCCUPIED attribute, (P) File Def process\_name, (P) Routines Intro, A-11t Language, FDL-5 quadword\_signed, (P) Routines Intro, Date A-11t See also Absolute time quadword\_unsigned, (P) Routines Intro, See also Combination time A-11t See also Delta time quad\_longword, (P) Routines Intro, A-10t changing system, (U) DCL Dictionary, rab, (P) Routines Intro, A-12t DCL2-234 rights\_holder, (P) Routines Intro, A-11t displaying, (U) DCL Dictionary, DCL2-328 rights\_id, (P) Routines Intro, A-12t getting current system, (P) System Services section id, (P) Routines Intro, A-12t Intro, 10-2 section\_name, (P) Routines Intro, A-12t inserting with FAO, (P) VAXTPU, 7-138 system\_access\_id, (P) Routines Intro, inserting with MESSAGE, (P) VAXTPU, 7-268 A-12t inserting with MESSAGE\_TEXT, (P) VAXTPU, time\_name, (P) Routines Intro, A-12t 7 - 271transaction\_id, (P) Routines Intro, A-12t Smithsonian base, (P) System Services Intro, uic, (P) Routines Intro, A-12t 10 - 2user\_arg, (P) Routines Intro, A-13t specifying absolute and delta combinations, (U) varying\_arg, (P) Routines Intro, A-13t DCL Concepts, 1–16 vector\_byte\_signed, (P) Routines Intro, specifying absolute and delta date and time A-13t combinations, (U) Using VMS, 1-16 vector\_byte\_unsigned, (P) Routines Intro, specifying absolute date and time, (U) Using VMS, 1-15 vector\_longword\_signed, (P) Routines specifying absolute time, (U) DCL Concepts, Intro, A-13t

1-14

Date (cont'd) DBQ prototyping tool, Dependability Handbook, specifying delta date and time, (U) Using VMS, \$DCDEF macro, (P) Device Support (B), 1-76, specifying delta time, (U) DCL Concepts, 1–15 2-3, 2-21 system format, (P) System Services Intro, 10-2 DCE (data circuit-terminating equipment), (M) \$\$Date, (U) DSR Ref, 3-18 Networking, 1–13 Date and time extended address block DCL (DIGITAL Command Language) See XABDAT block CALL command, V5.5 Release Notes, 3-2 DATE attribute, (P) File Def Language, FDL-2, command language routines, (P) Command FDL-15 Def. CDU-17 DATE command, (U) EDT Ref, EDT-278 command processing, (P) Command Def, .DATE command, (U) Text Processing, 3-38, 3-42; CDU-1 to CDU-2 (U) DSR Ref, 2-15 command verb and qualifier length, V5.5 Date-information option, (P) File Applications, Release Notes, 1-16 Debugger commands, V5.5 Release Notes, 3-5 DATE primary, (P) File Applications, 4-28 defined, (U) VMS Intro, 1-3 Date/Time routine DEFINE/FORM command, V5.5 Release Notes, LIB\$DATE\_TIME, (P) RTL Library, LIB-80 1-2LIB\$DAY, (P) RTL Library, LIB-82 definition, (U) Using VMS, 1-1 LIB\$DAY\_OF\_WEEK, (P) RTL Library, ENABLE AUTOSTART/QUEUES, V5.5 Release LIB-84 Notes, 2-49Date within running head expiration of RMS disk files, V5.5 Release See Running head Notes, 3-39 date\_time data type, (P) Routines Intro, A-5t F\$CONTEXT, V5.5 Release Notes, 1-18 /DATE\_TIME qualifier, (P) Debugger, CD-59, IF-THEN-ELSE construct, V5.5 Release Notes, 3 - 22DAT file type, (P) Analyze/RMS\_File, ARMS-10 label scoping in, V5.5 Release Notes, 3-2 DAT\_NCMPR option, (P) File Def Language, OPEN command, V5.5 Release Notes, 1-17 FDL-27 PRINT command Day /PAGES qualifier, V5.5 Release Notes, 1–2 setting default type, (U) DCL Dictionary, remote file-handling commands, (M) DCL2-120 DECnet-VAX Guide, 2-1 \$\$Day, (U) DSR Ref, 3-18 SET DISPLAY command, V5.5 Release Notes, DBBF (Detected Bad Block File) 3-15SET HOST/DTE command, V5.5 Release Notes, displaying contents of, (M) Bad Block, BAD-15 format of, (M) Bad Block, BAD-2 1-17, 3-30 location of, (M) Bad Block, BAD-2 SHOW DEVICES/FULL command, V5.5 updating, (M) Bad Block, BAD-1 Release Notes, 1-18 DBG\$DECW\$DISPLAY SHOW ENTRY, V5.5 Release Notes, 2-11 with DECwindows, (P) Debugger, 1–32, 1–33, SHOW MAGTAPE command, V5.5 Release 1-34, D-1 Notes, 1-18 DBG\$INIT, (P) Debugger, 8-4, D-1 SHOW QUEUE, V5.5 Release Notes, 2-11 DBG\$INPUT, (U) DCL Concepts, 4-7; (P) SUBMIT/DELETE command, V5.5 Release Debugger, 9-5, D-1 Notes, 1-3 with DECwindows, (P) Debugger, 1-33 SUBROUTINE command, V5.5 Release Notes, DBG\$OUTPUT, (U) DCL Concepts, 4-7; (P) 3-2Debugger, 9-5, D-1 subroutine entry points, V5.5 Release Notes, with DECwindows, (P) Debugger, 1-33 DBG\$PROCESS, (P) Debugger, 2-6, 10-1, 10-9, substring assignment, V5.5 Release Notes, 3-3 using, (U) Using VMS, 1-6 with DECwindows, (P) Debugger, 1-3, 1-29 \$DCLAST, (P) System Services Ref, SYS-133 DBMS (database management system) DCL command level as resource manager with DECdtm services, definition, (U) Using VMS, 1-2 Dependability Handbook, 8-15 DCL command line DBQ utility as prototyping tool, Dependability overriding /RECOVER qualifiers on, (P) VAXTPU, 7-408 Handbook, 8-24

DCL commands (cont'd) DCL command procedure, (M) Networking, 8-4, interrupting with Ctrl/T, (U) Using VMS, 1–18, 1 - 20example, (P) VAXTPU, A-5 LIBRARY, (P) Linker, 2-3 example for task-to-task operations, (M) MAIL in network operations, (M) DECnet-VAX Networking, 8-43 Guide, 2–10 for starting object, (M) Networking, 8-43 marking beginning of input stream, (U) DCL DCL commands, (U) VMS Intro, 1-3; (U) Using Dictionary, DCL1–111 VMS, 1-6; (U) Mail, MAIL-1; (U) EVE Ref, marking end of input stream, (U) DCL EVE-32 to EVE-33; (M) SYSMAN, SM-8; Dictionary, DCL1-206 (M) Networking, 1–22 MERGE in network operations, (M) ANALYZE/RMS\_FILE, (P) Programming DECnet-VAX Guide, 2–8 Resources, 8-55 MONITOR DECNET in network operations, ANALYZE/RMS\_FILE in network operations, (M) DECnet-VAX Guide, 4-7 (M) DECnet-VAX Guide, 2-9 OPEN in network operations, (M) DECnet-VAX APPEND in network operations, (M)Guide, 2-13DECnet-VAX Guide, 2-6 PHONE in network operations, (M) ASSIGN, (P) Linker, LINK-21 DECnet-VAX Guide, 2-11 BACKUP in network operations, (M) PRINT/REMOTE in network operations, (M)DECnet-VAX Guide, 2-9 DECnet-VAX Guide, 2-6 CLOSE in network operations, (M) PURGE in network operations, (M) DECnet-VAX Guide, 2-13 DECnet-VAX Guide, 2-7 continuing execution of, (U) DCL Dictionary, READ in network operations, (M) DECnet-VAX DCL1-63 Guide, 2–13 CONVERT/DOCUMENT recalling /MESSAGE\_FILE qualifer, V5.5 New with Ctrl/B, (U) Using VMS, 1-18 Features, 2-6 with down arrow key, (U) Using VMS, CONVERT/FDL, (P) Programming Resources, 1 - 18with up arrow key, (U) Using VMS, 1-18 CONVERT in network operations, (M) REPLY/ENABLE=NETWORK in network DECnet-VAX Guide, 2-9 operations, (M) DECnet-VAX Guide, 4-4 COPY in network operations, (M) DECnet-VAX restrictions on, (U) Files and Devices, 4-1 Guide, 2-5resuming execution of, (U) DCL Dictionary, CREATE/FDL, (P) Programming Resources, DCL1-63 8 - 57RUN, (P) Linker, 2-5 CREATE in network operations, (M)SEARCH in network operations, (M) DECnet-VAX Guide, 2-7 DECnet-VAX Guide, 2-8 DEFINE, (P) Linker, LINK-21 SET FILE DEFINE in network operations, (M) /MOVE qualifer, V5.5 New Features, 11-2 DECnet-VAX Guide, 2-5 /NOMOVE qualifier, V5.5 New Features, DELETE in network operations, (M) 11 - 2DECnet-VAX Guide, 2-7 SET HOST and network security, (M) DIFFERENCE in network operations, (M) DECnet-VAX Guide, 3–34 DECnet-VAX Guide, 2-8 SET HOST/DTE in network operations, (M)DIRECTORY in network operations, (M) DECnet-VAX Guide, 3-25 DECnet-VAX Guide, 2-5 SET HOST in network operations, (M) DUMP/RECORDS in network operations, (M) DECnet-VAX Guide, 2-2, 3-3 DECnet-VAX Guide, 2-9 SET PROTECTION for network file security, EDIT/FDL, (P) Programming Resources, 8–55 (M) DECnet-VAX Guide, 3-34 EDIT in network operations, (M) DECnet-VAX SET TERMINAL Guide, 2-7 /COMMSYNC qualifer, V5.5 New Features, executing within EVE, (U) Using VMS, 8-46 18 - 2executing with SYSMAN DO, (M) SYSMAN, /NOCOMMSYNC qualifer, V5.5 New SM-8Features, 18-2 interrupting or canceling SET TERMINAL in network operations, (M) with Ctrl/C, (U) Using VMS, 1-17, 1-20,  $DECnet ext{-VAX Guide}, 3-19, 3-24$ SET VERIFY, (P) Linker, 3-4

1-21

with Ctrl/Y, (U) Using VMS, 1-18, 1-20,

DCL commands (cont'd) DCX (Data/Expansion) routine, (P) Programming SHOW LOGICAL in network operations, (M) Resources, 8–25 DECnet-VAX Guide, 3-2 DCX routines SHOW NETWORK in network operations, (M) examples, (P) Utility Routines, DCX-2 to DECnet-VAX Guide, 2-2, 3-2, 3-4 DCX-10 SHOW PROCESS/PRIVILEGES in network introduction, (P) Utility Routines, DCX-1 operations, (M) DECnet-VAX Guide, 3-2 procedure for use, (P) Utility Routines, DCX-1 SORT in network operations, (M) DECnet-VAX when to use, (P) Utility Routines, DCX-1 Guide, 2-8 with multiple streams of data records, (P) SUBMIT/REMOTE in network operations, (M) Utility Routines, DCX-1 DECnet-VAX Guide, 2-13 DDB\$L\_LINK, (P) Device Support (A), 11-5 summary of new and enhanced, V5.5 New DDB\$L\_UCB, (P) Device Support (A), 11-5 Features, B-41 DDB\$T\_DRVNAME, (P) Device Support (A), 4-8 TYPE in network operations, (M) DECnet-VAX DDB\$T\_NAME, (P) Device Support (A), 4-8 Guide, 2-5, 2-14 DDB (device data block), (P) System Dump using in EVE, (U) Text Processing, 1-65 Analyzer, SDA-99; (P) Device Support (A), WRITE in network operations, (M) 1-5, 4-8, 11-5; (P) Device Support (B), 1-27 DECnet-VAX Guide, 2-13 DCL command string address. (P) Device Support (B), 1-74 See Command string creation, (P) Device Support (A), 12-4 initializing, (P) Device Support (A), 6-3; (P) DCLDEF.STB, (P) System Dump Analyzer, Device Support (B), 2–25 SDA-60 reinitializing, (P) Device Support (A), 6-3; (P) DCL interpreter global symbols, (P) System Dump Analyzer, Device Support (B), 2–25 DDCMP (DIGITAL Data Communications Message DCL prompt, (U) Using VMS, 1-2, 1-6 Protocol), (M) Networking, 1-5; (P) I/O entering EXCHANGE command at, (M) User's II, 1-1, 2-1 Exchange, EXCH-2, EXCH-11 asynchronous, (M) Networking, 1-5, 1-8, 2-8, 2-14, 3-35, 5-8 in command procedures, (U) DCL Concepts, asynchronous communication, (M) DECnet-VAX 1-3 DCL qualifiers, (U) Mail, MAIL-19 to MAIL-23; Guide, 3-5, 3-18 (M) Audit Analysis, AUD-10 asynchronous connection, (M) DECnet-VAX DCL tables Guide, 1-10 modifications for security, (M) Security, 5-31 asynchronous driver, (M) DECnet-VAX Guide, DCM (Data Center Monitor) 3-19, 3-24asynchronous line, (M) Networking, 1-5, 3-53 use at CSC lights out data center, circuit, (M) Networking, 2-6, 3-35, 3-37 Dependability Handbook, 11–22 DCX\$ANALYZE\_DATA routine, (P) Utility configuration, (M) Networking, 1-8 Routines, DCX-11 CONTROL line, (M) Networking, 3-53 DCX\$ANALYZE\_DONE routine, (P) Utility devices, (M) DECnet-VAX Guide, 3-33 Routines, DCX-13 DMC line, (M) Networking, 3-53 DCX\$ANALYZE\_INIT routine, (P) Utility dynamic asynchronous network configuration, Routines, DCX-14 (M) Networking, 5-21 DCX\$COMPRESS\_DATA routine, (P) Utility dynamic connection, (M) DECnet-VAX Guide, Routines, DCX-17 3 - 18DCX\$COMPRESS\_DONE routine, (P) Utility formula for determining maximum number of Routines, DCX-19 messages, (M) Networking, 3-60 DCX\$COMPRESS\_INIT routine, (P) Utility line, (M) Networking, 2-13, 3-55 Routines, DCX-20 MOP, (M) Networking, 4-18 DCX\$EXPAND\_DATA routine, (P) Utility multipoint, (M) Networking, 1-8 Routines, DCX-22 multipoint network configuration, (M) DCX\$EXPAND\_DONE routine, (P) Utility Networking, 5-17 multipoint tributary addressing, (M) Routines, DCX-24 DCX\$EXPAND\_INIT routine, (P) Utility Routines, Networking, 3-35 POINT line, (M) Networking, 3-53 DCX-25 point-to-point, (M) Networking, 1-8 DCX\$MAKE\_MAP routine, (P) Utility Routines, DCX-27 point-to-point addressing, (M) Networking,

3 - 35

DDCMP (DIGITAL Data Communications Message Deadlock (cont'd) Protocol) (cont'd) detection and recovery, (P) RTL Parallel protocol, (M) Networking, 1-8 Processing, 5-5 static asynchronous network configuration, (M) how to avoid, (P) DECthreads, 3-7 Networking, 5-19 prevention, (P) RTL Parallel Processing, 5-4 static connection, (M) DECnet-VAX Guide, 3-18 Deadlock detection, (P) System Services Intro, synchronous, (M) Networking, 1-5, 1-8, 2-8, 13 - 5DEADLOCK\_WAIT parameter, (M) System 2 - 13synchronous connection, (M) DECnet-VAX Generation, A-10 DEAD THRESHOLD parameter, (M) Networking, Guide, 1-10 synchronous devices, (M) Networking, 1-9 3-42synchronous line, (M) Networking, 1-5 Dead timer, (M) Networking, 3-59 Dealing with personnel, Dependability Handbook, synchronous point-to-point network configuration, (M) Networking, 5-15 TRIBUTARY line, (M) Networking, 3-53 environment, Dependability Handbook, 5-7 DEALLOCATE command, (U) Files and Devices, DDI (DR32 device interconnect), (P) I/O User's II, 4-1, 4-2 3-20; (U) DCL Dictionary, DCL1-103 status returns, (P) I/O User's II, 4-37 and ALLOCATE command, (U) DCL DDIF (Digital Document Interchange Format) Dictionary, DCL1-15, DCL1-103 analyzing files encoded in, (U) DCL Dictionary, magnetic tape, (U) Files and Devices, 4-16 DCL1-70 Deallocating devices, (U) DCL Dictionary, DCL1-103 VMS RMS support of, V5.5 New Features, E-1 DDIF-to-text RMS extension, V5.5 New Features, DEASSIGN command, (U) Using VMS, 4-5; (U) DCL Concepts, 4-4; (U) Command E-1DDT\$L\_ALTSTART, (P) Device Support (A), 7-5; Procedures, 2–2; (U) DCL Dictionary, (P) Device Support (B), 4-2 DCL1-104 to DCL1-108 DDT\$L\_CANCEL, (P) Device Support (B), 4-4 and DEFINE command, (U) DCL Dictionary, DDT\$L\_CLONEDUCB, (P) Device Support (B), DCL1-114 and process logical name table, (U) Using DDT\$L\_REGDUMP, (P) Device Support (B), 4-15 VMS, 4-5DDT\$L\_START, (P) Device Support (B), 4-17 default logical name table, (U) DCL Concepts, DDT\$L\_UNITINIT, (P) Device Support (A), 11-5; (P) Device Support (B), 4-22 to delete a logical name table, (U) DCL DDT\$L\_UNSOLINT, (P) Device Support (B), 4-24 Concepts, 4-16 DDT\$W\_ERRORBUF, (P) Device Support (A), DEASSIGN/QUEUE command, (U) DCL 11-9, 17-21 Dictionary, DCL1–109 DDT (driver dispatch table), (P) System Dump **DEBNA** driver Analyzer, SDA-99; (P) Device Support (A), See Ethernet/802 drivers 1-2, 11-1, 11-10; (P) Device Support (B), DEBNA Ethernet controller, (M) Networking, 1-29 to 1-31, 3-102 address, (P) Device Support (A), 6-3; (P) DEBNI Ethernet/802 controller, V5.5 Release Device Support (B), 1-28, 1-80, 2-25 Notes, 2-25 creating, (P) Device Support (A), 6-3 to 6-4, DEBUGINI buffer, (P) VAXTPU, 4–22 11-4; (P) Device Support (B), 2-12 to 2-13 DEBUG command, (U) DCL Dictionary, of terminal class driver, (P) Device Support (A), DCL1-110; (P) Debugger, 3-3, 10-12, CD-41; (P) VAXTPU, 4–35 relocating addresses specified in, (P) Device with DECwindows, (P) Debugger, 1-31 Support (A), 11-4 .DEBUG directive, (P) MACRO, 6-18 DDTAB macro, (P) Device Support (A), 11-9, Debug directive (.DEBUG), (P) MACRO, 6-18 12-1; (P) Device Support (B), 2-12 to 2-13, Debugger, V5.5 New Features, 14-1; (U) 3-102VMS Intro, 4-10, 4-14; (P) Programming example, (P) Device Support (B), 2-13 Resources, 1-14 to 1-16; (P) Debugger, 1-1Deaccess file function. (P) I/O User's I, 1–28 See also Delta/XDelta Utility Deadlock, (P) Modular Procedures, 3-21; (P) RTL See also Symbolic debugger Parallel Processing, 5-4 and RUN (Image) command, (U) DCL avoidance, (P) RTL Parallel Processing, 5-5 Dictionary, DCL2-51 debugging deadlocks, (P) Debugger, 12-30 command interface, (P) Debugger, 2–1

D.1	
Debugger	Debugging, (P) Debugger, 1-1; (P) VAXTPU, 4-33
command interface (cont'd)	to 4-37
with DECwindows, (P) Debugger, 1–27,	as security hazard, (M) Security, 5–34
1–33	at elevated IPL, (P) Delta/XDelta, DELTA-1
commands used in DCL command procedures,	at IPL 0, (P) Delta/XDelta, DELTA-1
$V5.5\ Release\ Notes,\ 3-5$	ATTACH command, (P) VAXTPU, 4–36
corrected problems and restrictions, V5.5	CANCEL BREAKPOINT command, (P)
Release Notes, 3–3	VAXTPU, 4–36
DECwindows interface, (P) Debugger, 1-1	command files, (P) VAXTPU, 4–34
displaying command interface on other	
terminal, (P) Debugger, 9-5	condition handler, (P) Programming Resources,
with DECwindows, (P) Debugger, 1–33	9–20
displaying DECwindows interface on other	DEPOSIT command, (P) VAXTPU, 4-36
workstation, (P) Debugger, 1–32	device driver, (P) Device Support (A), 13-1 to
examining LABEL[n], V5.5 Release Notes, 3-5	13–30
	DISPLAY SOURCE command, (P) VAXTPU,
including, (P) Linker, LINK-6	4–36
including in output image, (U) DCL Dictionary,	EXAMINE command, (P) VAXTPU, 4–36
DCL1-386	exit handler, (P) Programming Resources, 9-30
information record analysis, (U) DCL	GO command, (P) VAXTPU, 4-34, 4-36
Dictionary, DCL1–27	HELP command, (P) VAXTPU, 4-36
invoking, (U) DCL Dictionary, DCL1-30,	privileged code, (P) Delta/XDelta, DELTA-1
DCL1-110; (P) VAXTPU, 4-33	program, (P) VAXTPU, 4–35
invoking from DECwindows FileView window,	QUIT command, (P) VAXTPU, 4–36
(P) Debugger, 1–31	SCROLL command, (P) VAXTPU, 4–37
invoking over DECnet link, (P) Debugger, 3-1	section files, (P) VAXTPU, 4–34
module name, (P) MACRO, 6-23	SET BREAKPOINT command, (P) VAXTPU,
problems with DECwindows interface, V5.5	4-34, 4-37
Release Notes, 3–6	SET WINDOW command, (P) VAXTPU, 4–37
routine name, (P) MACRO, 6-23	
support for DECthreads, V5.5 New Features,	SHIFT command, (P) VAXTPU, 4–37
14–1	SHOW BREAKPOINTS command, (P)
support for vectorized programs, V5.5 New	VAXTPU, 4–37
Features, B-26	source code, (P) VAXTPU, 4-35
symbol table, (P) Linker, 6–18	SPAWN command, (P) VAXTPU, 4–37
	STEP command, (P) VAXTPU, 4-35, 4-37
using ABORT key after SPAWN command,	to examine contents of local variable, (P)
V5.5 Release Notes, 3-6	$V\!AXTPU$ , 4–36
using concealed rooted-directory logical names,	TPU command, (P) VAXTPU, 4–37
V5.5 Release Notes, 3–5	user-mode programs, (P) Delta/XDelta,
using on VAXstation workstation, V5.5 Release	DELTA-1
Notes, 3–6	VAXTPU, (U) DCL Dictionary, DCL1-192; (U)
using Stop button after SPAWN command,	EVE Ref, 1–9
V5.5 Release Notes, 3–6	Debugging a multithreaded program, (P)
using with completion status codes, (P) RMS,	DECthreads, cma-58, cma-59
A-2	Debugging configuration
using with DEPOSIT command, (U) DCL	See also Debugger
$Dictionary,  \mathrm{DCL1}147$	default, (P) Debugger, 2–6, 10–9
using with EXAMINE command, (U) DCL	with DECwindows, (P) Debugger, 1–3
Dictionary, DCL1–209	
Debugger command	multiprocess, (P) Debugger, 10-1, 10-9
dictionary, (P) Debugger, CD-6	with DECwindows, (P) Debugger, 1–29
format, (P) Debugger, CD-3	Debugging programs that use VM zones, (P) RTL
repeating, (P) Debugger, CD-99, CD-109,	Library, 6–1
CD-268	Debugging threads
summary, (P) Debugger, 2–25	on systems based on UNIX software, (P)
with DECwindows, (P) Debugger, 1–27, 1–33	DECthreads, A $-8$
Debugger information records	on VMS systems, (P) DECthreads, B-3
	DEBUG keyword, (P) VAXTPU, 7-362, 7-363,
analyzing in object file, (U) DCL Dictionary,	7–364
DCL1-27	

DECdns name (cont'd) DEBUGON procedure, (P) VAXTPU, 4-35 defining logicals, (P) System Services Intro, /DEBUG qualifier, (U) DSR Ref, 2-126, 4-8; (U) 6 - 34EVE Ref, 1-9; (P) Debugger, 3-1, 5-2, 5-4, DECdns naming conventions 6-1; (P) Linker, LINK-6; (P) VAXTPU, 4-33, logical names, (P) System Services Intro, 6-34 5-8 DECdns object shareable image, (P) Debugger, 5-12 creating, (P) System Services Ref, SYS-171 with DECwindows, (P) Debugger, 1-3 deleting, (P) System Services Ref, SYS-172 Debug symbol table enumerating, (P) System Services Ref, SYS-174 See DST reading attributes of, (P) System Services Intro, DEBUG\_LINE built-in procedure, (P) VAXTPU, 6 - 28DECdns string name %DEC, (P) Debugger, 4–11, D–5 converting to opaque, (P) System Services Ref, DEC\$SYLOGIN.COM file. V5.5 Release Notes. SYS-178 2 - 17DECdtm files DEC\$SYLOGIN.TEMPLATE file, V5.5 Release required for the batch and print queuing *Notes*, 2–17 system, V5.5 Release Notes, 2-8 DEC026 card reader code, (P) I/O User's I, 2-2, DECdtm programming routines data type, V5.5 New Features, B-40 DEC029 card reader code, (P) I/O User's I, 2-2, DECdtm services, V5.5 New Features, 16-1 to 2-816-2, B-34 to B-40; (P) System Services **DECalert** Intro, 1-3, 14-1 to 8-17 ALERT process, Dependability Handbook, See also Log Manager Control Program Utility aborting a transaction, V5.5 New Features, avoiding down time, Dependability Handbook, B-36, B-40; (P) System Services Intro, 14–2; Dependability Handbook, 8–15 DIANA process, Dependability Handbook, atomic transaction, V5.5 New Features, B-35; 11 - 19Dependability Handbook, 8-13 DISPLAY process, Dependability Handbook, committing a transaction, V5.5 New Features, 11-19 B-36, B-40; (P) System Services Intro, event notification 14-2; Dependability Handbook, 8-15 electronic mail messages, Dependability customizing, V5.5 New Features, B-34, B-69 Handbook, 11–19 data type, V5.5 New Features, B-40 online graphics, Dependability Handbook, disabling, V5.5 New Features, B-34, B-69 11-19 functions, Dependability Handbook, 8-11 operation center loudspeakers, log manager, V5.5 New Features, B-38, B-66; Dependability Handbook, 11-19 Dependability Handbook, 8-17 telephone messages and pagers, Log Manager Control Program Utility (LMCP), Dependability Handbook, 11-19 V5.5 New Features, B-40, B-66 fault prevention, Dependability Handbook, exiting, V5.5 New Features, B-75 invoking, V5.5 New Features, B-75 introduction, Dependability Handbook, 7-22 Monitor Utility (MONITOR) support, V5.5 New sensors and alert notifications, Dependability Features, B-40, B-95 to B-100 Handbook, 11-18participant in a transaction, V5.5 New use at CSC lights out data center, Features, B-36, B-39, B-74; (P) System Dependability Handbook, 11-15 Services Intro, 14-2; Dependability DECB (Decrement Byte) instruction, (P) MACRO, Handbook, 8-15 9 - 17resource manager, V5.5 New Features, DECburger sample application B-36; (P) System Services Intro, 14-2; corrections, V5.5 Release Notes, 4-6  $Dependability\ Handbook,\ 8-14$ **DECdecision** RMS Journaling support, V5.5 New Features, 4GL technology, Dependability Handbook, 3-11 B-114 to B-119 DECdns call starting a transaction, (P) System Services timeout in, (P) System Services Intro, 6-23 Intro, 14-3 DECdns name system services, V5.5 New Features, B-39; (P) converting, (P) System Services Ref, SYS-176, System Services Intro, 14-1 SYS-178, SYS-180 SYS\$START\_TRANS, (P) System Services converting full name, (P) System Services Ref, Intro, 14-3

SYS-176

DECdtm services /DECIMAL qualifier, (P) Debugger, 4-11, CD-77, system services (cont'd) CD-79, CD-82 SYS\$START TRANSW, (P) System with DELETE command, (P) Patch, PAT-52 Services Intro, 14-3 with DEPOSIT command, (P) Patch, PAT-55 transaction identifier (TID), V5.5 New with EXAMINE command, (P) Patch, PAT-62 Features, B-39, B-74 with INSERT command, (P) Patch, PAT-68 transaction log file, V5.5 New Features, B-38, with REPLACE command, (P) Patch, PAT-72 B-66; Dependability Handbook, 8-17 with SET MODE command, (P) Patch, PAT-76 creating, V5.5 New Features, B-69 with VERIFY command, (P) Patch, PAT-90 determining location, V5.5 New Features, Decimal string descriptor, (P) Routines Intro, B - 67dumping, V5.5 New Features, B-80 Decimal string instructions, (P) MACRO, 9-144 estimating file size, V5.5 New Features, Decimal text B - 69converting to binary, (P) RTL Library, LIB-76 format, V5.5 New Features, B-73 Decimal value placing in alternate location, V5.5 New of an expression, (P) System Dump Analyzer, Features, B-73 SDA-48 repairing, V5.5 New Features, B-85 of character, (U) EDT Ref, A-1 resizing, V5.5 New Features, B-72 DECIMAL value, (P) File Def Language, FDL-31 sample display, V5.5 New Features, B-74 DECK command, (U) Using VMS, 6-6; showing, V5.5 New Features, B-93 (U) Command Procedures, 3-5; (U) DCL transaction manager, V5.5 New Features, Dictionary, DCL1-111 to DCL1-113 B-36; (P) System Services Intro, 14-2; and EOD command, (U) DCL Dictionary, Dependability Handbook, 8–15 DCL1-206 transaction processing, V5.5 New Features, DECL (Decrement Long) instruction, (P) MACRO, B-34; Dependability Handbook, 8-12 transaction states, V5.5 New Features, B-39, DECLARE command, (P) Debugger, 8-2, CD-44 B-74; (P) System Services Intro, 14-2 Declaring a condition handler, (P) DECthreads, TRANSACTION ID data type, V5.5 New Features, B-40 **DEC Management Control Center** two-phase commit protocol, V5.5 New Features, See DECmcc B-35, B-39; (P) System Services Intro, DECmcc (DEC Management Control Center) 14-4; Dependability Handbook, 8-13 monitoring networks, Dependability Handbook, use with ACMS, Dependability Handbook, 8 - 49use at CSC lights out data center, **DECelms** Dependability Handbook, 11-22 introduction, Dependability Handbook, 7-24 DEC Multinational Character Set, (U) Using DECelms (DIGITAL Extended LAN Management VMS, A-5; (U) EDT Ref, A-1; (P) National Software), (M) VAXcluster, 7-26 Char Set, NCS-3; (P) I/O User's I, B-1; (P) DEC File Optimizer for VMS, Dependability VAXTPU, 3-1 to 3-2, E-1 to E-8 Handbook, 8-17 string comparison, (P) RTL String defragmenting disks, Dependability Handbook, Manipulation, STR-11, STR-17 9-6, 9-22 string conversion, (P) RTL String **DECforms** Manipulation, STR-89 forms interface, Dependability Handbook, 8-48 using, (P) RMS, 2-7 prototyping tool, Dependability Handbook, DEC multinational character support, (U) DSR 8 - 23Ref, 2-14 Decimal dump, (U) DCL Dictionary, DCL1-175 DECnet, (U) DCL Dictionary, DCL2-149, Decimal/hexadecimal conversion, (P) MACRO, DCL2-171, DCL2-173 See also DECnet-VAX network table, (P) MACRO, B-1 See also Network DECIMAL mode, (P) Patch, PAT-17 circuit and line devices, (M) Network Control Decimal number, (P) File Def Language, FDL-2 Program, A-14 Decimal overflow detection, (P) RTL Library, configuration, (M) DECnet-VAX Guide, 1-5, LIB-104 Decimal overflow enable (DV). (P) MACRO, 8-16 debugging over, (P) Debugger, 3-1

DECnet (cont'd) event class and type summary, (M) Network Control Program, A-22 to A-35 growth, (M) DECnet-VAX Guide, 1-5 hardware, (M) DECnet-VAX Guide, 1-4 links, V5.5 Release Notes, 2-14 logging in to remote systems with, (U) Using VMS, 1-3node, (M) DECnet-VAX Guide, 1-3 protocol, (M) DECnet-VAX Guide, 1-3 retransmission timeout period, V5.5 Release Notes, 2-15running DEC windows applications across, (U) DCL Dictionary, DCL2-133 software, (M) DECnet-VAX Guide, 1-4 starting in a local area VAXcluster, V5.5 Release Notes, 2–15 structure, (M) DECnet-VAX Guide, 1-3 use with, (U) Phone, PHONE-8 using to manage remote nodes, (M) SYSMAN, SM-2DECnet account limiting default access, V5.5 New Features, D-2DECnet class record, (M) Monitor, A-13 DECnet data structures global symbols, (P) System Dump Analyzer, SDA-60 **DECnet-DOS** software in network operations, (M) DECnet-VAX Guide, DECnet event logging facility displaying information with NCP, (M) DECnet-VAX Guide, 4-1 DECnet event messages, V5.5 New Features, C - 73DECnet file access protocol See DAP DECnet maintenance operation protocol (MOP) See MOP DECnet Monitor introduction. Dependability Handbook, 7-23 use at CSC lights out data center, Dependability Handbook, 11-21 DECnet-Rainbow software in network operations, (M) DECnet-VAX Guide, 1-6 DECnet remote file access specifying maximum record size, (P) RMS, DECnet-RSX software, (M) DECnet-VAX Guide, DECnet/SNA gateway, (M) DECnet-VAX Guide, 1-6, 1-10 **DECnet** software default account, V5.5 Release Notes, 2-40 starting during DEC windows session, V5.5

DECnet Test Receiver See DTR DECnet Test Receiver image See DTRECV DECnet Test Sender See DTS DECnet Test Sender/DECnet Test Receiver Utility (DTS/DTR) as a network exerciser, (M) DECnet-VAX Guide, 4-7 as a network monitoring tool, (M) DECnet-VAX Guide, 4-1 commands, (M) DTS/DTR, DTS-4 to DTS-14 command syntax, (M) DTS/DTR, DTS-1 directing output from, (M) DTS/DTR, DTS-3 exiting, (M) DTS/DTR, DTS-3 invoking, (M) DTS/DTR, DTS-3 operational characteristics, (M) DTS/DTR, DTS-1 user interface, (M) DTS/DTR, DTS-1 DECnet Test Sender image See DTSEND DECnet-ULTRIX software, (M) DECnet-VAX Guide, 1–6 DECnet-VAX, (U) Mail, MAIL-7, MAIL-15, MAIL-18 access violation, (U) Using VMS, 2-16 activity statistics, (M) DECnet-VAX Guide, 4-7 adaptive routing, (M) DECnet-VAX Guide, 1-3 advanced user, (M) DECnet-VAX Guide, 2-12 to 2-26 and logical node name, (U) Using VMS, 4-16 and VAXcluster nodes, (M) Security, 9-3 automatic configuration, (M) DECnet-VAX Guide, 3-13 cluster alias using to promote network application availability, Dependability Handbook, 7 - 19configuration database, (M) System Management Intro, 7-4; (M) DECnet-VAX Guide, 2-27, 3-12, 3-32; (M) Networking, 1 - 15configuration on a VMS operating system, (M) System Management Intro, 7-2; (M) DECnet-VAX Guide, 1-5; (M) Networking, configuration prerequisites, (M) Networking, connection, (M) DECnet-VAX Guide, 1-5 console connection, (M) DECnet-VAX Guide, default account, (M) DECnet-VAX Guide, 2-3, default account (nonprivileged), (M) DECnet-VAX Guide, 3-14, 3-36 default directory, (M) DECnet-VAX Guide, 3-13

Release Notes, 1–9

DECnet-VAX (cont'd) DECnet-VAX (cont'd) defining node names, (M) DECnet-VAX Guide, over the CI, (M) Networking, 5-7 overview, (M) DECnet-VAX Guide, 1-1 detecting common problems, (M) DECnet-VAX programmer, (M) DECnet-VAX Guide, 2-12 Guide, 4-10 to 4-17 receive password, (M) DECnet-VAX Guide, device names, (M) DECnet-VAX Guide, 3-33 3-20, 3-24, 3-25, 3-34 devices supported by, (M) Network Control registering the key, (M) DECnet-VAX Guide, Program, A-14 1-5, 3-15 downline loading, (M) DECnet-VAX Guide, restarting, (M) DECnet-VAX Guide, 3-31, 3-34 security for node, (M) DECnet-VAX Guide, 2 - 27dynamic asynchronous connection, (M) 3-34 to 3-37 shutting down, (M) DECnet-VAX Guide, 3-31 DECnet-VAX Guide, 3-18, 3-24, 3-26, 3-28, software, (M) Networking, 1-16 end node key (DVNETEND), (M) DECnet-VAX starting, (M) DECnet-VAX Guide, 3-15 Guide, 3-12 static asynchronous connection. (M) error messages, (M) DECnet-VAX Guide, 3-30 DECnet-VAX Guide, 3-18, 3-23 error messages and meanings, (M) SYS\$CLUSTER\_NODE logical, V5.5 Release DECnet-VAX Guide, 4-10 *Notes*, 2–16 event class, (M) DECnet-VAX Guide, 4-5 system and network manager responsibilities, event logger, (M) DECnet-VAX Guide, 3-31, (M) DECnet-VAX Guide, 2-26 to 2-27 testing hardware and software with UETP, (M) event type, (M) DECnet-VAX Guide, 4-5 DECnet-VAX Guide, 3-29 file manipulation with, (U) Using VMS, 2-16 transmit password, (M) DECnet-VAX Guide, 3-20, 3-24 full function key (DVNETRTG), (M) turning on, (M) DECnet-VAX Guide, 3-15 DECnet-VAX Guide, 3–12 upline dumping, (M) DECnet-VAX Guide, 2-27 functions, (M) Networking, 1-3 general user, (M) DECnet-VAX Guide, 2-1 to using Network Control Program to control, (M) Network Control Program, NCP-1 2-11host services, (M) DECnet-VAX Guide, 2-27; using the Analyze/RMS File Utility with, (P) Analyze/RMS\_File, ARMS-7 (M) Networking, 1-3, 1-15 INBOUND parameter, (M) DECnet-VAX Guide, using the Convert/Reclaim Utility (CONVERT /RECLAIM) with, (P) Convert, CONV-3 installation procedure, (M) DECnet-VAX Guide, VAXcluster satellite synonym, Dependability 3-1, 3-11Handbook, 7-12 installation verification, (M) DECnet-VAX verifying connection, (M) DECnet-VAX Guide, Guide, 3-30 3-28, 3-29 installing dynamic asynchronous connection, VMS networking interface, (M) DECnet-VAX (M) DECnet-VAX Guide, 3-23 Guide, 1-1, 1-4 DECnet-VAX license, (M) System Management installing static asynchronous connection, (M)DECnet-VAX Guide, 3-18 Intro, 7-3; (M) Networking, 1-16, 2-24 key, (M) DECnet-VAX Guide, 3-11, 3-12 end node kit, (M) Networking, 1-16, 6-1 license, (M) DECnet-VAX Guide, 1-5, 3-11, full function kit, (M) Networking, 1–16, 6–1 3 - 12installing the key, (M) System Management logging in to a node, (M) DECnet-VAX Guide, Intro, 7-3 registering the key, (M) Networking, 1-16, 5-6, manual configuration, (M) DECnet-VAX Guide, DECnet-VAXmate software node, (M) DECnet-VAX Guide, 1-5, 3-1 in network operations, (M) DECnet-VAX Guide, node address, (M) DECnet-VAX Guide, 3-14 1 - 6node configuration, (M) DECnet-VAX Guide, DECnet-VAX network cluster functions, (M) VAXcluster, 1-5 2-27node configuration planning, (M) DECnet-VAX cluster satellite synonym, (M) VAXcluster, 7-33 Guide, 3-10 configuring, (M) VAXcluster, 4-6 node name. (M) DECnet-VAX Guide, 3-14 copying remote node databases in VAXcluster nonprivileged default account, (M) environments, (M) VAXcluster, 4-8 DECnet-VAX Guide, 3-14 disabling LAN device, (M) VAXcluster, 4-7 object, (M) DECnet-VAX Guide, 1-2, 3-31 downline loading, (M) VAXcluster, 7-34

over terminal lines, (M) Networking, 5-7

DECnet-VAX network (cont'd) DECtalk device (cont'd) enabling circuit service for cluster MOP server. controlling the terminal, (P) RTL DECtalk, 1-2 (M) VAXcluster, 4-6 to 1-3 installing license, (M) VAXcluster, 4-4 initializing, (P) RTL DECtalk, 1-1, DTK-10 making databases available clusterwide, (M) mode of operation, (P) RTL DECtalk, 1-1 to VAXcluster, 4-8 making remote node data available clusterwide, setting terminal attributes, (P) RTL (M) VAXcluster, 4-6 DECtalk, 1-3, DTK-25, DTK-29 maximum address value, defining for cluster setting terminal logging, (P) RTL DECtalk, boot server, (M) VAXcluster, 4-6 1-2 to 1-3, DTK-22 modifying satellite LAN hardware address. (M) specifying an output destination, (P) RTL VAXcluster, 7-13 DECtalk, 1-1 monitoring LAN activity, (M) VAXcluster, 7-26 voice characteristics, (P) RTL DECtalk, 1-2, NETCONFIG.COM command procedure, (M) DTK-31 VAXcluster, 4-7 voice identifier, (P) RTL DECtalk, 1-1 NETNODE\_REMOTE.DAT file, renaming to DECtalk dictionary, (P) RTL DECtalk, 1-4 SYS\$COMMON directory, (M) VAXcluster, loading, (P) RTL DECtalk, DTK-12 DECtalk index. (P) RTL DECtalk, 1-4 Network Control Program (NCP), (M) returning last spoken, (P) RTL DECtalk, 1-4, VAXcluster, 4-8 DTK-18 restoring satellite configuration data, (M) setting, (P) RTL DECtalk, 1-4, DTK-19 DECtalk routine, (P) RTL DECtalk, 1-1 VAXcluster, 7-11 starting, (M) VAXcluster, 4-8 controlling the speech, (P) RTL DECtalk, 1-4 tailoring, (M) VAXcluster, 4-6 to 1-5, DTK-27 troubleshooting, (M) VAXcluster, E-3 speaking phonemic text, (P) RTL DECtalk, VAXcluster alias, (M) VAXcluster, 4-6, 4-9, DTK-35 7 - 42speaking text, (P) RTL DECtalk, DTK-37 Decomposition, (P) RTL Parallel Processing, 5-1 speaking text in a file, (P) RTL DECtalk, DTK-33 Decompressing the system messages help library, spelling text, (P) RTL DECtalk, DTK-39 V5.5 New Features, B-44 initializing. (P) RTL DECtalk, 1-1, DTK-10 DEC PCA overview of, (P) RTL DECtalk, 1-1 See PCA terminating, (P) RTL DECtalk, 1-4, DTK-41 DECram disk using the telephone, (P) RTL DECtalk, 1-5 specifying size, V5.5 New Features, 2-3 answering the phone, (P) RTL DECtalk, **DECSA (DIGITAL Ethernet Communications** 1-5, DTK-3 Server) dialing the phone, (P) RTL DECtalk, 1-5, connection to remote console, (M) Networking, DTK-7 4 - 24hanging up the phone, (P) RTL DECtalk, DECscheduler 1-5, DTK-9 production scheduler, Dependability Handbook, recognizing the keypad, (P) RTL DECtalk, 9-121-5, DTK-20 **DECset** using keypad for input, (P) RTL DECtalk, See also CASE 1-5, DTK-14, DTK-16 product set, Dependability Handbook, 3-11 writing an exit handler, (P) RTL DECtalk, 1-6 software development tools, Dependability Handbook, 8-57 **DECterm** testing software, Dependability Handbook, See DECwindows 3-12DECthreads, V5.5 Release Notes, 3-10 **DECspell** See also Tasking (multithread) program See SPELL command debugger support, V5.5 New Features, 14-1 **DECstart** DECtp Desktop for ACMS services from Digital, Dependability Handbook, See Desktop ACMS 10 - 5**DECtrace** DECtalk device using with Rdb/VMS applications, checking hardware status, (P) RTL DECtalk, Dependability Handbook, 8-46 DTK-5 DEC Visual User Interface Tool connecting a terminal to, (P) RTL DECtalk, See VUIT 1-2 to 1-3

DECwindows (cont'd) DECW\$DISPLAY, (U) DCL Dictionary, Print Screen function, V5.5 Release Notes, 1-12 DCL2-129, DCL2-272 quick copy, (U) EVE Ref, 1-3 DECW (Decrement Word) instruction, (P) server, V5.5 Release Notes, 3-11 MACRO, 9-17startup, V5.5 Release Notes, 2-16 DECwindows, V5.5 Release Notes, 1-4; (U) EVE startup problem, V5.5 Release Notes, 1-9 Ref, 1–10, 1–12 tailoring on RD53 system disk, V5.5 Release applications Notes, 2-17 Calendar restrictions, V5.5 Release Notes, terminal emulator See DECterm CDA Viewer restrictions, V5.5 Release UIL built-in tables, V5.5 Release Notes, 3-16 Notes, 1–11 UIL corrections, V5.5 Release Notes, 3-16 Mail, V5.5 Release Notes, 1-12 ULTRIX authorization requirements, V5.5 performance, V5.5 Release Notes, A-1 Release Notes, 1-14 running remotely, V5.5 Release Notes, A-1 VAXTPU, (U) DCL Dictionary, DCL1-193, Calculator DCL1-195 hexadecimal mode, V5.5 New Features, determining if present, (P) VAXTPU, B-48 7 - 197octal mode, V5.5 New Features, B-48 invoking with /DISPLAY, (P) VAXTPU, 5-8 changing menu entries, (U) EVE Ref, 1-2 sample uses of built-ins, (P) VAXTPU, B-1 Clock to B-33 menu bar, V5.5 New Features, B-48 Window Manager icon box, V5.5 Release Notes, cutting and pasting, V5.5 Release Notes, 1-4 debugger interface, (P) Debugger, 1-1 1 - 15%DECWINDOWS, (P) Debugger, D-5 debugger problems, V5.5 Release Notes, 3-6 **DECwindows CDA Viewer** debugging DEC windows application, (P) Debugger, 1-32 See CDA Viewer **DECterm** DECwindows cut and paste operation, V5.5 conformance level, V5.5 Release Notes, 1-4 Release Notes, 1-4 corrected color table report problem, V5.5 DECwindows function keys, (U) EVE Ref, 1-27, Release Notes, 3–11 EVE-164 graphics, V5.5 Release Notes, 1-5 **DECwindows** interface initializing, V5.5 Release Notes, 1-6 debugger, (P) Debugger, 1-1 displaying on other workstation, (P) memory, V5.5 Release Notes, 1-7 negative values correction, V5.5 Release Debugger, 1-32 disabled debugger commands, (P) Debugger, Notes, 3-11 ReGIS locator report, V5.5 Release Notes, DECwindows Mail, V5.5 Release Notes, 3-10 3-11setting application keypad, (U) DCL DECwindows screen Dictionary, DCL1-98 multiscreen support, V5.5 New Features, B-45 text, V5.5 Release Notes, 1-8 DECwindows server logical switch for server VT52-mode cursor addressing, V5.5 connect/disconnect messages, V5.5 Release Release Notes, 3-11 Notes, 2-16 window scrolling problem, V5.5 Release DECwindows X11 Display Server, V5.5 Release Notes, 3-14; V5.5 New Features, A-62 *Notes*, 1–8 DECW\$COLOR guidelines, V5.5 Release Notes, PostScript (DPS) Extension, V5.5 Release *Notes*, 3–14 DECW\$STARTUP.COM procedure updating cursor colors, V5.5 Release Notes, running AUTOGEN.COM command 3-14DEC\_CRT2 mode, (P) VAXTPU, C-3 procedure, V5.5 Release Notes, 2-16 EVE, (U) DCL Dictionary, DCL1-193, "Dec\_crt2" string constant parameter to GET\_ DCL1-195 INFO, (P) VAXTPU, 7-197 font properties, V5.5 Release Notes, 4-9 DEC\_CRT mode, (P) VAXTPU, C-2 Mail "Dec\_crt" string constant parameter to GET\_INFO, displaying PostScript files, V5.5 New (P) VAXTPU, 7-197 Features, B-48 Dedicated port, (M) LATCP, LAT-10, LAT-37 minimum memory, V5.5 Release Notes, A-1 displaying, (M) LATCP, LAT-55 multihead system support, V5.5 Release Notes,

2-17

Intro, 2-4 /DEEPEST\_HEADER qualifier, (U) DSR Ref, 5-3 Default condition handlers, (P) Routines Intro, 2-51 definition, (U) VMS Intro. 1-6 DEFAULT ACCESS parameter, (M) Networking, 2-43, 3-95 for NCP commands, (M) DECnet-VAX Guide, 3 - 36Default account DECnet nonprivileged, (M) DECnet-VAX Guide, 3-13 **DEFAULT** account user authorization file, (M) Setting Up VMS, 4-4Default boot command procedure, (M) Setting Up VMS, 1-1Default change mode, (U) EDT Ref, EDT-183 Default characteristics modifying terminal, (U) DCL Dictionary, DCL2-221 to DCL2-233 setting for magnetic tape device, (U) DCL Dictionary, DCL2-177 **DEFAULT** clause for DEFINE TYPE statement, (P) Command Def, CDU-28 for PARAMETER clause, (P) Command Def, CDU-23, CDU-32 for QUALIFIER clause, (P) Command Def, CDU-25, CDU-33 for VALUE clause, (P) Command Def, CDU-24, CDU-26, CDU-29, CDU-33, CDU-34 DEFAULT command, (M) Authorize, AUTH-24 **DEFAULT DATA** parameter for X.25 circuit, (M) Networking, 3-30 Default DECnet account See Default nonprivileged DECnet account Default DECnet-VAX account, (M) DECnet-VAX Guide, 2-3, 3-13, 4-11 nonprivileged, (M) DECnet-VAX Guide, 3-9, 3 - 14Default DECnet-VAX directory nonprivileged, (M) DECnet-VAX Guide, 3-9 Default device displaying, (U) DCL Dictionary, DCL2-262 setting, (U) DCL Dictionary, DCL2-121 .DEFAULT directive, (P) MACRO, 6-19 Default directory, (M) Setting Up VMS, 4-8 DECnet-VAX, (M) DECnet-VAX Guide, 3-13 displaying, (U) DCL Dictionary, DCL2-262 fetching in VAXTPU, (P) VAXTPU, 7–206 setting, (U) DCL Dictionary, DCL2-121 setting in VAXTPU. (P) VAXTPU. 7-366 Default displacement length directive (.DEFAULT), (P) MACRO, 6-19 Default editor setting, (U) Mail, MAIL-13

Deductible resource, (M) System Management

Default error checking controlling, (U) DCL Dictionary, DCL2-182 Default-extension option, (P) File Applications, Default extension quantity, (P) File Def Language, FDL-20 Default extension quantity field See FAB\$W\_DEQ field Default file extension quantity field in XABFHC See XAB\$W DXQ field Default file naming algorithm buffer change journal, (P) VAXTPU, 1-12 Default file specification, (P) File Applications, 5-4, 6-1 to 6-4, 9-7 See also File specification journal file, (P) Patch, PAT-29 output image file, (P) Patch, PAT-32 Default file specification string address field See FAB\$L DNA field Default file specification string size field See FAB\$B\_DNS field Default file type, (P) Librarian, LIB-1, LIB-11 for NCS definition files specified by /OUTPUT qualifier, (P) National Char Set, NCS-39 for NCS input files, (P) National Char Set, NCS-21 for NCS library, (P) National Char Set, NCS-33 for NCS library listing output file, (P) National Char Set, NCS-34 for NCS library specified by /COMPRESS qualifier, (P) National Char Set, NCS-39 for output files created by /MACRO qualifier, (P) National Char Set, NCS-28 for output files created by /OUTPUT qualifier, (P) National Char Set, NCS-28 table of. (U) DCL Concepts, 3-14 Default form, (M) Maintaining VMS, 5-43; (P) System Services Ref, SYS-581 DEFAULT form, (M) Maintaining VMS, 5-43 Default global buffer count field See XAB\$W GBC field Default image map, (P) Linker, 1-12 Default insertion in lieu of module replacement, (P) National Char Set, NCS-40 Default libraries displaying help, (U) DCL Dictionary, DCL1-232 Default library file type, (P) Librarian, LIB-11 Default logical name table group, (P) System Services Intro, 6-5 job, (P) System Services Intro, 6-5 process, (P) System Services Intro, 6-4 system. (P) System Services Intro, 6-6

Default values (cont'd) Default map, (P) Linker, 5-1 FILE, (P) File Def Language, FDL-16 module information in, (P) Linker, 5-2, 5-3 in file specifications, (U) Using VMS, 2-12; sections in, (P) Linker, 5-2 (U) DCL Concepts, 3-22 symbols cross-referenced in, (P) Linker, key, (P) File Def Language, FDL-26 LINK-5 overriding with /COMPRESS qualifier, (P) Default network account and reference monitor, National Char Set, NCS-24 (M) Security, 8-4 provided by system, (U) Using VMS, 1-11 Default nonprivileged DECnet account RECORD, (P) File Def Language, FDL-33 creation by NETCONFIG.COM, (M) SYSTEM, (P) File Def Language, FDL-38 Networking, 5-1, 5-5 **DEFAULT WINDOW parameter** example, (M) Networking, 5-1 for X.25 circuit, (M) Networking, 3-31 use in access control, (M) Networking, 2-41, Default working set 3 - 94for batch job, (U) DCL Dictionary, DCL1-260, Default output file name DCL1-269, DCL2-208, DCL2-353, ANALYZE/RMS\_FILE, (P) Analyze / RMS\_File, DCL2-383 ARMS-16 modifying size, (U) DCL Dictionary, DCL2-244 Default ownership, (M) Security, 4-32 Default working set size management, (M) Security, 5-8, 5-11, 5-14 Default patch area, (P) Patch, PAT-18 See WSDEF DEFAULT\_DIRECTORY parameter to SET Default printer displaying characteristics of, (U) DCL built-in procedure, (P) VAXTPU, 7-366 Dictionary, DCL2-300 "default directory" string constant parameter to DEFAULT print form GET\_INFO, (P) VAXTPU, 7-206 deleting, V5.5 Release Notes, 2-8 DEFAULT\_NAME attribute, (P) File Def Default protection, (U) Using VMS, 7-5, 7-10; Language, FDL-19 DEFAULT\_PROTECTION access control list entry, (U) Files and Devices, 2-8; (M) Security, 4-33, 4-34, 4-35; (P) File Def Language, FDL-23 (U) Using VMS, 7-9 establishing, (U) DCL Dictionary, DCL2-199 \$DEFEND macro, (P) Device Support (B), 1-70, for directories, (M) Security, 4-13 for NETPROXY.DAT, (M) Authorize, AUTH-1 example, (P) Device Support (B), 2-16 for process, (M) Security, 4-34, 5-8, 5-11 Deferred write option for RIGHTSLIST.DAT, (M) Authorize, AUTH-1 See FAB\$V\_DFW option for SYSUAF.DAT, (M) Authorize, AUTH-1 Deferred-write processing, (P) File Applications, management, (M) Security, 5-8 9-9 Default protection ACE, (P) System Services Intro, DEFERRED\_WRITE attribute, (P) File Def Language, FDL-19 /DEFAULT qualifier, (P) Debugger, CD-82 DEFERRED WRITE secondary attribute, (P) File Default result *Applications*, 7–19, 7–20 vector arithmetic exceptions, (P) MACRO, DEFINE/CHARACTERISTIC command, V5.5 10-6, 10-30, 10-68 Release Notes, 2-9; (U) DCL Dictionary, \$DEFAULTS\$ buffer, (U) EVE Ref, 1-32, DCL1-120 to DCL1-121; (M) Maintaining EVE-223; (P) VAXTPU, 4-32 VMS, 5-26Default settings, (U) EVE Ref, 1-29 DEFINE CIRCUIT command, (M) Network Default system library Control Program, NCP-74 linker's search of, (P) Linker, LINK-29 DEFINE command, (U) VMS Intro, 3-9; (U) Default system macro library, (P) System Services Using VMS, 4-2; (U) Command Procedures, Intro, 2-42-2; (U) DCL Dictionary, DCL1-114 to Default UIC DCL1-119; (P) Debugger, 8-6, CD-47; changing, (U) DCL Dictionary, DCL2-236 (P) Linker, LINK-21; (P) Patch, PAT-50; Default user authorization record (P) System Services Intro, 6–2; (P) File modifying, (M) Authorize, AUTH-24 Applications, 4–14, 6–15; (P) System Dump Default user library Analyzer, SDA-43 definition of, (P) Linker, LINK-21 See also ASSIGN command linker's search of, (P) Linker, LINK-21, and DEASSIGN command, (U) DCL LINK-22, LINK-29 Dictionary, DCL1-104 Default values and process logical name table, (U) Using AREA, (P) File Def Language, FDL-6 VMS, 4-5DATE, (P) File Def Language, FDL-15

```
DEFINE command (cont'd)
```

- creating user-defined symbols, (P) Patch, PAT-5
- default logical name table,  $\,$  (U) DCL Concepts,  $\,$  4–5
- displaying default qualifiers for, (P) Debugger, CD-211
- establishing permanent network database, (M) DECnet-VAX Guide, 3-13, 3-32
- examples, (P) Patch, PAT-51
- example with access mode qualifier, (U) Using VMS, 4–13; (U) DCL Concepts, 4–14
- function, (U) DCL Concepts, 4-2
- how it handles a colon in a logical name, (U) DCL Concepts, 4-2
- setting default qualifiers for,  $\,$  (P) Debugger, CD-133
- specifying the access mode with, (U) Using VMS, 4-13; (U) DCL Concepts, 1-8, 4-14 symbols defined, (P) Patch, PAT-11
- /TRANSLATION\_ATTRIBUTES qualifier, (P)
  File Applications, 5-7
- using with public directories, (M) DECnet-VAX Guide, 2-5
- /DEFINED qualifier, (P) Debugger, CD-243 "Defined" string constant parameter to GET\_INFO, (P) VAXTPU, 7-190
- DEFINE EXECUTOR command, (M) Network Control Program, NCP-81
- DEFINE/FORM command, V5.5 Release Notes, 2-9, 4-3; (U) DCL Dictionary, DCL1-122 to DCL1-125; (M) Maintaining VMS, 5-41 for controlling line overflow, (M) Maintaining
- VMS, 5-45
  DEFINE KEY command, (U) Using VMS, 8-39,
- 8-71, 8-73; (U) EDT Ref, EDT-10, EDT-130; (U) EVE Ref, EVE-34 to EVE-35
  - See also Defining keys
  - EDT editor, (U) Text Processing, 2–45, 2–51, 2–53
  - EVE editor, (U) Text Processing, 1-60 in an initialization file (EVE), (U) Text Processing, 1-61
- DEFINE/KEY command, (U) VMS Intro, 6–10; (U) Using VMS, 1–24, 1–35; (U) Mail, MAIL-36; (U) DCL Dictionary, DCL1–126 to DCL1–130; (M) LATCP, LAT-16; (M) Show Cluster, SHCL-5, SHCL-50; (P) Debugger, 8–8, CD-49
- in initialization file, (U) Mail, MAIL-16
- DEFINE LINE command, V5.5 Release Notes, 4–12; (M) Network Control Program, NCP-93
- DEFINE LOGGING command, (M) DECnet-VAX Guide, 4-5
- DEFINE LOGGING EVENTS command, (M)
  Network Control Program, NCP-101

- DEFINE LOGGING STATE command, (M)
  Network Control Program, NCP-103
- DEFINE MACRO command, (U) Using VMS, 8-74; (U) EDT Ref, EDT-133
  - EDT editor, (U) Text Processing, 2-51, 2-53
- DEFINE MENU ENTRY command, (U) EVE Ref, EVE-36 to EVE-37
- DEFINE MODULE CONFIGURATOR command, (M) Network Control Program, NCP-105
- DEFINE MODULE X25-ACCESS command, (M) Network Control Program, NCP-107
- DEFINE MODULE X25-PROTOCOL command, (M) Network Control Program, NCP-109
- DEFINE MODULE X25-SERVER command, (M) Network Control Program, NCP-115
- DEFINE MODULE X29-SERVER command, (M) Network Control Program, NCP-115
- DEFINE NODE CIRCUIT command, (M) Network Control Program, NCP-127
- DEFINE NODE command, (M) DECnet-VAX Guide, 3-17; (M) Networking, 5-4; (M) Network Control Program, NCP-121
- DEFINE OBJECT command, (M) Network Control Program, NCP-129
- DEFINE/PROCESS\_GROUP command, (P) Debugger, 10–12, CD–52
- **DEFINE SYNTAX statement** 
  - example, (P) Command Def, CDU-5, CDU-27 format, (P) Command Def, CDU-5
  - table of syntax changes, (P) Command Def, CDU-20 to CDU-22
  - with DISALLOW and NODISALLOWS clauses, (P) Command Def, CDU-22
  - with IMAGE clause, (P) Command Def, CDU-23
  - with PARAMETER and NOPARAMETER clauses, (P) Command Def, CDU-23
  - with PARAMETER clause, (P) Command Def, CDU-21
  - with QUALIFIER and NOQUALIFIERS clauses, (P) Command Def, CDU-24
  - with ROUTINE clause, (P) Command Def, CDU-26
  - with SYNTAX keyword, (P) Command Def, CDU-28
- **DEFINE TYPE** statement
  - acceptable keyword clauses, (P) Command Def, CDU-28
  - acceptable type-clause, (P) Command Def, CDU-28
  - defining qualifier keywords, (P) Command Def, CDU-30
  - format, (P) Command Def, CDU-7
  - keywords referenced by VALUE, (P) Command Def, CDU–28
  - with DEFAULT clause, (P) Command Def, CDU-28

DEFINE TYPE statement (cont'd) Definition file (cont'd) with DEFINE VERB statement, (P) Command format, (P) National Char Set, NCS-4 Def, CDU-7 generated by /OUTPUT qualifier, (P) National with LABEL clause, (P) Command Def, Char Set, NCS-39 CDU-28 how to build, (P) National Char Set, NCS-4 with NEGATABLE and NONNEGATABLE language notation, (P) National Char Set, clauses, (P) Command Def, CDU-28 NCS-6 with SYNTAX clause, (P) Command Def, naming, (P) National Char Set, NCS-4 CDU-28 output from NCS library with VALUE clause, (P) Command Def, CDU-7 See /OUTPUT qualifier **DEFINE VERB statement** structure, (P) National Char Set, NCS-4 example, (P) Command Def, CDU-7, CDU-8 Definition module format, (P) Command Def, CDU-8 deleting from NCS library with DEFAULT clause, (P) Command Def, See /DELETE qualifier CDU-30 extracting from NCS library with DEFINE SYNTAX statement, (P) Command Def, CDU-6 See /EXTRACT qualifier with DISALLOW and NODISALLOWS clauses, inserting in NCS library (P) Command Def, CDU-31 See /INSERT qualifier with IMAGE clause, (P) Command Def, replacing CDU-31 See /REPLACE qualifier with PARAMETER and NOPARAMETERS specifying name length, (P) National Char Set, clauses, (P) Command Def, CDU-32 NCS-24 with QUALIFIER and NOQUALIFIERS Definition path, (P) Command Def, CDU-12 clauses, (P) Command Def, CDU-33 Definition statements, (P) Message, MSG-3 with ROUTINE clause, (P) Command Def. DEFK (define key) command, (U) EDT Ref. CDU-35 EDT-279 with SYNONYM clause, (P) Command Def. See also Defining keys CDU-35 \$DEF macro, (P) Device Support (B), 1-70, 2-14 DEFINE\_KEY built-in procedure, (P) VAXTPU, example, (P) Device Support (B), 2-16 7-100 to 7-104 DEFMBXBUFQUO parameter, (M) System DEFINE\_WIDGET\_CLASS built-in procedure, (P) Generation, A-10 VAXTPU, 7-105 DEFMBXMXMSG parameter, (M) System example of use, (P) VAXTPU, B-4 to B-11 Generation, A-10 \$DEFINI macro, (P) Device Support (B), 1-70, DEFMBXNUMMSG parameter, (M) System 2 - 16Generation, A-10 example, (P) Device Support (B), 2-16 DEFPRI parameter, V5.5 Release Notes, 2-12; Defining a form, (M) Maintaining VMS, 5-41 (M) System Generation, A-10 Defining impact of security breaches, DEFQUEPRI parameter, V5.5 Release Notes, 2-9, Dependability Handbook, 1-6 2-12; (M) System Generation, A-10 Defining keys, (U) Mail, MAIL-36; (U) EDT Ref. Degraded performance EDT-8; (U) EVE Ref, 1-25; (M) SYSMAN, defined, Dependability Handbook, Glossary-2 SM-14. SM-35 Degrees of protection Ctrl/K, (U) EDT Ref, EDT-37 from networking faults, Dependability DEFINE KEY, (U) EDT Ref, EDT-130 Handbook, 7-3DEFK (define key), (U) EDT Ref, EDT-279 DEINSTALL command, V5.5 New Features, D-1 EVE editor, (U) Text Processing, 1-59 Delaying command processing, (U) DCL GOLD, (U) EDT Ref, EDT-73 Dictionary, DCL2-397 in an initialization file (EVE), (U) Text See also Wait state Processing, 1-61 Delaying execution of a thread, (P) DECthreads, SHOW KEY, (U) EDT Ref, EDT-9 cma-61, pthread-50 to execute commands (EVE), (U) Text Delay timer, (M) Networking, 3-59 Processing, 1–60 DEL C keypad function Definition EDT, (U) Using VMS, 8-59; (U) Text built-in, (P) National Char Set, NCS-7 Processing, 2-14; (U) EDT Ref, EDT-52 Definition file See also Deleting text characteristics, (P) National Char Set, NCS-4 example, (P) National Char Set, NCS-5 See also Restoring deleted text

DEL EOL keypad function EDT, (U) Using VMS, 8-61; (U) Text Processing, 2–14; (U) EDT Ref, EDT-54 See also Deleting text DELETE access, (M) Security, 4-5; (P) File Def Language, FDL-23 See also Access and directory file, (M) Security, 4-8 and disk file, (M) Security, 4-8 and volume, (M) Security, 4-10 explicitly assigning, (U) Files and Devices, for a directory, (U) DCL Concepts, 8-8 for a file, (U) DCL Concepts, 8-9 for a logical name table, (U) DCL Concepts, 8-10 for a queue, (U) DCL Concepts, 8-7 for a volume, (U) DCL Concepts, 8-7 Delete access category, (M) System Management Intro, 3-3 definition, (U) Using VMS, 7-4 DELETE attribute, (P) File Def Language, FDL-3, FDL-37 DELETE BUFFER command, (U) Using VMS, 8-31, 8-32; (U) EVE Ref, EVE-40 to EVE-41 for buffer manipulation (EVE), (U) Text Processing, 1-47 keywords with (EVE), (U) Text Processing, 1 - 50DELETE built-in procedure, (P) VAXTPU, 7-107 to 7-110 DELETE/CHARACTERISTIC command, (U) DCL Dictionary, DCL1-135; (M) Maintaining VMS, 5-27DELETE command, (U) VMS Intro, 1–13, 2–4; (U) Using VMS, 1-32, 2-17; (U) Mail, MAIL-39; (*U*) *DCL Concepts*, 3–12; (*U*) DCL Dictionary, DCL1-131 to DCL1-134; (U) EDT Ref, EDT-56, EDT-135; (U) EVE Ref, EVE-38 to EVE-39; (M) Exchange, EXCH-23 to EXCH-24; (M) Install, INS-15; (P) Debugger, 8-6, CD-54; (P) Patch, PAT-52; (P) File Applications, 10-28; (P) File Def Language, FDL-60; License Management, LMF-64 to LMF-66 See also Deleting text and wildcard characters, (U) Using VMS, 2-17 EDT editor, (U) Text Processing, 2-27 EVE editor, (U) Text Processing, 1–15 using over the network, (M) DECnet-VAX Guide, 2-7 using with search string (EVE), (U) Text Processing, 1-20

DELETE/ENTRY command, V5.5 Release Notes, 1-2; (U) Command Procedures, 8-8; (U) DCL Dictionary, DCL1-136 to DCL1-138; (M) Maintaining VMS, 5-90 using with a batch queue, (U) VMS Intro, 6-4 using with a print queue, (U) VMS Intro, 6-2 DELETE/ERASE command, (M) Security, 4-40 Delete file function, (P) I/O User's I, 1-29 DELETE/FORM command, (U) DCL Dictionary, DCL1-139; (M) Maintaining VMS, 5-44 DELETE/INTRUSION\_RECORD command, (U) DCL Dictionary, DCL1-140 Delete key erasing text with (EVE), (U) Text Processing, 1 - 14DELETE key, (U) Using VMS, 1-18; (U) DCL Concepts, 2-5; (P) I/O User's I, 8-4 DELETE KEY command, (U) Using VMS, 1-26 DELETE/KEY command, (U) VMS Intro, 6-11; (U) DCL Dictionary, DCL1-141; (P) Debugger, 8-8, CD-56 DELETE LINK command, (M) LATCP, LAT-19 Delete on close option See FAB\$V\_DLT option DELETE PORT command, (M) LATCP, LAT-20 /DELETE qualifier. (M) Backup, BCK-45; (P) Command Def, CDU-39; (P) Librarian, LIB-21 for deleting definition modules from NCS library, (P) National Char Set, NCS-27 LIBRARY command, (P) Programming Resources, 5-2 DELETE/QUEUE command, (U) DCL Dictionary, DCL1-143 to DCL1-144; (M) Maintaining VMS, 5-76privilege or access required for, V5.5 Release Notes, 4-3DELETE secondary attribute, (P) File Applications, 7-3 Delete service, (P) File Applications, 8-2, 8-5; (P) RMS, RMS-21 condition values, (P) RMS, RMS-22 See also Completion status code control block input fields, (P) RMS, RMS-22 control block output fields, (P) RMS, RMS-22 high-level language equivalents, (P) File Applications, 8-2 program example, (P) RMS, 4-19 requirements, (P) RMS, RMS-22 run-time options, (P) File Applications, 9-20 use restrictions, (P) RMS, RMS-21 DELETE SERVICE command, (M) LATCP, LAT-21 Delete service option See FAB\$V\_DEL option Delete sharing option See FAB\$V\_SHRDEL option

DELETE/SYMBOL command, (U) Using VMS, Deleting jobs on queues set /RETAIN qualifier, 5-5; (U) DCL Concepts, 5-4; (U) Command V5.5 Release Notes, 1–2 Procedures, 2-9; (U) DCL Dictionary, Deleting records, (P) VAXTPU, 6-5 DCL1-145 to DCL1-146Deleting text CLEAR, (U) EDT Ref, EDT-124 DELETE WINDOW command, (U) Using VMS, Ctrl/J, (U) EDT Ref, EDT-79 8-35; (U) EVE Ref, EVE-42 in window environment (EVE), (U) Text Ctrl/U, (U) EDT Ref, EDT-47 Processing, 1-55 CUT, (U) EDT Ref, EDT-275 DELETE\_ON\_CLOSE attribute, (P) File Def D (delete), (U) EDT Ref, EDT-276 Language, FDL-19, FDL-24 DEL C, (U) EDT Ref, EDT-52 Deleting DEL EOL, (U) EDT Ref, EDT-54 a characteristic, (M) Maintaining VMS, 5-27 DELETE, (U) EDT Ref, EDT-56, EDT-135 problems, (M) Maintaining VMS, 5-91 DEL L, (U) EDT Ref, EDT-57 a form, (M) Maintaining VMS, 5-44 DEL W, (U) EDT Ref, EDT-59 problems, (M) Maintaining VMS, 5-91 LINEFEED, (U) EDT Ref, EDT-79 a job, (M) Maintaining VMS, 5-82 Deleting the DEFAULT print form, V5.5 Release a queue, (M) Maintaining VMS, 5-76 Notes, 2-8 problems, (M) Maintaining VMS, 5-91 Deletion buffer, (P) VAXTPU, 2-4 attributes object, (P) DECthreads, cma-17 line terminator, (P) VAXTPU, 7-28 batch job file after processing, (U) DCL Dictionary, DCL2-379 marker, (P) VAXTPU, 2-10 operations, (P) RTL Screen Management, 2-7 batch queue, (U) DCL Dictionary, DCL1-143 batch queue entries, (U) DCL Dictionary, range, (P) VAXTPU, 2-22, 7-70 DCL1-136 subprocess, (P) VAXTPU, 7-67 condition variable attributes object, (P) VAXTPU structure, (P) VAXTPU, 7-109 DECthreads, pthread-31 window, (P) VAXTPU, 2-28 files, (U) Mail, MAIL-12; (U) DCL Dictionary, Delimiters, (U) EDT Ref, EDT-176, EDT-211, DCL1-131 EDT-238; (P) Patch, PAT-20, PAT-23 folders, (U) Mail, MAIL-12 ASCII data entry, (P) Patch, PAT-16 logical names, (U) DCL Dictionary, DCL1-104 for specifying multiple definition modules, logical name tables, (U) DCL Dictionary, (P) National Char Set, NCS-27, NCS-28, NCS-32, NCS-38 DCL1-104 messages, (U) Mail, MAIL-8, MAIL-66 for specifying multiple input files, (P) National Char Set, NCS-21 multiple files, (U) DCL Dictionary, DCL1-131 mutex attributes object, (P) DECthreads, SET WORD DELIMITERS. (U) EDT Ref. pthread-72 EDT-203 print queue, (U) DCL Dictionary, DCL1-143 string argument, (P) MACRO, 4-3 print queue entries, (U) DCL Dictionary, using in control block arguments, (P) RMS, DCL1-136 3-5, 3-6, 3-7 thread attributes object, (P) DECthreads, Delivery of alert pthread-5 disabling, (P) DECthreads, cma-5 wakeup request, (U) DCL Dictionary, DCL2-55 disabling asynchronous, (P) DECthreads, Deleting a condition variable, (P) DECthreads, cma-3 cma-47, pthread-35 enabling, (P) DECthreads, cma-9 enabling asynchronous, (P) DECthreads, cma-7 Deleting a mutex, (P) DECthreads, cma-79, pthread-78 requesting, (P) DECthreads, cma-13 Deleting a PPL\$ application, (P) RTL Parallel Delivery of cancel Processing, 2-1, 2-2enabling and disabling, (P) DECthreads, Deleting a subordinate, (P) RTL Parallel pthread-93 Processing, 2-3 enabling and disabling asynchronous, (P) DECthreads, pthread-91 Deleting a thread, (P) DECthreads, cma-98, requesting, (P) DECthreads, pthread-103 pthread-52 Deleting batch and print job entries, V5.5 Release DEL L keypad function EDT, (U) Using VMS, 8-61; (U) Text Notes, 1-2Deleting files Processing, 2–14; (U) EDT Ref, EDT-57 after printing or submitting, V5.5 Release See also Deleting text Notes, 1-4 See also Restoring deleted text

Delta/XDelta Utility (DELTA/XDELTA) (cont'd) DELNI (local area interconnect device), (M) exiting from DELTA, (P) Delta/XDelta, DECnet-VAX Guide, 1-7 DELTA-2 DEL option, (P) File Def Language, FDL-3, exiting from XDELTA, (P) Delta/XDelta, FDL-37 DELTA-8 DELQA driver expressions, (P) Device Support (A), 13-12 See Ethernet/802 drivers formats DELTA address display, (P) Device Support (A), See Delta/XDelta Utility Delta time, (P) Programming Resources, 3-23; instruction display, (P) Device Support (A), (P) System Services Intro, 10-2 13 - 16as input to SYS\$BINTIM, (P) System Services guidelines, (P) Device Support (A), 13-21 to Ref, SYS-37 13 - 22combined with absolute time, (U) Using VMS, invoking, V5.5 Release Notes, 3-47 1-16; (U) DCL Concepts, 1-16 invoking DELTA, (P) Delta/XDelta, DELTA-1 converting to numeric, (P) System Services Ref, invoking XDELTA, V5.5 Release Notes, 3-47; SYS-455 (P) Delta/XDelta, DELTA-2 default values, (U) Using VMS, 1-16; (U) DCL prefixes Concepts, 1-15 G, (P) Device Support (A), 13-13 example, (P) System Services Intro, 10-3 H, (P) Device Support (A), 13-13 examples, (U) Using VMS, 1-16; (U) DCL setting PC with, (P) Device Support (A), 13-18 Concepts, 1-16 stepping through code with, (P) Device Support in system format, (P) System Services Intro, (A), 13–19 10 - 3support for vectorized programs, V5.5 New rules for entering, (U) Using VMS, 1-16; (U) Features, B-27 DCL Concepts, 1-15 symbols syntax, (U) Using VMS, 1-16; (U) DCL period (.), (P) Device Support (A), 13-13 Concepts, 1-15 Q, (P) Device Support (A), 13-13, 13-16, DELTA/XDELTA See Delta/XDelta Utility using in multiprocessing environment, (P) Delta/XDelta Utility (DELTA/XDELTA), (P) Device Support (A), 13-7, E-20 Programming Resources, 1–15; (P) Device values, (P) Device Support (A), 13-12 Support (A), 13-1 to 13-22 \$DELTVA, (P) System Services Ref, SYS-147 base register, (P) Device Support (A), 13-13 **DELUA** predefined, (P) Device Support (A), 13-13 See UNA X4, (P) Device Support (A), 13-13 DELUA communications controller, (M) X5, (P) Device Support (A), 13-13 Networking, 2-20, 3-13 XE, (P) Device Support (A), 13-13 **DELUA** driver XF, (P) Device Support (A), 13-13 See Ethernet/802 drivers changing contents of location using, (P) Device DEL W command, (U) Using VMS, 8-60; (U) Support (A), 13-15, 13-16 EDT Ref, EDT-59 closing location using, (P) Device Support (A), See also Deleting text 13 - 16commands See also Restoring deleted text executing string, (P) Device Support (A), DEL W keypad function 13-19, 13-20 EDT, (U) Text Processing, 2-14 indirect, (P) Device Support (A), 13-17 Demand-zero compression predefined in XE and XF, (P) Device cessation of, (P) Linker, 3-10 Support (A), 13–13 conditions for, (P) Linker, 6-19 summary, (P) Device Support (A), 13-10 to control of by option, (P) Linker, 1-8, 3-7 13 - 12definition of, (P) Linker, 1-8, 3-7 depositing command string in system patch Demand-zero image section, (P) Linker, 1-8, 3-7 space for use by, (P) Device Support (A), DEMFA controller, V5.5 New Features, A-53 **DEMNA** controller displaying contents of address range using, (P) circuit name, V5.5 New Features, B-105 Device Support (A), 13-16 firmware revision level, V5.5 Release Notes, displaying contents of location using, (P) Device 2 - 73Support (A), 13-16 line name, V5.5 New Features, B-105

DEMNA Ethernet/802 controller, V5.5 Release	Dependability (cont'd)
Notes, 2–26	identifying constraints, Dependability
/DENSITY qualifier, (M) Backup, BCK-46; (M)	Handbook,4–1
Mount, MOUNT-19	maintaining dependable environment,
Department of Defense (DoD) erase pattern, V5.5	$Dependability\ Handbook,\ 5-1$
Release Notes, 2–39	managing shared information, Dependability
Dependability, V5.5 Release Notes, 4-2	Handbook, 8–57 to 8–60
analyzing system requirements, Dependability Handbook, 2–1	meeting changing requirements, Dependability Handbook, 1-5
application software features, Dependability	network design, Dependability Handbook, 7-1
Handbook, 8–27 to 8–57	allowing for LAN bridge failover,
balance, Dependability Handbook, 1–22	Dependability Handbook, 7–11
building blocks, Dependability Handbook, 1–18	alternate adapter booting for satellite
communications, Dependability Handbook,	nodes, Dependability Handbook, 7-12
1–19	DECalert, Dependability Handbook, 7–22
environment, Dependability Handbook,	DECelms, Dependability Handbook, 7-24
1–19	DECmcc, Dependability Handbook, 7-25
hardware, Dependability Handbook, 1-19	degrees of protection from faults,
operational procedures, Dependability	$Dependability\ Handbook,\ 7-3$
Handbook, 1-19	Ethernet and FDDI options, Dependability
personnel, Dependability Handbook, 1-19	Handbook,7–10
software, Dependability Handbook, 1-19	${ m ETHERnim}, \ \ Dependability \ Handbook,$
building into systems, V5.5 New Features, 1-4	7–23
business needs analysis, Dependability	LAN Traffic Monitor, Dependability
Handbook, 2-6	Handbook, 7–23
business requirements, Dependability	large packet support on FDDI,
Handbook,2–6	Dependability Handbook, 7–11
characteristics summary, Dependability	local area VAXcluster failure analysis
Handbook,6–29	program, Dependability Handbook,
communications	7–22
options, Dependability Handbook, 3–6 to	proactive network monitoring and analysis
3–9	$egin{aligned}  ext{products}, & \textit{Dependability Handbook}, \ 7-22 \end{aligned}$
concepts, Dependability Handbook, 1-10	providing multiple paths to Ethernet and
constraints, Dependability Handbook, 4-1	FDDI, Dependability Handbook, 7–5
continuous improvement, Dependability	providing multiple WAN connections
Handbook, 2-1	for VAXft systems, Dependability
analysis phase, Dependability Handbook, 2–4	Handbook, 7–19
integration phase, Dependability	recommendations for local area
Handbook, 2–4	VAXclusters, Dependability Handbook
operational phase, Dependability	7–6
Handbook, 2–3	sample local area VAXcluster failure
planning phase, Dependability Handbook,	analysis program, Dependability
2–2	Handbook, 7-12, 7-13
cost tradeoffs, Dependability Handbook, 4–21	sample multiadapter connections to LAN
determining adequacy, Dependability	segments, Dependability Handbook,
Handbook, 2-1	7–7
Digital services support packages,	using DECnet cluster alias, Dependability
Dependability Handbook, 10–1	Handbook,7–19
enhancements to a sample configuration,	using DFS, Dependability Handbook, 7–22
Dependability Handbook, 6–6	using DNS, Dependability Handbook, 7–20
environment	using FDDI as VAXcluster interconnect,
options, Dependability Handbook, 3-2 to	Dependability Handbook, 7–16
3–4	VAXcluster satellite synonym,
hardware	Dependability Handbook, 7–12
options, Dependability Handbook, 3-4 to	VCS, Dependability Handbook, 7–24
3–6	operational conditions, Dependability
	Handbook,1–10

Dependability (cont'd) operational procedures options, Dependability Handbook, 3-15 to 3 - 19personnel options, Dependability Handbook, 3-19 to 3-20primary strategies concepts, Dependability Handbook, 1-13 principles, Dependability Handbook, 2-1 prioritizing requirements, Dependability Handbook, 2-9 process, Dependability Handbook, 2-1 prototyping applications, Dependability Handbook, 8-23 to 8-24 publications related to See Bibliography quality process phases, Dependability Handbook, 2-1 requirements and responses, Dependability Handbook, 2-5 requirements for a sample company, Dependability Handbook, 2–11 selecting a systems integrator, Dependability Handbook, 3-14 software options, Dependability Handbook, 3-9 to software applications, Dependability Handbook, 8-1 taking action, Dependability Handbook, 2-14 terms, Dependability Handbook, 1-7 See Dependability terms testing applications, Dependability Handbook, 8-25 to 8-27 testing software, Dependability Handbook, 3 - 12TP monitors, Dependability Handbook, 8-50 tradeoffs, Dependability Handbook, 4-1 understanding your options, Dependability Handbook, 3-1 user requirements analysis, Dependability Handbook, 2-1, 2-5 VMS features, Dependability Handbook, 8-2 to 8 - 19with CDD/Repository, Dependability Handbook, 8-59 writing dependable code, Dependability Handbook, 8-19 to 8-23 Dependability constraints in wide area networks, Dependability Handbook, 3-8 Dependability terms, Dependability Handbook,

availability, Dependability Handbook, 1-8,

Dependability terms (cont'd) backup switching, Dependability Handbook, Glossarv-1 client, Dependability Handbook, Glossary-1 client/server, Dependability Handbook, Glossary-1 computing component, Dependability Handbook, 1-7, Glossary-1 continuous improvement process, Dependability Handbook, Glossary-1 database administrator, Dependability Handbook, Glossary-1 data integrity, Dependability Handbook, Glossary-1 degraded performance, Dependability Handbook, Glossary-2 dependable computing system, Dependability Handbook, 1-8, Glossary-2 disaster tolerant computing, Dependability Handbook, Glossary-2 disk fragmentation, Dependability Handbook, Glossary-2 down time, Dependability Handbook, Glossary-2 error, Dependability Handbook, 1-7, Glossary-2 error correction, Dependability Handbook, 1-9, Glossary-2 failover, Dependability Handbook, Glossary-2 failure, Dependability Handbook, 1-8, Glossary-2 failure recovery, Dependability Handbook, 1-9, Glossary-3 fault, Dependability Handbook, 1-7, Glossary-3 fault management, Dependability Handbook, 1-10, Glossary-3 fault prevention, Dependability Handbook, 1-9, Glossary-3 fault tolerance, Dependability Handbook, 1-8, Glossary-3 front-end, Dependability Handbook, Glossary-3 hardware-based fault tolerance, Dependability Handbook, Glossary-3 hot standby, Dependability Handbook, Glossary-3 lobe, Dependability Handbook, Glossary-4 lock step, Dependability Handbook, Glossary-4 mean-time-between-failures (MTBF), Dependability Handbook, Glossary-4 namespace, Dependability Handbook, Glossary-4 reconfigure, Dependability Handbook, Glossary-4 recoverability, Dependability Handbook, Glossarv-4 redundant, Dependability Handbook, Glossary-5

Glossary-1

Dependability terms (cont'd)	Dependable computing (cont'd)
reliability, Dependability Handbook, 1–8, Glossary–5	fault tolerant level, Dependability Handbook, 1-2
scalability, Dependability Handbook, Glossary–5	hardware, <i>Dependability Handbook</i> , 1–19 applying dependability strategies,
server, Dependability Handbook, Glossary–5	Dependability Handbook, 1–21
single points of failure, Dependability  Handbook, Glossary-5	options, Dependability Handbook, 3–4 to 3–6
software-based fault tolerance, Dependability	highly available level, Dependability
Handbook, Glossary-5	Handbook, 1-2
symmetric multiprocessing, Dependability Handbook, Glossary-5	levels of, <i>Dependability Handbook</i> , 1–2 maintaining dependable environment,
throughput, Dependability Handbook,	Dependability Handbook, 5–1
Glossary-5	managing shared information, Dependability
transition time, Dependability Handbook,	Handbook, 8–57 to 8–60
Glossary-5	operational procedures, Dependability
transparent failover, Dependability Handbook,	Handbook, 1–19
Glossary-5	applying dependability strategies,
uninterrupted service, Dependability	$Dependability\ Handbook,\ 1 ext{}21$
Handbook, Glossary–6	options, Dependability Handbook, 3-15 to
24x365, Dependability Handbook, Glossary-1	3–19
$Y$ -connector, $Dependability\ Handbook$ ,	personnel, Dependability Handbook, 1–19
Glossary-6	applying dependability strategies,
zone, Dependability Handbook, Glossary-6	Dependability Handbook, 1–21
Dependable computing, Dependability Handbook, 1–1	options, Dependability Handbook, 3–19 to 3–20
analyzing system requirements, Dependability Handbook, 2–1	prototyping applications, <i>Dependability Handbook</i> , 8–23 to 8–24
application software features, Dependability Handbook, 8–27 to 8–57	redundant functional units, Dependability Handbook, 1–16
building blocks, Dependability Handbook, 1–18	automatic, Dependability Handbook, 1–17
business examples	capacity related, Dependability Handbook,
conventional computing, Dependability	1–17
$Handbook,\ 1–3$	computing systems, Dependability
disaster tolerant computing, Dependability	Handbook,1–18
Handbook, 1-4	manual, Dependability Handbook, 1–17
fault tolerant computing, Dependability	software, Dependability Handbook, 1–19
Handbook, 1–4	applying dependability strategies,
highly available computing, Dependability	Dependability Handbook, 1–21
Handbook, 1-3, 1-4	options, Dependability Handbook, 3–9 to
communications, Dependability Handbook, 1–19	3-15 testing applications, <i>Dependability Handbook</i> ,
applying dependability strategies,	8–25 to 8–27
Dependability Handbook, 1–21	understanding your options, Dependability
options, Dependability Handbook, 3-6 to	Handbook, 3–1
3–9	VMS features, Dependability Handbook, 8–2 to
conventional level, Dependability Handbook,	8–19
1–2	writing dependable code, Dependability
defined, Dependability Handbook, 1-1	Handbook, 8–19 to 8–23
Digital services support packages,	Dependable computing system
$Dependability\ Handbook,\ 10 ext{}1$	balancing with other business considerations,
disaster tolerant level, Dependability	$Dependability\ Handbook,\ 4-1$
Handbook, 1-2	defined, Dependability Handbook, 1–8,
environment, Dependability Handbook, 1–19	Glossary-2
applying dependability strategies,	Dependences
Dependability Handbook, 1–21	vector results, (P) MACRO, 10–24
options, Dependability Handbook, 3-2 to 3-4	Deposit DEPOSIT command. (P) Debugger, 4–3, CD–58
ე <del></del> ±	DEFUSIT Command, (F) Debugger, 4-3, CD-30

Deposit (cont'd)	Descriptor
instruction, (P) Debugger, 4-21, 11-12	format (cont'd)
with DECwindows, (P) Debugger, 1-24	DSC\$K_CLASS_D, (P) Routines Intro,
into address, (P) Debugger, 4–23	2– $24$
with DECwindows, (P) Debugger, 1-25	DSC\$K_CLASS_J, (P) Routines Intro, 2–29
into register, (P) Debugger, 4-22, 11-4	$DSC$K_CLASS_NCA, (P) Routines Intro,$
with DECwindows, (P) Debugger, 1-25	2–31
into variable, (P) Debugger, 4-3, 4-14	DSC\$K_CLASS_P, (P) Routines Intro,
with DECwindows, (P) Debugger, 1-24	2–29
into vector register, (P) Debugger, 11-4	DSC\$K_CLASS_S, (P) Routines Intro, 2–23
vector instruction, (P) Debugger, 11-12	DSC\$K_CLASS_SB, (P) Routines Intro,
Deposit ASCII String command, (P) Delta/XDelta,	2–41
DELTA-37	DSC\$K_CLASS_SD, (P) Routines Intro,
DEPOSIT command, (U) DCL Concepts, 7-1, 7-4;	2–30
(U) DCL Dictionary, DCL1-147 to DCL1-150;	DSC\$K_CLASS_UBA, (P) Routines Intro,
(P) Debugger, 4–3, CD–58; (P) Patch, PAT–55	2–38
and EXAMINE command, (U) DCL Dictionary,	DSC\$K_CLASS_UBS, (P) Routines Intro,
DCL1-209	2–37
length qualifiers, (U) DCL Dictionary,	DSC\$K_CLASS_UBSB, (P) Routines Intro,
DCL1–148	2–42
patch area operations, (P) Patch, PAT-18	DSC\$K_CLASS_V, (P) Routines Intro,
/PATCH_AREA, (P) Patch, PAT-57	2–25
radix qualifiers, (U) DCL Dictionary,	DSC\$K_CLASS_VS, (P) Routines Intro,
DCL1-148	2–34
with VERIFY command, (P) Patch, PAT-91	DSC\$K_CLASS_VSA, (P) Routines Intro,
DEPTH attribute, (P) File Def Language, FDL-5	2–35
\$DEQ	DSC\$W_LENGTH, (P) Routines Intro,
Lock Manager, (M) System Management Intro,	2–23
6–3	prototype, (P) Routines Intro, 2–22
DEQNA driver	label, (P) Routines Intro, 2–29
See Ethernet/802 drivers	noncontiguous array, (P) Routines Intro, 2-31
DEQNA Ethernet controller, (M) Networking, 1-7,	patch area, (P) Patch, PAT-18
2–20, 3–13	procedure, (P) Routines Intro, 2-29
·	string with bounds, (P) Routines Intro, 2–41
See also QNA	unaligned bit array, (P) Routines Intro, 2-38
minimum revision level requirement, (M)	unaligned bit string, (P) Routines Intro, 2-37
System Management Intro, 6–7	unaligned bit string with bounds, (P) Routines
DEQTA Ethernet/802 controller, V5.5 Release Notes, 2–26	Intro,2–42
Dequeue, (P) DECthreads, 2–16	variable buffer, (P) Routines Intro, 2-25
%DESCR, (P) Debugger, CD-10	varying string, (P) Routines Intro, 2-34
Descriptor, (P) RTL String Manipulation, 2–7	varying string array, (P) Routines Intro, 2-35
analysis of, (P) RTL String Manipulation, 2–4	DESEL (deactivate select) command, (U) EDT
array, (P) Routines Intro, 2–25	Ref, EDT $-280$
class and data type, (P) RTL Intro, 3–10	See also Entering commands
class codes, (P) Routines Intro, 1–11	DESELECT command, (M) Show Cluster,
facility-specific, (P) Routines Intro, 2–43	SHCL-10, SHCL-53
reserved, (P) Routines Intro, 2–44	Design
decimal string, (P) Routines Intro, 2–30	avoiding software implementation errors,
dynamic string, (P) Routines Intro, 2–24	Dependability Handbook, 8–20
fields of, (P) RTL Intro, 3–7	avoiding software specification errors,
fixed-length, (P) Routines Intro, 2–23	$Dependability\ Handbook,\ 8 ext{}20$
format, (P) Routines Intro, 2–20	software robustness, Dependability Handbook,
DSC\$A_POINTER, (P) Routines Intro,	8–21
2-23	Designated router
DSC\$B_CLASS, (P) Routines Intro, 2–23	See Ethernet
DSC\$B_DTYPE, (P) Routines Intro, 2–23	Design graphics mode, (P) File Applications, 4–11
DSC\$K_CLASS_A, (P) Routines Intro,	
2–25	
<b></b>	

Designing emergency drills, Dependability DEV\$V\_AVL, (P) Device Support (A), 18-22 Handbook, 1-6 DEV\$V\_ELG, (P) Device Support (A), 11-9; (P) Design mnemonic, (P) File Applications, 4-14 Device Support (B), 3-8 Design stage, (P) Modular Procedures, 2-1 DEV\$V\_NET, (P) Device Support (A), 18-13 Desktop ACMS (DECtp Desktop for ACMS) DEV\$V\_RED, (P) Device Support (A), 18-22 features, Dependability Handbook, 8-56 \$DEVDEF macro, (P) Device Support (B), 1-74, Desktop environments, Dependability Handbook, source of DEV field bit definitions, (P) RMS, DESNC security controller, (M) Security, 8-5 5 - 7Development Despooling a spooled output device, (M) Maintaining VMS, 5-53 defining symbols and logical names, Destination Dependability Handbook, 8-59 of X.25 call, (M) Networking, 2-35 dependability using CDD/Repository, Destination file specification Dependability Handbook, 8-58 requirement, (P) National Char Set, NCS-36 using code management system, Dependability DESTINATION qualifier, (M) Networking, 3–81 Handbook, 8-57 DESVA communications controller, (M) using DEC LSE/SCA, Dependability Handbook, Networking, 2-20 8-57 using DEC Test Manager, Dependability **DESVA** driver See Ethernet/802 drivers Handbook, 8-58 using DNS, Dependability Handbook, 8-60 Detached cursor defining routine to handle, (P) VAXTPU, 7-367 using module management system. Dependability Handbook, 8-58 fetching action routine to handle, (P) VAXTPU, using performance analysis product, 7 - 197Dependability Handbook, 8-58 fetching reason for, (P) VAXTPU, 7-198 Device, (U) VMS Intro, 3-1, 3-4; (U) Using VMS, Detached jobs 2-1, 2-8 accounting, (M) Maintaining VMS, 6-2 Detached process, (P) System Services Intro, 8-2, See also Device unit 8-6; (P) System Services Ref, SYS-111 See also Logical name See also Process See also Output device batch job as, (U) Using VMS, 3-8 access, (U) DCL Dictionary, DCL1-15 creating, (P) Programming Resources, 2-7 accessing in batch job, (U) Files and Devices, creating with unique UIC, (U) Using VMS, 7-3 3 - 21definition of, (U) Using VMS, 3-1; (P) RTL allocating, (P) System Services Intro, 7-20; (P) Parallel Processing, 1-2 System Services Ref, SYS-19 establishing values for, (M) Performance allocation, (U) DCL Dictionary, DCL1-15 Management, 5-5 allocation class, (P) Device Support (B), 1–28 DETACHED\_ACTION parameter to SET built-in, assigning logical queue name to, (U) DCL (P) VAXTPU, 7-367 Dictionary, DCL1-47 "detached\_action" string constant parameter to associated mailbox, (P) Device Support (B), GET\_INFO, (P) VAXTPU, 7-197 1 - 77"detached\_reason" string constant parameter to availability GET\_INFO, (P) VAXTPU, 7-198 OPCOM message, (M) Maintaining VMS, DETACH privilege, (M) Setting Up VMS, 5–11; 3 - 10(M) Security, A-3; (M) Networking, 5-2 bus, (P) Device Support (B), 1-76 for network operations, (M) DECnet-VAX byte-addressable, (P) Device Support (A), 14-22 card reader, (P) Device Support (B), 1-76 Guide, 3-10 CI circuit, (M) Networking, 2-10 Detected Bad Block File cluster accessible, (P) Device Support (B), 1-73 See DBBF cluster available, (P) Device Support (B), 1-75 **DEUNA** concealed, (M) Setting Up VMS, 2-8 See also UNA configuring, (M) Setting Up VMS, 2-6; (M) Ethernet UNA device, (M) DECnet-VAX Guide, System Generation, C-1 to C-2 3 - 33creating, (U) DCL Dictionary, DCL2-129 DEUNA communications controller, (M) DDCMP circuit, (M) Networking, 2-8 Networking, 1-7, 2-20, 3-13 DDCMP line, (M) Networking, 2-13 **DEUNA** driver

See Ethernet/802 drivers

Device (cont'd) Device (cont'd) line printer, (P) Device Support (B), 1-76 deallocating, (U) DCL Dictionary, DCL1-103; LN01, (U) DSR Ref, 4-9 (P) System Services Intro, 7–21; (P) System Services Ref, SYS-129 LN01E, (U) DSR Ref, 4-9 default name, (U) Using VMS, 2-10; (P) LN03, (U) DSR Ref, 4-9 System Services Intro, 7-27 lock name, (P) System Services Ref, SYS-274 DEUNA, (M) DECnet-VAX Guide, 3-33 logical name assignment, (U) DCL Dictionary, Digital-supplied, (M) System Generation, B-1 DCL1-15 to B-2; (P) Device Support (A), 12-15 logical name translation, (M) SYSMAN, SM-40 directory structured, (P) Device Support (B), magnetic tape retrieving information, (U) Files and 1 - 74disk, (P) Device Support (B), 1-76, 3-51, 3-95 Devices, 4-6 dismounting, (U) DCL Dictionary, DCL1-170 setting default characteristics for, (U) DCL Dictionary, DCL2-177 displaying default, (U) DCL Dictionary, DCL2-262 mailbox, (P) Device Support (B), 1-75, 1-76 error count for, (U) DCL Dictionary, mass storage, (U) Using VMS, 2-8; (U) DCL DCL2-279 Concepts, 3-4 information on, (U) DCL Dictionary, modifying, (U) DCL Dictionary, DCL2-129 modifying protection of, (U) DCL Dictionary, DCL2-246 mounted volumes, (U) DCL Dictionary, DCL2-200 mounted, (P) Device Support (B), 1-75, 1-78 DCL2-266 mounted foreign, (P) Device Support (B), 1-75 queue entries, (U) DCL Dictionary, DCL2-275, DCL2-309 mounting volumes, (M) Maintaining VMS, 3-3 status of, (U) DCL Dictionary, DCL2-264 name, (U) VMS Intro, 3-4, 3-5; (P) System displaying currently mounted, (M) Exchange, Services Intro, 7-26 EXCH-40 network, (P) Device Support (B), 1-74 displaying SDA information, (P) System Dump nonfile, (U) Using VMS, 7-12 offsettable, (P) Device Support (A), 16-10 Analyzer, SDA-98 displaying the default, (M) SYSMAN, SM-74 on VAXBI bus, (P) Device Support (A), 16-2 DMC11, (M) Networking, 1–9 output, (P) Device Support (B), 1-75 DMF32, (M) Networking, 1–9 physical, (U) VMS Intro, 6-16 protection, (U) Files and Devices, 2-13; (P) DMP11, (M) Networking, 1-9 DMR11, (M) Networking, 1-9 System Services Intro, 7-5 dual-pathed, (P) System Services Ref, SYS-270 QNA, (M) DECnet-VAX Guide, 3-33 dual ported, (P) Device Support (B), 1-75 random access, (P) Device Support (B), 1-75 dual-ported, (P) Device Support (B), 1-74 real time, (P) Device Support (B), 1-75, 1-76 DZ11, (M) Networking, 1-9 record oriented, (P) Device Support (B), 1-74 establishing as spooled, (U) DCL Dictionary, record-oriented, (U) Using VMS, 2-8; (U) DCL DCL2-123 Concepts, 3-4 establishing operational status for, (U) DCL reference count, (P) Device Support (B), 1-79 Dictionary, DCL2-123 resetting the default, (M) SYSMAN, SM-6 Ethernet circuit, (M) Networking, 2-11 restricting access to, (M) Security, 5-29 Ethernet line, (M) Networking, 2-20 scanning of across the cluster, (P) System Ethernet UNA, (M) DECnet-VAX Guide, 3-33 Services Ref, SYS-154 excluding, (M) Error Log, ERR-9 SCSI, (P) Device Support (A), 16–30 file structured, (P) Device Support (A), 2-3, sequential block-oriented, (P) Device Support 4-10; (P) Device Support (B), 1-28, 1-74 (B), 1–74 getting information about, (P) System Services served, (P) System Services Ref, SYS-278 setting characteristics, (M) Maintaining VMS, Intro, 7–28 asynchronously, (P) System Services Ref, 5-51SYS-266 in command procedure, (M) Maintaining synchronously, (P) System Services Ref, VMS, 5-54 SYS-285 setting defaults for file specifications, (M) SYSMAN, SM-70 implicit allocation, (P) System Services Intro, 7 - 21setting default to another, (U) Using VMS, including, (M) Error Log, ERR-13 information, Obsolete Features, 2–16 setting up output, (M) Maintaining VMS, 5-50 input, (P) Device Support (B), 1-75 shareable, (P) Device Support (B), 1-75

Device (cont'd) Device characteristics (cont'd) site-specific startup, (M) Setting Up VMS, 2-9 terminal, (P) I/O User's I, 8-20 specifying quotas for, (M) SYSMAN, SM-38 Device characteristics field spooled, (M) Maintaining VMS, 5-52; (P) See FAB\$L\_DEV field Device Support (B), 1-74 Device class, (P) Device Support (B), 1-76 testing, (M) Maintaining VMS, 5-53 specifying, (P) Device Support (A), 6-3; (P) status of, (M) Maintaining VMS, 6-7 Device Support (B), 2-25 status report, (M) Maintaining VMS, 6-7 Device code supported by EXCHANGE, (M) Exchange, definition, (U) Using VMS, 2-9 EXCH-1 Device code field synchronous communications, (P) Device definition, (U) DCL Concepts, 3-4 Support (B), 1–76 in a cluster device name, (U) DCL Concepts, tape, (P) Device Support (B), 1-76, 3-95 3 - 6terminal, (P) Device Support (B), 1-74, 1-76 Device controller, (P) Device Support (A), 1-5, terminal configuration, V5.5 Release Notes, 1-6; (P) Device Support (B), 1-19 See also Controller initialization routine timed out, (P) Device Support (B), 1-78 See also MBA type, (U) VMS Intro, 3-4 initializing, (P) Device Support (A), 11-1 unit record, (U) Using VMS, 2-8; (U) DCL intelligent, (P) Device Support (A), 1-22 Concepts, 3-4 multiunit, (P) Device Support (A), 3-26, 4-6, unloading with DISMOUNT command, (U) 4-16, 8-2, 8-6, 9-8; (P) Device Support DCL Dictionary, DCL1-172 (B), 1–36, 1–74, 1–77 word-aligned, (P) Device Support (A), 14-18 number of units created for, (P) Device Support workstation, (P) Device Support (B), 1-76 (A), 12-6; (P) Device Support (B), 2-22 X.25 line, (M) Networking, 2-20 number of units supported by, (P) Device Device access Support (B), 1-34, 1-36, 1-37, 2-22 controlling through access control lists, (P) reinitializing, (P) Device Support (B), 2-22 Utility Routines, ACL-1 single unit, (P) Device Support (A), 4-7, 10-2, Device activation bit mask, (P) Device Support 11-2, 11-3, 12-2; (P) Device Support (B), (A), 8-4 1 - 36Device address single-unit, (P) Device Support (A), 3-26 See LAN address status, (P) Device Support (B), 1-21 Device affinity, (P) Device Support (B), 1-75, 3-71 synchronizing access to, (P) Device Support (A), Device allocation lock, (P) Device Support (B), Device controller data channel, (P) Device Support DEVICE attribute, (P) File Def Language, (A), 4–6 to 4–7, 15–14, 15–15 See also Secondary controller data channel Device characteristics, (P) Device Support (A), obtaining ownership of, (P) Device Support (A), 7-9; (P) Device Support (B), 1-74 to 1-75 3-26, 4-6, 8-2 to 8-4; (P) Device Support asynchronous DDCMP driver, (P) I/O User's (B), 1-36, 2-62, 3-100 to 3-101 II, 5-2owner, (P) Device Support (A), 4-7 card reader, (P) I/O User's I, 2-5 releasing, (P) Device Support (A), 3-27, 8-6, disk, (P) I/O User's I, 3-22 10-2; (P) Device Support (B), 2-54, 3-86 DMC11/DMR11 driver, (P) I/O User's II, 1-3 releasing before waiting for interrupt, (P) DMP11/DMF32 driver, (P) I/O User's II, 2-3 Device Support (B), 3–105 DR11-W/DRV11-WA driver, (P) I/O User's II, relinquishing ownership, (P) Device Support (B), 2–104 DR32 driver, (P) I/O User's II, 4-3 requesting, (P) Device Support (A), 8-2 Ethernet/802 drivers, (P) I/O User's II, 6-14 retaining ownership, (P) Device Support (B), line printer, (P) I/O User's I, 5-3 LPA11-K device, (P) I/O User's I, 4-5 retaining while waiting for interrupt, (P) magnetic tape, (P) I/O User's I, 6-11 Device Support (B), 3-105 mailbox, (P) I/O User's I, 7-4 unavailability, (P) Device Support (A), 8-3 pseudoterminal, (P) I/O User's I, 9-3 Device controller data channel wait queue, (P) retrieving, (P) Device Support (B), 3-49 Device Support (A), 3-27, 8-3; (P) Device setting, (P) Device Support (B), 3-50 to 3-51 Support (B), 1-21, 3-86, 3-91, 3-101 specifying, (P) Device Support (A), 6–3; (P)

Device Support (B), 2-25

Device control library, (U) DSR Ref, B-4; (M) Maintaining VMS, 5-45 to 5-50 assigning to a queue, (M) Maintaining VMS, order of module output, (M) Maintaining VMS, procedure for using, (M) Maintaining VMS, sample commands, (M) Maintaining VMS, 5 - 49setting up, (M) Maintaining VMS, 5-45 Device control module adding, (M) Maintaining VMS, 5-47, 5-92 creating, (M) Maintaining VMS, 5-47 creating a form for, (M) Maintaining VMS, deleting, (M) Maintaining VMS, 5-47, 5-92 inserting into a library, (M) Maintaining VMS, 5 - 47listing, (M) Maintaining VMS, 5-48 naming, (M) Maintaining VMS, 5-48 order of output, (M) Maintaining VMS, 5-49 page setup, (M) Maintaining VMS, 5-46, 5-48 requesting with PRINT command, (M) Maintaining VMS, 5-48 reset, (M) Maintaining VMS, 5-46, 5-48 when queue is started, (M) Maintaining VMS. 5-48 sample commands, (M) Maintaining VMS, 5-49setting up, (M) Maintaining VMS, 5-46 setup, (M) Maintaining VMS, 5-46, 5-48 specifying, (M) Maintaining VMS, 5-46 storing, (M) Maintaining VMS, 5-47 troubleshooting, (M) Maintaining VMS, 5-92 types, (M) Maintaining VMS, 5-45 using with forms, (M) Maintaining VMS, 5-46 Device database, (P) Device Support (A), 3-6, 3-16, E-9 synchronizing access to, (P) Device Support (A), 3-22; (P) Device Support (B), 2-17 to 2-18 Device data block See DDB Device driver, (P) Device Support (A), 1-1 assembling with SYS\$LIBRARY:LIB.MLB, (P) Device Support (A), 12-1, E-7 asynchronous nature, (P) Device Support (A), 1-1, 1-9, 5-1 base address of driver prologue table (DPT), (P) System Dump Analyzer, SDA-13 branching on adapter characteristics, (P) Device Support (B), 2-2 to 2-4 branching on processor type, (P) Device Support (B), 2-9 to 2-11 calculating base address, (P) Device Support (A), 13–7

coding conventions, (P) Device Support (A), 5-1

to 5-3, 12-1, 13-22 to 13-23

Device driver (cont'd) components, (P) Device Support (A), 1-2 to 1-4, 5-1configuring, (M) System Generation, SGN-5 connecting, (M) Setting Up VMS, 6-18; (M) System Generation, SGN-10 context, (P) Device Support (A), 1-7 to 1-9 converting uniprocessing to multiprocessing, (P) Device Support (A), E-8 to E-20 debugging, (P) Device Support (A), 13-1 to 13 - 22displaying address of, (P) Device Support (A), 12 - 12entry points, (P) Device Support (A), 1-2, 6-3 to 6-4; (P) Device Support (B), 1-29, 4-1 to example, (P) Device Support (A), C-1 to C-29, D-1 to D-26 flow, (P) Device Support (A), 1-9, 1-23 to 1-25 for generic VAXBI device, (P) Device Support (A), 16-1 to 16-30; (P) Device Support (B), 3 - 107for MASSBUS device, (P) Device Support (A), 15-1 to 15-17 for Q22-bus device, (P) Device Support (A), 14-1 to 14-36 for UNIBUS device, (P) Device Support (A), 14-1 to 14-36 functions, (P) Device Support (A), 1-2 hardware considerations, (P) Device Support (A), 1–10 to 1–20 implementing a conditional wait, (P) Device Support (B), 2-92, 2-94 linking with SYS\$SYSTEM:SYS.STB, (P) Device Support (A), 12-1, 13-7, E-8 loading, (M) VAXcluster, 4-10; (M) System Generation, SGN-22; (P) Device Support (A), 6-1, 11-3 to 11-5, 12-1 to 12-23, 13-5, 15-7 to 15-8; (P) Device Support (B), 1-33 locating, (P) System Dump Analyzer, SDA-13 locating a failing instruction, (P) System Dump Analyzer, SDA-24 machine independence, (P) Device Support (A), 1-10, 5-5 to 5-6, 14-16; (P) Device Support (B), 2-2 to 2-4, 2-9 to 2-11 maximum number of supported units, (P) Device Support (A), 6-2 multiprocessor, (P) Device Support (A), 12-13, E-1, E-3name, (P) Device Support (A), 4-8, 6-2, 12-3, 12-6, 12-7, 12-12; (P) Device Support (B), 1-28, 1-34, 2-22 program sections, (P) Device Support (A), 6-4, 12-1, 13-7; (P) Device Support (B), 2-13, reloading, (P) Device Support (A), 12-7 to 12-8 replacing with new version of, (M) System

Generation, SGN-24

```
Device driver (cont'd)
                                                       Device interrupt vector, (P) Device Support (A),
  showing configuration of, (M) System
                                                           14-26, 16-9, 16-10 to 16-11
       Generation, SGN-32
                                                          connecting to, (P) Device Support (A), 19-7 to
  showing information about, (M) System
       Generation, SGN-34, SGN-35
                                                          for generic VAXBI device, (P) Device Support
  size, (P) Device Support (A), 5-1; (P) Device
                                                              (A), 16–15
       Support (B), 1–33
                                                          multiple, (P) Device Support (A), 14-31, 16-9
  storing data from, (P) Device Support (A), 5-1
                                                          specifying address, (P) Device Support (A),
  suspending, (P) Device Support (A), 2-6, 8-6 to
                                                              12 - 6
       8-7, 14-24; (P) Device Support (B), 1-73
                                                          specifying multiple, (P) Device Support (A),
  synchronization flow, (P) Device Support (A),
                                                              12-6
       3-17 to 3-21
                                                       Device IPL, (P) Device Support (A), 3-6, 9-1; (P)
  synchronization methods used by, (P) Device
                                                           Device Support (B), 1-77, 2-17 to 2-18
       Support (A), 1-7, 3-1 to 3-27
                                                          specifying, (P) Device Support (A), 6-2; (P)
  template for, (P) Device Support (A), A-1 to
                                                              Device Support (B), 2-25
       A - 10
                                                       DEVICE keyword
  uniprocessor, (P) Device Support (A), 12-13,
                                                          with FILE_PARSE, (P) VAXTPU, 7-140
       E-1, E-3
                                                          with FILE_SEARCH, (P) VAXTPU, 7-143
  unloading, (P) Device Support (B), 1-33, 2-22
                                                       Device lock, (P) Device Support (A), 3-6, 3-13,
  updating old code, (P) Device Support (A), E-1
                                                           3-16 to 3-17, 8-5; (P) Device Support (B),
  VME coding conventions, V5.5 New Features,
                                                           1-68, 1-77, 3-105
                                                          See also Spin lock
Device driver image, (P) Patch, PAT-3, PAT-19
                                                          acquisition IPL, (P) Device Support (B), 3-113
  patching, (U) DCL Dictionary, DCL2-11
                                                          address, (P) Device Support (A), 3-22; (P)
Device driver routine
                                                              Device Support (B), 1-22, 1-36, 1-74
  address, (P) System Dump Analyzer, SDA-99
                                                          multiple acquisition of, (P) Device Support (B),
Device field
                                                              2-19, 3-117
  default value, (U) Using VMS, 2-12; (U) DCL
                                                          obtaining, (P) Device Support (A), 3-10; (P)
       Concepts, 3-22
                                                              Device Support (B), 2-17 to 2-18, 3-110,
  definition, (U) DCL Concepts, 3-1
                                                              3 - 113
  in full file specification, (U) Using VMS, 2-11
                                                          ownership, (P) Device Support (A), 3-17
Device identification field
                                                          rank, (P) Device Support (A), 3-17
  See NAM$T_DVI field
                                                          releasing, (P) Device Support (A), 3-10; (P)
Device interrupt, (P) Device Support (A), 1-6, 3-6,
                                                              Device Support (B), 2-19 to 2-20, 3-115
    4-16, 9-1 to 9-8, 14-26 to 14-34
                                                          restoring, (P) Device Support (B), 2-19, 3-117
  See also Interrupt service routine
                                                       DEVICELOCK macro, (P) Device Support (A),
  destination for VAXBI node, (P) Device Support
                                                           3-9, 3-10, E-4, E-9, E-10, E-11; (P) Device
      (A), 16–10
                                                           Support (B), 2-17 to 2-18, 2-66, 2-104, 3-110,
  direct-vector, (P) Device Support (A), 14-3,
                                                           3-113
      14-27, 14-29, 14-31; (P) Device Support
                                                          example, (P) Device Support (B), 2-18, 2-20,
      (B), 1–7, 1–8, 1–25, 2–3
                                                              2 - 66
  disabling, (P) Device Support (A), 5-4, 10-4
                                                          used by interrupt service routine, (P) Device
  enabling, (P) Device Support (A), 2-5, 11-2
                                                              Support (A), 9–3
  expected, (P) Device Support (A), 8-7, 9-3 to
                                                       Device mode, (P) Device Support (A), 7-9
      9-4; (P) Device Support (B), 1-77, 3-105
                                                       Device name, (P) Device Support (A), 1-5; (P)
  multilevel Q22-bus, (P) Device Support (A),
                                                           Device Support (B), 1-28
      14-31, 14-33 to 14-36; (P) Device Support
                                                          See also Cluster device name
      (B), 1–22
                                                          See also Device field
  non-direct-vector, (P) Device Support (A), 14-3,
                                                          See also Physical device name
      14-28, 14-29, 14-31; (P) Device Support
                                                          assigning logical name to, (U) DCL Dictionary,
      (B), 1–7, 1–25
                                                              DCL1-39, DCL1-114
  on MASSBUS, (P) Device Support (A), 15-9
                                                          concealed, (U) Using VMS, 4-13
  servicing, (P) Device Support (A), 2-6 to 2-7
                                                          DECnet-VAX, (M) DECnet-VAX Guide, 3-33
  unsolicited, (P) Device Support (A), 9-4 to 9-8;
                                                          for VAXft 3000 system, V5.5 New Features,
      (P) Device Support (B), 1–30
                                                              B-57
  waiting for, (P) Device Support (A), 2-5 to
                                                          generic, (U) Using VMS, 2-10; (U) DCL
      2-6, 4-16, 8-6 to 8-7, 14-24; (P) Device
```

Support (B), 2-105, 3-104 to 3-106

Concepts, 3-6

Device name (cont'd) Device unit (cont'd) activating, (P) Device Support (A), 2-5, 8-4 to rules for entering, (U) Using VMS, 2-9; (U) DCL Concepts, 3-4 8-5, 14-23 using a logical name, (U) Using VMS, 2-10; allocating, (P) Device Support (B), 1-74, 1-75, (U) DCL Concepts, 3-6 1 - 77autoconfiguring, (P) Device Support (A), 12–22 Device name address descriptor to 12-23: (P) Device Support (B), 2-22 See NAM\$L\_DEV descriptor busy indicator, (P) Device Support (B), 1-78 Device name address field CSR address, (P) Device Support (A), 12-11 See NAM\$L\_DEV field deaccessing, (P) Device Support (B), 1-12 Device name length field deallocating, (P) Device Support (B), 1-78 See NAM\$B DEV field description, (P) Device Support (A), 4-5 Device name size descriptor error retry count, (P) Device Support (B), 1-79 initializing, (P) Device Support (A), 11-1 See NAM\$B DEV descriptor Device protection, (U) Using VMS, 7-12 marking available, (P) Device Support (B), 1 - 75access types, (U) DCL Concepts, 8-6 marking on line, (P) Device Support (A), 11-2; commands for setting, (U) DCL Concepts, 8-6 (P) Device Support (B), 1–78 Device registers, (P) Device Support (A), 1-6, 1-21 to 1-22, 14-23 name, (P) Device Support (A), 4-8 accessing, (P) Device Support (A), 2-5, 4-7, number, (P) Device Support (B), 1-77 operations count, (P) Device Support (B), 3-95 13-21 to 13-22, 14-4, 14-23, 16-5, 19-1: (P) Device Support (B), 1-25, 1-36, 2-17 to reference count, (P) Device Support (A), 11-7; (P) Device Support (B), 4-4 clearing error status, (P) Device Support (A), reinitializing, (P) Device Support (B), 2-22 11-2status, (P) Device Support (A), 4-5; (P) Device Support (B), 1-77 to 1-79 modification by power failure. (P) Device vector address, (P) Device Support (A), 12-11 Support (A), 8-5 DEVICEUNLOCK macro, (P) Device Support (A), modifying, (P) Device Support (A), 5-4 of LP11 printer, (P) Device Support (A), 2-5 3-10, E-4, E-10, E-11; (P) Device Support (B), 2-19 to 2-20, 2-66, 3-115, 3-117 rules for referencing, (P) Device Support (A), example, (P) Device Support (B), 2-18, 2-20, 5-3 to 5-5, 14-4 2 - 66saving the value of, (P) Device Support (A), issued by IOC\$WFIKPCH and IOC\$WFIRLCH, 11-11; (P) Device Support (B), 4-16 (P) Device Support (B), 3-105 synchronizing access to, (P) Device Support (A), 3-6, 3-16, 8-5 device\_name data type, (P) Routines Intro, A-5t Device seed, (M) LATCP, LAT-30 DEVICE\_SCAN, V5.5 Release Notes, 3-28 Device specification DFL (data bucket fill size) DOS-11 volume format, (M) Exchange, program example, (P) RMS, 4-8 DFM32 EXCH-5 Files-11 volume format, (M) Exchange, choosing appropriate environment, (M) Performance Management, 5-16 RT-11 volume format, (M) Exchange, EXCH-4 DFS (VAX Distributed File Service) See also DNS Device timeout supporting network dependability, See Timeout Dependability Handbook, 7-22 Device timeout bit DFW option, (P) File Def Language, FDL-19 See UCB\$V TIMOUT \$DGBLSC, (P) System Services Ref, SYS-158 Device types, (P) Programming Resources, 7–50; DHQ11 device, (M) Networking, 2-14 (P) Device Support (B), 1-76 DHU11 device, (M) Networking, 2-8, 2-14; (P) codes, (M) System Generation, SGN-5 I/O User's I, 8–1 descriptions, (M) System Generation, SGN-5 DHV11 device, (M) Networking, 2-8, 2-14; (P) specifying, (P) Device Support (A), 6-3; (P) I/O User's I, 8-1 Device Support (B), 2–25 DIAGNOSE privilege, (M) Setting Up VMS, 5-12; Device unavailable queue status, (M) Maintaining (M) Security, A-3; (M) Networking, 5-2 VMS, 5-71Device unit, (P) Device Support (A), 1-5; (P) Diagnostic buffer, (P) Device Support (A), 4-20; Device Support (B), 1–68 (P) Device Support (B), 1-40, 1-42, 1-79, 1-83, 3 - 71See also UCB

See also Unit initialization routine

Diagnostic buffer (cont'd)	DIGITAL Extended Math Library
copied to process space, (P) Device Support (B),	See DXML
3–73	DIGITAL Network Architecture
filling, (P) Device Support (B), 3-69	See DNA
size, (P) Device Support (B), 1–30	Digital-private escape sequence, (P) I/O User's I,
specifying, (P) Device Support (A), 4–10, 6–4	B-9
Diagnostic register	Digital publications
See MBA\$L_DR	See Bibliography
Dialing, (U) Phone, PHONE-10, PHONE-18	Digital services
Dialing in, (U) Using VMS, 1-4	application characterization services,
Dialup	Dependability Handbook, 10–1
backup synchronous and autoanswer, (M) Security, 8-6	capacity planning service, Dependability
breaking connection properly, (M) Security,	Handbook, 10-2
3–22	COHESION support services, Dependability
login, (M) Security, 3–2	Handbook, 10-2
login failures, (M) Security, 3–16	contingency planning assistance, Dependability
retries	Handbook, 10-3 customer training advice package,
controlling, (M) Security, 5–22	Dependability Handbook, 10–4
DIALUP identifier, (M) Security, 4-19, 5-4	comprehensive training solutions,
Dialup line, (M) Networking, 5-8; (P) I/O User's	Dependability Handbook, 10-4
I, 8–13	course formats, Dependability Handbook,
connection security, (M) DECnet-VAX Guide,	10–4
3-20, 3-24, 3-36	purchase options, Dependability
using for dynamic asynchronous connection,	Handbook, 10-4
(M) DECnet-VAX Guide, 3-23	DECstart services, Dependability Handbook,
using for static asynchronous connection, (M)	10-5
DECnet-VAX Guide, 3-5, 3-18, 3-19, 3-21,	Digital program methodology, Dependability
3–23	Handbook, 10–6
\$DIBDEF macro	DSNlink informational databases,
symbol defined, Obsolete Features, 2–14	Dependability Handbook, 10–7
DIBOL	enterprise integration centers advice package,
See VAX DIBOL	$Dependability\ Handbook,\ 10 ext{}7$
DIFFERENCES/SLP DCL command, (P)	enterprise planning and design services,
SUMSLP, SUM-3	$Dependability\ Handbook,\ 10-8$
DIFFERENCES command, (U) VMS Intro, 6-7;	help desk service, Dependability Handbook,
(U) DCL Dictionary, DCL1-151 to DCL1-158	10-8
comment characters, (U) DCL Dictionary, DCL1-153	migration services, Dependability Handbook, 10–9
comment delimiters, (U) DCL Dictionary,	network performance consulting services,
DCL1-153	Dependability Handbook, 10–9
exit status, (U) DCL Dictionary, DCL1-152	packaged application software solution,
output formats, (U) DCL Dictionary,	Dependability Handbook, 10-9
DCL1-156	predictive sizing services, Dependability
using over the network, (M) DECnet-VAX	$Handbook,10 ext{}1$
$Guide,2 ext{}8$	professional services, Dependability Handbook,
DIGITAL Command Language	10–10
See DCL	recover-all service, Dependability Handbook,
DIGITAL Data Communications Message Protocol	10–10
See DDCMP	RESTART service, Dependability Handbook,
Digital Document Interchange Format	10–11
See DDIF	supporting dependable computing systems,
DIGITAL Ethernet Communications Server	$Dependability\ Handbook,\ 10-1$
See DECSA	systems integration advice package,
DIGITAL Extended LAN Management Software	Dependability Handbook, 10–11
See DECelms	VAX performance and capacity services,
	$Dependability \ Handbook, \ 10-11$

Digital services (cont'd) Direct input/output operation, (P) Programming VMS security enhancement service, Resources, 3-20 Dependability Handbook, 10–11 Direction VMS security review service, Dependability See also CHANGE DIRECTION command Handbook, 10–12 commands and keys affected, (U) EVE Ref, Digital Small Computer System Interface (SCSI) EVE-25 devices, V5.5 Release Notes, 2-36 of buffer, (P) VAXTPU, 7-85 DIGITAL Standard Runoff setting, (P) VAXTPU, 7-379 See DSR with FIND command, (U) EVE Ref, EVE-63, Digital Storage Architecture EVE-69, EVE-133 with RESET command, (U) EVE Ref, EVE-122 See DSA with SELECT command, (U) EVE Ref, Digital Storage Architecture devices **EVE-142** See DSA devices with WILDCARD FIND command, (U) EVE Digital Storage System Interconnect Ref, EVE-245 See DSSI with WPS keypad Select, (U) EVE Ref, DIOLM (direct I/O count limit), (M) Setting Up EVE-184 VMS, 5-3; (M) Networking, 5-38 "Direction" string constant parameter to adjusting, (P) Device Support (A), 4-20 GET\_INFO, (P) VAXTPU, 7-171 charging, (P) Device Support (A), 4-9, 4-12 Directive, (P) Message, MSG-2; (P) MACRO, 1-1, checking, (P) Device Support (A), 4-9 DIOLM (direct I/O count limit) quota, (P) System See also Message Utility Services Intro, 7–3 as operator, (P) MACRO, 2-3 Direct assignment statement, (P) MACRO, 1-1, .END, (P) Programming Resources, 9-8 3-17.FACILITY, (P) Programming Resources, 9–7 Direct data path, (P) Device Support (A), 14-7, general assembler, (P) MACRO, 1-1, 6-1 14 - 10macro, (P) MACRO, 1-1, 6-1, 6-3 See also Data path .SEVERITY, (P) Programming Resources, 9-8 functions, (P) Device Support (A), 14-10 summary, (P) MACRO, C-1 odd transfer, (P) Device Support (B), 1-8 SYS\$FAO, (P) System Services Ref, SYS-223 purging, (P) Device Support (A), 14-19, 14-24 .TITLE, (P) Programming Resources, 9–9 to 14-25 Direct memory access requesting, (P) Device Support (A), 14-18 See DMA speed, (P) Device Support (A), 14–10 Direct memory access transfer Direct I/O, (M) Error Log, ERR-22; (P) Device Support (A), 1-22, 1-23, 7-4, 16-19; (P) See DMA transfer Device Support (B), 1-40, 1-79 DIRECT mode, (M) SYSMAN, SM-12 additional buffer regions for, (P) Device Directory, (U) Phone, PHONE-11; (P) File Applications, 6-12 Support (B), 1-42 to 1-44 checking accessibility of process buffer for, (P) access, (M) Security, 4-9 Device Support (B), 3-43 to 3-44, 3-56 to accessing when public, (M) DECnet-VAX Guide, FDT routines for, (P) Device Support (A), 7-6, account, (M) Setting Up VMS, 4-8 changing specification, (U) DCL Dictionary, locking a process buffer for, (P) Device Support DCL2-34 (B), 3-31 to 3-33, 3-34 to 3-36, 3-40 to copying, (U) DCL Dictionary, DCL1-74 3-42, 3-45 to 3-47, 3-54 to 3-55, 3-58 to creating, (U) Files and Devices, 4-15; (U) 3 - 60DCL Dictionary, DCL1-89; (M) Authorize, postprocessing, (P) Device Support (B), 3-72 AUTH-14; (P) RTL Library, LIB-36 reasons for using, (P) Device Support (A), 1-22 creating UIC, (U) DCL Dictionary, DCL1-89 DECnet-VAX default nonprivileged, (M) to 1-23, 6-7, 6-8 unlocking process buffer, (P) Device Support DECnet-VAX Guide, 3–13 (B), 3–109 default fetching in VAXTPU, (P) VAXTPU, 7-206 Direct I/O count, (P) Convert, CONV-24 setting in VAXTPU, (P) VAXTPU, 7-366 Direct I/O count limit default DECnet-VAX, (M) DECnet-VAX Guide, See DIOLM Direct I/O quota, (P) I/O User's I, 3-24, 6-13 definition, (U) VMS Intro, 3-5

Directory (cont'd)	Directory field (cont'd)
deleting file, (M) Security, 4–9	rules for using an asterisk (*) wildcard, (U)
displaying contents of, (U) DCL Dictionary, DCL1-159	Using VMS, 2–14; (U) DCL Concepts, 3–18, 3–20
displaying default, (U) DCL Dictionary, DCL2-262	rules for using an ellipsis () wildcard, (U)  DCL Concepts, 3-20
displaying remote, (M) DECnet-VAX Guide, 2-5	rules for using a percent sign (%) wildcard, (U)
DNS types, V5.5 New Features, C-6, C-14	Using VMS, 2-15; (U) DCL Concepts, 3-19
enumerating in DNS, V5.5 New Features, C-27	Directory file
file version limit	See also Directory structure
defining at creation, (U) DCL Dictionary,	creating, (U) Using VMS, 2-21
DCL1-90	default, (U) Using VMS, 2-6, 2-22
listing contents of, (M) Exchange, EXCH-25 modifying, (U) DCL Dictionary, DCL2-126	definition, (U) Using VMS, 2-6; (U) DCL Concepts, 3-7
modifying number in system space	deleting, (U) Using VMS, 2-21; (U) DCL
for Files-11 volume, (U) DCL Dictionary,	Concepts, 3–12, 8–8
DCL2-240	login, (U) Using VMS, 2-6
operating system, (M) System Management	named format, (U) Using VMS, 2-8
Intro, 1-4	protection, (U) Using VMS, 7-11
ownership, (M) Security, 4–31	setting default to another, (U) Using VMS,
protection, (U) Files and Devices, 2-12 defining at creation, (U) DCL Dictionary,	2–22
DCL1-90	top-level, (U) Using VMS, 2-1, 2-6
modifying, (U) DCL Dictionary, DCL2–196	Directory file default protection, (M) Security, 4–33
ready access, (U) DCL Dictionary, DCL1–241	Directory hierarchy
role in file specification, (U) VMS Intro, 3-1	definition, (U) DCL Concepts, 3–7
space preallocation on disk, (U) DCL	example, (U) DCL Concepts, 3-7
Dictionary, DCL1–243	Directory identification field
Directory address descriptor	See NAM\$W_DID field
See NAM\$L_DIR descriptor	Directory in DNS
Directory backlink	enumerating, (P) System Services Ref, SYS-173
definition, $(M)$ Analyze/Disk, ADSK-1	DIRECTORY keyword
DIRECTORY command, V5.5 Release Notes, 1-16;	with FILE_PARSE, (P) VAXTPU, 7–140
(U) VMS Intro, 1–12, 1–17, 2–6; (U) Using	with FILE_SEARCH, (P) VAXTPU, 7–143
VMS, 1-31, 1-33, 2-20, 7-12; (U) Files and	Directory logical name table
Devices, 2-13, 4-2, 4-18; (U) Mail, MAIL-11,	process, (P) System Services Intro, 6-3
MAIL-41; (U) DCL Concepts, 3-12; (U) DCL Dictionary, DCL1-159 to DCL1-167;	system, (P) System Services Intro, 6–3
(M) Exchange, EXCH-25 to EXCH-27; (M)	Directory lookup subfunction, (P) I/O User's I,
Terminal Fallback, TFU-9, TFU-14	1-7 directory entry protection, (P) I/O User's I, 1-9
default directory used, (M) Exchange, EXCH-5	Directory name
/FULL qualifier, (U) Files and Devices, 4-18	See also Directory field
magnetic tape, (U) Files and Devices, 4-4, 5-2	named format in a file specification, (U) Using
using over network, (M) DECnet-VAX Guide,	VMS, 2-8; (U) DCL Concepts, 3-9
2–5	replacing
Directory default	with the ellipsis () wildcard character,
displaying, (M) SYSMAN, SM-74	(U) Using VMS, 2–23
modifying, (M) SYSMAN, SM-70	with the hyphen (-) wildcard character, $(U)$
resetting, (M) SYSMAN, SM-6 Directory entry	Using VMS, 2–24
creation, $(P) I/O User's I$ , 1–26	translating UIC format to named format, (U)
protection, (P) I/O User's I, 1–9	DCL Concepts, 3–10
Directory field	UIC format in a file specification, (U) DCL
default value, (U) Using VMS, 2–12; (U) DCL	Concepts, 3–9 using the ellipsis () wildcard, (U) DCL
Concepts, 3–22	Concepts, 3–10
definition, (U) DCL Concepts, 3-1	using the hyphen (-) wildcard, (U) DCL
in full file specification, (U) Using VMS, 2-11	Concepts, 3–12
	• -

Directory name length address field See NAM\$L\_DIR field Directory name length field See NAM\$B\_DIR field DIRECTORY/OWNER command, (M) Security, 4 - 32Directory protection access types, (U) DCL Concepts, 8-8 commands for setting, (U) DCL Concepts, 8-8 DIRECTORY/PROTECTION command, (U) DCL Concepts, 8-9 /DIRECTORY qualifier, (P) Debugger, CD-218 DIRECTORY/SECURITY command, (M) Security, Directory sequence number, (P) Device Support (B), 1–82, 1–83 DIRECTORY/SIZE command, (M) SYSMAN, SM-9Directory size descriptor See NAM\$B\_DIR descriptor Directory specification normal, (P) File Applications, 6-12 to 6-14 rooted, (P) File Applications, 6-15 to 6-20 Directory structure, (U) Using VMS, 2-1 default directory, (U) DCL Concepts, 3-7 duplicating, (U) DCL Concepts, 3-20 with BACKUP command, (U) Using VMS, 2 - 25with wildcard characters, (U) Using VMS, 2 - 25hierarchy, (U) DCL Concepts, 3-7 master file directory in, (U) Using VMS, 2-1, 2-6; (U) DCL Concepts, 3-7 on common system disk, (M) VAXcluster, 4-2 sample, (U) Using VMS, 2-7 subdirectory in, (U) Using VMS, 2-6; (U) DCL Concepts, 3-7 top-level directory in, (U) Using VMS, 2-1, 2-6; (U) DCL Concepts, 3-7 user file directory in, (U) Using VMS, 2-1, 2-6; (U) DCL Concepts, 3-7 Directory tree, (P) File Applications, 6-12 DIRECTORY\_ENTRY attribute, (P) File Def Language, FDL-19, FDL-20 DIRECTORY\_ENTRY secondary attribute, (P) File Applications, 4–28 /DIRECT qualifier, (P) Debugger, CD-243 Direct-vector interrupt, (P) Device Support (A), 13-9, 14-3, 14-27, 14-29, 14-31; (P) Device Support (B), 1-7, 1-8, 1-25, 2-3 Disable assembler functions directive (.DISABLE), (P) MACRO, 6-21 DISABLE AST command, (P) Debugger, 9-16, CD-64 DISABLE AUTOSTART command, V5.5 New

DISABLE AUTOSTART/QUEUES command, (M) Maintaining VMS, 5–74 entering before shutting down a system, (M) Maintaining VMS, 5-75 relationship to STOP/QUEUES/ON\_NODE, (M) Maintaining VMS, 5-75 .DISABLE BAR command, (U) DSR Ref, 2-26 .DISABLE BOLDING command, (U) DSR Ref, 2 - 29DISABLE CHECKS command, (M) System Generation, SGN-16 DISABLE command, Obsolete Features, 4-8; License Management, LMF-67 to LMF-68 Disabled fault vector processor, (P) MACRO, 10-31, 10-32 .DISABLE directive, V5.5 New Features, B-22; (P) MACRO, 6-21 .DISABLE HYPHENATION command, (U) DSR Ref, 2-30 .DISABLE INDEXING command, (U) DSR Ref, 2 - 31.DISABLE OVERSTRIKING command, (U) DSR .DISABLE TOC command, (U) DSR Ref, 2-33 .DISABLE UNDERLINING command, (U) DSR Ref, 2-34 DISABLE\_AUTOSTART option in SHUTDOWN.COM, V5.5 Release Notes, 2-50Disabling network event logging, (M) DECnet-VAX Guide, user account, (M) Setting Up VMS, 4-25 Disabling accounting, (M) Maintaining VMS, 6-2 Disabling asynchronous delivery of alerts, (P) DECthreads, cma-3 Disabling asynchronous delivery of cancels, (P) DECthreads, pthread-91 Disabling autostart, (M) Maintaining VMS, 5-63, 5 - 74before shutting down a node, (M) Maintaining VMS, 5-74Disabling autostart on a node, V5.5 New Features, 5 - 10Disabling OPA0 by default, (M) Maintaining VMS, 3-1 Disabling operator classes, (M) Maintaining VMS, Disabling the TP\_SERVER process, V5.5 New Features, B-34, B-69 DISALLOW clause, (P) Command Def, CDU-9 to CDU-13 definition path, (P) Command Def, CDU-12 for DEFINE SYNTAX statement, (P) Command Def, CDU-22 for DEFINE VERB statement, (P) Command Def, CDU-31 keyword path, (P) Command Def, CDU-11

Features, 5-8, 5-10

DISALLOW clause (cont'd) Disk (cont'd) operators for, (P) Command Def, CDU-13 allocating mapping pointers, (U) DCL Disaster tolerant computing Dictionary, DCL1-248 business example, Dependability Handbook, allocating to process, (U) Files and Devices, 3-1 allocation class, (M) VAXcluster, 5-8 defined, Dependability Handbook, 1-2, allocation of space on, (U) Files and Devices, 1-4, 4-8, 4-9 Glossary-2 available function, (P) I/O User's I, 3-33 duplicate computing facilities, Dependability Backup Utility, (P) I/O User's I, 3-21 Handbook, 5–14 FDDI scenario, Dependability Handbook, 1-2 basic concepts, (U) Files and Devices, 1-2 hot standby sites, Dependability Handbook, block cluster, (U) Files and Devices, 1-2 description of, (U) Files and Devices, 1-2 mutual backup processing agreements, Dependability Handbook, 5-14 cluster-accessible, (M) VAXcluster, 5-1 vendor-supplied backup sites, Dependability storing common procedures on, (M) Handbook, 5-15 VAXcluster, 4-9 Disconnect, (M) Networking, 8-15 clusterwide access file system, (M) System Management Intro, abort, (M) Networking, 8-15, 8-33 synchronous, (M) Networking, 8-15 DISCONNECT command, (U) DCL Dictionary, command procedures for setting up, (M) DCL1-168 to DCL1-169; (M) DTS/DTR, VAXcluster, 4-11 DTS-10; (P) I/O User's I, 8-17 compact disc, (P) I/O User's I, 3-8 configuring, (M) VAXcluster, 5-12 Disconnected job message, (M) Security, 3-5 contents of, (U) Using VMS, 2-6, 2-8 Disconnected process copying files, (U) Files and Devices, 5-2 See Virtual terminal creating sequential files, (U) DCL Dictionary, Disconnect feature DCL1-84 determining setting of, (P) Device Support (B), data check, (P) I/O User's I, 3-15, 3-29, 3-30 deallocating drives, (U) Files and Devices, 3-20 enabling, (P) I/O User's I, 11-13; (P) Device default format, (U) Files and Devices, 5-2 Support (A), 17-14; (P) Device Support (B), default protection. (M) Security, 4-34 2 - 88defining shareable volume, (U) DCL Disconnection test, (M) DTS/DTR, DTS-10 Dictionary, DCL1-247 types of, (M) DTS/DTR, DTS-10 defining structure level, (U) DCL Dictionary, DISCONNECT LINK command, (M) Networking, DCL1-247 3-74; (M) Network Control Program, NCP-53 device characteristics, (P) I/O User's I, 3-22 Disconnect service, (P) File Applications, 8-5; (P) directory space allocation, (U) DCL Dictionary, RMS, RMS-23 DCL1-243 condition values, (P) RMS, RMS-24 directory structure on common system disk. See also Completion status code (M) VAXcluster, 4-2 control block input fields, (P) RMS, RMS-24 disabling operator status, (U) DCL Dictionary, control block output fields, (P) RMS, RMS-24 DCL2-40 program example, (P) RMS, 4-12 dismounting, (U) DCL Dictionary, DCL1-170 using with multiple RABs, (P) RMS, RMS-24 dismounting volume set, (U) DCL Dictionary, DISFORCE\_PWD\_CHANGE flag, (M) Security, DCL1-172 5 - 18displaying quota, (U) DCL Dictionary, Disk, (U) Using VMS, 2-8 DCL2-317 See also Device driver, (P) I/O User's I, 3-1 See also Disk volume SCSI, (P) I/O User's I, 3-22 See also DSA disk VAXstation 2000 and MicroVAX 2000, (P) See also Dual-pathed disk, Dual-ported disk I/O User's I, 3-21 DSA, (M) System Management Intro, 6-4; (M) examples of, (U) Files and Devices, 4-13 VAXcluster, 5-5 ACP function, (P) I/O User's I, 1–32 DSA controller, (M) VAXcluster, 5-2 ACP operation DSA drivers, alternate host information, V5.5 creating file, (P) I/O User's I, 1-24 Release Notes, 3-21deaccessing file, (P) I/O User's I, 1–28 DSSI, (M) VAXcluster, 5-1, 5-6

Disk (cont'd)	Disk
dual-pathed, (M) VAXcluster, 5-1; (P) I/O	I/O functions (cont'd)
User's I, 3–11	IO $\LOAD$ , (P) I/O User's I, 3-32
DSA disks, (P) I/O User's I, 3-14	IO\$_WRITECHECK, (P) I/O User's I,
dual-porting, (P) I/O User's I, 3-12	3–33
DSA disks, (P) I/O User's I, 3-14	IO\$_WRITELBLK, (P) I/O User's I, 3-30
HSC disks, (P) I/O User's I, 3-15	IO\$_WRITEPBLK, (P) I/O User's I, 3–30
restrictions for use, (P) I/O User's I, 3–13	IO\$_WRITEVBLK, (P) I/O User's I, 3-30
enabling operator status, (U) DCL Dictionary,	I/O status block, (P) I/O User's I, 3-36
DCL2-40	index file placement, (U) DCL Dictionary,
erasing, (M) Security, 4-40, 5-43	DCL1-245
error recovery, (P) I/O User's I, 3-17	indicating bad block data, (U) DCL Dictionary,
establishing operational status for, (U) DCL	DCL1-247
Dictionary, DCL2-123	initializing from within a program, (P) System
features, $(P)I/O$ User's $I$ , 3–11	Services Intro, 7–24; (P) System Services
file	Ref, SYS-407
comparing, (U) DCL Dictionary, DCL1-151	example, (P) System Services Intro, 7-24
copying, (U) Files and Devices, 5-1	KDA50 controller, (P) I/O User's I, 3-3
See also COPY command	KDB50 controller, (P) I/O User's I, 3-3
copying to magnetic tape, (U) Files and	KFQSA adapter, (P) I/O User's I, 3-5
Devices, 4–15	large-capacity disks, header space problem,
deleting, (U) DCL Dictionary, DCL1-131	V5.5 Release Notes, 2–18
file access, (M) Security, 4–8	local, (M) VAXcluster, 5-2
file attributes, (P) I/O User's I, 3–16	making a public volume, (M) Mount,
file characteristics	MOUNT-40
modifying, (U) Files and Devices, 4–10	managing, (M) VAXcluster, 5–1
function codes, $(P)$ I/O User's I, 3–24, 3–25,	MASSBUS, (M) VAXcluster, 5–6
A-2	modifying RMS defaults for file operations, (U)
function modifiers	DCL Dictionary, DCL2-214
IO\$M_DATACHECK, (P) I/O User's I,	mounting, (U) Files and Devices, 3-8; (M)
3–15, 3–29, 3–30	VAXcluster, 5-12; (M) Mount, MOUNT-2
IO\$M_DELDATA, (P) I/O User's I, 3-30	See also MOUNT command
$IO$M_ERASE$ , (P) I/O User's I, 3–27,	for queue database files, (M) Maintaining
3–31	VMS, 5–54
IO\$M_INHRETRY, (P) I/O User's I, 3-17,	MOUNT/NOREBUILD, (M) VAXcluster, 5–13
3–29, 3–30	MSCP-served, (M) VAXcluster, 5-1
HSC, (M) VAXcluster, 5-1, 5-2, 5-9	naming conventions, (M) VAXcluster, 5-7
HSC40 controller, (P) I/O User's I, 3–3	offset recovery, (P) I/O User's I, 3–16
HSC50 controller, (P) I/O User's I, 3-3	pack acknowledge function, $(P) I/O User$ 's $I$ ,
HSC70 controller, (P) I/O User's I, 3-3	3–32
I/O, reducing to improve performance, (M)	paths, (M) VAXcluster, 5-7
System Management Intro, 5–8	port access mode, (P) I/O User's I, 3-12
I/O functions, (P) $I/O$ User's $I$ , 3–24	port selection, (P) I/O User's I, 3-12
See also ACP-QIO interface	programming example, (P) I/O User's I, 3-37
arguments, $(P) I/O User$ 's $I$ , 3–26 to 3–29	protection, (U) Using VMS, 7-11; (U) Files
IO\$_ACPCONTROL, (P) I/O User's I,	and Devices, 2-6; (M) Security, 4-2
1–32	quorum, (M) System Management Intro, 6-14;
IO\$_AVAILABLE, (P) I/O User's I, 3–33	(M) VAXcluster, 3–2
IO\$_FORMAT, (P) I/O User's I, 3-31	quotas, (P) $I/O$ User's $I$ , 1–33 to 1–34, 3–24
IO\$_PACKACK, (P) I/O User's I, 3-32	RA60, $(P) I/O User$ 's $I, 3-5$
IO\$_READLBLK, (P) I/O User's I, 3–29	RA70, (P) $I/O$ User's $I$ , $3-5$
IO\$_READPBLK, (P) I/O User's I, 3-29	RA90, (P) I/O User's I, 3-5
IO\$_READVBLK, (P) I/O User's I, 3-29	RB02, (P) I/O User's I, 3–6
IO\$_SEARCH, (P) I/O User's I, 3-31	RC25, $(P) I/O User's I$ , 3–6
IO\$_SEEK, (P) I/O User's I, 3-33	RCT (replacement and caching table), $(P) I/O$
IO\$_SENSECHAR, (P) I/O User's I, 3-31	User's I, 3–20
IO\$_SENSEMODE, (P) I/O User's I, 3-31	RD53, $(P) I/O User$ 's $I$ , 3–6
IO\$ SETPREPTH. (P) I/O User's I. 3-34	RD54, (P) I/O User's I, 3-6

Disk (cont'd)	Disk (cont'd)
read function, (P) I/O User's I, 3-29	status returns, $(P) I/O User$ 's $I$ , A $-3$
rebuilding, (M) VAXcluster, 5–13	structure
redundant devices, Dependability Handbook,	Files–11, (U) Files and Devices, 1–5
4–5	supported devices, (P) $I/O$ User's $I$ , 3–1 to 3–11
renaming directory, (U) DCL Dictionary,	SYS\$GETDVI returns, (P) I/O User's I, 3–22
DCL2-34	system
renaming file, (U) DCL Dictionary, DCL2–34	See System disk
repairing faulty, V5.5 New Features, B-106	TU58 magnetic tape, $(P) I/O User's I$ , 3–10,
restricted access, (M) VAXcluster, 5–1	3–16, 3–29, 3–30, 3–31, 3–33
RF30, <i>(P) I/O User's I</i> , 3–7 RF31	UDA50 disk adapter, (P) $I/O$ User's $I$ , 3–3
failover, $(P) I/O User's I, 3-15$	unload function, (P) I/O User's I, 3–32
RF70	use with Verify Utility, (P) I/O User's I, 3–19,
failover, $(P) I/O User$ 's $I$ , 3–15	3–21
RF71, (P) I/O User's I, 3–7	VAXstation 2000 and MicroVAX 2000 driver,
RM03, (P) I/O User's I, 3-7	(P) $I/O$ User's $I$ , 3–21 volume initialization, (U) DCL Dictionary,
RM05, (P) I/O User's I, 3-7	DCL1–240
RP05, (P) I/O User's I, 3-7	volume protection
RP06, (P) I/O User's I, 3-7	See also Protection
RP07, $(P) I/O User's I, 3-7$	access types, (U) Files and Devices, 2–5
RQDX3 controller, $(P) I/O User$ 's $I$ , 3–5	volumes, (M) Maintaining VMS, 2–6
RRD40 CDROM, (P) I/O User's I, 3-8	volume set
RRD50 CDROM, (P) I/O User's I, 3–8	See Volume set
RX02, (P) I/O User's I, 3–8	write check function, (P) I/O User's I, 3–33
RX06 cartridge, (P) I/O User's I, 3-7	write function, (P) $I/O$ User's $I$ , 3–30
RX07 cartridge, (P) I/O User's I, 3-7	Disk activity
RX23 flexible, (P) I/O User's I, 3–9 RX33 flexible, (P) I/O User's I, 3–10	due to paging or swapping, (M) Performance
RX50 flexible, (P) I/O User's I, 3–10	Management, 4–30
RZ22, (P) I/O User's I, 3–10	reduced with new queue manager, V5.5 New
RZ23, (P) I/O User's I, 3–10	Features, 5-1
RZ55, (P) I/O User's I, 3–10	Disk block, (P) File Applications, 3-6
SDI, (P) I/O User's I, 3-5	Disk class driver, (M) VAXcluster, 1-4
search function, (P) I/O User's I, 3-31	disabling the loading of, (P) I/O User's I,
sector translation, $(P) I/O User$ 's $I$ , $3-18$	11–10; (P) Device Support (A), 17–31
seek operations, $(P) I/O User$ 's $I$ , 3–16, 3–33	DISK class record, (M) Monitor, A-14
selecting server, (M) VAXcluster, 7-3	Disk cluster boundary
sense mode function, (P) I/O User's I, 3-31	determining allocation quantity, (P) RMS, 5–3 Disk commands
set density function, (P) I/O User's I, 3-31	INITIALIZE, (M) Maintaining VMS, 3-4
set preferred path function, $(P) I/O User's I$ ,	/CLUSTER_SIZE qualifier, (M)
3–34	Maintaining VMS, 2-4
setting up, (M) VAXcluster, 4-11 shadowing, V5.5 New Features, B-106	HEADERS qualifier, (M) Maintaining
shareable volume	VMS, 2-4
specifying, (M) Mount, MOUNT-39	/INDEX qualifier, (M) Maintaining VMS,
SII integral adapter, (P) I/O User's I, 3-4	2–5
skip sectoring, (P) I/O User's I, 3–17	/MAXIMUM_FILES qualifier, (M)
specifying cluster size, (U) DCL Dictionary,	Maintaining VMS, 2–5
DCL1-242	/SYSTEM qualifier, (M) Maintaining VMS,
specifying default file extension size, (U) DCL	2–4
$Dictionary,  \mathrm{DCL1} ext{}244$	/WINDOWS qualifier, (M) Maintaining
specifying density, (U) DCL Dictionary,	$V\!M\!S,2\!-\!5$ MOUNT
DCL1-242	/ACCESSED qualifier, (M) Maintaining
specifying faulty areas, (U) DCL Dictionary,	VMS, 2-6
DCL1-241	/ASSIST qualifier, (M) Maintaining VMS,
specifying maximum file number, (U) DCL Dictionary, DCL1-245	2–7
Dictional y, $DODI-240$	

Disk commands Disk fragmentation (cont'd) MOUNT (cont'd) defined, Dependability Handbook, Glossary-2 /BIND qualifier, (M) Maintaining VMS, effect of system performance, (M) Performance 2-2, 2-6Management, 3-36 CLUSTER qualifier, (M) Maintaining Disk I/O resource VMS, 2-5, 2-6 disk capacity and demand, (M) Performance /COMMENT qualifier, (M) Maintaining Management, 3-31 VMS, 2-7, 3-3 data transfer capacity, (M) Performance EXTENSION qualifier, (M) Maintaining Management, 3-31 VMS, 2-7demand by users and the system, (M)/MOUNT\_VERIFICATION qualifier, (M) Performance Management, 3-31 Maintaining VMS, 2-7 seek capacity, (M) Performance /SHARE qualifier, (M) Maintaining VMS, Management, 3-31 2 - 8equitable sharing, (M) Performance /SYSTEM qualifier, (M) Maintaining VMS, Management, 3-34 2-5, 2-8evaluating responsiveness, (M) Performance /WINDOWS qualifier, (M) Maintaining Management, 3-32 VMS, 2–8 factors limiting performance, (M) Performance SET DIRECTORY Management, 3-31 /VERSION\_LIMIT qualifier, (M) function, (M) Performance Management, 3-30 Maintaining VMS, 2-1 improving responsiveness, (M) Performance Disk controller, (M) System Management Intro, Management, 3-34 6-4; (M) VAXcluster, 1-2 load balancing, (M) Performance Management, Disk cylinder, (P) File Applications, 3-6 3 - 38Disk defragmentation offloading, (M) Performance Management, 3-37 using DEC File Optimizer for VMS, reducing consumption by the system, (M) Dependability Handbook, 9-6, 9-22 Performance Management, 3-34 Disk model, (P) File Def Language, FDL-38 using VMS movefile subfunction, Dependability Handbook, 9-22 Disk quota, (U) Files and Devices, 4-8; (M) Disk drive Setting Up VMS, 4-8; (M) Maintaining VMS, compatibility for volume shadowing, (P) I/O 2-1, 4-2; (P) File Applications, 3-5; (P) I/O User's I, 10-3 User's I, 1-33 Disk driver, (P) Device Support (A), 7-9, 8-2, 8-6, adding entry, (M) SYSMAN, SM-38 9-5; (P) Device Support (B), 1-78, 1-79 as restriction for user, (M) Security, 5-30 charging to identifiers, (M) Security, 4-29 See also MASSBUS creating, (M) SYSMAN, SM-40 See also MBA disabling, (M) SYSMAN, SM-10, SM-43 ECC correction routine for, (P) Device Support displaying, (U) DCL Dictionary, DCL2-317; (B), 3–67 (M) SYSMAN, SM-9, SM-50 pack acknowledgment in, (P) Device Support ensuring accuracy, (M) Maintaining VMS, 4-3 (A), 11–2 establishing, (M) SYSMAN, SM-9 recording disk geometry in, (P) Device Support example, (M) Setting Up VMS, 4-19; (M) (A), 11–3 removing a disk volume in, (P) Device Support Security, 5-13 exceeding, (M) Maintaining VMS, 4-2 (A), 9-8file, (M) SYSMAN, SM-8 using local disk UCB extension, (P) Device initializing usage count, (M) SYSMAN, SM-38 Support (B), 1-69, 1-82 to 1-84 maintaining, (M) SYSMAN, SM-10 waiting for disk unit spinup in, (P) Device modifying an entry, (M) SYSMAN, SM-45 Support (A), 11-3 operation, (M) Maintaining VMS, 4-2 Disk file rebuilding, (M) SYSMAN, SM-47 opening, (P) System Services Intro, 12-8 removing an entry, (M) SYSMAN, SM-42, Disk file output, (M) Monitor, MON-9 SM-48 Disk file protection suspension, (M) Maintaining VMS, 4-3 defining default, (U) DCL Dictionary, DISKQUOTA DCL1-244 Disk forced error counting, V5.5 Release Notes, See Disk Quota Utility See SYSMAN Utility Disk fragmentation, (M) Setting Up VMS, 6-17

correcting, (M) Performance Management, 3-36

Disk volume (cont'd) Disk Quota (DISKQUOTA) Utility, (M) SYSMAN, dismounting, (M) Maintaining VMS, 3-9 formatting, (M) Maintaining VMS. 2-3 See also DISKQUOTA commands handling error conditions, (M) Maintaining DISKQUOTA commands, (M) SYSMAN, SM-1, VMS, 4-4 SM-8, SM-38 initializing, (M) Maintaining VMS, 2-4, 3-4 See also Disk Quota Utility guidelines, (M) Maintaining VMS, 2-4 Disk scavenging, (M) Security, 4-39 integrity, (M) Maintaining VMS, 3-9 how to discourage, (M) Security, 5-42 load balancing, (M) Maintaining VMS, 2-2 Disk server loading, (M) Maintaining VMS, 3-4 configuring LAN adapter, (M) VAXcluster, 7-34 monitoring operations, (M) Maintaining VMS, configuring memory, (M) VAXcluster, 7-34 functions, (M) VAXcluster, 2-2 mounting, (M) Maintaining VMS, 3-4; (P) selecting, (M) VAXcluster, 7-3 System Services Intro, 7-22 Disk space, (M) Accounting, ACC-4 mounting clusterwide, (M) Maintaining VMS, amount needed to decompress help library, V5.5 New Features, B-44 mounting public, (M) Setting Up VMS, 2-8 conserving, (M) Maintaining VMS, 4-1 overriding protection checks, (M) Mount, efficiency MOUNT-29 See /DATA qualifier performance, (M) Maintaining VMS, 2-6 management, (M) Maintaining VMS, 4-1 to public, (M) System Management Intro, 4-1; (M) Maintaining VMS, 2-1, 2-2 managing on small systems, (M) Maintaining public access to, (M) Maintaining VMS, 2-1 VMS, 2-1rebuilding, (M) Mount, MOUNT-35 recovering removing before dismounting, (M) Maintaining VMS, 3-9See /COMPRESS qualifier repairing errors, (M) Analyze/Disk, ADSK-9 usage and charging, (M) Security, 4-29, 5-12 restrictions, (M) Security, 5-30 Disk statistics, (M) Monitor, MON-46 setting file expiration date, (M) Maintaining Disk structure VMS, 4-3Files-11, (U) Files and Devices, A-1 transfer, (P) File Def Language, FDL-23 Disk structure errors transferring information to and from foreign analyzing, (M) Maintaining VMS, 4-4 volumes, (M) Maintaining VMS, 2-8 Disk thrashing investigating, (M) Performance Management, verification, (M) Analyze/Disk, ADSK-1 write-locked 4 - 23dismounting, (M) Maintaining VMS, 3-9 Disk transfer write-locking, (M) Maintaining VMS, 3-9 components, (M) Performance Management, DISK\_QUORUM parameter, (M) System Management Intro, 6-14; (M) VAXcluster, Disk usage, (M) SYSMAN, SM-9 3-2, A-1; (M) System Generation, A-10 Disk usage accounting file, (M) Analyze/Disk, DISMOUMSG parameter, (M) System Generation, A-10 Disk volume, (M) Maintaining VMS, 3-4; (P) Dismount File Applications, 3-6 clusterwide, (U) DCL Dictionary, DCL1-171 See also Disk disk, (U) DCL Dictionary, DCL1-170 See also Volume magnetic tape, (U) DCL Dictionary, DCL1-170 accessing, (M) System Management Intro, 4-2 shared device, (U) DCL Dictionary, DCL1-171 analyzing disk structure errors, (M) DISMOUNT command, (U) Files and Devices, Maintaining VMS, 4-4 3-18, 3-20; (U) DCL Dictionary, DCL1-170 analyzing media errors, (M) Maintaining VMS, to DCL1-173; (M) Exchange, EXCH-28; (P) I/O User's I, 1-32 conserving space, (M) Maintaining VMS, 4-1 alarms, (M) Security, E-16 console, (M) Maintaining VMS, 2-8 displaying messages using, (M) Exchange, creating Files-11 structure, (M) Maintaining EXCH-2 VMS. 2-4/FOREIGN qualifier, (U) Files and Devices, disabling automatic rebuild, (M) Mount, MOUNT-35 magnetic tape, (U) Files and Devices, 4-16 disk quota operations, (M) Maintaining VMS,

4-2

DISMOUNT command (cont'd) Display, debugger, screen mode (cont'd) mount verification cancellation, (M) kind, (P) Debugger, 7-3, 7-14, C-1 Maintaining VMS, 3-12 list, (P) Debugger, 7-3, CD-212, C-6 /NOUNLOAD qualifier, (U) Files and Devices, moving, (P) Debugger, 7-12, CD-104 3 - 18output display (OUT), (P) Debugger, 7-6, 7-16 processing open files, V5.5 Release Notes, 2-20 pasteboard, (P) Debugger, 7-3, CD-70 /UNIT qualifier, (U) Files and Devices, 3–18 predefined, (P) Debugger, 7-4, C-3 Dismounting process specific, (P) Debugger, 10-14 foreign volumes, (U) Files and Devices, 3-19 prompt display (PROMPT), (P) Debugger, 7-7 volumes, (U) Files and Devices, 3-18 register display (REG), (P) Debugger, 7-9, Dispatcher 7-17, 11-23 exception, (P) System Services Intro, 11-6 removing, (P) Debugger, 7-12, CD-69 Displacement deferred mode, (P) MACRO, 5-9 saving, (P) Debugger, 7-21, CD-110 scrolling, (P) Debugger, 7-11, CD-112 operand specifier formats, (P) MACRO, 8-22 selecting, (P) Debugger, 7-18, CD-117 Displacement mode, (P) MACRO, 5-8 operand specifier formats, (P) MACRO, 8-21 showing, (P) Debugger, 7-12, CD-65 Display window, (P) Debugger, 7-2, 7-13, C-7 allocated device, (U) DCL Dictionary, .DISPLAY APPENDIX command, (U) DSR Ref. DCL2-265 2-16change in SHOW QUEUE and SHOW ENTRY .DISPLAY CHAPTER command, (U) Text commands, V5.5 Release Notes, 2-11 Processing, 3–33; (U) DSR Ref, 2–18 command procedure, (U) DCL Dictionary, DISPLAY command, (M) Audit Analysis, AUD-29; DCL2-237 (P) Debugger, 7-11, 7-12, CD-65 date, (U) DCL Dictionary, DCL2-328 Display data, (M) Monitor, MON-5 device status, (U) DCL Dictionary, DCL2-264 .DISPLAY ELEMENTS command, (U) Text file at terminal, (U) DCL Dictionary, Processing, 3-10; (U) DSR Ref, 2-20DCL2-389 Display from SHOW CLUSTER file on current output device, (U) DCL controlling, (M) Show Cluster, SHCL-4, Dictionary, DCL2-389 SHCL-13 files opened by the system, (U) DCL formatting considerations, (M) Show Cluster, Dictionary, DCL2-266 SHCL-8 to SHCL-11 names of installed files, (U) DCL Dictionary, refreshing the screen, (M) Show Cluster, DCL2-265, DCL2-266 SHCL-11 names of open files, (U) DCL Dictionary, Displaying DCL2-265 information about services, (M) LATCP, time, (U) DCL Dictionary, DCL2-328 LAT-58 VAXTPU definition, (P) VAXTPU, 4-16 link characteristics, (M) LATCP, LAT-47 working set limit, (U) DCL Dictionary, link counters, (M) LATCP, LAT-43 DCL2-335 link information, (M) LATCP, LAT-43 working set quota, (U) DCL Dictionary, node characteristics, (M) LATCP, LAT-52 DCL2-335 node counters, (M) LATCP, LAT-49 Display, debugger, screen mode node information, (M) LATCP, LAT-49 port characteristics, (M) LATCP, LAT-55 See also Source display, Instruction, Window port information, (M) LATCP, LAT-55 attribute, (P) Debugger, 7-3, 7-18, CD-117, service characteristics, (M) LATCP, LAT-58 CD-238 service counters, (M) LATCP, LAT-58 canceling, (P) Debugger, 7-12, CD-20 Displaying a form assigned to a queue, (M) contracting, (P) Debugger, 7-12, CD-94 creating, (P) Debugger, 7-12, CD-65 Maintaining VMS, 5-44 current, (P) Debugger, 7-3, 7-18, CD-117 Displaying characteristics assigned to a queue, (M) Maintaining VMS, 5-26 default configuration, (P) Debugger, 7-2, 7-4 Displaying defined characteristics, (M) defined, (P) Debugger, 7-2 Maintaining VMS, 5-26 DO display, (P) Debugger, 7-15, 11-23 Displaying defined forms, (M) Maintaining VMS, expanding, (P) Debugger, 7-12, CD-94 extracting, (P) Debugger, 7-21, CD-97 Displaying EVE command list, (U) Text hiding, (P) Debugger, 7-11, CD-67 Processing, 1-35 identifying, (P) Debugger, 7-12, CD-212 Displaying information, (U) Mail, MAIL-1 instruction display (INST), (P) Debugger, 7-7,

7 - 16

Displaying information about a queue, (M) "display\_value" string constant parameter to Maintaining VMS, 5-69 Displaying text /BRIEF qualifier, (U) EDT Ref, EDT-119 Handbook, 8-8 /NOTYPE qualifier, (U) EDT Ref, EDT-153 <null>, (U) EDT Ref, EDT-154 SET LINES, (U) EDT Ref, EDT-181 SET NUMBERS, (U) EDT Ref, EDT-184 SET SCREEN, (U) EDT Ref, EDT-190 SET TRUNCATE, (U) EDT Ref, EDT-201 Monitor, MON-49 SHL (shift left), (U) EDT Ref, EDT-309 SHOW LINES, (U) EDT Ref, EDT-219 SHOW TRUNCATE, (U) EDT Ref, EDT-234 Distributed Name Service SHOW WRAP, (U) EDT Ref, EDT-239 See DNS SHR (shift right), (U) EDT Ref, EDT-310 TYPE, (U) EDT Ref, EDT-251 Displaying version number, (P) VAXTPU, 4-2 .DISPLAY LEVELS command, (U) Text Processing, 3-32; (U) DSR Ref, 2-22 Distributed system Display modes See also Entry and display modes how to set, (P) Delta/XDelta, DELTA-16 VAXcluster, 3-7 .DISPLAY NUMBER command, (U) Text Processing, 3-34; (U) DSR Ref, 2-24 Display output, (M) Monitor, MON-4 Display PostScript documentation, V5.5 Release Notes, 3-15 MACRO, 9-18/DISPLAY qualifier, (U) EVE Ref, 1-10; (M) Monitor, MON-21; (P) File Def Language, MACRO, 9-18 FDL-42, FDL-49; (P) VAXTPU, 5-8 (P) MACRO, 9-113 See also /NODISPLAY Display screen (P) MACRO, 9-113 refreshing, (M) LATCP, LAT-25 Display service, (P) RMS, RMS-25 (P) MACRO, 9-113 condition values, (P) RMS, RMS-28 control block input fields, (P) RMS, RMS-26 (P) MACRO, 9-113 control block output fields, (P) RMS, RMS-26 requirements, (P) RMS, RMS-26 (P) MACRO, 9-113 "Display" string constant parameter to GET\_INFO, (P) VAXTPU, 7-177, 7-206 (P) MACRO, 9-113 .DISPLAY SUBPAGE command, (U) DSR Ref, 2 - 25(P) MACRO, 9-113 Display type CHARACTERISTICS, (M) Networking, 3-98 (P) MACRO, 9-113 COUNTERS, (M) Networking, 3-99 EVENTS, (M) Networking, 3-99 Division STATUS, (M) Networking, 3-99 SUMMARY, (M) Networking, 3-99 Display value fetching, (P) VAXTPU, 7-222 setting for window, (P) VAXTPU, 7-370 OTS-44, OTS-47 setting records, (P) VAXTPU, 7-448 Display Value of Expression command, (P) Delta/XDelta, DELTA-42 DIVL2 (Divide Long 2 Operand) instruction, (P) DISPLAY\_VALUE parameter to SET built-in

procedure, (P) VAXTPU, 7-370

GET\_INFO, (P) VAXTPU, 7-186, 7-222 Distributed arbitration paradigm, Dependability Distributed file system, (M) System Management Intro, 6-2; (M) VAXcluster, 1-4 Distributed job controller, (M) System Management Intro, 6-3; (M) VAXcluster, 1-4 Distributed lock management statistics, (M) Distributed lock manager, (M) System Management Intro, 6-3; (M) VAXcluster, 1-4 Distributed printing, (M) Maintaining VMS, 5-7 Distributed processing, (M) System Management Intro, 6-15; (M) VAXcluster, 1-1, 6-1; (M) DECnet-VAX Guide, 1–1 using threads in, (P) DECthreads, 1-4 Distributing members of shadow sets, (M) Distributing shadow sets, (M) VAXcluster, 3-7 Distribution lists, (U) Mail, MAIL-6, MAIL-57 creating in MAIL, (U) Using VMS, 1-29 DIVB2 (Divide Byte 2 Operand) instruction, (P) DIVB3 (Divide Byte 3 Operand) instruction, (P) DIVD2 (Divide D\_floating 2 Operand) instruction, DIVD3 (Divide D\_floating 3 Operand) instruction, DIVF2 (Divide F\_floating 2 Operand) instruction, DIVF3 (Divide F\_floating 3 Operand) instruction, DIVG2 (Divide G\_floating 2 Operand) instruction, DIVG3 (Divide G\_floating 3 Operand) instruction, DIVH2 (Divide H\_floating 2 Operand) instruction, DIVH3 (Divide H\_floating 3 Operand) instruction, Divide-by-zero trap, (P) MACRO, 8-16 complex number, (P) RTL General Purpose, extended precision, (P) RTL Library, LIB-126 packed decimal, (P) RTL General Purpose, Division operator (/), (P) System Dump Analyzer,

MACRO, 9-18

DMA transfer (cont'd) DIVL3 (Divide Long 3 Operand) instruction, (P) MACRO, 9-18 DIVP (Divide Packed) instruction, (P) MACRO, 9 - 163DIVW2 (Divide Word 2 Operand) instruction, (P) MACRO, 9-18 DIVW3 (Divide Word 3 Operand) instruction, (P) MACRO, 9-18DLDRIVER.MAR, (P) Device Support (A), C-1 to C - 29DLM (data link mapping), (M) Networking, 1-1, 1-3, 1-13 circuit, (M) Networking, 1-1, 2-7, 2-12, 3-37 incoming and outgoing calls, (M) Networking, network configuration, (M) Networking, 5-25 setting up a circuit for, (M) Networking, 3-51 use of CIRCUIT parameters, (M) Networking, use of OWNER EXECUTOR circuit parameter, data (M) Networking, 3-48 use of subaddresses. (M) Networking, 3-50 DLOCK class record, (M) Monitor, A-16 DLT option, (P) File Def Language, FDL-20 DLWC (default lowercase) command, (U) EDT Ref, EDT-281 DMA (direct memory access) VMEbus devices, V5.5 New Features, A-12 VMEbus mapping, V5.5 New Features, A-12 VMEbus map register, V5.5 New Features, A-12 DMA interface for VMEbus device, V5.5 New Features, A-36 DMA map registers mailbox for VME, V5.5 New Features, A-23, A-25, A - 27DMA routines for VMEbus devices, V5.5 New Features, A-12 DMA transfer, (P) Device Support (A), 1–22, 5–5 See also Data path See also Map registers byte-aligned, (P) Device Support (A), 14-11 detecting memory error during, (P) Device Support (A), 14–25 flow, (P) Device Support (A), 1–23 to 1–25, for modify operation, (P) Device Support (B), 1 - 73-31 to 3-33, 3-34 to 3-36 for read operation, (P) Device Support (B), 3-40 to 3-42, 3-45 to 3-47 for write operation, (P) Device Support (B), 3-54 to 3-55, 3-58 to 3-60 longword-aligned 32-bit random-access, (P) Device Support (A), 14-12, 14-14 to 14-15 on Q22-bus, (P) Device Support (A), 14-15 to 14-16, 14-19 to 14-26 on UNIBUS, (P) Device Support (A), 14-15 to 14 - 26

on VAXBI bus, (P) Device Support (A), 16-18 to postprocessing, (P) Device Support (A), 14-16, 14-24 to 14-26 start I/O routine, (P) Device Support (A), 8-1 to using direct data path in, (P) Device Support (A), 14–10 using direct I/O in, (P) Device Support (A), 6-8 using I/O adapter resources in, (P) Device Support (A), 14-2 to 14-15 DMB32 asynchronous/synchronous multiplexer, (P) Device Support (A), 16–20 DMB32 device, (M) Networking, 2-13, 2-14, 2-20; (P) I/O User's I, 8-1DMC11 device, (M) Networking, 1-9, 2-8, 2-13 DMC11/DMR11 driver attention AST, (P) I/O User's II, 1-9 enabling, (P) I/O User's II, 1-7 message size, (P) I/O User's II, 1-3, 1-6, DDCMP (DIGITAL Data Communications Message Protocol), (P) I/O User's II, 1-1 device characteristics, (P) I/O User's II, 1-3, driver, (P) I/O User's II, 1-1 capabilities, (P) I/O User's II, 1-2 error summary bits, (P) I/O User's II, 1-5 function codes, (P) I/O User's II, 1-5, A-1 function modifiers, (P) I/O User's II, 1-6, 1-8 I/O functions, (P) I/O User's II, 1-5 to 1-7 I/O status block, (P) I/O User's II, 1-9 disabling, (P) I/O User's II, 1-6 enabling, (P) I/O User's II, 1-6 message, (P) I/O User's II, 1-9 format, (P) I/O User's II, 1-2 type, (P) I/O User's II, 1-2 usage, (P) I/O User's II, 1-2 programming example, (P) I/O User's II, 1-10 quota, (P) I/O User's II, 1-3, 1-9 read function, (P) I/O User's II, 1-5 receive-message blocks, (P) I/O User's II, 1-8, set characteristics function, (P) I/O User's II, set mode and shut down unit, (P) I/O User's set mode and start unit, (P) I/O User's II, 1-8 set mode function, (P) I/O User's II, 1-6, 1-7 start unit, (P) I/O User's II, 1-8 status returns, (P) I/O User's II, A-1 supported DMC11 options, (P) I/O User's II, SYS\$GETDVI, (P) I/O User's II, 1-3 unit and line status, (P) I/O User's II, 1-4

DMC11/DMR11 driver (cont'd)	DMP11/DMF32 driver (cont'd)
unit characteristics, (P) I/O User's II, 1–4 write function, (P) I/O User's II, 1–6	function modifiers, (P) I/O User's II, 2–8 to 2–9, 2–15, 2–18 to 2–19, 2–24 to 2–25
DMF32 device, (M) Networking, 1–9, 2–8, 2–13,	HDLC bit stuff mode, (P) I/O User's II, 2–3,
2–14, 2–20; (P) I/O User's I, 8–1	2–12, 2–15
DMOV (default move) command, (U) EDT Ref, EDT-282	I/O functions, (P) I/O User's II, 2-7 to 2-9, 2-15, 2-19
DMP11 device, (M) Networking, 1–9, 2–8, 2–13	I/O status block, (P) I/O User's II, 2–25
DMP11/DMF32 driver	LAPB controller counter parameter IDs, (P)
AST service routine address, (P) I/O User's II, 2–19	I/O User's II, 2–22 message size, (P) I/O User's II, 2–3, 2–8, 2–10
attention AST, (P) I/O User's II, 2–19	modem
characteristics	disabling line, (P) I/O User's II, 2–18
controller, (P) I/O User's II, 2-9, 2-19	status, $(P) I/O User's II$ , 2–24
device, (P) I/O User's II, 2–3	modifying characteristics, (P) I/O User's II,
extended, (P) I/O User's II, 2-11 to 2-12,	2–9
2–16 to 2–17	multipoint
modifying, (P) I/O User's II, 2–9	configuration, (P) I/O User's II, 2-1
tributary, (P) I/O User's II, 2–16, 2–19	control station, (P) I/O User's II, 2–1
character-oriented protocol, (P) I/O User's II,	parameter ID, (P) I/O User's II, 2-10, 2-11,
2–3, 2–12, 2–13	
controller mode, $(P) I/O User$ 's $II$ , 2–12	point-to-point configuration, $(P) I/O User's II, 2-1$
starting, $(P)$ $I/O$ $User$ 's $II$ , 2–9	station, (P) $I/O$ User's $II$ , 2-1
DDCMP (DIGITAL Data Communications	polling time, (P) I/O User's II, 2–12, 2–17
Message Protocol), (P) I/O User's II, 2–1	privilege, (P) I/O User's II, 2–7
DDCMP controller counter parameter IDs, (P)	programming example, (P) I/O User's II, 2–26
I/O User's II, 2–22	protocol, (P) I/O User's II, 2-1, 2-3, 2-11,
device characteristics, (P) I/O User's II, 2-3	2–12, 2–13
diagnostic support, (P) I/O User's II, 2-23	starting, (P) I/O User's II, 2–15
read device status slot, (P) I/O User's II,	stopping, (P) I/O User's II, 2–18
2-25	quotas, $(P) I/O User's II, 2-3$
read line unit modem status, $(P) I/O$	read device status slot, (P) I/O User's II, 2-25
User's $II$ , $2-24$	read function, (P) I/O User's II, 2–7
set line unit modem status, (P) I/O User's	read internal counters, (P) I/O User's II, 2–20
II, 2–24	read line unit modem status, (P) I/O User's II,
DMC11-compatible operating mode, $(P) I/O$	2–24
User's II, 2–1	sense mode function, (P) I/O User's II, 2–19
DMF32 driver, (P) I/O User's II, 2–1	set controller mode, (P) I/O User's II, 2-9
control, (P) I/O User's II, 2–12	characteristics, (P) I/O User's II, 2–10
transmitter interface, (P) $I/O$ User's $II$ ,	extended characteristics, (P) I/O User's II,
2-14 DMF32 driver transmitter interface, (P) $I/O$	2-11 to 2-12
User's II, 2–14	message size, (P) I/O User's II, 2–10, 2–12, 2–13
DMP11 driver, (P) I/O User's II, 2–1	P1 buffer, (P) I/O User's II, 2–10
driver capabilities, (P) I/O User's II, 2–1	P2 buffer, (P) I/O User's II, 2–10
duplex modes, $(P)$ $I/O$ $User's$ $II$ , $2-1$ , $2-2$ ,	parameter ID, $(P) I/O User's II$ , 2–10
2–11, 2–12	receive message blocks, (P) I/O User's II,
enable attention AST, (P) I/O User's II, 2–19	2–10
enable modem, (P) I/O User's II, 2-9	set line unit modem status, (P) I/O User's II,
errors, (P) I/O User's II, 2-5	2-23, 2-24
error summary bits, (P) I/O User's II, 2-5	set mode function, (P) I/O User's II, 2-9
extended characteristics, (P) I/O User's II,	set tributary mode, (P) I/O User's II, 2-15
2–11 to 2–12, 2–16 to 2–17	characteristics, (P) I/O User's II, 2–16
framing routine interface, (P) I/O User's II,	extended characteristics, (P) I/O User's II,
2–13	2-16 to 2-17
function codes, (P) I/O User's II, 2-6, A-2	P1 buffer, (P) I/O User's II, 2–16
	P2 buffer. (P) I/O User's II. 2–16

DMP11/DMF32 driver DNS\$APPEND\_SIMPLENAME\_TO\_RIGHT set tributary mode (cont'd) routine, V5.5 New Features, C-50 parameter ID, (P) I/O User's II, 2-16 DNS\$COMPARE\_FULLNAME routine, V5.5 New shutdown controller mode, (P) I/O User's II, Features, C-52 DNS\$COMPARE\_SIMPLENAME routine, V5.5 shutdown tributary mode, (P) I/O User's II, New Features, C-53 2 - 18DNS\$CONCATENATE\_NAME routine, V5.5 New starting Features, C-54 controller, (P) I/O User's II, 2-9 DNS\$CONTEXTVARNAME item, V5.5 New protocol, (P) I/O User's II, 2-15 Features, C-43 tributary, (P) I/O User's II, 2-15 DNS\$CONTEXTVARTIME item, V5.5 New status, DMF32 driver, (P) I/O User's II, 2-14 Features, C-43 status returns, (P) I/O User's II, A-3 DNS\$COUNT\_SIMPLENAMES routine, V5.5 stopping New Features, C-56 controller, (P) I/O User's II, 2-18 DNS\$CVT\_DNSADDRESS\_TO\_BINARY routine, modem line, (P) I/O User's II, 2-18 V5.5 New Features, C-57 protocol, (P) I/O User's II, 2-18 DNS\$CVT\_DNSADDRESS\_TO\_NODENAME tributary, (P) I/O User's II, 2–18 routine, V5.5 New Features, C-58 supported devices, (P) I/O User's II, 2-1 DNS\$CVT\_NODENAME\_TO\_DNSADDRESS sync characters, (P) I/O User's II, 2-12, 2-13 routine, V5.5 New Features, C-60 SYS\$GETDVI, (P) I/O User's II, 2-3 DNS\$CVT\_TO\_USERNAME\_STRING routine, timeout, (P) I/O User's II, 2-13 V5.5 Release Notes, 2-23; V5.5 New Features, tributary, (P) I/O User's II, 2-1 address, (P) I/O User's II, 2-1, 2-18 DNS\$PARSE\_USERNAME\_STRING routine, mode, (P) I/O User's II, 2-1 V5.5 Release Notes, 2-23; V5.5 New Features, starting, (P) I/O User's II, 2–15 C - 64station, (P) I/O User's II, 2–1 DNS\$REMOVE\_FIRST\_SET\_VALUE routine, stopping, (P) I/O User's II, 2-18V5.5 New Features, C-67 tributary counter parameter IDs, (P) I/ODNS\$REMOVE\_LEFT\_SIMPLENAME routine, User's II. 2-22 V5.5 New Features, C-69 unit and line status, (P) I/O User's II, 2-5 DNS\$REMOVE RIGHT SIMPLENAME routine, unit characteristics, (P) I/O User's II, 2-4 V5.5 New Features, C-71 write function, (P) I/O User's II, 2-8 DNS (default name size) argument, (P) RMS, B-5 DMR11 device, (M) Networking, 1-9, 2-8, 2-13 DNS (Distributed Name Service), V5.5 New DMV11 device, (M) Networking, 2-8 Features, C-3 DMZ32 device, (M) Networking, 2-8, 2-14; (P) child directory, V5.5 New Features, C-6 I/O User's I. 8-1 clearinghouse, V5.5 New Features, C-13 DNA (default name address) argument, (P) RMS, development product, Dependability Handbook, 8-60 DNA (DIGITAL Network Architecture), (M) event messages, V5.5 New Features, C-73 DECnet-VAX Guide, 1-3 namespace layered design and troubleshooting, (M) defined, Dependability Handbook, DECnet-VAX Guide, 4-13 Glossary-4 layers, (M) DECnet-VAX Guide, 1-3; (M) restrictions, V5.5 New Features, C-4 Networking, 1-4 root directory, V5.5 New Features, C-5 protocols, (M) DECnet-VAX Guide, 1-4; (M) RTL routines, V5.5 Release Notes, 2-23 Networking, 1-4 supporting network dependability, specification, (M) DECnet-VAX Guide, 1-3 Dependability Handbook, 7-20 DNA lavers system error messages, V5.5 New Features, as basis for troubleshooting network, (M) C-3DECnet-VAX Guide, 4-13 wildcards, V5.5 New Features, C-9, C-20 DNM (default name) argument, (P) RMS, B-3 DNS call DNM (default name) field, (P) RMS, 4-3 timeout in, V5.5 New Features, C-10; (P) DNM (default name) keyword System Services Intro, 6-24 specifying FAB\$L\_DNA and FAB\$B\_DNS fields DNS clerk from VAX MACRO, (P) RMS, 5-9 locating data in namespace, V5.5 New Features, C-23 starting, V5.5 New Features, C-73

\$DNS function code, V5.5 New Features, C-26 to C-34; (P) System Services Ref, SYS-170 converting from opaque, V5.5 New Features, C-30; (P) System Services Ref, SYS-176 converting opaque name, V5.5 New Features, C-33; (P) System Services Ref, SYS-180 converting string name, V5.5 New Features, C-31; (P) System Services Ref, SYS-178 creating an object, V5.5 New Features, C-26; (P) System Services Ref, SYS-171 deleting an object, V5.5 New Features, C-26; (P) System Services Ref, SYS-172 enumerating attributes, V5.5 New Features, C-27; (P) System Services Ref. SYS-173 enumerating child directories, V5.5 New Features, C-27; (P) System Services Ref, SYS-173 enumerating objects, V5.5 New Features, C-28; (P) System Services Ref, SYS-174 enumerating soft links, V5.5 New Features, C-29; (P) System Services Ref, SYS-175 modifying attributes, V5.5 New Features, C-30; (P) System Services Ref, SYS-176 reading attribute, V5.5 New Features, C-31; (P) System Services Ref, SYS-178 resolving soft link, V5.5 New Features, C-32; (P) System Services Ref. SYS-180 testing a group, V5.5 New Features, C-34; (P) System Services Ref, SYS-182 testing for attribute, V5.5 New Features, C-33; (P) System Services Ref, SYS-181 \$DNS item code, V5.5 New Features, C-35 to arguments, V5.5 New Features, C-41 to C-42 attribute address, V5.5 New Features, C-39 attribute name, V5.5 New Features, C-35 attribute type, V5.5 New Features, C-35 attribute value address, V5.5 New Features, C - 39Boolean values, V5.5 New Features, C-37 caching results. V5.5 New Features, C-38 confidence level, V5.5 New Features, C-36 converting names, V5.5 New Features, C-36, C-37, C-38, C-40 entry type, V5.5 New Features, C-36, C-37 enumerating directories, V5.5 New Features, C - 36enumerating functions, V5.5 New Features, C - 36enumerating objects, V5.5 New Features, C-36 member name, V5.5 New Features, C-38 modifying attributes, V5.5 New Features, C-38 object class, V5.5 New Features, C-36 object name. V5.5 New Features, C-39 simple name address, V5.5 New Features, C-39 soft link name, V5.5 New Features, C-37 specifying groups, V5.5 New Features, C-37

\$DNS item code (cont'd) suppressing namespace name, V5.5 New Features, C-40 target name address, V5.5 New Features, C-39 testing attribute value, V5.5 New Features, timeout value, V5.5 New Features, C-40 UID address, V5.5 New Features, C-40 version of object, V5.5 New Features, C-40 wildcard, V5.5 New Features, C-41 DNS name case sensitivity, V5.5 New Features, C-9 comparing, V5.5 New Features, C-53 converting, V5.5 New Features, C-30, C-31, C - 33converting full name, V5.5 New Features, C-30 defining logicals, V5.5 New Features, C-8 format of, V5.5 New Features, C-5 source of, V5.5 New Features, C-5 DNS naming conventions binary names, V5.5 New Features, C-9 format, V5.5 New Features, C-5 logical names, V5.5 New Features, C-8 quoted names, V5.5 New Features, C-9 syntax, V5.5 New Features, C-6 valid characters, V5.5 New Features, C-8 wildcards, V5.5 New Features, C-9 DNS object, V5.5 New Features, C-6 creating, V5.5 New Features, C-9 to C-11, C-26; (P) System Services Intro, 6-22 deleting, V5.5 New Features, C-26 enumerating, V5.5 New Features, C-28 modifying, V5.5 New Features, C-11 to C-13 reading attributes of, V5.5 New Features, C-17 DNS string name converting to opaque, V5.5 New Features, C-31 format, V5.5 New Features, C-5 \$DNS system service, V5.5 New Features, C-25; (P) System Services Ref, SYS-167 arguments, V5.5 New Features, C-25 to C-43; (P) System Services Ref, SYS-167 building item list, V5.5 New Features, C-34; (P) System Services Ref, SYS-168 description, V5.5 New Features, C-43 to C-44; (P) System Services Ref, SYS-190 format, V5.5 New Features, C-25, C-43; (P) System Services Ref, SYS-167, SYS-190 function codes, V5.5 New Features, C-25; (P) System Services Ref, SYS-167 item code identifiers, V5.5 New Features, C-41; (P) System Services Ref, SYS-190 qualifying status, *V5.5 New Features*, C-43; (P) System Services Ref, SYS-169 returns, V5.5 New Features, C-25; (P) System Services Ref, SYS-167 status block, V5.5 New Features, C-25; (P) System Services Ref, SYS-167

DOS-11 volume \$DNSW system service, V5.5 New Features, C-48; format (cont'd) (P) System Services Ref, SYS-195 using with COPY command, (M) Exchange, DO clause EXCH-6 example, (P) Debugger, 3-13 using with TYPE command. (M) Exchange. exiting, (P) Debugger, CD-90, CD-106 EXCH-6 format, (P) Debugger, CD-4 .DOUBLE directive, (P) MACRO, 6-20 DO command, (U) EVE Ref, EVE-43 to EVE-44; Double-precision value (M) SYSMAN, SM-8, SM-52; (P) Debugger, converting, (P) RTL Math, MTH-62 10-5, 10-6, CD-72 converting an array of, (P) RTL Math, MTH-63 Documentation Double tape mark, (U) Files and Devices, B-3 module description, (P) Modular Procedures, Double-width characters 2-19, A-6See also Screen management new, V5.5 Release Notes, 4-2; V5.5 New See also Virtual display Features, 1-4 specifying, (P) Programming Resources, 7-20 procedure description, (P) Modular Procedures, Down arrow key, (U) DCL Concepts, 2-8 2-20, A-6 See also Cursor movement Documentation format keypad mode, (U) EDT Ref, EDT-63 See System routine documentation moving the cursor with, (U) Text Processing, Document conversion output formats, (U) DCL Dictionary, DCL1-66 1-8 nokeypad mode, (U) EDT Ref, EDT-283 Document formatting, (U) DSR Ref, 1-1 recalling commands with, (U) Using VMS, Documenting 1-18, 1-21; (U) DCL Concepts, 2-6 data center coding standards, Dependability DOWN command, (P) File Applications, 10-12; Handbook, 11-9 (P) Analyze/RMS\_File, ARMS-24 failures, Dependability Handbook, 9-16, 9-17 Downline loading, (M) DECnet-VAX Guide, 2-27 procedures, Dependability Handbook, 1-5 Downline system load DO display, (P) Debugger, 7-15, C-1 default loader files, (M) Networking, 4-16 DO function definition, (M) Networking, 4-1 See also ENTER load requirements, (M) Networking, 4-7 on LK201 keyboard, (U) EDT Ref, EDT-61 load sequence, (M) Networking, 4-3 Do key network example, (M) Networking, 5-15 EDT, (U) Text Processing, 2–16 operator-initiated, (M) Networking, 4-1, 4-7 entering commands (EVE), (U) Text Processing, over DDCMP circuit, (M) Networking, 4-8 over Ethernet, (M) Networking, 4-8 on VT200- and VT300-series terminals, (U) target-initiated, (M) Networking, 4-2 Using VMS, 8-4 unattended systems, (M) Networking, 4-1 recalling command with (EVE), (U) Text Downline task load, (M) Networking, 4-20 Processing, 1-7 /DOWN qualifier, (U) DSR Ref, 4-12; (P) using, (U) Using VMS, 8-6 Debugger, CD-94, CD-104, CD-112 Dollar sign (\$) Downsizing groups, Dependability Handbook, 1-6 and DECK command, (U) DCL Dictionary, example from case study, Dependability DCL1-111 Handbook, 11-8 and EOD command, (U) DCL Dictionary, Down time, Dependability Handbook, 3-5 DCL1-206 avoiding and EOJ command, (U) DCL Dictionary, general approach, Dependability DCL1-208 Handbook, 1-4 including as data, (U) Command Procedures, avoiding in lights out environment, Dependability Handbook, 11-1 in command procedure, (U) Command avoiding through consolidated system Procedures, 1-2 management, Dependability Handbook, DORMANTWAIT parameter, (M) System Generation, A-10; (M) Performance avoiding user errors, Dependability Handbook, Management, 5-9 DOS-11 volume, (U) Files and Devices, 5-3, 5-10; avoiding with DECalert and related products, (M) Maintaining VMS, 2-8 Dependability Handbook, 11-15 format, (M) Exchange, EXCH-2, EXCH-5 caveat about distributed applications, devices supported, (M) Exchange, EXCH-5 Dependability Handbook, 3-9

specifying files, (M) Exchange, EXCH-5

```
Down time (cont'd)
  defined, Dependability Handbook, Glossary-2
  determining permissible levels of,
      Dependability Handbook, 5-11
  impact of personnel, Dependability Handbook,
      5 - 7
  in networks, Dependability Handbook, 7-3,
  minimizing with forms interface, Dependability
      Handbook, 8-48
  minimizing with Rdb/VMS online backup,
      Dependability Handbook, 8-34
  minimizing with transaction processing
      monitors, Dependability Handbook, 8-48
  minimizing with VAXcluster systems,
      Dependability Handbook, 8-11
  minimizing with VAXft systems, Dependability
      Handbook, 5–3
  overall consequences, Dependability Handbook,
DPT$V_NOUNLOAD, (P) Device Support (A),
    12 - 7
DPT$V NO_IDB DISPATCH, (P) Device Support
    (A), 17–25
DPT$V_SMPMOD, (P) Device Support (A), 12–13,
    E-3
DPT$V_SUBCNTRL, (P) Device Support (A),
    15 - 15
DPT$V_SVP, (P) Device Support (B), 1-79, 2-21,
    3-79, 3-80
DPT$W_DEFUNITS, (P) Device Support (A),
    12 - 21
DPT$W_DELIVER, (P) Device Support (B), 4-21
DPT$W_UNLOAD, (P) Device Support (B), 4-10
DPT (driver prologue table), (P) System Dump
    Analyzer, SDA-99; (P) Device Support (A),
    1-2, 3-6, 11-1, 13-7; (P) Device Support (B),
    1-31 to 1-35, 1-74, 1-76
  creating, (P) Device Support (A), 6-1 to 6-3;
      (P) Device Support (B), 2-21 to 2-26
  initialization table, (P) Device Support (A), 6-2,
      12-4; (P) Device Support (B), 1-33, 2-25 to
      2 - 26
  linked into system DPT list, (P) Device Support
      (A), 12-3, 12-7, 12-8
  of third-party SCSI class driver, (P) Device
      Support (A), 17-25
  reinitialization table, (P) Device Support (A),
      6-3, 12-4, 12-8; (P) Device Support (B),
      2-25 to 2-26
DPTAB macro, (P) Device Support (A), 6-1, 11-1,
    12-1, 16-11; (P) Device Support (B), 1-69,
    2-21 to 2-23
  controlling autoconfiguration with, (P) Device
      Support (A), 12-21
  example, (P) Device Support (B), 2-23
```

used by MASSBUS drivers, (P) Device Support

(A), 15–15

```
DPT base address, (P) System Dump Analyzer,
    SDA-24
DPT_STORE macro, (P) Device Support (A), 3-6,
    6-2 to 6-3, 11-9; (P) Device Support (B), 2-24
    to 2-26
  example, (P) Device Support (B), 2-23
DPV11 device, (M) Networking, 2–20
DQS (VAX Distributed Queuing System), (M)
    Maintaining VMS, 5-7
  recommended version, V5.5 Release Notes,
       2 - 13
DR11-W driver, (P) Device Support (A), D-1 to
    D-26
DR11-W/DRV11-WA driver
  attention AST, (P) I/O User's II, 3-14
  BDP (buffered data path), (P) I/O User's II,
       3-11, 3-15
  block mode, (P) I/O User's II, 3-4, 3-11, 3-15
  CSR (control and status register)
       ATTN bit, (P) I/O User's II, 3-6, 3-11
       bit assignment, (P) I/O User's II, 3-16
       CYCLE bit, (P) I/O User's II, 3-5, 3-11
       ERROR bit, (P) I/O User's II, 3-6
       FNCT and STATUS bits, (P) I/O User's II,
           3-5, 3-7, 3-11, 3-14
       function, (P) I/O User's II, 3-5
  data registers, (P) I/O User's II, 3-6
  data transfer mode, (P) I/O User's II, 3-4
  data transfers
       read and write, (P) I/O User's II, 3-5
       through BDP, (P) I/O User's II, 3-15
  DDP (direct data path), (P) I/O User's II, 3-11,
       3 - 15
  device characteristics, (P) I/O User's II, 3-8
  driver, (P) I/O User's II, 3-1
  EIR (error information register), (P) I/O User's
       II, 3-6
       bit assignment, (P) I/O User's II, 3-16
  enable attention AST, (P) I/O User's II, 3-14
  error reporting, (P) I/O User's II, 3-6
  function codes, (P) I/O User's II, 3-9, A-3
  function modifiers, (P) I/O User's II, 3-7, 3-11
       to 3-12, 3-14 to 3-15
  hardware errors, (P) I/O User's II, 3-7, 3-8
  I/O functions, (P) I/O User's II, 3-13
  I/O status block, (P) I/O User's II, 3-15
       byte count, (P) I/O User's II, 3-15
  IDR (input data register), (P) I/O User's II,
       3-6, 3-11, 3-14
  interrupts, (P) I/O User's II, 3-4, 3-6, 3-7,
       3-8, 3-11, 3-14
  link mode, (P) I/O User's II, 3-6, 3-7, 3-11
  NPR transfers, (P) I/O User's II, 3-7
  ODR (output data register), (P) I/O User's II,
       3-6, 3-11
  programming example, (P) I/O User's II, 3-16
  read function, (P) I/O User's II, 3-13
```

```
DR11-W/DRV11-WA driver (cont'd)
                                                        DR32 driver (cont'd)
  set characteristics function, (P) I/O User's II,
                                                           error checking, (P) I/O User's II, 4-39
                                                           event flags, (P) I/O User's II, 4-15, 4-20, 4-22,
       3 - 13
  set mode function, (P) I/O User's II, 3-13
                                                               4-26, 4-28, 4-30, 4-32, 4-33, 4-40
  SS$_BADPARAM, (P) I/O User's II, 3-11
                                                           far-end DR device, (P) I/O User's II, 4-2, 4-3,
  status returns, (P) I/O User's II, A-3
                                                               4-5, 4-7, 4-11, 4-13, 4-18, 4-27
  SYS$CANCEL, (P) I/O User's II, 3–14, 3–15
                                                           far-end DR device transfers, (P) I/O User's II,
  SYS$GETDVI, (P) I/O User's II, 3-8
  transfer mode, (P) I/O User's II, 3-4
                                                           FREEQ (free queue), (P) I/O User's II, 4-5,
  word mode, (P) I/O User's II, 3-4, 3-11
                                                               4-13, 4-18, 4-24, 4-27, 4-36
  write function, (P) I/O User's II, 3-13
                                                           function codes, (P) I/O User's II, A-4
                                                           function modifier, (P) I/O User's II, 4-20
DR32 device interconnect
                                                           GO bit, (P) I/O User's II, 4-7, 4-22
  See DDI
                                                           high-level language interface, (P) I/O User's II,
DR32 driver
                                                               4-4, 4-23
  action routines, (P) I/O User's II, 4-23, 4-28,
                                                               support routines, (P) I/O User's II, 4-23
       4-30, 4-34, 4-39
                                                               synchronization, (P) I/O User's II, 4-33
  AST routine, (P) I/O User's II, 4-15, 4-20,
                                                           I/O function codes, (P) I/O User's II, 4-20
       4-21, 4-26, 4-33
                                                           I/O status block, (P) I/O User's II, 4-23, 4-32,
  buffer block, (P) I/O User's II, 4-5, 4-13, 4-15,
                                                               4-34, 4-39
       4-21, 4-22, 4-25, 4-36
                                                           INPTQ (input queue), (P) I/O User's II, 4-5,
  byte count field, (P) I/O User's II, 4-15
                                                               4-11, 4-13, 4-22, 4-24, 4-28, 4-30, 4-38
  command and data chaining, (P) I/O User's II,
                                                           INSQTI instruction, (P) I/O User's II, 4-5
  command block, (P) I/O User's II, 4-5, 4-21,
                                                           interrupt
       4-22, 4-36
                                                               See also DR32 driver, action routines
  command chaining, (P) I/O User's II, 4-2,
                                                               See also DR32 driver, event flags
       4-14, 4-29
                                                               AST, (P) I/O User's II, 4-3, 4-28, 4-30,
  command control, (P) I/O User's II, 4-14
                                                                   4-32, 4-33, 4-34, 4-40
  command packets, (P) I/O User's II, 4-2, 4-4
                                                               command packet, (P) I/O User's II, 4–13,
       to 4-7, 4-25 to 4-28, 4-31, 4-33 to 4-40
                                                                   4-20, 4-21, 4-22, 4-26, 4-28, 4-33,
  command sequences
       device-initiated, (P) I/O User's II, 4-7
                                                               reasons, (P) I/O User's II, 4-3
       initiating, (P) I/O User's II, 4-7
                                                           interrupt control argument (XF$FREESET),
  control (command) messages, (P) I/O User's II,
                                                               (P) I/O User's II, 4-28
       4-3, 4-7, 4-11, 4-12, 4-18, 4-29, 4-38
                                                           interrupt control field, (P) I/O User's II, 4-15,
  control select field, (P) I/O User's II, 4-13
                                                               4-26, 4-40
  data chaining, (P) I/O User's II, 4-2, 4-14,
                                                           length of device message field, (P) I/O User's
       4 - 29
                                                               II, 4-9
  data rate, (P) I/O User's II, 4-4, 4-20, 4-22,
                                                           length of log area field, (P) I/O User's II, 4-10
       4 - 27
                                                           load microcode function (IO$ LOADMCODE),
  data transfer command table, (P) I/O User's II,
                                                               (P) I/O User's II, 4-20
                                                           log area field, (P) I/O User's II, 4-19
  data transfers, (P) I/O User's II, 4-2, 4-3, 4-5,
                                                           log message, (P) I/O User's II, 4-30, 4-32
       4-11, 4-13, 4-14 to 4-16, 4-20, 4-25, 4-26,
                                                           microcode loader (XFLOADER), (P) I/O User's
       4-29, 4-38
                                                               II, 4-19
  DDI (DR32 device interconnect), (P) I/O User's
                                                           NOP command packet, (P) I/O User's II, 4-40
      II, 4-2
                                                           prefetch command packets, (P) I/O User's II,
  device
                                                               4-38
       characteristics, (P) I/O User's II, 4-3
                                                           programming
       control code, (P) I/O User's II, 4-10, 4-28
                                                               examples, (P) I/O User's II, 4-40
       message, (P) I/O User's II, 4-7, 4-9, 4-11,
                                                               hints, (P) I/O User's II, 4-37
           4-14, 4-18, 4-25, 4-27, 4-29, 4-32
                                                               interface, (P) I/O User's II, 4-4
  diagnostic tests, (P) I/O User's II, 4-10 to
                                                           queue
       4-13, 4-29, 4-39
                                                               headers, (P) I/O User's II, 4-5, 4-21
  DR device definition, (P) I/O User's II, 4-2
                                                               processing, (P) I/O User's II, 4-5
  driver, (P) I/O User's II, 4-1
                                                               retry, (P) I/O User's II, 4-6, 4-39, 4-47
  DSL (DR32 status longword), (P) I/O User's II,
                                                           random access, (P) I/O User's II, 4-3, 4-13
       4-9, 4-16, 4-24, 4-39
                                                           REMQHI instruction, (P) I/O User's II, 4-5
```

DR32 driver (cont'd)	Driver (cont'd)
residual DDI byte count field, (P) I/O User's II,	SCSI, (P) I/O User's I, 3–22
4–16	shadow set virtual unit, $(P) I/O User's I$ , 10–1
residual memory byte count field, $(P) I/O$	terminal, (P) I/O User's I, 8-1
User's II, 4–16	VAXstation 2000 and MicroVAX 2000 disk, (P)
start data transfer function (IO\$_STARTDATA),	$I/O\ User$ 's $I,3–21$
(P) I/O User's II, 4-4, 4-7, 4-20	Driver dispatch table
status returns, (P) I/O User's II, 4-32, A-4	See DDT
DDI status, (P) I/O User's II, 4–37	Driver prologue table
device-dependent, (P) I/O User's II, 4–36	See DPT
suppress length error field, (P) I/O User's II,	Driver unloading routine, (P) Device Support (A),
4-14  symbolic definitions (P) I/O User's II 4 24	6-3, 11-4, 12-7 to 12-8, 16-21; (P) Device
symbolic definitions, (P) I/O User's II, 4–24 SYS\$GETDVI, (P) I/O User's II, 4–3	Support (B), 2–22, 2–26
TERMQ (termination queue), (P) I/O User's II,	address, (P) Device Support (A), 6–2; (P)
4-3, 4-5, 4-13, 4-15 to 4-16, 4-21, 4-24,	Device Support $(B)$ , 1–34, 4–10
4-30, 4-31, 4-33, 4-40	context, $(P)$ Device Support $(B)$ , 4–10
VAX FORTRAN programming, (P) I/O User's	exit method, (P) Device Support (B), 4-10
II, 4–23, 4–24	functions, (P) Device Support (B), 4-10
VAX MACRO programming, (P) I/O User's II,	input, (P) Device Support (B), 4–10
4–23	register usage, (P) Device Support (B), 4-10
virtual address of buffer field, (P) I/O User's	synchronization requirements, (P) Device
II, 4–15	Support (B), 4–10
XF\$CLEANUP, (P) I/O User's II, 4-33	DRM routines
XF\$FREESET, (P) I/O User's II, 4-27	unavailable VAX bindings for, V5.5 Release
XF\$GETPKT, (P) I/O User's II, 4-31	Notes, 3–18  DDV11, WA driver (B) Device Support (A) D. 1 to
XF\$PKTBLD, (P) I/O User's II, 4-28	DRV11-WA driver, (P) Device Support (A), D-1 to
XF\$STARTDEV, (P) I/O User's II, 4-26	D-26
XFSETUP, (P) I/O User's II, 4-24	See also DR11–W/DRV11–WA driver DSA (Digital Storage Architecture), (M)
DR32 status longword	VAXcluster, 5–2
See DSL	disks and tapes, (M) VAXcluster, 1–2, 5–5
Drag operation	support for compliant hardware, $(M)$
determining where started, (P) VAXTPU,	VAXcluster, 3–7
7–188	DSA32 device, (P) I/O User's I, 8–1
Drawing characters, (P) RTL Screen Management,	DSA devices
2–11	preferred path support, V5.5 Release Notes,
Drawing lines, (P) RTL Screen Management, 2-11	3–21
Drills, practice for emergencies, Dependability	DSA disk, (P) I/O User's I, 3-1, 3-14, 3-19
Handbook, 3-16	See also Disk
Driver	bad block, (P) I/O User's I, 3–19, 3–21
See also Device driver	bad block replacement, (P) I/O User's I, 3–20,
asynchronous DDCMP, (M) DECnet-VAX	3–21
Guide, 3–19, 3–24; (P) I/O User's II, 5–1	forced error, (P) I/O User's I, 3-20
card reader, (P) I/O User's I, 2-1	forced error flag, (P) I/O User's I, 3-21
device status messages, (M) Maintaining VMS,	specifying preferred path, V5.5 New Features,
6–7	B-55
disk, (P) I/O User's I, 3–1	use with Verify Utility, (P) I/O User's I, 3-19,
DMC11/DMR11, (P) I/O User's II, 1-1	3–21
DMP11/DMF32, (P) I/O User's II, 2–1	DSBINT macro, (P) Device Support (A), 3-9, 3-10
DR11-W/DRV11-WA, (P) I/O User's II, 3-1	8-5, 8-6, E-4, E-9, E-10; (P) Device Support
DR32, (P) I/O User's II, 4-1	(B), 2-27
Ethernet/802, (P) I/O User's II, 6–1	replacing with spin lock synchronization macro,
LAT port, $(P) I/O User's I, 8-1$	(P) Device Support (A), E-13
line printer, (P) I/O User's I, 5-1	$DSC$K_DTYPE_BPV, (P) Modular Procedures,$
LPA11-K device, (P) I/O User's I, 4-1	3–12
magnetic tape, (P) $I/O$ User's $I$ , 6-1	See also User-action routine
mailbox, (P) I/O User's I, 7-1	
pseudoterminal, $(P) I/O User's I$ , 9–1	

DSC\$K\_DTYPE\_ZEM, (P) Modular Procedures, 3-11

See also User-action routine

DSE (data security erase), (M) Security, 5–42, 5–43

and erasure pattern, (M) Security, 4–39 magnetic tape, (P) I/O User's I, 6–27 tailoring, (M) Security, 5–43

DSR (DIGITAL Standard Runoff), (U) DCL Dictionary, DCL2-63; (U) DSR Ref, 1-1 adjusting page numbers with, (U) Using VMS, 9-13

adjusting running heads with,  $\,$  (U) Using VMS, 9–13, 9–16

.APPENDIX command, (U) Text Processing, 3–36

.BLANK command, *(U) Text Processing*, 3–3, 3–12, 3–22, 3–26

.BREAK command, (U) Text Processing, 3–12 .CENTER command, (U) Text Processing, 3–3 centering text with, (U) Using VMS, 9–5

.CHAPTER command, (U) Text Processing, 3–33

creating bolded text with, (U) Using VMS, 9-12

creating section heads with, (U) Using VMS, 9-14

.DATE command, (U) Text Processing, 3–38, 3–42

.DISPLAY CHAPTER command, (U) Text Processing, 3–33

.DISPLAY ELEMENTS command, (U) Text Processing, 3–10

.DISPLAY LEVELS command, (U) Text Processing, 3–32

.DISPLAY NUMBER command, (U) Text Processing, 3–34

END FOOTNOTE command, (U) Text Processing, 3-44

.END LIST command, (U) Text Processing, 3–6, 3–12

.END LITERAL command, (U) Text Processing, 3–12

.END NOTE command, (U) Text Processing, 3–43

ENTRY command, (U) Text Processing, 3-52. FIGURE command, (U) Text Processing, 3-22, 3-23, 3-26

FIGURE DEFERRED command, (U) Text Processing, 3–22, 3–24, 3–26

.FILL command, (U) Text Processing, 3–14 .FIRST TITLE command, (U) Text Processing, 3–42

flags, (U) Using VMS, 9-1

FOOTNOTE command, (U) Text Processing, 3-44

formatting footnotes with, (U) Using VMS, 9-12

DSR (DIGITAL Standard Runoff) (cont'd) formatting literal text with, (U) Using VMS,

9–7

formatting notes with, (U) Using VMS, 9-11 formatting paragraphs with, (U) Using VMS, 9-6

.HEADER LEVEL command, (U) Text Processing, 3-29, 3-42

.HEADERS ON command, (U) Text Processing, 3-37

.INDENT command, (U) Text Processing, 3–19 indenting text with, (U) Using VMS, 9–5

.INDEX command, (U) Text Processing, 3-52 Indexing Utility, (U) DSR Ref, 6-1

invoking, (U) DCL Dictionary, DCL2-63

.JUSTIFY command, (U) Text Processing, 3–14 justifying text with, (U) Using VMS, 9–4

.LEFT MARGIN command, (U) Text Processing, 3–12

.LIST command, (U) Text Processing, 3–6, 3–12 .LIST ELEMENT command, (U) Text Processing, 3–6, 3–12

LITERAL command, (U) Text Processing, 3–12, 3–22, 3–25, 3–26

.NO AUTOSUBTITLE command, (U) Text Processing, 3–42

.NO FILL command, (U) Text Processing, 3–15 .NO JUSTIFY command, (U) Text Processing, 3–16

.NO NUMBER command, (U) Text Processing, 3-37

.NOTE command, (U) Text Processing, 3–43 output file, (U) Using VMS, 9–3 printing, (U) Using VMS, 9–20

.PAGE SIZE command, (U) Text Processing, 3-17

processing source file with, (U) Using VMS, 9-17

producing an index with, (U) Using VMS, 9–18 producing table of contents with, (U) Using VMS, 9–17

RUNOFF command, (U) Text Processing, 3–4, 3–5, 3–6

RUNOFF/INDEX command, (U) Text Processing, 3-53

source file, (U) Using VMS, 9-1

.SUBTITLE command, (U) Text Processing, 3–38, 3–39

suspending page numbers with, (U) Using VMS, 9–17

Table of Contents Utility, (U) DSR Ref, 5-1.

TAB STOPS command, (U) Text Processing,
3-12

terminator, (U) Text Processing, 3–3 .TITLE command, (U) Text Processing, 3–37, 3–38, 3–42

underlining text with, (U) Using VMS, 9-12

DSR commands DTE qualifier abbreviating, (U) Using VMS, 9-1 CHANNELS parameter, (M) Networking, 3-29 defaults, (U) DSR Ref, 1-5 LINE parameter, (M) Networking, 3-29 definition of, (U) DSR Ref, 1-1 MAXIMUM CIRCUITS parameter, (M) example, (U) DSR Ref, 1-2 Networking, 3-30 listed by function, (U) DSR Ref, A-1 SET MODULE X25-PROTOCOL command, parts of, (U) DSR Ref, 1-2 (M) Networking, 3-28 DSR flags STATE parameter, (M) Networking, 3-29 definition of, (U) DSR Ref, 1-1 DTK\$ANSWER\_PHONE, (P) RTL DECtalk, 1-5, **DSR** Indexing Utility DTK-3DTK\$CHECK\_HDWR\_STATUS, (P) RTL See also Indexing DECtalk, DTK-5 definition of, (U) DSR Ref, 1-1 DTK\$DIAL\_PHONE, (P) RTL DECtalk, 1-5, DSR Table of Contents Utility, (U) Using VMS, DTK-79 - 17DTK\$HANGUP\_PHONE, (P) RTL DECtalk, 1-5, definition of, (U) DSR Ref, 1-1 DTK-9 DSSI (Digital Storage System Interconnect) DTK\$INITIALIZE, (P) RTL DECtalk, 1-1, changing allocation class values on DSSI DTK-10 subsystems, (M) VAXcluster, 7-23 DTK\$LOAD\_DICTIONARY, (P) RTL DECtalk, configurations, (M) VAXcluster, 2-5, 2-10 1-4, DTK-12 configuring multiple adapters, (M) VAXcluster,  ${\tt DTK\$READ\_KEYSTROKE}, \ \ (P) \ RTL \ DECtalk,$ device naming, V5.5 Release Notes, 2-23 1-5, DTK-14 DTK\$READ\_STRING, (P) RTL DECtalk, 1-5, disk, (M) VAXcluster, 5-6 DTK-16 hardware configurations, Dependability DTK\$RETURN\_LAST\_INDEX, (P) RTL DECtalk, Handbook, 6-19 1-4, DTK-18 ISE, (M) VAXcluster, 2-5, 5-4, 5-6 DTK\$SET\_INDEX, (P) RTL DECtalk, 1-4, MSCP server accesses shadow sets, (M) DTK-19 VAXcluster, 3-8 DTK\$SET\_KEYPAD\_MODE, (P) RTL DECtalk, port controller, (M) VAXcluster, 1-3 1-5, DTK-20 DST (debug symbol table) DTK\$SET\_LOGGING\_MODE, (P) RTL DECtalk, creating, (P) Debugger, 5-4 1-2 to 1-3, DTK-22 shareable image, (P) Debugger, 5-13 DTK\$SET MODE, (P) RTL DECtalk, DTK-25 source line correlation, (P) Debugger, 6-1 DTK\$SET\_SPEECH\_MODE, (P) RTL DECtalk, DST32 device, (M) Networking, 2-20 DTK-27 DTE (data terminal equipment), (M) Networking, DTK\$SET\_TERMINAL\_MODE, (P) RTL 1-13, 2-5; (M) Network Control Program, A-20 to A-21 DECtalk, 1–3, DTK–29 DTK\$SET\_VOICE, (P) RTL DECtalk, DTK-31 address, (M) Networking, 2-6 DTK\$SPEAK\_FILE, (P) RTL DECtalk, DTK-33 bringing up, (M) Networking, 6-2 DTK\$SPEAK\_PHONEMIC\_TEXT, (P) RTL configuration, (M) Networking, 1-16, 1-18, DECtalk, DTK-35 2-6, 6-2DTK\$SPEAK\_TEXT, (P) RTL DECtalk, 1-4, definition, (M) Networking, 2-1 handling incoming calls, (M) Networking, 2-36 DTK-37 DTK\$SPELL\_TEXT, (P) RTL DECtalk, DTK-39 handling outgoing calls, (M) Networking, 3-29 DTK\$TERMINATE, (P) RTL DECtalk, 1-4, subaddress, (M) Networking, 3-82 DTK-41 DTE commands, (U) DCL Dictionary, DCL2-158 \$DTKDEF library, (P) RTL DECtalk, 1-5 CLEAR, (U) DCL Dictionary, DCL2-158 DTR (DECnet Test Receiver), (M) Networking, EXIT, (U) DCL Dictionary, DCL2-159 2-32; (M) DTS/DTR, DTS-1, DTS-3 QUIT, (U) DCL Dictionary, DCL2-160 DTRECV (DECnet Test Receiver image), (M) SAVE, (U) DCL Dictionary, DCL2-161 DTS/DTR, DTS-1 SEND BREAK, (U) DCL Dictionary, DCL2-162 DTS (DECnet Test Sender), (M) Networking, SET DTE, (U) DCL Dictionary, DCL2-163 2-32; (M) DTS/DTR, DTS-1, DTS-3 SHOW DTE, (U) DCL Dictionary, DCL2-168 SPAWN, (U) DCL Dictionary, DCL2–169 DTS/DTR DTE parameter See DECnet Test Sender/DECnet Test Receiver for GROUP, (M) Networking, 3-34 Utility for PVC, (M) Networking, 3-47

DTSEND (DECnet Test Sender image), (M) DTS/DTR, DTS-1	DUMP ADDRESS parameter, (M) Networking, 4-18
·	
DTS test	Dump assistance multicast address, (M)
connection test, (M) DTS/DTR, DTS-5	Networking, 4–18
data test, (M) DTS/DTR, DTS-7	DUMPBUG parameter, (M) System Generation,
disconnection test, (M) DTS/DTR, DTS-10	A-11; (M) Maintaining VMS, 6-15; (P)
interrupt test, (M) DTS/DTR, DTS-12	System Dump Analyzer, SDA-2, SDA-28
subtests, (M) DTS/DTR, DTS-3	DUMP command, V5.5 Release Notes, 1-18; (U)
terminating, (M) DTS/DTR, DTS-3	DCL Dictionary, DCL1-174 to DCL1-178; (P.
using, $(M) DTS/DTR$ , DTS-4	File Applications, 10–12; (P) Analyze/RMS_
Dual host	$File,  \mathrm{ARMS-}25$
definition of, $(P) I/O User's I$ , 3–4	LMCP Utility, V5.5 New Features, B-80
Dual passwords	DUMP COUNT parameter, (M) Networking, 4-18
advantages and disadvantages, (M) Security,	Dump file, (M) Setting Up VMS, 6-16
5–16	See also SDA
Dual path	analyzing, (P) Programming Resources, 1–21;
definition of, $(P) I/O User's I, 3-11$	(P) System Dump Analyzer, SDA-32
Dual-pathed device specification, (U) DCL	controlling size, (M) VAXcluster, 7–37
Concepts, 3–6	copying the contents, (P) System Dump
Dual-pathed disk, (M) VAXcluster, 5-4; (P) I/O	Analyzer, SDA-42
User's I, 3–11	creating or extending, (M) System Generation,
DSA, (M) VAXcluster, 5-5	SGN-14
DSA disk, (P) I/O User's I, 3–14	job controller, (M) Maintaining VMS, 5–66
DSSI, (M) VAXcluster, 5-6	
HSC, (M) VAXcluster, 5-4, 5-9	managing, (M) VAXcluster, 7–37
MASSBUS, (M) VAXcluster, 5–6	queue manager, (M) Maintaining VMS, 5–66
Dual-pathed tape	sharing, (M) VAXcluster, 7–38
DSA, (M) VAXcluster, 5–5	size, (M) Setting Up VMS, 6–17
HSC, (M) VAXcluster, 5-4	system, (M) Maintaining VMS, 6-14
Dual-path UCB extension, (P) Device Support (B),	automatic creation of, (M) Maintaining
1–69	VMS, 6-14
	size, (M) Maintaining VMS, 6-15
Dual-ported device, (P) Device Support (B), 1–74	use of, (M) Maintaining VMS, 6-1
Dual-ported disk, (P) I/O User's I, 3–12	DUMPFILE AUTOGEN symbol, (M) VAXcluster,
DSA, (M) VAXcluster, 5–5	7–37
DSA disk, (P) I/O User's I, 3–14	DUMP FILE parameter, (M) Networking, 4-18
HSC disk, (P) I/O User's I, 3–15	Dumping
MASSBUS, (M) VAXcluster, 5–6	upline, (M) DECnet-VAX Guide, 2–27
restrictions for use, (P) I/O User's I, 3–13	Dumping unattended system memory, (M)
setting up, (M) VAXcluster, 4-10	Networking, 4–17
Dual-ported tape	DUMP/RECORDS command
DSA, (M) VAXcluster, 5–5	using over the network, (M) DECnet-VAX
Dump	Guide, 2-9
format	DUMPSYLE AUTOGEN symbol, (M) VAXcluster,
byte, (U) DCL Dictionary, DCL1-175	7–37
decimal, (U) DCL Dictionary, DCL1-175 hexadecimal, (U) DCL Dictionary, DCL1-176 longword, (U) DCL Dictionary, DCL1-176	DUMPSTYLE parameter, (M) System Generation
	A-11; (P) System Dump Analyzer, SDA-4
	DUP (duplicate) option
	in XAB\$B_FLG field, (P) RMS, B-21
octal, (U) DCL Dictionary, DCL1-176	DUP11-DA device, (M) Networking, 2-20
word, (U) DCL Dictionary, DCL1-177	DUPC (default uppercase) command, (U) EDT
hexadecimal, (P) Analyze/RMS_File, ARMS-25	Ref, EDT-284
of files, (U) DCL Dictionary, DCL1-174	Duplex mode, (M) Networking, 3-58
of volumes, (U) DCL Dictionary, DCL1-174	See also Half-duplex mode
reading, (U) DCL Dictionary, DCL1-174	<u>-</u>
DUMP	terminal, (P) I/O User's I, 8–10
subset (P) System Dumn Analyzer SDA_4	DUPLEX parameter, (M) Networking, 3-58

Duplicate computing facilities, Dependability Handbook, 5-14 Duplicate key, (P) File Def Language, FDL-27 examples, (P) RMS, 7-8 incompatibility between VMS RMS and RMS-11, (P) RMS, 13-9 insertion order, (P) RMS, RMS-72 null key processing, (P) File Applications, 3-19 retrieving records, (P) RMS, 7-8 Duplicate key values, (P) File Def Language, FDL-5 Duplicate labels command interpreter rules for, (U) DCL Dictionary, DCL1-52, DCL1-227, DCL1-229 /DUPLICATE qualifier, (U) EDT Ref, EDT-137 with COPY, (U) EDT Ref, EDT-125 DUPLICATES attribute, (P) File Def Language, FDL-27 /DUPLICATES qualifier, (U) Sort/Merge, SORT-25 Duplicate system disk creating, (M) VAXcluster, 7-20 DUPLICATES\_PER\_SIDR attribute, (P) File Def Language, FDL-5 Duration test, (M) DTS/DTR, DTS-8, DTS-13 DVNETEND end node DECnet-VAX key, (M) DECnet-VAX Guide, 3–12 DVNETRTG full function DECnet-VAX key, (M) DECnet-VAX Guide, 3-12 DWBUA (VAXBI-to-UNIBUS adapter), (P) Device Support (A), 1-13, 16-10, 19-4 See also UNIBUS adapter Ethernet circuit device, (M) Networking, 2-11 DWMBA (XMI-to-VAXBI adapter) See Memory interconnect to VAXBI adapter DWMUA (VAXBI-to-UNIBUS adapter), (P) Device Support (A), 1-13, 16-10 See also UNIBUS adapter DWMVA adapter, V5.5 New Features, A-9 parameter selection, V5.5 New Features, A-9 DXML (DIGITAL Extended Math Library), V5.5 New Features, B-8, B-21 DYING BASE parameter, (M) Networking, 3-43 DYING INCREMENT parameter, (M) Networking, 3-43 DYING THRESHOLD parameter, (M) Networking, 3-42 DYN\$C\_BUFIO, (P) Device Support (B), 3-12, 3-22

DYN\$C\_IRP, (P) Device Support (B), 3-12

drivers, (M) Networking, 5-40

Dynamic allocation of map registers and device

Dynamic asynchronous circuit, (M) Networking, use of VERIFICATION INBOUND parameter, (M) Networking, 3-42, 3-93 Dynamic asynchronous connection, (M) Networking, 1-5, 1-8 automatic switching of terminal line, (M) DECnet-VAX Guide, 3-26 connection example, (M) DECnet-VAX Guide, manual switching of terminal line, (M) DECnet-VAX Guide, 3-26 network configuration, (M) Networking, 5-21 password, (M) Networking, 2-39 procedure for establishing, (M) DECnet-VAX Guide, 3-23 reasons for failure, (M) DECnet-VAX Guide, 4-17; (M) Networking, 5-13 receive password, (M) DECnet-VAX Guide, security, (M) DECnet-VAX Guide, 3-24 switching of terminal line, (M) DECnet-VAX Guide, 3-23terminating the link, (M) DECnet-VAX Guide, 3-27transmit password, (M) DECnet-VAX Guide, 3 - 24Dynamic asynchronous line, (M) Networking, 1-10, 2-16, 5-8 installing, (M) Networking, 5–11 shutting down, (M) Networking, 5–13 use of HANGUP parameter, (M) Networking, use of LINE SPEED parameter, (M) Networking, 3–61 use of SWITCH parameter, (M) Networking, Dynamic attribute, (M) Security, 4–29 DYNAMIC attribute, (P) System Services Intro, Dynamic length string, (P) RTL String Manipulation, 2-1, 2-2, 2-3, STR-68 allocation of, (P) RTL String Manipulation, STR-46 deallocation of, (P) RTL String Manipulation, STR-45 Dynamic memory, (P) DECthreads, 3-4 Dynamic memory allocation, (P) RTL Library, 5-1 Dynamic mode, (P) Debugger, CD-148 image setting, (P) Debugger, 5-14 module setting, (P) Debugger, 5-7 with DECwindows, (P) Debugger, 1-26 Dynamic parameter modifying, (M) SYSMAN, SM-67; (M) System Generation, SGN-44 Dynamic process setting, (P) Debugger, 10-7, CD-158

Dynamic prompt setting, (P) Debugger, 10-2, ECRB (Ethernet controller data block), (P) Device CD-161 Support (B), 2-2 /DYNAMIC qualifier, (P) Debugger, CD-67, EDF\$MAKE\_FDL logical name, (P) File CD-158, CD-230 Applications, 4-14 Dynamic selection Edit in EVE editor, (P) VAXTPU, 4-16 to 4-17 instruction, (P) MACRO, 9-169 Dynamic service rating, (M) LATCP, LAT-13, vector, (P) MACRO, 10-83 pattern operator, (P) MACRO, 9-170, 9-172 displaying, (M) LATCP, LAT-53, LAT-59 EDIT/ACL command, (U) Using VMS, 7-15; (U) Dynamic spin lock, (P) Device Support (A), 3-13 DCL Dictionary, DCL1-179; (M) ACL Editor,  $ACL\!-\!23; \ \ (P) \ File \ Applications, \ 4\!-\!22$ Dynamic string, (P) RTL General Purpose, EDIT built-in procedure, (P) VAXTPU, 7-111 to **OTS-95** Dynamic string descriptor, (P) Routines Intro, 7-114 2 - 24EDIT command, (U) VMS Intro, 2-4; (U) Dynamic switching Using VMS, 8-47; (U) Mail, MAIL-44; (P) manual switching of line, (M) Networking, Debugger, CD-74 EDT editor, (U) Text Processing, 2-2 procedure for line, (M) Networking, 2–16 for remote file, (M) DECnet-VAX Guide, 2-7 setting up lines, (M) Networking, 5-11 EDIT/EDT command, (U) DCL Dictionary, DYNSWITCH image, (M) DECnet-VAX Guide, DCL1-180 to DCL1-183 3-24; (M) Networking, 2-18 /READ\_ONLY qualifier to, (U) Using VMS, installing, (M) Networking, 5-11 2 - 15DZ11 device. (M) Networking, 1-9, 2-8, 2-14: EDIT/FDL (P) I/O User's I, 8-1; (P) Device Support (B), See Edit/FDL Utility EDIT/FDL command, (U) DCL Dictionary, DZ32 device, (M) Networking, 2-8, 2-14; (P) I/O DCL1-184; (P) Programming Resources, 8-55 User's I, 8-1; (P) Device Support (B), 1-21 Edit/FDL Utility (EDIT/FDL), (P) Programming DZQ11 device, (M) Networking, 2-14 Resources, 1–39; (P) File Applications, 1–14; DZV11 device, (M) Networking, 2-8, 2-14; (P) (P) File Def Language, FDL-39, FDL-40, I/O User's I, 8-1 FDL-42 D\_floating data type, (P) MACRO, 8-4, 9-102 ANALYSIS\_OF\_KEY section, (P) File Def .D\_FLOATING directive, (P) MACRO, 6-20 Language, FDL-4 /D\_FLOAT qualifier, (P) Debugger, CD-59, CD-82 calculating bucket size, (P) File Applications, 3-13, 3-25 calculating extension size, (P) File Applications, 3-5, 9-8;E command, (P) Delta/XDelta, DELTA-38 commands, (P) File Applications, 4-3; (P) File E-address Def Language, FDL-58 See Ethernet address contiguous files, (P) File Applications, 3-4 EBCDIC creating areas for index structures, (P) File collating sequence, (U) Using VMS, 1-39 Applications, 3–23 ECC error correction, (P) Device Support (B), creating FDL files. (P) File Applications, 4-2, 1-78, 1-79, 1-83, 2-21, 3-67 4-5; (P) File Def Language, FDL-39 ECC position register, (P) Device Support (B), default value, (P) File Applications, 4-11 1 - 83editor, (P) Programming Resources, 8-55 Echo exiting, (P) File Def Language, FDL-43 terminal, (P) Programming Resources, 7–40 invoking, (P) File Def Language, FDL-43 terminator, (P) Programming Resources, 7-24 invoking a script, (P) File Applications, 4-5 /ECHO qualifier, (U) VMS Intro, 6-14; (P) modifying a data file, (P) Programming Debugger, CD-50; (P) System Dump Analyzer, Resources, 8-58 SDA-44 optimization algorithms, (P) File Applications, Echo test, (M) DTS/DTR, DTS-9, DTS-13 A-1ECO level, (P) Patch, PAT-2 Optimize script, (P) File Applications, 10–1, 10-25; (P) File Def Language, FDL-39 See also PATCH commands prompt, (P) File Applications, 4-11 checking, (P) Patch, PAT-45, PAT-46, PAT-47 restrictions, (P) File Def Language, FDL-43 setting, (P) Patch, PAT-33, PAT-35, PAT-75 scripts, (P) File Def Language, FDL-63

Edit/FDL Utility (EDIT/FDL) (cont'd)	Editing session
specifying run-time options, (P) File	EDT editor (cont'd)
Applications, 9–1 to 9–5	exiting from EDT, (U) Using VMS, 8-48;
Editing buffers	(U) Text Processing, 2–3
editing two files within two buffers (EVE), (U)	invoking EDT, (U) Text Processing, 2–2
Text Processing, 1–56	recovering EDT after system interruption,
Editing commands	(U) Using VMS, 8-54; (U) Text
adding lines, (P) SUMSLP, SUM-7, SUM-9 changing audit trail text, (P) SUMSLP,	Processing, 2-6, 2-36 refreshing screen display, (U) Using VMS,
SUM-12	8-53
deleting lines, (P) SUMSLP, SUM-9, SUM-10,	EVE editor, (U) Text Processing, 1-1
SUM-11	beginning with existing file name, (U) Text
format of, (P) SUMSLP, SUM-4	Processing, 1–2
replacing lines, (P) SUMSLP, SUM-11	beginning with new file name, (U) Text
specifying, (P) SUMSLP, SUM-3	Processing, 1-1
using command parameters, (P) SUMSLP,	beginning without file name, (U) Text
SUM-4	Processing, 1–3
using locator field parameters, (P) SUMSLP,	changing modes, (U) Text Processing, 1–12
SUM-4	customizing, (U) Text Processing, 1–71, 1–75
using operators, (P) SUMSLP, SUM-3 Editing context status	ending session, (U) Using VMS, 8-3; (U)
built-in procedures	Text Processing, 1–3
CURRENT_BUFFER, (P) VAXTPU, 7–80	recovering EVE after system interruption,
CURRENT_CHARACTER, (P) VAXTPU,	(U) Using VMS, 8-23
7–81	refreshing screen display, (U) Using VMS,
CURRENT_COLUMN, (P) VAXTPU, 7-83	8–23; (U) Text Processing, 1–38
CURRENT_DIRECTION, (P) VAXTPU,	saving text, (U) Text Processing, 1–3
7–85	keypad editing, (M) ACL Editor, ACL-3
CURRENT_LINE, (P) VAXTPU, 7–86	Editing the command line
CURRENT_OFFSET, (P) VAXTPU, 7–88	enabling line editing, (U) DCL Concepts, 2-4
CURRENT_ROW, (P) VAXTPU, 7–90	insert mode, (U) DCL Concepts, 2–4
CURRENT_WINDOW, (P) VAXTPU, 7–92	line editing keys, (U) DCL Concepts, 2–5
DEBUG_LINE, (P) VAXTPU, 7–99	overstrike mode, (U) DCL Concepts, 2-4
ERROR, (P) VAXTPU, 7–123 ERROR_LINE, (P) VAXTPU, 7–125	EDIT keypad function, (M) Show Cluster, SHCL-5
ERROR_TEXT, (P) VAXTPU, 7–127	Edit mode
built-in procedures for defining	changing, (U) EDT Ref, EDT-49, EDT-122,
SET, (P) VAXTPU, 7–347	EDT-180, EDT-287
SHOW, (P) VAXTPU, 7-505	displaying, (U) EDT Ref, EDT-218, EDT-220
Editing files	keypad, (U) EDT Ref, EDT-2
using two buffers (EVE), (U) Text Processing,	line, $(U)$ EDT Ref, EDT-5
1–56	nokeypad, $(U)$ EDT Ref, EDT-6
Editing interface	setting, (U) $EDT$ $Ref$ , $EDT$ -183
See EVE editor	Editor
Editing messages, (U) Mail, MAIL-19	See also EDT editor
Editing point	See also EVE editor
built-in procedures for moving	See also Text processing
MARK, (P) VAXTPU, 7–261	ACL
MOVE_HORIZONTAL, (P) VAXTPU, 7–278	See ACL editor
MOVE_VERTICAL, (P) VAXTPU, 7–282	default, (U) DCL Dictionary, DCL1–180
POSITION, (P) VAXTPU, 7–287	EDT, (P) Programming Resources, 1–3 EVE, (P) Programming Resources, 1–5
compared to cursor position, (P) VAXTPU, 6–10	FDL, (P) File Def Language, FDL-42
effect of scrolling on, (P) VAXTPU, 7–324	invoking, (U) Mail, MAIL-52
Editing session, (U) EDT Ref, EDT-1	EDT, (U) DCL Dictionary, DCL1–180
EDT editor	EVE, (U) DCL Dictionary, DCL1–189
changing modes, (U) Text Processing, 2-6	SUMSLP, (U) DCL Dictionary, DCL1–185 TECO, (U) DCL Dictionary, DCL1–186

Editor	EDIT/TPU command
invoking (cont'd)	/RECOVER qualifier (cont'd)
VAXTPU, (U) DCL Dictionary, DCL1-189	with buffer-change journal file, (U) EVE
screen oriented, (U) DCL Dictionary,	Ref, 1–21
DCL1-180	with keystroke journal file, (U) EVE Ref,
screen-oriented	1–23
EVE, (U) DCL Dictionary, DCL1-189	/SECTION qualifier, (U) EVE Ref, 1–16, 1–36
VAXTPU, (U) DCL Dictionary, DCL1-189	/SECTION qualifier (EVE), (U) Text Processing
SUMSLP, (P) SUMSLP, SUM-14	1–76
text, (P) File Def Language, FDL-42	/START_POSITION qualifier, (U) EVE Ref,
VAXTPU (VAX Text Processing Utility), (P)	1–18
Programming Resources, 1-4	/WORK qualifier, (U) EVE Ref, 1–18
EDITPC (Edit Packed to Character String)	/WRITE qualifier, (U) EVE Ref, 1–19
instruction, (P) MACRO, 9-170	"Edit_mode" string constant parameter to
/EDIT qualifier, (U) Mail, MAIL-13, MAIL-20;	GET_INFO, (P) VAXTPU, 7–198
(P) Debugger, CD-28, CD-172, CD-239	EDIV (Extended Divide) instruction, (P) MACRO,
EDIT/SUM command, (U) DCL Dictionary,	9–19
DCL1-185; (P) SUMSLP, SUM-2, SUM-14	RTL routine to access, (P) RTL Library,
EDIT/TECO command, (U) DCL Dictionary,	LIB-126
DCL1-186 to DCL1-188	EDT\$EDIT routine, (P) Utility Routines, EDT-3
EDIT/TPU command, (U) Using VMS, 8-2; (U)	EDT argument, (P) RMS, B-16
DCL Dictionary, DCL1-189 to DCL1-204; (U)	EDT conversion, (U) EVE Ref, 1–39
EVE Ref, 1-5; (P) VAXTPU, 1-9, 5-1 to 5-20	equivalent commands, (U) EVE Ref, A-1
/COMMAND qualifier, (U) EVE Ref, 1-8, 1-38	EDT description, (U) DCL Dictionary, DCL1-180
/CREATE qualifier, (U) EVE Ref, 1–9	EDT editor, $(U)$ EDT Ref, EDT-1
/DEBUG qualifier, (U) EVE Ref, 1-9	as default MAIL editor, (U) Using VMS, 1–35
/DISPLAY qualifier, (U) EVE Ref, 1–10	boldfacing text with DSR, (U) Text Processing,
EVE editor, (U) Text Processing, 1-2, 1-78	3–46
/INITIALIZATION qualifier, (U) EVE Ref,	buffer
1–11, 1–33	commands for using, (U) Using VMS, 8-69
/INTERFACE qualifier, (U) EVE Ref, 1–12	to 8–71
invoking EVE with, (U) Text Processing, 1-1	definition, (U) Using VMS, 8-47
/JOURNAL qualifier, (U) EVE Ref, 1–12, 1–23	changing modes in, (U) Using VMS, 8-52
/MODIFY qualifier, (U) EVE Ref, 1–13	copying text, (U) Text Processing, 2-30
/NOJOURNAL qualifier, (U) EVE Ref, 1–23	creating a file with, (U) EDT Ref, EDT-1
/OUTPUT qualifier, (U) EVE Ref, 1–14	creating macros, (U) Text Processing, 2-48
parameter, (P) VAXTPU, 5-19	creating startup file for, (U) Using VMS, 8-71
qualifiers, $(P)$ VAXTPU, 1-9 to 1-10, 5-5 to	cursor control in, (U) Using VMS, 8-54, 8-58
5–20	defining keys, (U) Text Processing, 2-44, 2-46,
/COMMAND, (P) VAXTPU, 5–6 to 5–7	2–48
/CREATE, (P) VAXTPU, 5–7	defining macros in, (U) Using VMS, 8-74
/DEBUG, (P) VAXTPU, 4–33, 5–8	deleting text, (U) Text Processing, 2–14, 2–27
/DISPLAY, (P) VAXTPU, 5–8	displaying a file with, (U) Using VMS, 8-48
/INITIALIZATION, (P) VAXTPU, 5–9 to	exiting from, (U) Using VMS, 8-48; (U) Text
5–10	Processing, 2–3
/INTERFACE, (P) VAXTPU, 5–10	finding text, (U) Text Processing, 2-16
/JOURNAL, (P) VAXTPU, 5–10	indenting text, (U) Text Processing, 2–42
/MODIFY, (P) VAXTPU, 5–12	inserting text, (U) Text Processing, 2–10, 2–24,
OUTPUT, (P) VAXTPU, 5-12	2–36
/READ_ONLY, (P) VAXTPU, 5-13	invoking, (U) Using VMS, 8-47; (U) Text
/RECOVER, (P) VAXTPU, 5–14, 7–408	Processing, 2–2; (U) EDT Ref, EDT-1
/SECTION, (P) VAXTPU, 5–16	key definitions
/START_POSITION, (P) VAXTPU, 5–17	assigning, (U) Using VMS, 8-71, 8-73
/WRITE, (P) VAXTPU, 5-17	keypad commands, (U) Using VMS, 8-49
/READ_ONLY qualifier, (U) Using VMS, 2–15;	line-editing commands, (U) Using VMS, 8–48,
(U) EVE Ref, 1–14 (PECOVER qualifier (U) EVE Pef 1–15	8–52
/RECOVER qualifier, (U) EVE Ref, 1–15	mode kovnod (P) Programming Recourage 1-3
	keypad, (P) Programming Resources, 1-3

**EDT** editor Element (cont'd) mode (cont'd) retrieving information about, (P) RTL Parallel line, (P) Programming Resources, 1-3 Processing, 4-1 nokeypad, (P) Programming Resources, synchronization, (P) RTL Parallel Processing, 4-1 1-4 modes of editing, (U) Text Processing, 2-2, 2-6 Element identifier moving text, (U) Text Processing, 2-18, 2-29, sharing, (P) RTL Parallel Processing, 5-9 Element lists, (M) Backup, BCK-4 reading a file, (U) Using VMS, 8-69 Eliminating single points of failure, Dependability recovering session after system interruption, Handbook, 6-2 (U) Using VMS, 8-54 Ellipsis (...) wildcard recovering text from journal file, (U) Text in a directory name, (U) Using VMS, 2-23 to Processing, 2-36 2-24; (U) DCL Concepts, 3-10 replacing text, (U) Using VMS, 8-64; (U) Text in output directory specifications, (U) DCL Processing, 2-20, 2-28, 2-30 Concepts, 3-20 restoring text, (U) Text Processing, 2-14 ELSE clause, (P) VAXTPU, 3-22 setting screen display in, (U) Using VMS, 8-72 .ELSE command, (U) DSR Ref, 2-66 tabbing facility, (U) Text Processing, 2-37 ELSE keyword writing buffer to a file, (U) Text Processing, and IF command, (U) DCL Dictionary, 2 - 36DCL1-237 %ELSE lexical keyword, (P) VAXTPU, 3-36 writing text to a file, (U) Using VMS, 8-69 EDTINI.EDT file, (U) Using VMS, 8-71; (U) EMB\$C\_DA, (P) Device Support (A), 11–10 EDT Ref, EDT-7 EMB\$C\_DE, (P) Device Support (A), 11-10 EMB\$C\_DT, (P) Device Support (A), 11-10 EDT keypad, (U) EVE Ref, EVE-170 EDT keypad option EMB\$L\_DV\_REGSAV, (P) Device Support (A), EVE editor, (U) Using VMS, 8-23; (U) Text 11 - 9Processing, 1-6 EMB\$W\_DV\_STS, (P) Device Support (B), 3-94 online help for (EVE), (U) Text Processing, \$EMBDEF macro, (P) Device Support (A), 11-9 1 - 36EMB spin lock, (P) Device Support (A), 3-14; (P) **EDT** macros Device Support (B), 3-8 creating, (U) EDT Ref, EDT-11 Emergency account **EDT** routines and privileges, (M) Security, 5-34 examples, (P) Utility Routines, EDT-1 to EMODD (Extended Multiply and Integerize D\_floating) instruction, (P) MACRO, 9-115 RTL routine to access, (P) RTL Library, introduction, (P) Utility Routines, EDT-1 user-written LIB-128 EMODF (Extended Multiply and Integerize FILEIO, (P) Utility Routines, EDT-7 WORKIO, (P) Utility Routines, EDT-11 F\_floating) instruction, (P) MACRO, 9-115 RTL routine to access, (P) RTL Library, XLATE, (P) Utility Routines, EDT-13 LIB-130 EDT text editor EMODG (Extended Multiply and Integerize See EDT editor G floating) instruction, (P) MACRO, 9-115 EFDRIVER OPCOM messages, V5.5 Release RTL routine to access, (P) RTL Library, Notes, 2-58 LIB-132 ef\_cluster\_name data type, (P) Routines Intro, EMODH (Extended Multiply and Integerize A-5tH\_floating) instruction, (P) MACRO, 9-115 ef\_number data type, (P) Routines Intro, A-5t RTL routine to access, (P) RTL Library, EH? error message, (P) Delta/XDelta, DELTA-13 LIB-134 "Eightbit" string constant parameter to GET\_ /EMPHASIS qualifier, (P) File Def Language, INFO, (P) VAXTPU, 7-198 FDL-42, FDL-50 EIR (error information register), (P) I/O User's II, Emphasizing text bolding, (U) DSR Ref, 2-29, 2-32, 2-43, 2-51, bit assignment, (P) I/O User's II, 3-16 3-6, 4-5, 4-6, A-3 Elapsed time, (P) Convert, CONV-24 index entries. (U) DSR Ref. 6-3 Electrical power, Dependability Handbook, 5-2 inserting notes, (U) DSR Ref, 2-86 Electronic mail methods for, (U) DSR Ref, 4-5 See Mail Utility overstriking, (U) DSR Ref, 3-14, 4-5 Element

definition of, (P) RTL Parallel Processing, 1-2

```
Emphasizing text (cont'd)
  underlining, (U) DSR Ref, 2-34, 2-56, 3-19,
      4-5, 4-20, 4-22, 4-25, A-3
EMUL (Extended Multiply) instruction, (P)
   MACRO, 9-20
  RTL routine to access, (P) RTL Library,
      LIB-136
Emulated instructions
  in device driver, (P) Device Support (A), 5-3
  terminal, (M) DECnet-VAX Guide, 3-25
Emulator product, (M) DECnet-VAX Guide, 1-6
Enable assembler functions, (P) MACRO, 6-22
ENABLE AST command, (P) Debugger, 9-16,
   CD-76
Enable attention AST function
  asynchronous DDCMP driver, (P) I/O User's
      II. 5-9
  DMC11/DMR11 driver, (P) I/O User's II, 1-7
  DMP11/DMF32 driver, (P) I/O User's II, 2-19
  DR11-W/DRV11-WA driver, (P) I/O User's II,
  Ethernet/802 drivers, (P) I/O User's II, 6-36
ENABLE AUTOSTART command, V5.5 New
   Features, 5-7
ENABLE AUTOSTART/QUEUES command, V5.5
   Release Notes, 2-49; (M) Maintaining VMS,
    5-58, 5-61, 5-69
  in startup command procedure, (M)
      Maintaining VMS, 5-58
  recommended use, (M) Maintaining VMS, 5-61
ENABLE BAR command, (U) DSR Ref, 2-26
ENABLE BOLDING command, (U) DSR Ref.
    2 - 29
ENABLE CHECKS command, (M) System
    Generation, SGN-17
ENABLE command, Obsolete Features, 4–9;
    License Management, LMF-69 to LMF-71
.ENABLE directive, V5.5 New Features, B-22;
    (P) MACRO, 6-22, 6-34
ENABLE HYPHENATION command, (U) DSR
    Ref. 2–30
ENABLE INDEXING command, (U) DSR Ref.
.ENABLE OVERSTRIKING command, (U) DSR
    Ref, 2–32
.ENABLE TOC command, (U) DSR Ref, 2–33
ENABLE UNDERLINING command, (U) DSR
    Ref, 2-34
Enabling accounting, (M) Maintaining VMS, 6-2
Enabling an operator terminal
   OPCOM message, (M) Maintaining VMS, 3-1
Enabling asynchronous delivery of alerts, (P)
    DECthreads, cma-7
Enabling asynchronous delivery of cancels, (P)
```

```
Enabling autostart, (M) Maintaining VMS, 5-5,
   5-61, 5-68, 5-69
  in startup command procedure, (M)
      Maintaining VMS, 5-58
  when creating queues, (M) Maintaining VMS,
Enabling autostart on a node, V5.5 New Features,
   5-9
Enabling OPA0
  by default, (M) Maintaining VMS, 3-1
Enabling operator classes, (M) Maintaining VMS,
ENBINT macro, (P) Device Support (A), 3-9,
   3-10, E-4; (P) Device Support (B), 2-28
  replacing with spin lock synchronization macro,
      (P) Device Support (A), E-13
Encryption
  of password, (M) Security, 3-6
Encryption algorithm, (M) Security, 3-6
Encryption key, (P) Device Support (B), 1-42
.END BAR command, (U) DSR Ref, 2-26
.ENDC directive, (P) MACRO, 6-26
End Communications layer events, (M) Network
    Control Program, A-26
End conditional assembly directive (.END), (P)
    MACRO, 6-26
.END directive, (P) Programming Resources, 9-8;
    (P) MACRO, 6-25
  in message source file, (P) Message, MSG-17
END FOOTNOTE command, (U) Text Processing,
    3-44; (U) DSR Ref, 2-58
ENDIF command, (U) DSR Ref, 2-66
%ENDIF lexical keyword, (P) VAXTPU, 3-36
ENDIF statement, (P) VAXTPU, 3-22 to 3-23
/ENDING qualifier, (M) Monitor, MON-22; (M)
    Show Cluster, SHCL-18
.END LIST command, (U) Text Processing, 3-6,
    3-12; (U) DSR Ref, 2-79
END LITERAL command, (U) Text Processing,
    3-12
ENDLOOP statement, (P) VAXTPU, 3-21 to 3-22
End macro definition directive (.ENDM), (P)
    MACRO, 6-27
.ENDM directive, (P) MACRO, 6-27
ENDMODULE statement, (P) VAXTPU, 3-14 to
End node, (M) System Management Intro, 7-2;
    (M) DECnet-VAX Guide, 1-2, 3-11, 3-14; (M)
    Networking, 1-1, 1-16
  caching on Ethernet, (M) Networking, 2-27
  configuration, (M) Networking, 2-24
  DECnet-VAX license kit, (M) Networking,
       1-16, 6-1
  definition, (M) Networking, 2-22
  Ethernet, (M) Networking, 1-8, 2-26
  non-Ethernet, (M) Networking, 1-8
  on VAXcluster, (M) Networking, 1-12
  Phase IV, (M) Networking, 2–23
```

DECthreads, pthread-91

End node (cont'd) \$ENQ reverse path caching, (M) Networking, 2-27 Lock Manager, (M) System Management Intro, .END NOTE command, (U) Text Processing, 3-43; (U) DSR Ref, 2-86 ENQLM (enqueue quota), (M) Setting Up VMS, End of batch job on cards, (U) DCL Dictionary, 5-4; (M) Networking, 5-38 DCL1-208 Enqueue, (P) DECthreads, 2-16 End of data stream, (U) DCL Dictionary, Enqueue quota DCL1-206 See ENQLM See also EOD command ENTER, (U) EDT Ref, EDT-64 End-of-file ENTER command, (U) Using VMS, 8-53 See EOF Entering commands, (M) Network Control End-of-file condition, (U) DCL Dictionary, Program, NCP-2 DCL1-206 COMMAND, (U) EDT Ref, EDT-28 End-of-file field in XABFHC Ctrl/Z, (U) EDT Ref, EDT-129, EDT-273 See XAB\$L\_EBK field DEFINE MACRO, (U) EDT Ref, EDT-133 End-of-file indicator, (U) DCL Dictionary, DESEL (deactivate select), (U) EDT Ref, DCL1-111 EDT-280 End-of-file mark DO, (U) EDT Ref, EDT-61 positioning for user file open option, (P) RMS, ENTER, (U) EDT Ref, EDT-64 5 - 18EXT (extend), (U) EDT Ref, EDT-288 End-of-file option /QUERY qualifier, (U) EDT Ref, EDT-159 See RAB\$V\_EOF option RESET, (U) EDT Ref, EDT-88 End-of-file positioning, (P) RMS, RMS-7 using the count specifier END OF LINE command, (U) Using VMS, 8-9; nokeypad mode, (U) EDT Ref, EDT-274 (U) EVE Ref, EVE-45 Entering control characters, (P) VAXTPU, 3-2 moving the cursor with (EVE), (U) Text Enter key Processing, 1-8 EDT, (U) Text Processing, 2–16 End-of-module EVE editor, (U) Text Processing, 1-12 record analysis, (U) DCL Dictionary, DCL1-27 Enter service, (P) RMS, RMS-29 End-of-tape condition values, (P) RMS, RMS-31 See EOT control block input fields, (P) RMS, RMS-30 control block output fields, (P) RMS, RMS-30 End of tape (EOT) marker requirement for NAM block fields, (P) RMS, See EOT marker **RMS-30** End-of-tape marker Entity specifier See EOT marker nokeypad mode, (U) EDT Ref, EDT-285 End-of-volume with APPEND, (U) EDT Ref, EDT-261 detection on magnetic tape, (P) I/O User's I, with CHGC (change case), (U) EDT Ref, EDT-266 ENDON\_ERROR statement, (P) VAXTPU, 3-25 with CHGL (change case lower), (U) EDT Ref, to 3-31 EDT-267 END phase, (M) SYSMAN, SM-88 with CHGU (change case upper), (U) EDT Ref, ENDPROCEDURE statement. (P) VAXTPU, 3-15 EDT-268 to 3-21 with CUT, (U) EDT Ref, EDT-275 .ENDR directive, (P) MACRO, 6-28 with D (delete), (U) EDT Ref, EDT-276 .END SUBPAGE command, (U) DSR Ref, 2-119 with FILL, (U) EDT Ref, EDT-289 ENDSUBROUTINE command, (U) Using with "move", (U) EDT Ref, EDT-296 VMS, 6-26; (U) DCL Dictionary, DCL1-53, with R (replace), (U) EDT Ref, EDT-302 DCL1-54, DCL1-205 with TADJ (tab adjust), (U) EDT Ref, EDT-317 END\_OF built-in procedure, (P) VAXTPU, 7-115 **Entries** to 7-116 deleting for batch and print jobs, V5.5 Release END\_OF\_FILE attribute, (P) File Def Language, Notes, 1-2FDL-10 Entry and display modes, (P) Patch, PAT-14 Engineering change order (ECO) level ASCII-NOASCII mode, (P) Patch, PAT-16 See ECO level BYTE mode, (P) Patch, PAT-16 ENLARGE WINDOW command, (U) Using VMS, canceling, (P) Patch, PAT-40 8-35; (U) EVE Ref, EVE-46 DECIMAL mode, (P) Patch, PAT-17 EVE editor, (U) Text Processing, 1-55

Entry and display modes (cont'd) Environment (cont'd) displaying location contents, (P) Patch, PAT-62 building block, Dependability Handbook, 1-19 displaying mode, (P) Patch, PAT-85 applying dependability strategies, GLOBALS-NOGLOBALS mode, (P) Patch, Dependability Handbook, 1-21 comprehensive training, Dependability HEXADECIMAL mode, (P) Patch, PAT-17 Handbook, 5-7 INSTRUCTION-NOINSTRUCTION mode, (P) coping with disasters, Dependability Patch, PAT-15 Handbook, 5-10 length modes, (P) Patch, PAT-16 dealing with personnel, Dependability LONG mode, (P) Patch, PAT-16 Handbook, 5-7mode qualifier, PATCH command, (P) Patch. desktop considerations, Dependability PAT-15 Handbook, 5-6 OCTAL mode, (P) Patch, PAT-17 fire protection, Dependability Handbook, 5-6 radix modes, (P) Patch, PAT-17 lights out computing, Dependability Handbook, SCOPE-NOSCOPE mode, (P) Patch, PAT-17 5 - 10setting the mode, (P) Patch, PAT-76 maintaining dependable environment, symbol search mode, (P) Patch, PAT-17 Dependability Handbook, 5-1 SYMBOLS-NOSYMBOLS mode. (P) Patch. multiple-site data center VAXcluster system. PAT-16 Dependability Handbook, 5-15, 6-24, 7-16 WORD mode, (P) Patch, PAT-16 networks, Dependability Handbook, 3-3 .ENTRY command, (U) Text Processing, 3-52; (U) operational zones, Dependability Handbook, DSR Ref, 2-35, 4-8 5 - 9.ENTRY directive, (P) MACRO, 6-29 options Entry mask, (P) MACRO, 9-63 duplicate computing facilities, Entry mask procedure, (P) Routines Intro, A-11t Dependability Handbook, 5-14 Entry point, (P) RTL Intro, 3-4 for separate physical sites, Dependability Handbook, 5-14 See also JSB entry points mutual backup processing agreements, CALL entry point, (P) RTL Intro, 3-3; (P) Dependability Handbook, 5-14 RTL String Manipulation, 2-9 defining, (P) MACRO, 6-29 vendor-supplied backup sites, Dependability Handbook, 5-15 JSB entry point, (P) RTL Intro, 3-5; (P) RTL order and neatness. Dependability Handbook. String Manipulation, 2-9 specifying in driver tables, (P) Device Support people-proof covers, Dependability Handbook, (B), 2-13Entry point directive (.ENTRY), (P) MACRO, personnel, Dependability Handbook, 5-7 6 - 29power sources, Dependability Handbook, 5-2 Entry point name, (P) RTL Math, 1-1 site security, Dependability Handbook, 5-6 /ENTRY qualifier, (M) Error Log, ERR-8; (M) structures, Dependability Handbook, 3-3 Accounting, ACC-12 suitable tools, Dependability Handbook, 5-8 Entry types system considerations, Dependability excluding, (M) Error Log, ERR-9 Handbook, 5-16 including, (M) Error Log, ERR-13 temperature and humidity, Dependability Entry\_Type identifier, V5.5 New Features, C-41 Handbook, 5-4 Enumerate call transaction processing, Dependability attributes, V5.5 New Features, C-27; (P) Handbook, 3-12 System Services Ref. SYS-173 utilities, Dependability Handbook, 3-2 directories, V5.5 New Features, C-27: (P) water supplies, Dependability Handbook, 5-5 System Services Ref. SYS-173 Environmental factors in security, (M) Security, objects, V5.5 New Features, C-28; (P) System 1–3 Services Ref, SYS-174 EO\$ADJUST\_INPUT (Adjust Input Length) soft links, V5.5 New Features, C-29; (P) pattern operator, (P) MACRO, 9-175 System Services Ref, SYS-175 EO\$BLANK\_ZERO (Blank Backwards when Zero) Enum\_Att\_Name identifier, V5.5 New Features. pattern operator, (P) MACRO, 9-176 C - 41EO\$CLEAR\_SIGNIF (Clear Significance) pattern Environment See also Management environment operator, (P) MACRO, 9-185 analyzing options, Dependability Handbook,

3-2 to 3-4

```
EO$END (End Edit) pattern operator, (P)
   MACRO, 9-177
EO$END_FLOAT (End Floating Sign) pattern
    operator, (P) MACRO, 9-178
EO$FILL (Store Fill) pattern operator, (P)
   MACRO, 9-179
EO$FLOAT (Float Sign) pattern operator, (P)
   MACRO, 9-180
EO$INSERT (Insert Character) pattern operator,
    (P) MACRO, 9-181
EO$LOAD_FILL (Load Fill Register) pattern
    operator, (P) MACRO, 9-182
EO$LOAD_MINUS (Load Sign Register If Minus)
    pattern operator, (P) MACRO, 9-182
EO$LOAD_PLUS (Load Sign Register If Plus)
    pattern operator, (P) MACRO, 9-182
EO$LOAD_SIGN (Load Sign Register) pattern
    operator, (P) MACRO, 9-182
EO$MOVE (Move Digits) pattern operator, (P)
   MACRO, 9-183
EO$REPLACE_SIGN (Replace Sign when Zero)
    pattern operator, (P) MACRO, 9-184
EO$SET_SIGNIF (Set Significance) pattern
    operator, (P) MACRO, 9-185
EO$STORE_SIGN (Store Sign) pattern operator,
    (P) MACRO, 9-186
EOB (end-of-buffer) symbol, (U) Using VMS, 8-47
EOB_TEXT keyword, (P) VAXTPU, 7-374
"Eob_text" string constant parameter to GET_
    INFO, (P) VAXTPU, 7-171
EOD command, (U) Using VMS, 6-6; (U)
    Command Procedures, 3-5; (U) DCL
   Dictionary, DCL1-206 to DCL1-207
  and DECK command, (U) DCL Dictionary,
      DCL1-111
EOF (end-of-file), (P) Programming Resources, 7–5
  status
      card reader, (P) I/O User's I, 2-2
      magnetic tape, (P) I/O User's I, 6-17
  write mailbox message, (P) I/O User's I, 7-9
EOF (end-of-file) label, (U) Files and Devices, B-3,
EOF (end-of-file) option, (P) File Def Language,
   FDL-10
EOJ command, (U) DCL Dictionary, DCL1-208
  in card reader batch job, (P) I/O User's I, 2-2
EOL command, (U) Using VMS, 8-55
EOL keypad function
  EDT, (U) Text Processing, 2-11; (U) EDT Ref,
      EDT-66
      See also Cursor movement
EOT (end-of-tape), (M) Backup, BCK-84
  status
```

magnetic tape, (P) I/O User's I, 6-17,

when reached, (M) Maintaining VMS, 3-5

6–19, 6–21 EOT (end of tape) marker

```
EOT (end-of-tape) marker, (U) Files and Devices,
EOV (end-of-volume) label, (U) Files and Devices,
    B-3, B-16
.EQ.
  in a numeric comparison, (U) DCL Concepts,
.EQS.
  in a string comparison, (U) DCL Concepts, 6-2
Equal cost path splitting, (M) Networking, 2-29,
Equal key
  default order, (U) Sort/Merge, SORT-71
EQUAL keyword
  with GSMATCH option, (P) Programming
      Resources, 5-5
Equal-or-next key option, (P) File Applications,
    8-9
Equal sign (=)
  buffer specifier
      line mode, (U) EDT Ref, EDT-120
      nokeypad mode, (U) EDT Ref, EDT-265
Equal to operator
  symbol for in expressions, (U) Command
      Procedures, 2–13
Equitable sharing
  of CPU resource, (M) Performance
       Management, 3-13
  of disk I/O resource, (M) Performance
      Management, 3-34
  of memory resource, (M) Performance
      Management, 3-27
Equivalence name, (U) VMS Intro, 3-9
  assigning to logical name, (U) DCL Dictionary,
       DCL1-39, DCL1-114
  defining, (P) System Services Intro, 6-2
  definition, (U) Using VMS, 4-1; (U) DCL
      Concepts, 4-2
  displaying for logical names, (U) DCL
      Dictionary, DCL2-329
  format convention, (P) System Services Intro,
      6 - 10
  specifying, (P) System Services Ref, SYS-81;
      Obsolete Features, 2-8
  specifying access control string in, (M)
      DECnet-VAX Guide, 2-4
EQUIVALENCE statement, (P) VAXTPU, 3-33 to
Equivalence string, (P) File Applications, 6-4
  definition, (U) Command Procedures, 2-1
$EQULST macro, (P) Device Support (B), 2-29 to
  example, (P) Device Support (B), 2-30, 2-103
ERASE built-in procedure, (P) VAXTPU, 7-117 to
ERASE CHARACTER command, (U) Using VMS,
    8-13; (U) EVE Ref, EVE-47
```

ERASE CHARACTER command (cont'd) erasing text with (EVE), (U) Text Processing, 1 - 15ERASE command, (U) Mail, MAIL-46 ERASE LINE command, (U) Using VMS, 8-13; (U) EVE Ref, EVE-48erasing text with (EVE), (U) Text Processing, 1 - 15Erase pattern Department of Defense, V5.5 Release Notes, ERASE PREVIOUS WORD command, (U) Using VMS, 8-13; (U) EVE Ref, EVE-49 erasing text with (EVE), (U) Text Processing, 1-15Erase service, (P) File Applications, 5–9; (P) RMS, RMS-32 alternative, (P) RMS, RMS-33 condition values, (P) RMS, RMS-34 See also Completion status code control block input fields, (P) RMS, RMS-33 control block output fields, (P) RMS, RMS-33 requirements for using, (P) RMS, RMS-33 use restriction, (P) RMS, RMS-33 ERASE START OF LINE command, (U) EVE Ref, EVE-50 erasing text with (EVE), (U) Text Processing, 1 - 15ERASE WORD command, (U) EVE Ref, EVE-51 erasing text with (EVE), (U) Text Processing, ERASE\_CHARACTER built-in procedure, (P) VAXTPU, 7-119 to 7-120 ERASE\_LINE built-in procedure, (P) VAXTPU, 7-121 to 7-122 ERASE\_UNMODIFIABLE keyword parameter to SET built-in procedure, (P) VAXTPU, 7-375 ERASE\_UNMODIFIABLE mode and APPEND\_LINE, (P) VAXTPU, 7-376 and CHANGE CASE, (P) VAXTPU, 7-376 and COPY\_TEXT, (P) VAXTPU, 7-376 and EDIT, (P) VAXTPU, 7-376 and ERASE (buffer), (P) VAXTPU, 7-376 and ERASE (range), (P) VAXTPU, 7-376 and ERASE\_CHARACTER, (P) VAXTPU, 7 - 376and ERASE\_LINE, (P) VAXTPU, 7-376 and FILL, (P) VAXTPU, 7-376 and MOVE\_TEXT, (P) VAXTPU, 7-376 and SPLIT\_LINE, (P) VAXTPU, 7-376 and TRANSLATE, (P) VAXTPU, 7-377 "Erase unmodifiable" string constant parameter to GET INFO, (P) VAXTPU, 7-169, 7-171 Erasing disks, (M) Security, 4-40, 5-43 Erasing text EVE editor, (U) Text Processing, 1–19

Erasing unmodifiable records, (P) VAXTPU, 7-375 Erasure operations, (P) RTL Screen Management, 2 - 7Erasure pattern, (M) Security, 4-39, 5-42 ERL\$DEVICEATTN, (P) Device Support (A), 11-10; (P) Device Support (B), 3-8 to 3-9, 4-15ERL\$DEVICERR, (P) Device Support (A), 11–10; (P) Device Support (B), 1-30, 1-80, 1-81, 3-8 to 3-9, 4-15 ERL\$DEVICTMO, (P) Device Support (A), 10-6, 11-10; (P) Device Support (B), 1-30, 1-80, 1-81, 3-8 to 3-9, 4-15 ERL\$RELEASEMB, (P) Device Support (A), 10-3; (P) Device Support (B), 3-95 ERLBUFFERPAGES parameter description, V5.5 New Features, D-2 ERRFMT process, (M) Maintaining VMS, 6-4 restarting, (M) Maintaining VMS, 6-5 starting, (M) Maintaining VMS, 6-4 ERRLOG.SYS file, (M) Maintaining VMS, 6-4 Error, (P) RTL Intro, 3-14 See also Error logging associated with I/O request, (P) Device Support (A), 11–10 avoiding in implementation, Dependability Handbook, 8-20 in software specifications, Dependability Handbook, 8-20 **BACKUP** using to recover from, (M) Maintaining VMS, 3-7 checking controlling, (U) DCL Dictionary, DCL2-182 defined, Dependability Handbook, 1-7, Glossary-2 disk structure analyzing, (M) Maintaining VMS, 4-4 repairing, (M) Maintaining VMS, 4-4 examples, Dependability Handbook, 1-11 excessive, (M) Maintaining VMS, 6-5 handling on disk volumes, (M) Maintaining VMS, 4-4 in file structure, (P) Analyze/RMS\_File, ARMS-13 in writing to the accounting log file, (M) Maintaining VMS, 6-3 locating with SET VERIFY, (U) Command Procedures, 3-12 media analyzing, (M) Maintaining VMS, 4-5 mounting disk, (M) Maintaining VMS, 2-5 not associated with I/O request, (P) Device Support (A), 11–10 recommended method for signaling, (P) RMS, 2-6

Error (cont'd) ERRORLOG.EXE, (P) System Dump Analyzer, repair, (M) Analyze/Disk, ADSK-1 reporting, (M) Analyze/Disk, ADSK-1 Error log allocation buffer, (P) Device Support (A), for image files, (U) DCL Dictionary, 11-10; (P) Device Support (B), 3-8 DCL1-22 ERRORLOGBUFFERS parameter, (M) System for object files, (U) DCL Dictionary, Generation, A-11; (M) Maintaining VMS, DCL1-26 6-15; (P) System Dump Analyzer, SDA-3 resulting from exceeding virtual address space, Error log entry (P) VAXTPU, 5–1 examining the contents of, (P) Device Support returning condition value, (P) RTL Intro, 3-15 (A), 17–33 to 17–43 servicing within driver, (P) Device Support (A), Error log file, (M) Maintaining VMS, 6-1, 6-4 1-4, 8-5; (P) Device Support (B), 3-82 to maintaining, (M) Maintaining VMS, 6-6 3 - 83messages, (M) Maintaining VMS, 6-4 signaling condition value, (P) RTL Intro, 3-15 printing, (M) Maintaining VMS, 6-6 signaling of, (P) RTL Library, 4-3 writing report, (M) Maintaining VMS, 6-6 Error check, (P) System Services Intro, 2–14; (P) Error logger File Applications, 10-1 sending message to, (P) System Services Ref, in FOLR routines, (P) RTL Math, 2-7 SYS-556 Error completion routine, (P) RMS, 2-5 Error logging, (P) Device Support (B), 1-79 to Error condition, (P) Analyze/RMS\_File, ARMS-7 1-80, 3-8 to 3-9 determining severity level, (U) Command driver prerequisites, (P) Device Support (A), Procedures, 7-2 11 - 9Error correction enabling, (P) Device Support (B), 1-75 defined, Dependability Handbook, 1-9, error log sequence number, (P) Device Support Glossarv-2 (B), 1-42Error correction strategy final error count, (P) Device Support (A), 10-3 applying to building blocks, Dependability inhibiting, (P) Device Support (B), 3-8 Handbook, 1-21in progress, (P) Device Support (B), 1-77 automobile metaphor, Dependability performed by IOC\$REQCOM, (P) Device Handbook, 1–13 Support (B), 3-95 enhancing dependability, Dependability Error logging enable bit Handbook, 1-16 See UCB\$V ERLOGIP examples, Dependability Handbook, 1-12 Error Logging Facility, (M) Maintaining VMS, Error creating shared memory reasons for, (P) RTL Parallel Processing, 3-2 Error logging routine, (P) Device Support (A), 1-4, .ERROR directive, (P) MACRO, 6-31 11-9 to 11-10; (P) Device Support (B), 1-30 Error handler See also Register dumping routine case-style, (P) VAXTPU, 3-28 to 3-31 address, (P) Device Support (A), 11-1 procedural, (P) VAXTPU, 3-26 to 3-28 global symbols, (P) System Dump Analyzer, Error handling, (P) Programming Resources, 9-1; SDA-60 (P) VAXTPU, 3-25 to 3-31, 4-38 in SCSI third-party class driver, (P) Device See also Condition handling Support (A), 17-20 to 17-22 disabling Ctrl/Y, (U) Command Procedures, Error log in progress bit 7-6 disabling error checking, (U) Command See UCB\$V\_ERLOGIP Procedures, 7-5 Error log UCB extension, (P) Device Support (B), handling I/O errors, (U) Command Procedures. 1-69, 1-80 to 1-81 Error Log Utility (ERROR LOG), (M) Maintaining in command procedures, (U) Using VMS, 6-30 VMS, 6-4description, (M) Error Log, ERR-1 specifying actions for different severity levels, directing output from, (M) Error Log, ERR-3 (U) Command Procedures, 7-4 examples, (M) Error Log, ERR-25 to ERR-36 with ON command, (U) Command Procedures, 7-4machine check, (M) Error Log, ERR-28 memory error. (M) Error Log. ERR-31 Error information register nonfatal and user bugchecks, (M) Error Log, ERR-32 ERROR lexical element, (P) VAXTPU, 3-25 time-stamp, (M) Error Log, ERR-27 ERROR LOG volume dismount, (M) Error Log, ERR-27 See Error Log Utility

Error Log Utility (ERROR LOG) examples (cont'd)	Error PPL\$_INSVIRMEM
<del>-</del>	reasons for, (P) RTL Parallel Processing,
volume mount, (M) Error Log, ERR-27	PPL-11
exiting from, (M) Error Log, ERR-3	/ERROR qualifier, (P) Debugger, 7–19, CD–117
invoking, (M) Error Log, ERR-3	in message definition, (P) Message, MSG-23
qualifiers, (M) Error Log, ERR-4 to ERR-24	Error recovery, (P) System Services Intro, 7-12
/EXCLUDE	disk, $(P) I/O User's I, 3-17$
device class keywords, V5.5 New	line printer, (P) I/O User's I, 5–3
Features, B–62	magnetic tape, $(P) I/O User$ 's $I$ , 6–9
entry type keywords, V5.5 New	shadow set virtual unit driver, $(P) I/O User's$
Features, B–62	I, 10–9
/INCLUDE	Error report
device class keywords, V5.5 New	use of, (M) Maintaining VMS, 6-5
Features, B-62	Error reporting, (M) Networking, 8-21, 8-34
entry type keywords, V5.5 New	system service status, (M) Networking, 8-21,
Features, B-62	8–34
/NODE, V5.5 New Features, B-62 to B-64	ERRORS class
restrictions, (M) Error Log, ERR-3	adding, (M) Show Cluster, SHCL-32
sample error log report, (M) Error Log,	fields belonging to, (M) Show Cluster,
ERR-25	SHCL-38
supported device types for VAXft 3000 systems,	removing, (M) Show Cluster, SHCL-67
V5.5 New Features, B-62	ERROR statement, (P) VAXTPU, 7-123 to 7-124
vector processing support, V5.5 New Features,	Error statistics
B-16	displaying with NCP commands, (M)
Error message, V5.5 New Features, 4-2; (M)	DECnet-VAX Guide, 4-3
Show Cluster, SHCL-11	Error status
DECnet-VAX hardware and software, (M)	clearing, (P) Device Support (A), 11-2
$DECnet ext{-VAX }Guide,\ 3 ext{}30$	Error status code, (P) RMS, 2-6
description of, (U) VMS Intro, 1-7	from invalid control blocks, (P) RMS, 2-6
during network operations, (M) DECnet-VAX	Error stream
$Guide,4 ext{}10$	defining for created process, (U) DCL
during remote file operations, (M) DECnet-VAX	Dictionary, DCL2-53
Guide,2–10	Error termination of a thread, (P) DECthreads,
example, $(U)$ DSR Ref, 4–2, 4–15	cma-95, cma-100, pthread-47
format, (U) Using VMS, 1–19	ERROR_LINE lexical element, (P) VAXTPU, 3-26
HLD, (M) Networking, 4-23	ERROR_LINE statement, (P) VAXTPU, 7-125 to
in DSR, (U) DSR Ref, 1-1	7-126
loopback testing, (M) Networking, 7-7	ERROR_TEXT lexical element, (P) VAXTPU, 3-26
warning, (P) Convert, CONV-3	ERROR_TEXT statement, (P) VAXTPU, 7-127 to
Error message buffer, (P) Device Support (A),	7–128
3–14, 10–3; (P) Device Support (B), 1–81,	ESA (expanded string area address)
1–83, 3–82	program example, (P) RMS, 4-12
allocating, (P) Device Support (A), 11–10; (P)	Escape character
Device Support (B), 3-8	inserting (EVE), (U) Text Processing, 1–13
filling, (P) Device Support (B), 3-9	Escape sequence
initializing, (P) Device Support (A), 11–10	ANSI, (P) I/O User's I, B-9
of third-party SCSI device driver, (P) Device	Digital-private, (P) I/O User's I, B-9
Support (A), 17–20 to 17–21	European, (U) DSR Ref, B-4
releasing, (P) Device Support (A), 10-3; (P)	module names, (U) DSR Ref, B-4
Device Support (B), 3-95	read, (P) Programming Resources, 7-53
size, (P) Device Support (B), 3-8	split into QIOs, (M) Terminal Fallback,
specifying size, (P) Device Support (A), 6-4,	TFU-23
11-9, 11-10; (P) Device Support (B), 1-30	standard, (U) DSR Ref, B-4
written into by IOC\$REQCOM, (P) Device	terminal, (P) $I/O$ User's $I$ , 8–7, 8–21
Support (B), 3–95	using from terminal devices, (P) RMS, RMS-49
Error options	ESC command, (P) Delta/XDelta, DELTA-23
for fatal errors, (M) Backup, BCK-25	ESC key equivalent, (P) Delta/XDelta, DELTA-23

Ethernet (cont'd) ESP symbol, (P) System Dump Analyzer, SDA-13 limiting routers, (M) Networking, 3-67 ESS\$STARTUP.COM, (M) LADCP, LADCP-1 line, (M) Networking, 2-13 Ethernet, V5.5 New Features, A-53; (M) line device, (M) Networking, 2-20 Networking, 1-5 line parameters, (M) Networking, 3-62 adapter, (M) VAXcluster, 1-3 line protocol, (M) Networking, 3-54 address conversion, (M) Networking, 3-66 maximum distances, Dependability Handbook, address format, (M) Networking, 3-13 7 - 11adjacent node, (M) Networking, 2-7 monitoring activity, (M) VAXcluster, 7-26 area number in address, (M) Networking, 3-14 multiaccess, (M) Networking, 1-7 area routing on, (M) Networking, A-16 multiaccess circuit, (M) DECnet-VAX Guide, broadcast address, (M) Networking, 1-7, 2-3 broadcast routing timer, (M) Networking, 3-72 multiaccess device, (M) DECnet-VAX Guide, cable, (M) DECnet-VAX Guide, 1-6, 1-7, 3-5; 1 - 7(M) Networking, 1-7 multicast address, (M) Networking, 1-7, 2-3, carrier sense, (M) Networking, 1-7 3 - 15channel, (M) DECnet-VAX Guide, 1-7 multiple adapters, (M) VAXcluster, 2-10 characteristics. (M) Networking, 1-7 network configuration, (M) Networking, 5-23 circuit, (M) Networking, 1-5, 1-7, 2-6, 3-37 node, (M) Networking, 1-7 circuit device, (M) Networking, 2-11 node address, (M) Networking, 2-2, 3-13 circuit identification, (M) Networking, 3-36 node number in address, (M) Networking, 3-14 circuit parameters, (M) Networking, 3-44 non-DECnet application, (M) Networking, A-10 circuit test, (M) DECnet-VAX Guide, 4-9 packets, (M) Networking, 1-7 configuration, (M) VAXcluster, 2-2, 2-10; (M) physical address, (M) Networking, 1-7, 2-2, Networking, 1-5 2-7, 2-20, 3-13, 4-8, 7-10 configurator module, (M) DECnet-VAX Guide, physical address definition, (M) Networking, 4-6; (M) Networking, 1-16, 1-20, 2-11, physical address values, (M) Networking, 3-15 configuring adapter, (M) VAXcluster, 7-34 port, (M) VAXcluster, C-9 datagrams, (M) Networking, 1-7 protocol, (M) Networking, 1-5, 2-7 data link for VAXcluster, (M) Networking, 1-11 providing multiple paths to, Dependability data rate, (M) Networking, 1-7 Handbook, 7-5 data transmission rate, (M) DECnet-VAX resetting physical address, (M) Networking, Guide, 1-7 3 - 13DEBNI controller, V5.5 Release Notes, 2-25 router, (M) Networking, 1-8, 2-26, 3-44 DEMNA controller, V5.5 Release Notes, 2-26 service operations, (M) Networking, 3-40 DEQTA controller, V5.5 Release Notes, 2-26 SGEC controller, V5.5 Release Notes, 2-27 designated router, (M) Networking, 1-8, 2-22, specification, (M) Networking, 1-5 2-26, 3-44 T-connector, (M) DECnet-VAX Guide, 3-5 determining physical address, (M) Networking, topology, (M) Networking, 1-7 3-14upline memory dump, (M) Networking, 4-18 device drivers, (P) I/O User's II, 6-1 Ethernet/802 drivers devices, (M) DECnet-VAX Guide, 3-5, 3-33 address displaying physical address. (M) Networking. destination, (P) I/O User's II, 6-17, 6-20 Ethernet, (P) I/O User's II, 6-2 to 6-5 downline system load, (M) Networking, 4-8 hardware, (P) I/O User's II, 6-38 dump assistance multicast address. (M) loopback assistance, (P) I/O User's II, 6-4 Networking, 4–18 multicast, (P) I/O User's II, 6-4, 6-17, end node, (M) Networking, 1-8, 2-26, 3-44 6-29, 6-30end node caching, (M) Networking, 2-27 node, (P) I/O User's II, 6-2 error log entry, (M) VAXcluster, C-21 physical, (P) I/O User's II, 6-2, 6-4, 6-17, hardware address, (M) VAXcluster, 7-5; (M) 6-31, 6-38 Networking, 2-20, 3-13, 3-62, 7-10 port, (P) I/O User's II, 6-31 implementation options, Dependability shared protocol destination, (P) I/O User's Handbook, 7–10 II, 6-26 interconnect (IEEE 802.3), Dependability source, (P) I/O User's II, 6-17 Handbook, 6–16 AST access mode, (P) I/O User's II, 6–36 lack of protection, (M) Security, 8-5

limiting end nodes, (M) Networking, 3-67

Ethernet/802 drivers (cont'd) Ethernet/802 drivers IEEE 802 (cont'd) AST service routine address, (P) I/O User's II, SAP use and restrictions, (P) I/O User's II, attention AST, (P) I/O User's II, 6-36 buffer support, (P) I/O User's II, 6-5 hardware, (P) I/O User's II, 6-23 user-supplied service packet format, (P) receive, (P) I/O User's II, 6-17, 6-23 I/O User's II, 6-11, 6-27 channel assignment, (P) I/O User's II, 6-2 write function, (P) I/O User's II, 6-19 characteristics internal loopback mode (DELUA only), (P) I/O device, (P) I/O User's II, 6-14, 6-37 User's II, 6-29 extended, (P) I/O User's II, 6-23 to 6-34, loopback mode, (P) I/O User's II, 6-24 message size, (P) I/O User's II, 6-15, 6-17, 6 - 38controller mode, (P) I/O User's II, 6-24 6-19, 6-20, 6-24 CRC generation, (P) I/O User's II, 6-25 modify characteristics, (P) I/O User's II, 6-22 data chaining, (P) I/O User's II, 6-26 multicast address state, (P) I/O User's II, 6-30 device characteristics, (P) I/O User's II, 6-14, packet format, (P) I/O User's II, 6-6 Ethernet, (P) I/O User's II, 6-6 See also Ethernet/802 drivers, extended extended 802, (P) I/O User's II, 6-13 characteristics IEEE 802, (P) I/O User's II, 6-10 drivers, (P) I/O User's II, 6-1 set mode parameters, (P) I/O User's II, initializing, (P) I/O User's II, 6-2 SNAP SAP value, (P) I/O User's II, 6-14 operating, (P) I/O User's II, 6-2 driver service (802 format), (P) I/O User's II, user-supplied service, (P) I/O User's II, 6 - 346 - 11echo mode (DEUNA only), (P) I/O User's II, padding 6 - 27message size, (P) I/O User's II, 6-15, 6-19 error summary bits, (P) I/O User's II, 6-15 transmit messages, (P) I/O User's II, 6-30 Ethernet, (P) I/O User's II, 6-1, 6-2, 6-7 parameter ID, (P) I/O User's II, 6-22 Ethernet addresses, (P) I/O User's II, 6-2 packet format, (P) I/O User's II, 6-34 Ethernet packet format, (P) I/O User's II, 6-6 parameter validation, (P) I/O User's II, 6-35 Ethernet packet padding, (P) I/O User's II, 6-8 port, (P) I/O User's II, 6-1 Ethernet programming example, (P) I/O User's address, (P) I/O User's II, 6-23 II, 6-41start, (P) I/O User's II, 6-22 exclusive mode, (P) I/O User's II, 6-9 privilege, (P) I/O User's II, 6-17 programming example, (P) I/O User's II, 6-41, extended characteristics, (P) I/O User's II, 6-23 to 6-34, 6-37 programming notes, (P) I/O User's II, 6-40 function codes, (P) I/O User's II, 6-16, A-6 promiscuous mode, (P) I/O User's II, 6-32, function modifiers, (P) I/O User's II, 6–19, 6-21, 6-22, 6-36 to 6-37 hardware buffer size, (P) I/O User's II, 6-23 rules for, (P) I/O User's II, 6–41 hardware interface, (P) I/O User's II, 6-2 protocol type, (P) I/O User's II, 6-1, 6-17, I/O functions, (P) I/O User's II, 6–17, 6–19, 6-20, 6-326-21, 6-37 access mode, (P) I/O User's II, 6-23 I/O status block, (P) I/O User's II, 6-39 cross-company, (P) I/O User's II, 6-7 **IEEE 802** Digital, (P) I/O User's II, 6-7 Class I service packet format, (P) I/O Ethernet, (P) I/O User's II, 6-7 User's II, 6-10, 6-27 sharing, (P) I/O User's II, 6-9 protocol type sharing, (P) I/O User's II, 6-9 driver service parameter, (P) I/O User's II, read function, (P) I/O User's II, 6-17 6 - 34restart, (P) I/O User's II, 6-33 extended packet format, (P) I/O User's II, sense mode function, (P) I/O User's II, 6-37 6-13, 6-27802 format SAP parameter, (P) I/O User's Service Access Point (SAP), (P) I/O User's II, II, 6-33 6 - 12group SAP parameter, (P) I/O User's II, set controller mode, (P) I/O User's II, 6-22 extended characteristics, (P) I/O User's II, programming example, (P) I/O User's II, 6-23 to 6-34 P2 buffer, (P) I/O User's II, 6-22 read function, (P) I/O User's II, 6-17 parameter ID, (P) I/O User's II, 6-22

Ethernet/802 drivers	EVALUATE/ADDRESS command, (P) Debugger,
set controller mode (cont'd)	3–12, 3–17, 4–12, CD–79
protocol type sharing, (P) I/O User's II, 6–9	EVALUATE command, (P) Debugger, 4-5, CD-77;
set mode function, (P) I/O User's II, 6-21	(P) Patch, PAT-59 to PAT-61; (P) System
shared default mode, (P) I/O User's II, 6-9	Dump Analyzer, SDA-48
shared with destination mode, (P) I/O User's	EVALUATE/PSL command, (P) System Dump
	Analyzer, SDA-22
II, 6–9 shutdown controller mode, (P) $I/O$ User's $II$ ,	Evaluation checklists
6–36	for data centers
shutdown port, (P) I/O User's II, 6–36	application software, Dependability
software interface, (P) I/O User's II, 6–2	$Handbook,  ext{A}18$
status returns, (P) I/O User's II, A-6	compliance summary table, Dependability
supported devices, (P) I/O User's II, A=0 supported devices, (P) I/O User's II, 6–1	Handbook, A-21
SYS\$ASSIGN, (P) I/O User's II, 6–2	environmental management, Dependability
SYS\$DASSGN, (P) I/O User's II, 6–2	Handbook, A-5
SYS\$GETDVI, (P) I/O User's II, 6–14	general planning, Dependability
transmit/receive buffer size, (P) I/O User's II,	Handbook, A-3
6–23	in SYS\$EXAMPLES, Dependability
unit and line status, (P) I/O User's II, 6–15	Handbook, A-1
write function, (P) $I/O$ User's $II$ , 6–19	organization, Dependability Handbook,
Ethernet/820 controllers	A-8
circuit name, V5.5 New Features, B-105	security, Dependability Handbook, A-10
line name, V5.5 New Features, B-105	service and support, Dependability
Ethernet address, (M) Network Control Program,	Handbook, A-20
NCP-8	suggested use of, Dependability Handbook,
See also LAN address	A-1
Ethernet configurator	Evaluation precedence, (P) Delta/XDelta,
	DELTA-9
See NICONFIG	Evasive action
Ethernet controller	duration, (M) Security, 5-24
See LAN controller	invoked as counteraction for break-in, (M)
Ethernet link	Security, 5–23
See also Data link	EVE\$INIT.EVE file, (U) EVE Ref, 1–24, 1–32
Ethernet loopback test, (M) Networking, 7-9	EVE\$INIT logical name, (U) DCL Dictionary,
to remote system, (M) Networking, 7-10	DCL1-194; (U) EVE Ref, 1-11, 1-24, 1-32
using UNA device, (M) Networking, 7-10	EVE attributes
Ethernet Network Integrity Monitor	saving in command file, (U) Text Processing,
See ETHERnim	1–77
ETHERnim (Ethernet Network Integrity Monitor)	saving in section file, (U) Text Processing, 1–73
introduction, Dependability Handbook, 7-23	EVE command file
use at CSC lights out data center,	See Command file
$Dependability \ Handbook, \ 11 ext{}21$	EVE command line
ETO (extended terminal operation) option, (P) RMS, RMS-49	correcting mistakes on, (U) Text Processing, 1–6
See also RAB\$V_ETO option	EVE commands
ETYPE, (P) MACRO, 10-6, 10-69	ATTACH, (U) Text Processing, 1–67
Euclidean norm	BOTTOM, (U) Text Processing, 1–8
of a vector, (P) RTL Math, MTH-170	BOX COPY, (U) Text Processing, 1–22, 1–23
Evaluate	BOX CUT, (U) Text Processing, 1–22, 1–23
%CURVAL built-in symbol, (P) Debugger, 4–6, CD–78, D–5	BOX CUT INSERT, (U) Text Processing, 1–22, 1–24
expression, (P) Debugger, 4-3, 4-5, CD-77	BOX CUT OVERSTRIKE, (U) Text Processing,
with DECwindows, (P) Debugger, 1–25	$1-22,\ 1-24$
memory address, (P) Debugger, 4–12, CD–79	BOX PASTE, (U) Text Processing, 1–22, 1–23
with DECwindows, (P) Debugger, 1–24	BOX PASTE INSERT, (U) Text Processing,
task, (P) Debugger, 12–12	$1-22,\ 1-24$
	BOX PASTE OVERSTRIKE, (U) Text
	Processing $1-22$ $1-24$

EVE commands (cont'd) EVE commands (cont'd) BOX SELECT, (U) Text Processing, 1-22 OPEN SELECTED, (U) Text Processing, 1-48 BUFFER, (U) Text Processing, 1-47 OVERSTRIKE MODE, (U) Text Processing, CAPITALIZE WORD, (U) Text Processing, 1–39 CENTER LINE, (U) Text Processing, 1-39 PAGINATE, (U) Text Processing, 1-40 CHANGE DIRECTION, (U) Text Processing, PASTE, (U) Text Processing, 1-18 PREVIOUS SCREEN, (U) Text Processing, 1-9 CHANGE MODE, (U) Text Processing, 1–12 PREVIOUS WINDOW, (U) Text Processing, COPY, (U) Text Processing, 1–19 1-9, 1-55 CUT, (U) Text Processing, 1-19 QUIT, (U) Text Processing, 1–3 DELETE, (U) Text Processing, 1-15 QUOTE, (U) Text Processing, 1-13 DELETE BUFFER, (U) Text Processing, 1-47 RECOVER BUFFER, (U) Text Processing, 1–37 DELETE WINDOW, (U) Text Processing, 1–55 RECOVER BUFFER ALL, (U) Text Processing, END OF LINE, (U) Text Processing, 1-8 ENLARGE WINDOW, (U) Text Processing, REMOVE, (U) Text Processing, 1-19, 1-48 REPEAT, (U) Text Processing, 1-7 1-55ERASE CHARACTER, (U) Text Processing, RESET, (U) Text Processing, 1–19 1 - 15RESTORE, (U) Text Processing, 1-16 ERASE LINE, (U) Text Processing, 1–15 RESTORE BOX SELECTION, (U) Text ERASE PREVIOUS WORD, (U) Text Processing, 1-22, 1-25 RESTORE CHARACTER, (U) Text Processing, Processing, 1–15 ERASE START OF LINE, (U) Text Processing, 1-16RESTORE LINE, (U) Text Processing, 1–16 1 - 15ERASE WORD, (U) Text Processing, 1–16 RESTORE SELECTION, (U) Text Processing, EXIT, (U) Text Processing, 1-3 1-16, 1-19, 1-25 EXTEND EVE, (U) Text Processing, 1-70 RESTORE WORD, (U) Text Processing, 1–16 EXTEND THIS, (U) Text Processing, 1–70 REVERSE, (U) Text Processing, 1-9 FILL, (U) Text Processing, 1-39 SAVE ATTRIBUTES, (U) Text Processing, FILL PARAGRAPH, (U) Text Processing, 1–39 1-60, 1-61, 1-65, 1-72, 1-73, 1-76 FILL RANGE, (U) Text Processing, 1-40 SAVE EXTENDED EVE, (U) Text Processing, FIND, (U) Text Processing, 1-26 1-60, 1-61, 1-65, 1-73 FIND NEXT, (U) Text Processing, 1-26 SAVE FILE, (U) Text Processing, 1-48 FIND SELECTED, (U) Text Processing, 1–26 SAVE FILE AS, (U) Text Processing, 1-48 FORWARD, (U) Text Processing, 1–9 SAVE SYSTEM ATTRIBUTES, (U) Text GET FILE, (U) Text Processing, 1-47 Processing, 1-72 GO TO, (U) Text Processing, 1-32, 1-47 SELECT, (U) Text Processing, 1-19, 1-48 HELP, (U) Text Processing, 1-35 SELECT ALL, (U) Text Processing, 1–19 INCLUDE FILE, (U) Text Processing, 1-12, SET BOX NOPAD, (U) Text Processing, 1-22, 1-471 - 25INSERT HERE, (U) Text Processing, 1–18 SET BOX NOSELECT, (U) Text Processing, INSERT MODE, (U) Text Processing, 1–12 1-22, 1-24INSERT PAGE BREAK, (U) Text Processing, SET BOX PAD. (U) Text Processing, 1-22, 1-25 1-40SET BOX SELECT, (U) Text Processing, 1-22, LEARN, (U) Text Processing, 1–61 LINE, (U) Text Processing, 1-9 SET BUFFER, (U) Text Processing, 1-48 LOWERCASE WORD, (U) Text Processing, SET CURSOR BOUND, (U) Text Processing, 1 - 401 - 10MARK, (U) Text Processing, 1-32 SET CURSOR FREE, (U) Text Processing, 1–10 MOVE BY LINE, (U) Text Processing, 1-9 SET DEFAULT COMMAND FILE, (U) Text MOVE BY PAGE, (U) Text Processing, 1-9 Processing, 1-73, 1-77 MOVE BY WORD, (U) Text Processing, 1-9 SET DEFAULT SECTION FILE, (U) Text NEW, (U) Text Processing, 1-48 Processing, 1-73, 1-76 NEXT BUFFER, (U) Text Processing, 1-48 SET EXIT ATTRIBUTE CHECK, (U) Text NEXT SCREEN, (U) Text Processing, 1–9 Processing, 1-73 NEXT WINDOW, (U) Text Processing, 1-9. SET FIND CASE EXACT, (U) Text Processing, ONE WINDOW, (U) Text Processing, 1-55 SET FIND CASE NOEXACT, (U) Text OPEN, (U) Text Processing, 1-47 Processing, 1-26

```
EVE commands (cont'd)
                                                   EVE commands (cont'd)
  SET FIND NOWHITESPACE, (U) Text
                                                      SHOW DEFAULTS BUFFERS, (U) Text
      Processing, 1-26
                                                          Processing, 1-49
  SET FIND WHITESPACE, (U) Text Processing,
                                                      SHOW SYSTEM BUFFERS, (U) Text
                                                          Processing, 1-49
  SET GOLD KEY, (U) Text Processing, 1-59
                                                      SHOW WILDCARDS, (U) Text Processing,
  SET JOURNALING. (U) Text Processing, 1–37
  SET JOURNALING ALL, (U) Text Processing,
                                                      SHRINK WINDOW, (U) Text Processing, 1-56
                                                      SPAWN, (U) Text Processing, 1–67
  SET LEFT MARGIN, (U) Text Processing, 1-40
                                                      SPLIT WINDOW, (U) Text Processing, 1-56
  SET NODEFAULT COMMAND FILE, (U) Text
                                                      START OF LINE, (U) Text Processing, 1–10
      Processing, 1-73
                                                      STORE TEXT. (U) Text Processing, 1–19
                                                      TOP, (U) Text Processing, 1-10
  SET NODEFAULT SECTION FILE, (U) Text
      Processing, 1–73, 1–76
                                                      TPU, (U) Text Processing, 1-68
  SET NOEXIT ATTRIBUTE CHECK, (U) Text
                                                      TWO WINDOWS, (U) Text Processing, 1-56
                                                      UNDEFINE KEY, (U) Text Processing, 1-61
      Processing, 1–73; (U) EVE Ref, EVE–53,
      EVE-105
                                                      UPPERCASE WORD, (U) Text Processing,
  SET NOGOLD KEY, (U) Text Processing, 1-59
  SET NOJOURNALING, (U) Text Processing,
                                                      WILDCARD FIND, (U) Text Processing, 1–26
                                                      WRITE FILE, (U) Text Processing, 1-49
      1 - 37
  SET NOJOURNALING ALL, (U) Text
                                                   EVE editing keys
                                                      Ctrl/A, (U) Text Processing, 1-12
      Processing, 1–37
  SET NOPENDING DELETE, (U) Text
                                                      Ctrl/E, (U) Text Processing, 1-8
      Processing, 1-19
                                                      Ctrl/H, (U) Text Processing, 1-8
  SET NOSECTION FILE PROMPTING, (U)
                                                      Ctrl/I, (U) Text Processing, 1-39
      Text Processing, 1-73, 1-76, 1-78
                                                      Ctrl/J, (U) Text Processing, 1-14
  SET NOSHIFT KEY, (U) Text Processing, 1-59
                                                      Ctrl/L, (U) Text Processing, 1–39
  SET NOWRAP, (U) Text Processing, 1-41
                                                      Ctrl/M, (U) Text Processing, 1-39
  SET PARAGRAPH INDENT, (U) Text
                                                      Ctrl/U, (U) Text Processing, 1-14
                                                      Ctrl/V, (U) Text Processing, 1–12
      Processing, 1-40
  SET PENDING DELETE, (U) Text Processing,
                                                      Delete key, (U) Text Processing, 1-14
                                                      down arrow, (U) Text Processing, 1-8
                                                      Find key, (U) Text Processing, 1-27
  SET RIGHT MARGIN, (U) Text Processing,
                                                      GOLD-\uparrow, (U) Text Processing, 1-8
  SET SCROLL MARGINS, (U) Text Processing,
                                                      GOLD-\downarrow, (U) Text Processing, 1-8
                                                      GOLD-\leftarrow, (U) Text Processing, 1-8
  SET SECTION FILE PROMPTING, (U) Text
                                                      GOLD-→, (U) Text Processing, 1-8
      Processing, 1-73, 1-76
                                                      GOLD-F13, (U) Text Processing, 1-15
  SET SHIFT KEY, (U) Text Processing, 1-59
                                                      GOLD-Insert Here, (U) Text Processing, 1-15
  SET TABS AT, (U) Text Processing, 1-40
                                                      GOLD-Next Screen, (U) Text Processing, 1-8,
  SET TABS EVERY, (U) Text Processing, 1–40
                                                          1 - 55
  SET TABS INSERT, (U) Text Processing, 1–40
                                                      GOLD-Prev Screen, (U) Text Processing, 1-8,
  SET TABS INVISIBLE, (U) Text Processing,
                                                      GOLD-Remove, (U) Text Processing, 1-18
      1 - 41
  SET TABS MOVEMENT, (U) Text Processing,
                                                      GOLD-Select, (U) Text Processing, 1-18
                                                      Insert Here, (U) Text Processing, 1-18
                                                      left arrow, (U) Text Processing, 1-8
  SET TABS SPACES, (U) Text Processing, 1–41
  SET TABS VISIBLE, (U) Text Processing, 1-41
                                                      Remove, (U) Text Processing, 1-18
  SET WIDTH, (U) Text Processing, 1-56
                                                      Return, (U) Text Processing, 1-39
  SET WILDCARD ULTRIX, (U) Text Processing,
                                                      right arrow, (U) Text Processing, 1-8
      1 - 26
                                                      Select, (U) Text Processing, 1-18
  SET WILDCARD VMS, (U) Text Processing,
                                                      Tab, (U) Text Processing, 1-39
                                                      up arrow, (U) Text Processing, 1-8
      1 - 26
  SET WRAP, (U) Text Processing, 1-41
                                                   EVE editor
  SHIFT LEFT, (U) Text Processing, 1-10, 1-56
                                                      abbreviating commands, (U) Text Processing,
  SHIFT RIGHT, (U) Text Processing, 1-10, 1-56
  SHOW, (U) Text Processing, 1-48
                                                      adjusting margins with, (U) Using VMS, 8-26
  SHOW BUFFERS, (U) Text Processing, 1-48
                                                      as default MAIL editor, (U) Using VMS, 1-35
```

EVE editor (cont'd) EVE editor (cont'd) input files, (U) DCL Dictionary, DCL1-189, assigning multiple definitions to a key, (U) Text DCL1-192; (P) VAXTPU, 5-20 Processing, 1-62 batch editing, (U) DCL Dictionary, DCL1-191, inserting text, (U) Text Processing, 1-12, 1-20 DCL1-194 invoking, (U) DCL Dictionary, DCL1-189 buffer journaling, (U) DCL Dictionary, DCL1-195, commands for using, (U) Using VMS, 8-31 DCL1-198 key definitions assigning, (U) Using VMS, 8-39 to 8-40, definition, (U) Using VMS, 8-2 reading file into, (U) Using VMS, 8-34 8-41 writing, (U) Using VMS, 8-34 removing, (U) Using VMS, 8-40 buffer-change journaling, (U) Text Processing, keypad diagram for VT100-series terminal, (U) Using VMS, building applications on, (P) VAXTPU, G-1 to for VT200- and VT300-series terminals, centering text with, (U) Using VMS, 8-30 (U) Using VMS, 8-4 changing case of text with, (U) Using VMS, keypad emulation 8-30 EDT, (P) Programming Resources, 1–5 command window, (P) VAXTPU, 4-16 numeric, (P) Programming Resources, 1-5 copying text, (U) Text Processing, 1-21 VT100, (P) Programming Resources, 1–5 creating a scratchpad, (U) Text Processing, WPS, (P) Programming Resources, 1–5 keystroke journaling, (U) Text Processing, 1-37 creating buffers, (U) Text Processing, 1-52 leaving subprocess, (U) Text Processing, 1-67 marking locations, (U) Using VMS, 8-19; (U) creating command symbol for, (U) Text Processing, 1–3 Text Processing, 1–31 message buffer, (P) VAXTPU, 4-18 creating subprocess, (U) Text Processing, 1-67 cursor control in, (U) Using VMS, 8-8 message window, (P) VAXTPU, 4-16 customizing editing sessions, (U) Text modes of editing, (U) Text Processing, 1-2 moving text, (U) Text Processing, 1-18 Processing, 1-75 DECwindows interface, (U) DCL Dictionary, moving the cursor, (U) Text Processing, 1-8 DCL1-193, DCL1-195 order of initialization, (P) VAXTPU, G-4 \$DEFAULTS\$ buffer, (P) VAXTPU, 4-32 output file, (U) DCL Dictionary, DCL1-197; defining keys, (U) Text Processing, 1–60 (P) VAXTPU, 5–13, 5–20 defining keys to execute a command, (U) Text reaching DCL, (U) Text Processing, 1-67 reading batch job log file with, (U) Using VMS, Processing, 1-60 defining keys with LEARN, (U) Text reading file into buffer, (U) Text Processing, Processing, 1-61 editing command lines, (U) Text Processing, 1-54recalling commands, (U) Text Processing, 1-7 1-6 editing modes, (U) Using VMS, 8-7 recovering session after system interruption, entering commands, (U) Using VMS, 8-6; (U) (U) Using VMS, 8-23 recovery from system failure, (U) DCL Text Processing, 1-4, 1-7 erasing text, (U) Text Processing, 1-14, 1-19 Dictionary, DCL1-198 exiting from, (U) Using VMS, 8-3 removing key definitions, (U) Text Processing, extending, (U) Text Processing, 1-69 1-61filling text in, (U) Using VMS, 8-29 replacing text, (U) Using VMS, 8-20; (U) Text finding text, (U) Text Processing, 1-26 Processing, 1-14, 1-33 formatting text, (U) Using VMS, 8-24; (U) restriction on defining GOLD key, (P) VAXTPU, 7-472 Text Processing, 1–39 getting started with, (U) Text Processing, 1-1 sample procedures, (P) VAXTPU, B-1 to B-33 section file, (U) DCL Dictionary, DCL1-200 in insert mode, (U) Using VMS, 8-11 initialization files, (U) DCL Dictionary, setting margins, (U) Text Processing, 1-41 DCL1-194; (P) VAXTPU, 4-31 to 4-33, source files, (P) VAXTPU, 4-3 spawning out of, (U) Using VMS, 8-46 during a session, (P) VAXTPU, 4-32 start position. (U) DCL Dictionary, DCL1-202 effects on buffer settings, (P) VAXTPU, status line, (P) VAXTPU, G-7 4 - 32use of EDIT/TPU command qualifiers, (P) in overstrike mode, (U) Using VMS, 8-11 VAXTPU, 5-18

EVE editor (cont'd) Event network (cont'd) user window, (P) VAXTPU, 4-16 using buffers, (U) Text Processing, 1-47 type, (M) DECnet-VAX Guide, 4-5 using windows, (U) Text Processing, 1-55 Network Management layer, (M) Network wildcard characters in file specifications, (P) Control Program, A-23 VAXTPU, 5-20 notification for abnormal exit, (P) RTL Parallel wildcards in file names, (P) VAXTPU, 5-20 Processing, 4-9 window, (U) Using VMS, 8-35 notification for normal exit, (P) RTL Parallel definition, (U) Using VMS, 8-2 Processing, 4-9 writing VAXTPU procedure for, (U) Text predefined, (P) RTL Parallel Processing, 4-9 Processing, 1-69 reading, (P) RTL Parallel Processing, 4-8 resetting, (P) RTL Parallel Processing, 4-8 EVE editor\$BUILD, (P) VAXTPU, G-1 to G-12 exit and quit handlers, (P) VAXTPU, G-8 Routing layer, (M) Network Control Program, initialization modules, (P) VAXTPU, G-4 to G-5security, (M) Security, 6-1 invoking, (P) VAXTPU, G-10 to G-11 Session Control layer, (M) Network Control output, (P) VAXTPU, G-11 to G-12 Program, A-25status line field, (P) VAXTPU, G-7 to G-8 sink-related, (M) Networking, 2-37 synonym creation, (P) VAXTPU, G-5 to G-7 source-related, (M) Networking, 2-37 using parsing routines with, (P) VAXTPU, G-3 tasking (multithread) program, (P) Debugger, to G-4 12 - 27EVE editor\$GET\_STATUS\_FIELDS procedure, triggering, (P) RTL Parallel Processing, 4-8 (P) VAXTPU, G-8type, (M) Networking, 3-89 EVE editor\$INIT logical name, (P) VAXTPU, 4-31 VMS-specific, (M) Network Control Program, EVE editor\$PARSER\_DISPATCH procedure, (P) VAXTPU, G-3 X.25 Packet level, (M) Network Control EVE editor\$SELECTION procedure Program, A-33 using to obtain EVE's current selection, (P) Event class VAXTPU, 4-17 See Security event class EVE editor default settings, (P) VAXTPU, 4-32 to Event class and type summary, (M) Network 4 - 33Control Program, A-22 to A-35 EVE initialization file Event facility, (P) Debugger, 12–27, CD–136, See also Initialization file saving attributes in, (U) Text Processing, 1-78 Event flag, (P) Programming Resources, 4-1; EVE keypad options (P) Modular Procedures, 2–16; (P) System Services Ref, SYS-167; (P) Device Support See Kevpad (B), 1–39 .EVEN directive, (P) MACRO, 6-33 See also Synchronization Event allocation of, (P) RTL Library, 2–17 awaiting, (P) RTL Parallel Processing, 4-7 clearing, (P) System Services Intro, 4-4; (P) breakpoint or tracepoint on, (P) Debugger, 3-14 class, (M) Security, 6-4; (M) Networking, 3-89 System Services Ref, SYS-74 creating, (P) RTL Parallel Processing, 4-5 cluster, (P) Programming Resources, 4-1; (P) Data Link layer, (M) Network Control Routines Intro. A-5t Program, A-31 common, (P) Programming Resources, 4-1 definition, (M) Networking, 2-37 \$DNS system service, V5.5 New Features, C-25 definition of, (P) RTL Parallel Processing, 4-5 for interprocess communication, (P) System deleting, (P) RTL Parallel Processing, 4-6 Services Intro, 8–10 disabling, (P) RTL Parallel Processing, 4-7 for synchronous operations, (P) RMS, 2-7 End Communications layer. (M) Network getting current status, (P) System Services Ref, Control Program, A-26 SYS-489 handling for aborted I/O request, (P) Device identification of, (M) Networking, 3-89 identifying location of, (M) Networking, 3-90 Support (B), 3-11 local, (P) Programming Resources, 3-2, 4-1 identifying source for, (M) Networking, 3–90 list, (M) Networking, 2–37 number, (P) Routines Intro, A-5t network posting, (P) Device Support (A), 4-20 class, (M) DECnet-VAX Guide, 4-5 RTL routine to free, (P) RTL Library, LIB-174 message format, (M) DECnet-VAX Guide,

4-6

Event flag (cont'd) Event synchronization (cont'd) setting, (P) System Services Intro, 4-4; (P) PPL\$ routines for, (P) RTL Parallel Processing, System Services Ref. SYS-514; (P) Device 4-5 to 4-8 Support (A), 2–7 Event type specifying, (P) System Services Intro, 4-2 See Security event class wait, (P) System Services Intro, 4-3 EVENT FLAGS AND ASTS.EXE waiting for entire set of, (P) System Services global symbols, (P) System Dump Analyzer, Ref. SYS-668 SDA-60 waiting for one of set, (P) System Services Ref, /EVENT\_TYPE qualifier, (M) Audit Analysis, SYS-670 AUD-14 waiting for setting of, (P) System Services Ref, EVE section file SYS-663 See also Section file Event flag cluster, (P) System Services Intro, 4-2 saving attributes in, (U) Text Processing, 1-73 associating with a process, (P) System Services EVE source code, (U) Text Processing, 1-69 Ref, SYS-22 EVE source files, (P) VAXTPU, 1-11 deleting, (P) System Services Intro, 4-5; (P) EVL (event logger), (M) Networking, 1-16, 2-32, System Services Ref. SYS-165 disassociating, (P) System Services Intro, 4-5; EX (exit to line mode) command, (U) EDT Ref, (P) System Services Ref, SYS-127 EDT-287 getting current status, (P) System Services Ref, Exact key match, (P) File Applications, 8-11 SYS-489 EXACT keyword number, (P) System Services Intro, 4-2 with LEARN\_BEGIN, (P) VAXTPU, 7-244 specifying name for, (P) System Services Intro, with SEARCH, (P) VAXTPU, 7-328 with SEARCH\_QUIETLY, (P) VAXTPU, 7-333 Event flag number, (P) System Services Intro, 4-2 EXACT\_POSITIONING attribute, (P) File Def Event flag routines Language, FDL-7 global symbols, (P) System Dump Analyzer, EXACT\_POSITIONING secondary attribute, (P) SDA-60 File Applications, 4-31 Event flag service Examine example using, (P) System Services Intro, 4-8 address, (P) Debugger, 4-23 Event list, (M) Network Control Program, NCP-8 with DECwindows, (P) Debugger, 1-25 Event logger EXAMINE command, (P) Debugger, 4-2, CD-81 See EVL instruction, (P) Debugger, 4-19, 11-9 Event logging with DECwindows, (P) Debugger, 1-24 DECnet-VAX, (M) DECnet-VAX Guide, 4-1, register, (P) Debugger, 4-22, 11-4 disabling, (M) DECnet-VAX Guide, 4-6 with DECwindows, (P) Debugger, 1-25 task, (P) Debugger, 12-12, 12-26 enabling, (M) DECnet-VAX Guide, 3-31 using vector mask, (P) Debugger, 11-13 example, (M) Networking, 3-91 variable, (P) Debugger, 4-2, 4-14 network, (M) DECnet-VAX Guide, 3-13 with DECwindows, (P) Debugger, 1-24 Event messages vector address expression, (P) Debugger, 11-16 DNS, V5.5 New Features, C-73 vector instruction, (P) Debugger, 11-9 Event notification vector register, (P) Debugger, 11-4 pseudoterminal, (P) I/O User's I, 9-6 Examine button **Eventpoint** with DECwindows, (P) Debugger, 1-9 See Breakpoint, Tracepoint, Watchpoint EXAMINE command, (U) DCL Concepts, 7-1, /EVENT qualifier, (P) Debugger, 3-14, 12-27, 7-4; (U) DCL Dictionary, DCL1-209 to 12-29, CD-17, CD-30, CD-125, CD-184 DCL1-211; (P) Debugger, 4-2, CD-81; (P) Event record Patch, PAT-62 to PAT-64; (P) System Dump See Security event record Analyzer, SDA-16, SDA-24, SDA-51 EVENTS display type, (M) Networking, 3-99 and DEPOSIT command, (U) DCL Dictionary, Events reported, (M) Error Log, ERR-1 DCL1-147 Event synchronization length qualifier, (U) DCL Dictionary, See also Synchronization DCL1-210 advantages and disadvantages, (P) RTL

Parallel Processing, 5-7

EXAMINE/INSTRUCTION command, (P) Debugger, 4-19, 7-9, C-5; (P) System Dump Analyzer, SDA-23 EXAMINE/OPERANDS command, (P) Debugger, 4-19, 11-9 EXAMINE/SOURCE command, (P) Debugger, 6-4, 7-6, C-4 "Examine" string constant parameter to GET INFO, (P) VAXTPU, 7-179 Example program in VAX BLISS-32, (P) RTL Parallel Processing, in VAX C, (P) RTL Parallel Processing, 6-14 in VAX FORTRAN, (P) RTL Parallel Processing, 6-9 prime number search, (P) DECthreads, 5-1 Examples, (P) SUMSLP, SUM-21 See also PATCH command, qualifiers See also PATCH commands See also Using symbols adding lines, (P) SUMSLP, SUM-8, SUM-9 allocating file window mapping pointers, (M) Mount, MOUNT-42 analyzing a file interactively, (P) Analyze/RMS\_File, ARMS-36 analyzing a remote file, (P) Analyze/RMS\_File, ARMS-36 annotated, (M) Analyze/Disk, C-4 to C-10 appending a remote file, (P) Convert, CONV-30 audit trail text, (P) SUMSLP, SUM-12 /BEFORE qualifier, (M) Error Log, ERR-5 /BINARY qualifier, (M) Error Log, ERR-6 brief format, (M) Accounting, ACC-2 /BRIEF qualifier, (M) Error Log, ERR-7 brief report, (M) Error Log, ERR-35 cluster multifile summary, (M) Monitor, MON-94 comparing files, (M) Backup, BCK-21, BCK-39 concurrent display and recording, (M) Monitor, MON-91 converting a carriage control file to stream, (P) Convert, CONV-30 converting a carriage control file to variable length, (P) Convert, CONV-30 converting a remote file, (P) Convert, CONV-29 converting fixed format to variable length, (P) Convert, CONV-30 converting record formats, (P) Convert, CONV-29 copying files, (M) Backup, BCK-16, BCK-19 creating a disk usage accounting file, (M) Analyze/Disk, ADSK-10 creating a journal file, (M) Backup, BCK-61 creating an FDL file, (P) Analyze/RMS\_File, ARMS-36

creating an FDL file from a remote file, (P)

Analyze/RMS\_File, ARMS-36

Examples (cont'd) creating a volume set, (M) Mount, MOUNT-9 deleting lines, (P) SUMSLP, SUM-9 directing ACCOUNTING output, (M) Accounting, ACC-40 disabling automatic volume rebuild, (M) Mount, MOUNT-35 /ENTRY qualifier, (M) Error Log, ERR-8 /EXCLUDE qualifier, (M) Error Log, ERR-11 full format, (M) Accounting, ACC-2 /FULL qualifier, (M) Error Log, ERR-12, ERR-24 image mode, (M) Backup, BCK-56 improving a file's performance, (P) Convert, CONV-29 /INCLUDE qualifier, (M) Error Log, ERR-15, ERR-18, ERR-19, ERR-24 incremental save operation, (M) Backup, BCK-16, BCK-57 initializing an output disk, (M) Backup, **BCK-59** interactive patch session, (P) Patch, PAT-92 listing accounting files, (M) Accounting, ACC-39 listing file, (P) SUMSLP, SUM-6 live display monitoring, (M) Monitor, MON-90 live recording, (M) Monitor, MON-90 /LOG qualifier, (M) Error Log, ERR-16 machine check, (M) Error Log, ERR-28 making a volume public with MOUNT, (M) Mount, MOUNT-40 memory error, (M) Error Log, ERR-31 modifying an FDL file, (P) File Def Language, FDL-68 modifying an FDL file noninteractively, (P) File Def Language, FDL-68 mounting an ANSI-labeled magnetic tape, (M) Mount, MOUNT-25 mounting a volume clusterwide, (M) Mount, MOUNT-14 nonfatal and user bugchecks, (M) Error Log, ERR-32 OUTPUT qualifier, (M) Error Log, ERR-17 overriding volume protection checks, (M) Mount, MOUNT-30 physical save operation, (M) Backup, BCK-17 playback, (M) Monitor, MON-92 protecting an output save-set, (M) Backup, BCK-77 rebuilding a volume, (M) Mount, MOUNT-35 reclaiming buckets, (P) Convert, CONV-29 /REGISTER\_DUMP qualifier, (M) Error Log, ERR-18 /REJECTED qualifier, (M) Error Log, ERR-19 remote playback, (M) Monitor, MON-93 reorganizing a remote file, (P) Convert, CONV-29

Examples (cont'd) repairing errors on a disk volume, (M) Analyze / Disk, ADSK-9 requesting operator assistance, (M) Mount, MOUNT-7 rerecording, (M) Monitor, MON-93 restoring files, (M) Backup, BCK-18 sample error log report, (M) Error Log, ERR-25saving entire volumes, (M) Backup, BCK-17 saving files, (M) Backup, BCK-18 selecting records, (M) Accounting, ACC-39 selective save operation, (M) Backup, BCK-16 /SID\_REGISTER qualifier, (M) Error Log, ERR-20 /SINCE qualifier, (M) Error Log, ERR-21 sorting records, (M) Accounting, ACC-40 specifying a protection code, (M) Mount, MOUNT-33 specifying a save set label, (M) Backup, BCK-65 specifying a shareable volume, (M) Mount, MOUNT-39 specifying block size, (M) Backup, BCK-32 specifying block size for magnetic tape, (M) Mount, MOUNT-10 specifying default block extent, (M) Mount, MOUNT-20 specifying density for magnetic tape, (M) Backup, BCK-46; (M) Mount, MOUNT-19 specifying I/O buffers, (M) Backup, BCK-34 specifying magnetic tape record size, (M) Mount, MOUNT-37 specifying number of directories, (M) Mount, MOUNT-6 specifying redundancy group blocks, (M) Backup, BCK-52 /STATISTICS qualifier, (M) Error Log, ERR-22 summary format, (M) Accounting, ACC-3 /SUMMARY qualifier, (M) Error Log, ERR-24 summary report, (M) Error Log, ERR-35 time-stamp, (M) Error Log, ERR-27 tuning a file, (P) File Def Language, FDL-68 using DCL symbols, (M) Accounting, ACC-41 using wildcards, (M) Backup, BCK-6 volume dismount, (M) Error Log, ERR-27 volume mount, (M) Error Log, ERR-27 Examples of DECwindows VAXTPU built-in procedures, (P) VAXTPU, B-1 to B-33 Examples of VAXTPU procedures ADJUST\_HELP, (P) VAXTPU, 7-23 ANCHOR, (P) VAXTPU, 7-25 ANY, (P) VAXTPU, 7-27 APPEND\_LINE, (P) VAXTPU, 7-29 ARB, (P) VAXTPU, 7-31 ASCII, (P) VAXTPU, 7-33, 7-34

BEGINNING\_OF, (P) VAXTPU, 7-38

BREAK, (P) VAXTPU, 7-39

Examples of VAXTPU procedures (cont'd) CALL\_USER, (P) VAXTPU, 7-42 CHANGE\_CASE, (P) VAXTPU, 7-46 COPY\_TEXT, (P) VAXTPU, 7-54 CREATE BUFFER, (P) VAXTPU, 7-62 CREATE\_KEY\_MAP, (P) VAXTPU, 7-64 CREATE\_KEY\_MAP\_LIST, (P) VAXTPU, 7-66 CREATE\_PROCESS, (P) VAXTPU, 7-68 CREATE\_RANGE, (P) VAXTPU, 7-71 CREATE\_WINDOW, (P) VAXTPU, 7-79 CURRENT\_BUFFER, (P) VAXTPU, 7-80 CURRENT\_CHARCTER, (P) VAXTPU, 7-82 CURRENT\_COLUMN, (P) VAXTPU, 7-84 CURRENT\_DIRECTION, (P) VAXTPU, 7-85 CURRENT\_LINE, (P) VAXTPU, 7-87 CURRENT\_OFFSET, (P) VAXTPU, 7-89 CURRENT\_ROW, (P) VAXTPU, 7-91 CURRENT\_WINDOW, (P) VAXTPU, 7-93 CURRSOR\_HORIZONTAL, (P) VAXTPU, 7-95 CURSOR\_VERTICAL, (P) VAXTPU, 7-98 DEFINE\_KEY, (P) VAXTPU, 7-103 DELETE, (P) VAXTPU, 7-109 EDIT, (P) VAXTPU, 7-114 END\_OF, (P) VAXTPU, 7-116 ERASE, (P) VAXTPU, 7-118 ERASE\_CHARACTER, (P) VAXTPU, 7-120 ERROR, (P) VAXTPU, 7-124 ERROR\_LINE, (P) VAXTPU, 7-126 ERROR\_TEXT, (P) VAXTPU, 7-128 EXECUTE, (P) VAXTPU, 7-131, 7-132 EXPAND\_NAME, (P) VAXTPU, 7-137 FAO, (P) VAXTPU, 7-139 FILE\_PARSE, (P) VAXTPU, 7-142 FILE\_SEARCH, (P) VAXTPU, 7-145 GET\_INFO, (P) VAXTPU, 7-160 to 7-161 HELP\_TEXT, (P) VAXTPU, 7-229 INDEX, (P) VAXTPU, 7-231 INT, (P) VAXTPU, 7-233 KEY NAME. (P) VAXTPU. 7-240 LENGTH, (P) VAXTPU, 7-248 LINE\_BEGIN, (P) VAXTPU, 7-250 LINE\_END, (P) VAXTPU, 7-251 LOCATE\_MOUSE, (P) VAXTPU, 7-253 LOOKUP\_KEY, (P) VAXTPU, 7-256 to 7-257 MAP, (P) VAXTPU, 7-260 MARK, (P) VAXTPU, 7-263 MATCH, (P) VAXTPU, 7-265 MESSAGE, (P) VAXTPU, 7-269 MOVE\_HORIZONTAL, (P) VAXTPU, 7-279 MOVE\_TEXT, (P) VAXTPU, 7-281 MOVE\_VERTICAL, (P) VAXTPU, 7–283 NOTANY, (P) VAXTPU, 7-285 PAGE BREAK, (P) VAXTPU, 7-286 POSITION, (P) VAXTPU, 7-290 QUIT, (P) VAXTPU, 7-292 READ\_CHAR, (P) VAXTPU, 7-294 READ\_FILE, (P) VAXTPU, 7-298 READ\_KEY, (P) VAXTPU, 7-302

Examples of VAXTPU procedures (cont'd)	Exception (cont'd)
REFRESH, (P) VAXTPU, 7-311	definition, (P) RTL Library, 4-2; (P)
REMAIN, (P) VAXTPU, 7-312	DECthreads, 4-2
RETURN, (P) VAXTPU, 7-315	determining current, (P) DECthreads, 4-7
SAVE, (P) VAXTPU, 7–318	dispatcher, (P) System Services Intro, 11-6
SCAN, (P) VAXTPU, 7-320 to 7-321	ENDTRY, (P) DECthreads, 4-4
SCANL, (P) VAXTPU, 7–323	exc_get_status, (P) DECthreads, 4-8
SCROLL, (P) VAXTPU, 7–326	exc_matches, (P) DECthreads, 4-9
SEARCH, (P) VAXTPU, 7-330 to 7-331	exc_report, (P) DECthreads, 4-8
SEARCH_QUIETLY, (P) VAXTPU, 7-335 to	exc_set_status, (P) DECthreads, 4-7
7–336	exporting error status, (P) DECthreads, 4–8
SELECT, (P) VAXTPU, 7-339	fatal, (P) System Dump Analyzer, SDA-16
SELECT_RANGE, (P) VAXTPU, 7-341	FINALLY, (P) DECthreads, 4-7, 4-12
SEND, (P) VAXTPU, 7–343	floating
SET (AUTO_REPEAT), (P) VAXTPU, 7-354	divide-by-zero, (P) MACRO, E-2, E-3
SET (BELL), (P) VAXTPU, 7–356	overflow, (P) MACRO, E-2, E-3
SET (DEBUG), (P) VAXTPU, 7-365	underflow, (P) MACRO, E-3, E-4
SET (LINE_NUMBER), (P) VAXTPU, 7-417	floating-point underflow, (P) RTL Library, 4-31
SET (SELF_INSERT), (P) VAXTPU, 7-471	generating, (P) Device Support (A), 5-4
SET (TEXT), (P) VAXTPU, 7-485	how handled by Run-Time Library, (P) RTL
SET (TRACEBACK), (P) VAXTPU, 7-489	Library, 4–30
SLEEP, (P) VAXTPU, 7-509	identifying causes of, (P) System Dump
SPANL, (P) VAXTPU, 7-514	Analyzer, SDA-21
SPLIT_LINE, (P) VAXTPU, 7–519	importing error status, (P) DECthreads, 4-7
STR, (P) VAXTPU, 7–522	instruction
SUBSTR, (P) VAXTPU, 7–524	emulation, (P) MACRO, E-6
TRANSLATE, (P) VAXTPU, 7-528	execution, (P) MACRO, E-6
UNANCHOR, (P) VAXTPU, 7–531	integer
UNDEFINE_KEY, (P) VAXTPU, 7–533	divide-by-zero, (P) MACRO, E-2
UNMAP, (P) VAXTPU, 7–537	overflow, (P) MACRO, E-2
UPDATE, (P) VAXTPÚ, 7–539	introduction to, (P) DECthreads, 4-2
WRITE_FILE, (P) VAXTPU, 7-545	invoking the exception-returning interface, (P)
Exception, (P) MACRO, E-1; (P) DECthreads,	DECthreads, 4-1
Å-6	kernel stack not valid, (P) MACRO, E-10
See also Vector exception	machine check, (P) MACRO, E-11
access control violation, (P) MACRO, E-4	matching, (P) DECthreads, 4-9
arithmetic, (P) MACRO, E-1	memory managment, (P) MACRO, E-4
arithmetic type code, (P) MACRO, E-1	multiple, (P) System Services Intro, 11-15
breakpoint, (P) MACRO, E-8	naming convention for, (P) DECthreads, 4–11
CATCH, (P) DECthreads, 4–5	operand reference, (P) MACRO, E-4
catching, (P) DECthreads, 4–5	raising, (P) DECthreads, 4-4
CATCH_ALL, (P) DECthreads, 4-9	recovering from, (P) RTL Math, 2-8
change mode, (P) MACRO, E-8	reporting, (P) DECthreads, 4-8
compatibility mode, (P) MACRO, E-7	RERAISE, (P) DECthreads, 4-6, 4-9, 4-13
type code, (P) MACRO, E-7	reraising, (P) DECthreads, 4-6
condition handler causing to fail, (P)	reserved
DECthreads, B-1	addressing mode, (P) MACRO, E-4
control, (P) MACRO, 8-14	operand, (P) MACRO, E-4
customer reserved opcode, (P) MACRO, E-6	rules for modular use of, (P) DECthreads, 4-11
debugging, (P) Debugger, 9-10	servicing vector, V5.5 New Features, B-28 to
decimal	B-31
string overflow, (P) MACRO, E-3	signals reported as, (P) DECthreads, A-7
declaring and initializating, (P) DECthreads,	subscript-range, (P) MACRO, E-3
4–3	table listing pthread exceptions and meanings,
defining a region of code to catch, (P)	(P) DECthreads, 4–13
DECthreads, 4-4	THIS_CATCH, (P) DECthreads, 4-7
defining epilogue actions, (P) DECthreads, 4-6	trace, (P) MACRO, E-8
- '	trace operation. (P) MACRO, E-9

Exception (cont'd) EXCHANGE/NETWORK command (cont'd) translation not valid, (P) MACRO, E-4 TRY, (P) DECthreads, 4-4 type, (P) System Services Intro, 11-1 vector processor, (P) MACRO, 10-12, 10-28, arithmetic, (P) MACRO, 10-6, 10-22, 10-28, 10-30, 10-68 floating-point, (P) MACRO, 10-68 memory management, (P) MACRO, 10-28 **EXCEPTION.EXE** global symbols, (P) System Dump Analyzer, SDA-60 Exception breakpoint or tracepoint canceling, (P) Debugger, 9-11, CD-17, CD-30 qualifying, (P) Debugger, 9-15, D-9 resuming execution at, (P) Debugger, 9-11 setting, (P) Debugger, 9-10, CD-125, CD-184 Exception condition, (P) Routines Intro, 1-12, 2-3, 2-44; (P) RTL Library, 4-2, 4-4; (P) Convert, CONV-3 handler, (P) Routines Intro, 1-12, 2-45 indicating occurrence of, (P) Routines Intro, returning condition value, (P) RTL Library, signaling, (P) RTL Library, 4-3, 4-5, 4-7, 4-16, 4-18, 4-23, 4-31 signaling an, (P) Routines Intro, 2-47 **Exception Condition Type** FDL-40 See ETYPE **Exception handler** debugger as, (P) Debugger, 3-20 debugging, (P) Debugger, 9-10 Exception handling routines global symbols, (P) System Dump Analyzer, SDA-60 /EXCEPTION qualifier, (P) Debugger, 9-10, CD-17, CD-30, CD-125, CD-184, CD-258 B - 62Exception record, (P) Convert, CONV-3 Exceptions file, (P) Convert, CONV-3 /EXCEPTIONS\_FILE qualifier, (P) Convert, CONV-9, CONV-26 **Exception vector** setting, (P) System Services Ref, SYS-515 EXC file type, (P) Convert, CONV-3 **EXCHANGE** See Exchange Utility EXCHANGE command, (U) DCL Dictionary, DCL1-212 EXCHANGE/NETWORK command, V5.5 New Features, E-13 to E-21; (U) DCL Dictionary, DCL1-213 to DCL1-221 creating files, V5.5 New Features, E-17; (U) DCL Dictionary, DCL1-217 protecting files, V5.5 New Features, E-17; (U)

qualifiers, V5.5 New Features, E-17; (U) DCL Dictionary, DCL1–217 selecting transfer modes, V5.5 New Features, E-15; (U) DCL Dictionary, DCL1-215 transferring files, V5.5 New Features, E-15; (U) DCL Dictionary, DCL1-215 wildcard characters, V5.5 New Features, E-16; (U) DCL Dictionary, DCL1-216 Exchange Utility (EXCHANGE), (U) Files and Devices, 5-1, 5-10; (M) Maintaining VMS, DCL level, (U) Files and Devices, 5–11 directing output from, (M) Exchange, EXCH-12 DIRECTORY command, (U) Files and Devices, 5-11; (M) Maintaining VMS, 2-9 exiting from, (U) Files and Devices, 5-11; (M) Exchange, EXCH-12 invoking, (U) Files and Devices, 5-11; (M) Exchange, EXCH-12 in command procedure, (M) Maintaining VMS, 2-9 interactively, (M) Maintaining VMS, 2-9 MOUNT command, (U) Files and Devices, 5-11; (M) Maintaining VMS, 2-9 using at DCL level, (M) Exchange, EXCH-12 Exclamation point (!) as comment character, (U) Command Procedures, 1–3 as comment delimiter, (P) File Def Language, comment delimiter, (P) Debugger, CD-4 log file, (P) Debugger, 8-5 /EXCLUDE qualifier, (M) Backup, BCK-47; (M) Error Log, ERR-9 Error Log Utility (ERROR LOG) device class keywords, V5.5 New Features, entry type keywords, V5.5 New Features, EXCHANGE/NETWORK command, V5.5 New Features, E-18 unknown entries, (M) Error Log, ERR-10 Exclusive OR operator, (P) MACRO, 3-16 %EXC\_FACILITY, (P) Debugger, 9-15, D-9 %EXC\_NAME, (P) Debugger, 9-15, D-9 %EXC\_NUMBER, (P) Debugger, 9-15, D-9 %EXC\_SEVERITY, (P) Debugger, 9-15, D-9 EXE\$ABORTIO, (P) Device Support (A), 7-5, 18-14; (P) Device Support (B), 1-40, 3-7, 3-10 to 3-11, 3-33, 3-42, 3-44, 3-46, 3-50, 3-51, 3-55, 3-57, 3-59, 4-12 EXE\$ALLOCBUF, (P) Device Support (A), 7-6, 16-19; (P) Device Support (B), 3-12 to 3-13 EXE\$ALLOCIRP, (P) Device Support (B), 1-42, 1-44, 3-12 to 3-13

DCL Dictionary, DCL1-217

- EXE\$ALONONPAGED, (P) Device Support (B), 3–13, 3–14, 3–61
- EXE\$ALONPAGVAR, (P) Device Support (B), 3-15
- EXE\$ALOPHYCNTG, (P) Device Support (A), 16–21; (P) Device Support (B), 3–16
- EXE\$ALTQUEPKT, (P) Device Support (A), 7-5; (P) Device Support (B), 1-30, 3-5, 3-17, 4-2, 4-12.
- EXE\$ASSIGN, (P) Device Support (A), 11–12; (P) Device Support (B), 1–11, 1–12, 4–6
- EXE\$BUFFRQUOTA
  - replaced in VMS Version 5.0, (P) Device Support (A), E-5
- **EXE\$BUFQUOPRC** 
  - replaced in VMS Version 5.0, (P) Device Support (A), E-5
- EXE\$CANCEL, (P) Device Support (A), 11-7 to 11-8; (P) Device Support (B), 3-68
- EXE\$CREDIT\_BYTCNT, (P) Device Support (A), 7-8, E-5; (P) Device Support (B), 3-18
- EXE\$CREDIT\_BYTCNT\_BYTLM, (P) Device Support (A), E-5; (P) Device Support (B), 3-18
- EXE\$DASSGN, (P) Device Support (B), 1–12 EXE\$DEANONPAGED, (P) Device Support (B), 3–3, 3–13, 3–19
- EXE\$DEBIT\_BYTCNT, (P) Device Support (A), E-5; (P) Device Support (B), 3-20 to 3-21
- EXE\$DEBIT\_BYTCNT\_ALO, (P) Device Support (A), 7-6, 16-19, E-6; (P) Device Support (B), 3-22 to 3-23
- EXE\$DEBIT\_BYTCNT\_BYTLM, (P) Device Support (A), 7–6, E–5; (P) Device Support (B), 3–20 to 3–21
- EXE\$DEBIT\_BYTCNT\_BYTLM\_ALO, (P) Device Support (A), 7-6, 16-19, E-6; (P) Device Support (B), 3-22 to 3-23
- EXE\$DEBIT\_BYTCNT\_BYTLM\_NW, (P) Device Support (A), E-6; (P) Device Support (B), 3-20 to 3-21
- EXE\$DEBIT\_BYTCNT\_NW, (P) Device Support (A), E-5; (P) Device Support (B), 3-20 to 3-21
- EXE\$FINISHIO, (P) Device Support (A), 7–4, 7–9, 18–14; (P) Device Support (B), 1–41, 3–24 to 3–25, 3–49, 3–50, 3–51, 4–12
- EXE\$FINISHIOC, (P) Device Support (A), 7–4; (P) Device Support (B), 1–41, 3–24 to 3–25, 4–12
- EXE\$FORK, (P) Device Support (A), 11–6; (P) Device Support (B), 1–21, 2–32, 3–26
- EXE\$FORKDSPTH, (P) Device Support (A), 3–5, 3–24; (P) Device Support (B), 1–73
- EXE\$GB\_CPUTYPE, (P) Device Support (B), 2–10 EXE\$GL\_ABSTIM, (P) Device Support (B), 1–22 EXE\$GL\_CONFECCI...(P) Device Support (A)
- EXE\$GL\_CONFREGL, (P) Device Support (A), 16–7

- EXE\$GL\_CPUNODSP, (M) System Generation, C-2
- EXE\$GL INTSTK
  - replaced by CPU\$L\_INTSTK, (P) Device Support (B), 1-12
- EXE\$GQ\_1ST\_TIME, (P) Device Support (A), 3-8, 3-9, 3-13, 3-14; (P) Device Support (B), 3-29
- EXE\$GQ\_SYSTIME, (P) Device Support (A), 3–8, 3–9, 3–14; (P) Device Support (B), 2–52, 3–69 reading, (P) Device Support (A), E–15
- EXE\$HWCLKINT, (P) Device Support (A), 3-8
- EXE\$INSERTIRP, (P) Device Support (A), 4–13; (P) Device Support (B), 1–38, 1–39, 1–76, 3–27, 3–28, 3–38
- EXE\$INSIOQ, (P) Device Support (A), 3–23, 4–13, 7–4, 8–1; (P) Device Support (B), 1–77, 3–28, 3–38
  - returning control to, (P) Device Support (A), 4-16
- ${\bf EXE\$INSIOQC}, \ \ (P) \ Device \ Support \ (B), \ 3{-}28$
- EXE\$INSTIMQ, (P) Device Support (B), 3–29
- EXE\$IOFORK, (P) Device Support (A), 9-4, 10-1 to 10-2, 14-24; (P) Device Support (B), 1-72, 1-73, 3-30
- EXE\$MODIFY, (P) Device Support (A), 7–9; (P) Device Support (B), 3–31 to 3–33
- EXE\$MODIFYLOCK, (P) Device Support (B), 3-32, 3-34 to 3-36
- EXE\$MODIFYLOCKR, (P) Device Support (B), 1–43, 3–32, 3–34 to 3–36, 3–109
- EXE\$ONEPARM, (P) Device Support (A), 7-9; (P) Device Support (B), 1-41, 3-37
- EXE\$QIO, (P) Device Support (A), 4–1 to 4–13; (P) Device Support (B), 1–12, 1–30, 1–37 to 1–40, 1–42
- EXE\$QIOACPPKT, (P) Device Support (B), 1–74 EXE\$QIODRVPKT, (P) Device Support (A), 4–13,
  - 7-4, 7-9, 8-1; (P) Device Support (B), 3-32, 3-33, 3-37, 3-38, 3-41, 3-51, 3-55, 3-62, 4-12
- EXE\$QIORETURN, (P) Device Support (A), 18–14; (P) Device Support (B), 3–39
- EXE\$READ, (P) Device Support (A), 7-9; (P)
  Device Support (B), 1-41, 3-40 to 3-42
- EXE\$READCHK, (P) Device Support (A), 7–6; (P) Device Support (B), 3–43 to 3–44
- EXE\$READCHKR, (P) Device Support (B), 3–32, 3–35, 3–41, 3–43 to 3–44, 3–46
- EXE\$READLOCK, (P) Device Support (B), 3-41, 3-45 to 3-47
- EXE\$READLOCKR, (P) Device Support (B), 1–43,
- 3–41, 3–45 to 3–47, 3–109 EXE\$RMVTIMQ, (P) Device Support (B), 3–48
- EXE\$SENSEMODE, (P) Device Support (A), 7–9; (P) Device Support (B), 3–49
- EXE\$SETCHAR, (P) Device Support (A), 7–9; (P) Device Support (B), 3–50 to 3–51

```
EXE$SETMODE, (P) Device Support (A), 7-9;
    (P) Device Support (B), 3-50 to 3-51
EXE$SNDEVMSG, (P) Device Support (A), 9-7 to
    9-8, 10-7, E-7; (P) Device Support (B), 3-52
    to 3-53
EXE$SWTIMINT, (P) Device Support (A), 3-8
EXE$TIMEOUT, (P) Device Support (B), 1-74,
    1-77, 1-79
EXE$WRITE, (P) Device Support (A), 7-9; (P)
    Device Support (B), 1-41, 3-54 to 3-55
EXE$WRITECHK, (P) Device Support (A), 7-6;
    (P) Device Support (B), 3-56 to 3-57
EXE$WRITECHKR, (P) Device Support (B), 3-55,
    3-56 to 3-57, 3-59
EXE$WRITELOCK, (P) Device Support (B), 3-55,
    3-58 to 3-60
EXE$WRITELOCKR, (P) Device Support (B),
    1-43, 3-55, 3-58 to 3-60, 3-109
EXE$WRTMAILBOX, (P) Device Support (B),
    3-52, 3-61
EXE$ZEROPARM, (P) Device Support (A), 7-9;
    (P) Device Support (B), 1-41, 3-62
Executable image, (M) Install, INS-3; (P) Linker,
    6-1; (P) Patch, PAT-3
  See also Image
  creating, (U) DCL Dictionary, DCL1-387
  linker parameters for creating, (P) Linker, 1-1
  output of linker, (P) Linker, 2-5
  patching, (U) DCL Dictionary, DCL2-11
/EXECUTABLE qualifier, (P) Linker, 1-5, 2-5,
EXECUTE access, (M) Security, 4-5; (P) File Def
   Language, FDL-23
  See also Access
  and directory file, (M) Security, 4-8
  and disk file, (M) Security, 4-8
  and volume, (M) Security, 4-10
  for a directory, (U) DCL Concepts, 8-8
  for a file, (U) DCL Concepts, 8-9
  for a global section, (U) DCL Concepts, 8-10
  for a queue, (U) DCL Concepts, 8-7
  for a volume, (U) DCL Concepts, 8-7
Execute access category, (M) System Management
   Intro, 3-3
  definition, (U) Using VMS, 7-4
EXECUTE built-in procedure, (P) VAXTPU, 4-19
EXECUTE command, (M) Monitor, MON-34
Execute Command String command, (P)
    Delta/XDelta, DELTA-38
Execute procedure, (P) System Dump Analyzer,
    SDA-40
Execute procedure (@) command, (U) Command
    Procedures, 1-5; (M) Show Cluster, SHCL-13,
    SHCL-22
  executing command procedure interactively
```

```
Execute procedure (@) command (cont'd)
  executing EVE initialization file with, (U)
      Using VMS, 8-44
  executing nested command procedure with, (U)
      Using VMS, 6-26
@ (execute procedure) command, (U) DCL
   Dictionary, DCL1-9 to DCL1-13
EXECUTE ONLY qualifier, (M) Install, INS-10
Executing a command procedure, (M) SYSMAN,
    SM-8, SM-21
Executing job state, (M) Maintaining VMS, 5-69,
    5-78, 5-82
Executing SYS$LOGIN, (U) DCL Dictionary,
   DCL1-392
Execution
  as controlled by debugger, (P) Debugger, 3-20
  discrepancies caused by debugger, (P)
      Debugger, 3-21
  interrupting with Ctrl/C, (P) Debugger, 2-7
  interrupting with Ctrl/Y, (P) Debugger, 3-3
      with DECwindows, (P) Debugger, 1-31
  interrupting with Stop button
      with DECwindows, (P) Debugger, 1-9,
          1 - 20
  monitoring with SHOW CALLS command, (P)
      Debugger, 2–13, CD–209
  monitoring with tracepoint, (P) Debugger, 3-9,
      CD-183
      with DECwindows, (P) Debugger, 1-23
  multiprocess program, (P) Debugger, 10-5,
      CD-149
  of alternate login command procedure, (U)
      DCL Dictionary, DCL1-393
  of login command procedure, (U) DCL
      Dictionary, DCL1-392
  resuming
      command procedure, (U) DCL Dictionary,
          DCL1-63
      DCL commands, (U) DCL Dictionary,
          DCL1-63
      program, (U) DCL Dictionary, DCL1-63
  resuming after exception break, (P) Debugger,
  starting or resuming with CALL command, (P)
      Debugger, 8-10, 11-22, CD-10
  starting or resuming with GO command, (P)
      Debugger, 2-12, CD-100
      with DECwindows, (P) Debugger, 1-23
  starting or resuming with STEP command, (P)
      Debugger, 3-6, CD-258
      with DECwindows, (P) Debugger, 1-23
  suspending with breakpoint, (P) Debugger, 3-8,
      CD-124
      with DECwindows, (P) Debugger, 1-23
  suspending with exception breakpoint, (P)
      Debugger, 9-10, CD-125
  suspending with watchpoint, (P) Debugger,
      3-15, 10-15, CD-196
```

with, (U) Using VMS, 6-2

Execution EXIT command, (U) VMS Intro, 1-14, 1-17; suspending with watchpoint (cont'd) (U) Using VMS, 1-21, 6-4, 8-3, 8-48; (U) with DECwindows, (P) Debugger, 1-24 Mail, MAIL-1, MAIL-47; (U) Command vectorized program, (P) Debugger, 11-2 Procedures, 5–16; (U) DCL Dictionary, Execution context, (P) System Services Intro, 8-2 DCL1-222 to DCL1-225; (U) EDT Ref. Execution model EDT-138; (*U*) EVE Ref, EVE-52 to EVE-53; vector processor, (P) MACRO, 10-18 (M) SYSMAN, SM-54; (M) Exchange, Execution of command procedure on remote node, EXCH-29; (M) Install, INS-16; (M) LATCP, (U) Command Procedures, 1-6 LAT-22; (M) LADCP, LADCP-7; (M) System Execution queue, (U) DCL Dictionary, DCL1-251 Generation, SGN-18; (M) Terminal Fallback, activating an autostart, (M) Maintaining VMS, TFU-16; (M) Authorize, AUTH-26; (M) 5-5, 5-56, 5-68 Audit Analysis, AUD-31; (M) Monitor, creating, (M) Maintaining VMS, 5-56 MON-35; (M) Show Cluster, SHCL-54; description, (M) Maintaining VMS, 5-4 (P) Debugger, 3-4, 9-15, CD-90; (P) Patch, failover, Dependability Handbook, 9-24 PAT-2, PAT-65; (P) File Applications, 10-12; relationship to generic queue, (M) Maintaining (P) Analyze  $/RMS\_File$ , ARMS-26; (P)VMS, 5-4Delta/XDelta, DELTA-45; (P) System Dump starting Analyzer, SDA-55; Obsolete Features, 4-10 autostart, (M) Maintaining VMS, 5-5, See also STOP command 5-61, 5-68, 5-69 EDIT/FDL, (P) File Def Language, FDL-61 nonautostart, (M) Maintaining VMS, 5-57, EDT, (U) Text Processing, 2-3 5-61, 5-68 EVE editor, (U) Text Processing, 1-3 Execution time, (M) Error Log, ERR-22 multiprocess program, (P) Debugger, 10-8, Executive image 10 - 9contents, (P) System Dump Analyzer, SDA-60, with DECwindows, (P) Debugger, 1-20 SDA-104 Exit handler, (P) Programming Resources, 7-53, listing names and addresses, (P) Delta/XDelta, 9-26; (P) System Services Intro, 8-14; (P) DELTA-44 RTL Screen Management, 4-3 Executive loaded images canceling, (P) System Services Ref, SYS-50 See System loadable image control block, (P) System Services Ref, SYS-137 Executive mode deleting, (P) System Services Ref, SYS-50 See also Access mode debugging, (P) Programming Resources, 9-30; changing to, (P) System Services Ref. SYS-75 (P) Debugger, 9–15, CD–90 Executive-mode (PSL\$C\_EXEC) constant declaring, (P) System Services Ref, SYS-137 for FAB\$V\_CHAN\_MODE, (P) RMS, 5-5 establishing, (P) Programming Resources, 9-27 EXECUTIVE qualifier, (P) System Dump executing, (P) Debugger, 3-4, CD-90 Analyzer, SDA-59, SDA-157 with DECwindows, (P) Debugger, 1–20 Executive stack pointer, (P) System Dump execution sequence of, (P) Debugger, 9-15 Analyzer, SDA-13 identifying, (P) Debugger, 9-16, CD-216 /EXECUTIVE\_MODE qualifier writing, (P) Programming Resources, 9-29 ASSIGN command, (U) DCL Dictionary, EXITIF statement, (P) VAXTPU, 3-21 to 3-22 DCL1-40 Exiting Executor node, (M) Networking, 2-2, 4-1 from ANALYZE/RMS\_FILE, (P) Analyze/RMS\_ See also Local node File, ARMS-10 commands, (M) Networking, 3-6 from CONVERT, (P) Convert, CONV-5 /EXERCISE qualifier, (M) Bad Block, BAD-10 from CONVERT/RECLAIM, (P) Convert, Exit CONV-5 See also Exit handler from CREATE/FDL, (P) File Def Language, abnormal, (P) RTL Parallel Processing, 4-9 FDL-43 forced, (P) System Services Intro, 8-15 from DELTA, (P) Delta/XDelta, DELTA-2, image, (P) Programming Resources, 9-26; (P) DELTA-45 System Services Intro, 8–13 from EDIT/FDL, (P) File Def Language, normal, (P) RTL Parallel Processing, 4-9 FDL-43 \$EXIT, (P) Debugger, 9-15 from PHONE, (U) Phone, PHONE-3, EXIT built-in procedure, (P) VAXTPU, 7-133 to PHONE-12 7 - 134from SDA, (P) System Dump Analyzer, SDA-55 from SYSMAN, (M) SYSMAN, SM-18

from XDELTA, (P) Delta/XDelta, DELTA-8

of complex number, (P) RTL Math, MTH-31, LMCP REPAIR command mode. V5.5 New MTH-33Features, B-89 Exponentiation EXITLOOP command, (P) Debugger, 8-10, CD-93 complex base to complex exponent, (P) RTL /EXIT qualifier, (P) Debugger, CD-74; (P) General Purpose, OTS-56 Convert, CONV-10 complex base to signed integer exponent, (P) EXIT subcommand RTL General Purpose, OTS-59 with LMCP REPAIR command, V5.5 New D-floating base, (P) RTL General Purpose, Features, B-89 OTS-61, OTS-63, OTS-65 exit\_handler\_block data type, (P) Routines Intro, F-floating base, (P) RTL General Purpose, OTS-81, OTS-84, OTS-86 EXPAND command, (P) Debugger, 7-12, CD-94 G-floating base, (P) RTL General Purpose, Expanded string, (P) File Applications, 6-4, 6-5 OTS-67, OTS-70 requesting, (P) RMS, 6-2 H-floating base, (P) RTL General Purpose, Expanded string area address OTS-72, OTS-74 signed longword base, (P) RTL General See ESA Purpose, OTS-77 Expanded string area address field word base to word exponent, (P) RTL General See NAM\$L\_ESA field Purpose, OTS-76 Expanded string length field \$EXPREG, (P) System Services Ref, SYS-218 See NAM\$B\_ESL field Expression, (P) System Dump Analyzer, SDA-11 Expanded string size field to SDA-14; (P) MACRO, 3-9; (P) VAXTPU, See NAM\$B\_ESS field 3-8 to 3-12 EXPAND keyword See Address expression, Language expression for /DATA qualifier, (P) National Char Set, See also Numeric expression NCS-26 See also Operand EXPAND\_NAME built-in procedure, (P) VAXTPU, See also Operator 7-135 to 7-137 See also String expression Expected interrupt absolute, (P) MACRO, 3-9 See Device interrupt arithmetic, (P) VAXTPU, 3-9 EXPECTED\_VOTES parameter, (M) System Boolean, (P) VAXTPU, 3-11 Management Intro, 6-13; (M) VAXcluster, character, (U) Using VMS, 5-12 3-1, 7-22, 7-27, A-1; (M) System Generation, definition, (U) Using VMS, 5-11; (U) DCL A-11 Concepts, 5-7 Expert systems evaluating, (P) System Dump Analyzer, VAX OPS5, Dependability Handbook, 3–12 SDA-48 Expiration evaluation by compiler, (P) VAXTPU, 3-9 of account, (M) Security, 3-14 evaluation of, (P) MACRO, 3-9 of password, (M) Security, 3-10, 5-14 example of, (P) MACRO, 3-10 EXPIRATION attribute, (P) File Def Language, external, (P) MACRO, 3-9 FDL-16 global, (P) MACRO, 3-9 Expiration date in message source file, (P) Message, MSG-7 file, (M) Maintaining VMS, 4-3 iterative substitution, (U) DCL Concepts, 7-6 Expiration date field, (U) Files and Devices, 4–16, logical, (U) Using VMS, 5-15 logical operators, (U) DCL Concepts, 6-8 See also XAB\$Q\_EDT field numeric, (U) Using VMS, 5-13 EXPIRATION qualifier, (M) Security, 5-31 numeric comparison operators, (U) DCL Expiration time Concepts, 6-7 obtaining, (P) DECthreads, cma-114, numeric operators, (U) DCL Concepts, 6-7 pthread-55 pattern, (P) VAXTPU, 3-11 Expired-Date Suppression, V5.5 New Features, precedence in, (P) Delta/XDelta, DELTA-9 B-112 relational, (P) VAXTPU, 3-10 /EXPIRED qualifier, (M) Backup, BCK-48 relocatable, (P) MACRO, 3-9, 3-18 EXCHANGE/NETWORK command. V5.5 New rules for determining the value, (U) Using Features, E-18 VMS, 5-18; (U) DCL Concepts, 6-12 Explanatory text, (P) Routines Intro, 1-4, 1-11

Exponential, (P) RTL Math, MTH-65, MTH-90

Exiting (cont'd)

LMCP, V5.5 New Features, B-75

Expression (cont'd) Extent, (U) Files and Devices, 1-2; (M) string comparison operators, (U) Using VMS, Analyze/Disk, B-2; (P) File Applications, 1-4, 5-11; (U) DCL Concepts, 6-2 string operators, (U) DCL Concepts, 6-2 defining section, (P) System Services Intro, summary of operators, (U) Using VMS, 5-18; (U) DCL Concepts, 6-10 syntax. (P) MACRO, 7-1 types of, (P) VAXTPU, 3-9 External clock, (M) Network Control Program, value test, (U) DCL Dictionary, DCL1-237 NCP-93 Expression evaluation EXTERNAL directive, (P) MACRO, 6-34 definition, (U) DCL Concepts, 7-4 External expression, (P) MACRO, 3-9 EXQUOTA privilege, (M) Setting Up VMS, 5–12; External node (M) Security, A-3 and default access rights, (M) Security, 8-6 EXT (extend) command, (U) EDT Ref, EDT-288 External register base See also Entering commands See MBA\$L\_ERB EXTEND ALL command, (U) EVE Ref, EVE-54 External symbol, (P) MACRO, 6-101 Extended attribute block attribute directive (.EXTERNAL), (P) MACRO, See XAB block Extended attribute block address field defining, (P) MACRO, 6-22, 6-34 See FAB\$L\_XAB field EXTRACPU parameter, (M) System Generation, See RAB\$L\_XAB field A-11 Extended hours of operator coverage, EXTRACT command, (U) VMS Intro, 1-14; Dependability Handbook, 3-17 (U) Using VMS, 1-31; (U) Mail, MAIL-3, MAIL-48; (P) Debugger, 7-21, CD-97 Extended QIO processor %EXTRACT operator, (P) MACRO, 4-10 See XQP /EXTRACT qualifier, (P) Librarian, LIB-12, Extended terminal operation option LIB-22 See ETO option for extracting definition modules from NCS EXTEND EVE command, (U) EVE Ref, EVE-55 library, (P) National Char Set, NCS-28 to EVE-56 LIBRARY command, (P) Programming using to compile VAXTPU procedures, (U) Text Resources, 5-2 Processing, 1-70 using with /OUTPUT, (P) Librarian, LIB-36 Extend service, (P) RMS, RMS-35 EXTV (Extract Field) instruction, (P) MACRO, condition values, (P) RMS, RMS-37 9 - 39control block input fields, (P) RMS, RMS-36 EXTZV (Extract Zero Extended Field) instruction, control block output fields, (P) RMS, RMS-36 (P) MACRO, 9-39 invoking, (P) RMS, 5-11 requirements, (P) RMS, RMS-36 use restriction, (P) RMS, RMS-36 XAB overrides, (P) RMS, RMS-36 F\$CONTEXT, V5.5 Release Notes, 1-18 Extend subfunction, (P) I/O User's I, 1–11 F\$CONTEXT lexical function, (U) DCL EXTEND THIS command, (U) EVE Ref, EVE-57 Dictionary, DCL1-272, DCL1-275 to EVE editor, (U) Text Processing, 1-70 DCL1-279 EXTEND TPU command, (U) EVE Ref, EVE-58 F\$CSID lexical function, (U) DCL Dictionary, See also EXTEND EVE command DCL1-272, DCL1-280 to DCL1-281 /EXTEND\_QUANTITY qualifier, (P) File F\$CVSI lexical function, (U) Command Applications, 9-8 Procedures, B-1; (U) DCL Dictionary, Extensible VAX Editor DCL1-272, DCL1-282 to DCL1-283 See EVE editor F\$CVTIME lexical function, (U) Command EXTENSION attribute, (P) File Def Language, Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-284 to DCL1-285 FDL-7, FDL-20 F\$CVUI lexical function, (U) Command EXTENSION qualifier, (M) Mount, MOUNT-20 EXTENSION secondary attribute, (P) File Procedures, B-1; (U) DCL Dictionary, Applications, 4-31 DCL1-273, DCL1-286 Extension size, (P) File Applications, A-1 F\$DEVICE lexical function, (U) DCL Dictionary, calculating, (P) File Applications, 9-8 DCL1-273, DCL1-287 to DCL1-288 of disk, (M) Maintaining VMS, 2-7 use of, (U) DCL Dictionary, DCL1-287 performance, (P) File Applications, 9-8, 9-9 value returned, (U) DCL Dictionary, DCL1-287

- F\$DIRECTORY lexical function, (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-289
- F\$EDIT lexical function, (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-290 to DCL1-291
- F\$ELEMENT lexical function, (U) Using VMS, 6–25; (U) Command Procedures, B–1; (U) DCL Dictionary, DCL1–273, DCL1–292 to DCL1–293
  - with F\$EXTRACT, (U) Command Procedures, 4–9
- F\$ENVIRONMENT lexical function, V5.5 New Features, 3–7; (U) Using VMS, 6–34; (U) Command Procedures, B–1; (U) DCL Dictionary, DCL1–273, DCL1–294 to DCL1–296
  - obtaining current default, (U) Command Procedures, 4–3
- F\$EXTRACT lexical function, (U) Using VMS, 6-24, 6-29; (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-297 to DCL1-298
  - extracting a string, (U) Command Procedures, 4–9
- F\$FAO lexical function, (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-299 to DCL1-305 defining record fields, (U) Command Procedures, 4-11
- F\$FILE\_ATTRIBUTES lexical function, (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-306 to DCL1-308
- F\$GETDVI lexical function, (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-309 to DCL1-321 documentation corrections, V5.5 Release Notes,
- item names, (U) DCL Dictionary, DCL1-310 F\$GETJPI lexical function, V5.5 New Features, B-14 to B-15; (U) Using VMS, 6-33; (U) Command Procedures, B-1; (U) DCL Dictionary, DCL1-273, DCL1-322 to DCL1-327
  - using to gather vector processing information, (M) Maintaining VMS, 6-16
- F\$GETQUI lexical function, V5.5 New Features, 3–8 to 3–10; (U) Command Procedures, B–1; (U) DCL Dictionary, DCL1–273, DCL1–328 to DCL1–343
  - documentation corrections, V5.5 Release Notes, 4-4
  - obtaining queue information, (U) Command Procedures, 4-5
  - using to gather queue information, (M)

    Maintaining VMS, 5-72

- F\$GETSYI lexical function, V5.5 New Features, B-14 to B-15; (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-273, DCL1-344 to DCL1-348
  - obtaining system or cluster information, (U) Command Procedures, 4–5
  - using to gather vector processing information, (M) Maintaining VMS, 6-16
- F\$IDENTIFIER lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-273, DCL1-349 to DCL1-350
- F\$INTEGER lexical function, (U) DCL Concepts, 6-11; (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-273, DCL1-351
  - converting data type, (U) Command Procedures, 4–13
  - evaluating data, (U) Command Procedures, 4-13
- F\$LENGTH lexical function, (U) VMS Intro, 5–8; (U) Command Procedures, B–2; (U) DCL Dictionary, DCL1–273, DCL1–352 with F\$LOCATE, (U) Command Procedures,
- with F\$LOCATE, (U) Command Procedures, 4–9 F\$LOCATE lexical function, (U) Command
- Procedures, B-2; (U) DCL Dictionary, DCL1-273, DCL1-353 to DCL1-354 with F\$LENGTH, (U) Command Procedures, 4-9
- F\$LOGICAL lexical function See F\$TRNLNM lexical function
- F\$MESSAGE lexical function, V5.5 New Features, 2–7 to 2–8; (U) Command Procedures, B–2; (U) DCL Dictionary, DCL1–273, DCL1–355
- F\$MODE lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-356 to DCL1-357
- F\$PARSE lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-358 to DCL1-360
- F\$PID lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-361 to DCL1-362
  - obtaining process identification, (U) Command Procedures, 4–5
- F\$PRIVILEGE lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-363
- F\$PROCESS lexical function, (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-364
- F\$SEARCH lexical function, (U) Using VMS, 6-14; (U) Command Procedures, B-2; (U) DCL Dictionary, DCL1-274, DCL1-365 to DCL1-367; (P) Device Support (A), 13-24 avoiding command procedure errors, (U)
  - Command Procedures, 4–7 searching for a file, (U) Command Procedures, 4–7

```
F$SETPRV lexical function, (U) Command
    Procedures, B-2; (U) DCL Dictionary,
    DCL1-274, DCL1-368 to DCL1-371
F$STRING lexical function, (U) DCL Concepts,
    6-11; (U) Command Procedures, B-3; (U)
    DCL Dictionary, DCL1-274, DCL1-372
  converting data type, (U) Command
      Procedures, 4-13
F$TIME lexical function, (U) Command
    Procedures, B-3; (U) DCL Dictionary,
    DCL1-274, DCL1-373
F$TRNLNM lexical function, (U) Command
    Procedures, B-3; (U) DCL Dictionary,
    DCL1-274, DCL1-374 to DCL1-377
  translating logical names, (U) Command
      Procedures, 4-8
F$TYPE lexical function, (U) DCL Concepts, 6-11;
    (U) Command Procedures, B-3; (U) DCL
    Dictionary, DCL1-378 to DCL1-379
F$USER lexical function, (U) Command
    Procedures, B-3; (U) DCL Dictionary,
    DCL1-274, DCL1-380
F$VERIFY lexical function, (U) Command
    Procedures, B-3; (U) DCL Dictionary,
    DCL1-274, DCL1-381 to DCL1-382
  changing VERIFY state, (U) Command
      Procedures, 3-13
F10 key, (U) DCL Concepts, 2-8
F12 key
  See also BACKSPACE
  on LK201 keyboard, (U) EDT Ref, EDT-22
F13 key
  See also Linefeed key
  on LK201 keyboard, (U) EDT Ref, EDT-79
F6 key, (U) DCL Concepts, 2-7
F6 through F14 keys, (U) Using VMS, 1-17 to
    1-19; (U) DCL Concepts, 2-5 to 2-6
FAB$B ACMODES
  See FAB$V_CHAN_MODE option and
      FAB$V_LNM_MODE option
FAB$B_BID field, (P) RMS, 5-3
FAB$B_BKS field, (P) File Applications, 3-24,
    4-28, 7-19, 7-20; (P) File Def Language,
    FDL-18; (P) RMS, 5-3
  considerations for calculating, (P) RMS, 5-4
  default logic, (P) RMS, 5-4
  limitation for RMS-11, (P) RMS, 5-3
  performance considerations, (P) RMS, 5-4
  requirements for RMS-11 compatibility, (P)
      RMS, 5–5
  selecting default size for indexed files, (P)
      RMS, 5-4
  variations for XABs, (P) RMS, 5-4
FAB$B_BLN field, (P) RMS, 5-4
```

FAB\$B\_BLS field, (P) File Applications, 4-28

FAB\$B\_DEQ field, (P) File Applications, 9-8

```
FAB$B_DNS field, (P) File Applications, 9-7; (P)
    File Def Language, FDL-19; (P) RMS, 5-9,
  specifying default file specification, (P) RMS,
FAB$B_FAC field, (P) File Applications, 9-6; (P)
    File Def Language, FDL-2, FDL-3; (P) RMS,
  comparing with FAB$B_SHR field, (P) RMS,
  for specifying sharing options, (P) RMS, 4-1
  interdependency with FAB$B_SHR field, (P)
      RMS, 5-27
  list of options, (P) File Applications, 7-3; (P)
      RMS, 5-10
  use with FAB$B_SHR, (P) RMS, 5-10
FAB$B_FNS field, (P) File Applications, 6-5, 9-7;
    (P) File Def Language, FDL-22; (P) RMS,
    5 - 12
  specifying primary file specification, (P) RMS,
      5-2
FAB$B_FSZ field, (P) File Applications, 4–29; (P)
    File Def Language, FDL-34; (P) RMS, 5-18
FAB$B_ORG field, (P) File Applications, 4–28;
    (P) File Def Language, FDL-22; (P) RMS,
FAB$B_RAT field, (P) File Applications, 4–29;
    (P) File Def Language, FDL-33, FDL-34; (P)
    RMS, 5-23
FAB$B_RFM field, (U) Files and Devices, B-13;
    (P) File Applications, 4–30; (P) File Def
    Language, FDL-35; (P) RMS, 5-25
FAB$B_RTV field, (P) File Applications, 9-8,
    9-10; (P) File Def Language, FDL-25; (P)
    RMS, 5-26
FAB$B_SHR field, (P) File Applications, 9-6; (P)
    File Def Language, FDL-37; (P) RMS, 5-27
  comparing option names with file access option
      names, (P) RMS, 5-27
  conflict with FAB$B_FAC field, (P) RMS, 5-27
  default logic, (P) RMS, 5-27
  FAB$V_MSE option, (P) File Applications,
      7 - 22
  FAB$V_SHRGET option, (P) File Applications,
      7 - 22
  FAB$V_UPI option, (P) File Applications, 7–7
  for specifying sharing options, (P) RMS, 4-1
  interdependency with FAB$B_FAC field, (P)
      RMS, 5-27
  list of options, (P) File Applications, 7-4; (P)
      RMS, 5-28
  option naming convention, (P) RMS, 5-27
FAB$C_FIX option, (P) RMS, 5-25
FAB$C_STMCR option, (P) RMS, 5-25
FAB$C_STMLF option, (P) RMS, 5-26
FAB$C_STM option, (P) RMS, 5-25
```

FAB\$C UDF option, (P) RMS, 5-26

FAB\$C\_VAR option, (P) RMS, 5-26 FAB\$C\_VFC option, (P) RMS, 5-26 FAB\$L\_ALQ field, (P) File Applications, 4-30; (P) File Def Language, FDL-17; (P) RMS, 5-3 as output field, (P) RMS, 5-3 functional variations for XABs, (P) RMS, 5-3 setting at run time, (P) RMS, 3-5 use with Create service, (P) RMS, 5-3 use with Extend service, (P) RMS, 5-3 use with Open service, (P) RMS, 5-3 FAB\$L\_CTX field, (P) File Def Language, FDL-18; (P) RMS, 5-6 FAB\$L\_DEV field, (P) RMS, 5-7 bits listed, (P) RMS, 5-7 FAB\$L\_DNA field, (P) File Applications, 6-4, 9-7; (P) File Def Language, FDL-19; (P) RMS, 5-8, 5-9, B-3 components listed, (P) RMS, 5-9 specifying default file specification, (P) RMS, FAB\$L\_FNA field, (P) File Applications, 6-4, 6-5, 9-7; (P) File Def Language, FDL-22; (P) RMS, 5–11 specifying primary file specification, (P) RMS, FAB\$L FOP field, (P) File Applications, 4-27; (P) File Def Language, FDL-18, FDL-19, FDL-20, FDL-21, FDL-22, FDL-23, FDL-24, FDL-25; (P) RMS, 5-12FAB\$V\_CBT option, (P) File Applications, 4-31 FAB\$V\_CTG option, (P) File Applications, 4–30 FAB\$V\_DFW option, (P) File Applications, 3-14, 3-15, 3-27, 7-19, 7-20, 9-9 FAB\$V\_MXV option, (P) File Applications, FAB\$V\_NAM option, (P) File Applications, 6-5 FAB\$V\_NEF option, (P) File Applications, 8-15, 8-16 FAB\$V OFP option, (P) File Applications, 6-9, 6 - 10FAB\$V\_PPF option, (P) File Applications, 6–20 FAB\$V\_RCK option, (P) File Applications, 9-11 FAB\$V\_SQO option, (P) File Applications, 9–10 FAB\$V\_TMP option, (P) File Applications, FAB\$V UFO option, (P) File Applications, 7-4, 9 - 14FAB\$V\_WCK option, (P) File Applications, 9 - 11list of options, (P) File Applications, 9–14; (P) RMS, 5-13FAB\$L\_MRN field, (P) File Applications, 4–29; (P) File Def Language, FDL-20; (P) RMS, FAB\$L\_MRS field, (P) File Applications, 4-29 FAB\$L\_NAM field, (P) File Applications, 6-9, 9-7; (P) RMS, 5-23

FAB\$L\_SDC field, (P) RMS, 5–27 FAB\$L\_STS field, (P) RMS, 5-29 handling for ACL error status, (P) RMS, 14-3 FAB\$L\_STV field, (P) File Applications, 9-14; (P) RMS, 5-29 examples of using, (P) RMS, 3-12 for invoking SYS\$QIO, (P) RMS, 5-18 for total number of blocks allocated, (P) RMS, **RMS-36** with I/O channel, (P) RMS, RMS-16 FAB\$L\_XAB field, (P) RMS, 5-29 FAB\$V\_ASY option, (P) RMS, 5-14 documentation change, V5.5 Release Notes, 4-14; V5.5 New Features, B-110 FAB\$V\_BIO option, (P) RMS, 5-10 how used to specify I/O type, (P) RMS, 4-24 FAB\$V\_BLK option, (P) RMS, 5-23 FAB\$V\_BRO option use for sharing files, (P) RMS, 5-28 FAB\$V\_CBT option, (P) RMS, 5-13 precedence over FAB\$V\_CTG option, (P) RMS, 5 - 14FAB\$V\_CHAN\_MODE option list of values, (P) RMS, 5-5 setting from MACRO, (P) RMS, 5-6 FAB\$V CIF option, (P) RMS, 5-15 precedence over FAB\$V\_SUP option, (P) RMS, 5 - 15FAB\$V\_CR option, (P) RMS, 5-24 restriction against use with FAB\$V\_FTN and FAB\$V\_PRN options, (P) RMS, 5-23 FAB\$V\_CTG option, (P) RMS, 5-14 FAB\$V\_DEL option, (P) RMS, 5-10 for enabling Delete service, (P) RMS, 4-20 FAB\$V\_DFW option, (P) RMS, 5-14 exception to use of global buffers, (P) RMS, 5-19FAB\$V\_DLT option, (P) RMS, 5-16 qualified use by Close service, (P) RMS, RMS-4 FAB\$V FTN option, (P) RMS, 5-24 restriction against use with FAB\$V\_CR and FAB\$V\_PRN options, (P) RMS, 5-23 FAB\$V GET option, (P) RMS, 5-10, 5-28 use with block I/O operations, (P) RMS, 5-10, 5-11FAB\$V\_LNM\_MODE option values listed, (P) RMS, 5-20 FAB\$V\_LNM\_MODE subfield, (P) RMS, 5-20 FAB\$V\_MSE option, (P) RMS, 5-28 enabling multiple RABs, (P) RMS, RMS-7 for overriding the FAB\$V\_UPI option, (P) RMS. 5-29requirement for read-only buffer cache, (P) RMS, 5-20, 5-28 use with other options, (P) RMS, 5-28 FAB\$V\_MXV option, (P) RMS, 5-15

FAB\$V\_UPI option (cont'd) FAB\$V\_NAM option, (P) RMS, 5-16 requirement for block I/O, (P) RMS, 4-23 FAB\$V\_NEF option, (P) RMS, 5-17 requirement for user file open option, (P) RMS, FAB\$V\_NFS option, (P) RMS, 5-18 relationship to CHAN\_MODE subfield, (P) FAB\$V\_WCK option, (P) RMS, 5-15 RMS, 5-5FAB\$W\_BLS field, (P) File Def Language, FAB\$V\_NIL option, (P) RMS, 5-28 FDL-21; (P) RMS, 5-5 effect on specifying user file open option. (P) FAB\$W\_DEQ field, (P) File Applications, 4-31, RMS, 5-189–9; (P) File Def Language, FDL–20; (P)requirement for block I/O, (P) RMS, 4-23 RMS, 5–4, 5–6 FAB\$V\_OFP option, (P) RMS, 5-16 default logic, (P) RMS, 5-6 FAB\$V\_POS option, (P) RMS, 5-17 overriding default, (P) RMS, 5-7 subordinate to FAB\$V\_RWO option, (P) RMS, FAB\$W\_GBC field, (P) File Applications, 7-17, 5-17, 5-18 7-22, 9-9; (P) File Def Language, FDL-20; FAB\$V\_PRN option, (P) RMS, 5-24 (P) RMS, 5-19restriction against use with FAB\$V\_FTN and FAB\$W\_IFI field, (P) RMS, 5–20 FAB\$V\_CR options, (P) RMS, 5-23 FAB\$W\_MRS field, (P) File Def Language, FAB\$V\_PUT option, (P) RMS, 5-11, 5-28 FDL-35; (P) RMS, 5-21 use with block I/O operations, (P) RMS, 5-10 as output, (P) RMS, 5-22 FAB\$V\_RCK option, (P) RMS, 5-15 program example, (P) RMS, 4-4 FAB\$V\_RWC option, (P) RMS, 5-17 summary, (P) RMS, 5-22 FAB\$V\_RWO option, (P) RMS, 5-17 use with fixed-length records, (P) RMS, 5-21 precedence over FAB\$V\_POS option, (P) RMS, 5-17, 5-18 use with variable-length records, (P) RMS, FAB\$V\_SCF option, (P) RMS, 5-16 5-21FAB (file access block), (U) Files and Devices, qualified use by Close service, (P) RMS, B-14; (P) Programming Resources, 1-36, RMS-4 8-58; (P) File Applications, 1-11, 4-1; (P) FAB\$V\_SHRDEL option, (P) RMS, 5-28 RMS, 5–1 FAB\$V\_SHRGET option argument categories, (P) RMS, 1-2 requirement for read-only buffer cache, (P) description, (P) RMS, 1-2 RMS, 5-20, 5-28 requirements for, (P) RMS, 5-2 FAB\$V\_SPL option, (P) RMS, 5-16 summary of fields, (P) RMS, 5-1 qualified use by Close service, (P) RMS, FAB (file attributes block), (P) System Dump RMS-4Analyzer, SDA-76 FAB\$V\_SQO option, (P) RMS, 5-14 fab data type, (P) Routines Intro, A-5t prohibiting random access, (P) RMS, RMS-48 \$FABDEF, (P) File Applications, 5–10 FAB\$V\_SUP option, (P) RMS, 5-16 subordinate to FAB\$V\_CIF option, (P) RMS, \$FAB macro, (P) RMS, B-2 argument categories, (P) RMS, B-3 5 - 15\$FAB STORE macro, (P) RMS, B-4 FAB\$V\_SYNCSTS option, (P) RMS, 5-15 argument categories, (P) RMS, B-5 FAB\$V\_TEF option, (P) RMS, 5-14 FAB argument requirement, (P) RMS, B-5 FAB\$V\_TMD option, (P) RMS, 5-17 run-time arguments, (P) RMS, B-5 inhibiting automatic Create, (P) RMS, RMS-29 FAB\$V\_TMP option, (P) RMS, 5-17 FAC field See FAB\$B\_FAC field inhibiting automatic Create, (P) RMS, RMS-29 FAB\$V\_TRN option Facility in file access field, (P) RMS, 5-11 creation, (P) Modular Procedures, 5-1 requirement for truncate-on-put operation, (P) library, (P) Modular Procedures, 3-2 RMS, 7-17naming, (P) Modular Procedures, 5-1 FAB\$V\_UFO option, (P) RMS, 5-18 naming conventions, (P) Modular Procedures, effect on internal structures, (P) RMS, 5-20 relationship to CHAN\_MODE subfield, (P) number, (P) Modular Procedures, 3-3 RMS, 5–5 prefix, (P) Modular Procedures, 3-2, 5-1 FAB\$V\_UPD option, (P) RMS, 5-11, 5-28 .FACILITY directive, (P) Programming Resources, requirement for implementing update-if option, (P) RMS, 7-17in message source file, (P) Message, MSG-18 requirement for Update service, (P) RMS, 4-22 qualifiers, (P) Message, MSG-18 FAB\$V\_UPI option, (P) RMS, 5-28 Facility name reqirement for setting, (P) RMS, 5-29 in .FACILITY directive, (P) Message, MSG-18

Failure (cont'd) Facility number login in .FACILITY directive, (P) Message, MSG-18 accounting, (M) Maintaining VMS, 6-2 Facility object module, (P) Message, MSG-4 minimizing, Dependability Handbook, 9-16 Facility-specific data type code, (P) Routines Intro, mounting disk, (M) Maintaining VMS, 2-5 2 - 19multiple-cause, Dependability Handbook, 9-16 Facility-specific descriptor class codes, (P) notification for MOUNT command, (M) Routines Intro, 2-43 Maintaining VMS, 2-7 FACILITY\_NAME keyword, (P) VAXTPU, 7-378 of a network node, Dependability Handbook, "Facility\_name" string constant parameter to 4 - 15GET\_INFO, (P) VAXTPU, 7-206 of an interconnect path, Dependability Failover Handbook, 4-14 application, Dependability Handbook, 8-51 personnel and policy impact, Dependability batch and print queue, Dependability Handbook, 3-19 Handbook, 9-23 preventing catastrophic, Dependability capturing user requests, Dependability Handbook, 9-15 Handbook, 8-55 system defined, Dependability Handbook, Glossary-2 anticipating, (M) Maintaining VMS, 6-5, dual-ported DSA disk, (M) VAXcluster, 5-5 dual-ported DSA tape. (M) VAXcluster, 5-5 using dump file to determine cause of, (M) forcing for queue manager, (M) Maintaining Maintaining VMS, 6–1 VMS, 5-63 Failure recovery of queue manager, V5.5 New Features, 5-1; defined, Dependability Handbook, 1-9, (M) VAXcluster, 6-1; (M) Maintaining Glossary-3 VMS, 5-2, 5-3Failure recovery strategy of queues, V5.5 New Features, 5-7, 5-8; (M) applying to building blocks, Dependability Maintaining VMS, 5-5, 5-56 Handbook, 1-21 Rdb/VMS database failover in VAXclusters, automobile metaphor, Dependability Dependability Handbook, 8-28 Handbook, 1-13 terminal, Dependability Handbook, 8-48, 8-53 enhancing dependability, Dependability using shadowed disks, V5.5 New Features, Handbook, 1-16 B - 106examples, Dependability Handbook, 1–12 VMS queue manager's capabilities, **Failures** Dependability Handbook, 8-19 See Login failures Failover list FAL (file access listener), (M) Networking, 1-16, queue manager, (M) Maintaining VMS, 5-2 insufficient, (M) Maintaining VMS, 5-86 creating a default account, V5.5 New Features, specifying for an autostart queue, (M) Maintaining VMS, 5–56 default access, V5.5 New Features, D-2 specifying for queue manager, (M) Maintaining VMS, 5-55, 5-86 Fallback See Terminal fallback Failure areas where they occur, Dependability False expression Handbook, 3-1 and IF command, (U) DCL Dictionary, catastrophic, Dependability Handbook, 9-15 DCL1-237 defined, Dependability Handbook, 1-8, False failures in hardware components, Dependability Glossarv-2 detecting multiple-cause, Dependability Handbook, 9-17 FALSE logical value, (P) File Def Language, Handbook, 9-17 eliminating single points, Dependability FAO argument, (P) Message, MSG-1, MSG-22, Handbook, 6-2 examples, Dependability Handbook, 1-11 MSG-23factors, Dependability Handbook. 9-13 signaling, (P) Programming Resources, 9-12 false, Dependability Handbook, 9-17 FAO built-in procedure, (P) VAXTPU, 7-138 to in software applications, Dependability 7 - 139Handbook, 8-1 **FAO** directives intermittent, Dependability Handbook, 9-15 with MESSAGE, (P) VAXTPU, 7-267 lack of software scalability, Dependability with MESSAGE\_TEXT, (P) VAXTPU, 7-270

Handbook, 8-21

FAO parameter	Fault prevention strategy (cont'd)
specifying, (P) Programming Resources, 9–12 /FAO_COUNT qualifier	automobile metaphor, <i>Dependability Handbook</i> , 1–13
in message definition, (P) Message, MSG-22	enhancing dependability, Dependability
Message Utility, (P) Programming Resources,	Handbook, 1-16
9–9	examples, Dependability Handbook, 1-12
Fast-delete option, (P) File Applications, 8-5, 9-9	Fault tolerance
See also RAB\$V_FDL option	business example, Dependability Handbook,
Fast mutex, (P) DECthreads, 2–10, cma–35,	1–4
pthread-76	defined, Dependability Handbook, 1-2, 1-8,
/FAST qualifier, (M) Backup, BCK-49	Glossary-3
FAST_DELETE attribute, (P) File Def Language,	examples, Dependability Handbook, 1-11
FDL-10	through volume shadowing, V5.5 New
/FAST_LOAD option	Features, B–106
compared with /NOFAST_LOAD option, (P)	types of faults, (M) VAXcluster, 3–8
Convert, CONV-11	VAXft systems, Dependability Handbook, 6–10
/FAST_LOAD qualifier, (P) Convert, CONV-11	FCB (file control block), (P) System Dump
Fatal exception, (P) System Dump Analyzer,	Analyzer, SDA–76
SDA-16	FCP class record, (M) Monitor, A-18
FATALEXCPT bugcheck, (P) System Dump	FDDI (fiber distributed data interface), V5.5 New
Analyzer, SDA-16	Features, A-1
Fatal internal error	adapter, (M) VAXcluster, 1-3
resulting from exceeding virtual address space,	and Ethernet, V5.5 New Features, A-53
(P) VAXTPU, 5–1	business use of, Dependability Handbook, 1–2
/FATAL qualifier	configurations, (M) VAXcluster, 2–2, 2–6, 2–10;
in message definition, (P) Message, MSG-23	Dependability Handbook, 6–24
Fault	configuring adapter, (M) VAXcluster, 7–34
access control violation, (P) MACRO, E-4	error code, V5.5 New Features, A-6
arithmetic, (P) MACRO, E-1	error log entry, (M) VAXcluster, C-21 hardware address, (M) VAXcluster, 7-5
arithmetic type code, (P) MACRO, E-1	implementation options, Dependability
breakpoint, (P) MACRO, E-8	Handbook, 7–10
customer reserved opcode, (P) MACRO, E-6	influence of LRPSIZE on, (M) VAXcluster, 2–14
defined, Dependability Handbook, 1–7,	large packet support, (M) VAXcluster, 2–14;
Glossary-3	Dependability Handbook, 7–11
examples, Dependability Handbook, 1–11	monitoring activity, (M) VAXcluster, 7–26
fix floating reserved operand, (P) RTL Library,	multiple adapters, (M) VAXcluster, 2–10
LIB-165	NCP Line Counters for, V5.5 New Features,
floating	A-4
divide-by-zero, (P) MACRO, E-3	new and changed parameters, V5.5 New
overflow, (P) MACRO, E-2, E-3	Features, A-55
underflow, (P) MACRO, E-4	new type of LAN, V5.5 New Features, A-54
instruction execution, (P) MACRO, E-6	overview of, V5.5 New Features, A-53
memory management, (P) MACRO, E-4 privileged instruction, (P) MACRO, E-6	port, (M) VAXcluster, C-9
reserved	programming interface, V5.5 New Features,
addressing mode, (P) MACRO, E-4	A-53
opcode, (P) MACRO, E-6	providing multiple paths to, Dependability
trace, (P) MACRO, E-8	Handbook, 7-5
translation not valid, (P) MACRO, E-4	used in VAXclusters, Dependability Handbook,
Fault management	6–24
defined, Dependability Handbook, 1–10,	use of priority field, (M) VAXcluster, 2–14
Glossary-3	using as VAXcluster interconnect,
Fault prevention	$Dependability\ Handbook,\ 7-16$
defined, Dependability Handbook, 1–9,	FDL\$CREATE routine, (P) Programming
Glossary-3	Resources, 8–57; (P) Utility Routines, FDL–6;
Fault prevention strategy	(P) File Def Language, FDL-41
applying to building blocks, Dependability	
Handbook,1–21	

FDL\$GENERATE routine, (P) Programming Resources, 8-55; (P) Utility Routines, FDL-11; (P) File Def Language, FDL-41 FDL\$PARSE routine, (P) Utility Routines, FDL-14; (P) File Applications, 9-1; (P) File Def Language, FDL-41; (P) RMS, 4-9 FDL\$RELEASE routine, (P) Utility Routines, FDL-17; (P) RMS, 4-9 FDL (File Definition Language), (P) Programming Resources, 1–39, 8–54; (P) File Applications, 1-11, 3-13, 4-2; (P) File Def Language, FDL-1, FDL-42 See also FDL file ACCESS attribute, (P) File Def Language, FDL-2 applying source, (P) Programming Resources, 8 - 57attributes, (P) File Applications, 4-2; (P) File Def Language, FDL-1, FDL-46 editor, (P) Programming Resources, 8-55; (P) File Def Language, FDL-42 file type, (P) Analyze/RMS\_File, ARMS-16 generating source, (P) Programming Resources, 8-55 generation of file over the network, (M) DECnet-VAX Guide, 2-9 library routine, (P) File Def Language, FDL-41 scripts, (P) File Applications, 4-2 syntax, (P) File Applications, 4-2; (P) File Def Language, FDL-39 FDL attribute predefined using FDL\$PARSE routine, (P) File Applications, 9-1 FDL Editor, (P) File Applications, 1-14 See also Edit/FDL Utility as alternative to multiple XABs in example, (P) RMS, 4-9 FDL file, (P) Programming Resources, 1–39, 8–55; (P) File Def Language, FDL-41, FDL-42, FDL-54 ANALYSIS OF AREA section, (P) File Def Language, FDL-3 ANALYZE/RMS FILE, (P) Analyze/RMS\_File, ARMS-14 comment in, (P) File Def Language, FDL-40 created with ANALYZE/RMS FILE, (P) File Def Language, FDL-39 creating. (P) Programming Resources. 8-55; (P) File Applications, 4-2; (P) Analyze/RMS\_File, ARMS-10, ARMS-14; (P) File Def Language, FDL-39 creating data files, (P) File Applications, 4-17 creating with FDL\$GENERATE routine, (P) File Applications, 4–15

designing, (P) File Applications, 4-11

FDL file (cont'd) examining with ANALYZE/RMS\_FILE, (P) File Applications, 10-1 generating from a data file, (P) File Applications, 10–24 using existing, (P) Programming Resources, 8-55 with CONVERT, (P) Convert, CONV-1 with EDIT/FDL, (P) File Def Language, FDL-42, FDL-47 FDL option, (P) File Def Language, FDL-10 /FDL qualifier, (P) File Applications, 10-24 EXCHANGE/NETWORK command, V5.5 New Features, E-19 limitation, (P) Analyze/RMS\_File, ARMS-10, ARMS-13, ARMS-20 overview, (P) Analyze/RMS\_File, ARMS-14 using with /OUTPUT qualifier, (P) Analyze/RMS\_File, ARMS-16 with CONVERT, (P) Convert, CONV-1, CONV-13 FDL routine See also FDL specification creating data files, (P) File Def Language, FDL-41 examples, (P) Utility Routines, FDL-1 to FDL-5 FDL\$CREATE routine, (P) File Applications, 4-15, 4-18, 6-3 FDL\$GENERATE routine, (P) File Applications, 4–15 FDL\$PARSE routine, (P) File Applications, 4-15, 6-3, 9-1 example, (P) File Applications, 9-20 to 9 - 22FDL\$RELEASE routine, (P) File Applications, 4-15, 6-3, 9-1 example, (P) File Applications, 9-20 to 9 - 22introduction, (P) Utility Routines, FDL-1 FDL specification See also FDL routine creating, (P) Utility Routines, FDL-6 default attributes. (P) Utility Routines, FDL-15 generating, (P) Utility Routines, FDL-11 in character string, (P) Utility Routines, FDL-8 use of semicolons as delimiters, (P) Utility Routines, FDL-1 parsing. (P) Utility Routines, FDL-14 with CONV routines, (P) Utility Routines, CONV-15 FDT (function decision table), (P) Device Support (A), 1–2, 4–10 address, (P) Device Support (A), 4-8, 6-4; (P) Device Support (B), 1–30 as used by EXE\$QIO. (P) Device Support (A),

4-8

```
FDT (function decision table) (cont'd)
                                                       FFx instruction (cont'd)
   creating, (P) Device Support (A), 6-4 to 6-8,
                                                          RTL routine to access, (P) RTL Library,
       11-4; (P) Device Support (B), 2-37 to 2-38
                                                              LIB-147
   dispatching to FDT routines from, (P) Device
                                                       FHM (file highwater mark), (U) DCL Dictionary,
      Support (A), 4-13
                                                           DCL1-244
   relocating addresses specified in, (P) Device
                                                       FIB (file information block), (P) I/O User's I, 1-3
       Support (A), 11-4
                                                          See also ACP function
   size, (P) Device Support (B), 1-31
                                                          access control, (P) I/O User's I, 1-10
   specifying buffered functions in, (P) Device
                                                          contents, (P) I/O User's I, 1-5 to 1-7
       Support (A), 4–11
                                                          descriptor, (P) I/O User's I, 1–2, 1–3
   specifying legal functions in, (P) Device
                                                          directory lookup, (P) I/O User's I, 1-8
       Support (A), 4-11
                                                          disk quota, (P) I/O User's I, 1-33 to 1-34
FDT routine, (P) Device Support (A), 1-3, 1-22 to
                                                          extend control, (P) I/O User's I, 1-11
    1-23, 2-3 to 2-4
                                                          format, (P) I/O User's I, 1-5
   adjusting process quotas in, (P) Device Support
                                                          IO$_ACCESS, (P) I/O User's I, 1-26
       (B), 3–12
                                                          IO$_ACPCONTROL, (P) I/O User's I, 1-31 to
   allocating IRPE in, (P) Device Support (B),
                                                              1-34
       1 - 42
                                                          IO$_CREATE, (P) I/O User's I, 1-23
   allocating system buffer in, (P) Device Support
                                                          IO$_DEACCESS, (P) I/O User's I, 1-28
      (A), 7-6 to 7-7
                                                          IO$_DELETE, (P) I/O User's I, 1-30
   calling sequence, (P) Device Support (A), 7-2
                                                          IO$_MODIFY, (P) I/O User's I, 1-29
   completing an I/O operation in, (P) Device
                                                          truncate control, (P) I/O User's I, 1-13
       Support (B), 3–24 to 3–25
                                                       Fiber distributed data interface
   context, (P) Device Support (A), 4-13, 7-1; (P)
                                                          See FDDI
      Device Support (B), 4-11
                                                       Fiber optics
   creating, (P) Device Support (A), 7-1 to 7-5
                                                          application for network security, (M) Security,
   dispatched to from EXE$QIO, (P) Device
                                                              8-5
       Support (A), 4–12
                                                          link, (M) DECnet-VAX Guide, 1-7
   ensuring an even byte count in, (P) Device
                                                       FID (file identification), (M) Analyze/Disk, A-1
       Support (A), 14-23
                                                       Field, (P) File Applications, 1-1; (P) MACRO,
   entry point, (P) Device Support (B), 4-11
   exit method, (P) Device Support (A), 7-2 to
                                                          comment, (P) MACRO, 2-1, 2-3
       7-5; (P) Device Support (B), 4-12
                                                          label, (P) MACRO, 2-1, 2-2
   for buffered I/O, (P) Device Support (A), 7-6 to
                                                          must be zero (MBZ), (P) MACRO, 7-1
                                                          operand, (P) MACRO, 2-3
  for direct I/O, (P) Device Support (A), 7-6, 7-9;
                                                          operator, (P) MACRO, 2-3
      (P) Device Support (B), 3-31 to 3-33, 3-40
                                                          read as zero (RAZ), (P) MACRO, 7-2
      to 3-42, 3-54 to 3-55
                                                          should be zero (SBZ), (P) MACRO, 7-2
  provided by VMS, (P) Device Support (A), 7-8
                                                          variable-length bit, (P) MACRO, 8-6
                                                       FIELD account
  register usage, (P) Device Support (A), 5-3,
                                                          initial modification, (M) Setting Up VMS, 4-5
       7-1; (P) Device Support (B), 4-11
                                                          user authorization file entry, (M) Setting Up
  returning to the system service dispatcher, (P)
                                                              VMS, 4-4
      Device Support (B), 3–39
                                                       Field length
   setting attention ASTs in, (P) Device Support
                                                          identifier in symbolic name, (P) RMS, 2-3
      (B), 3–6
                                                       Field of data, (M) Show Cluster, SHCL-2
  specifying, (P) Device Support (B), 4-11
                                                          adding to report, (M) Show Cluster, SHCL-7
  synchronization requirements, (P) Device
                                                          definition of each, (M) Show Cluster, SHCL-33
      Support (B), 4–11
                                                              to SHCL-43
  unlocking process buffers in, (P) Device
                                                          removing, (M) Show Cluster, SHCL-9,
      Support (B), 3–109
                                                              SHCL-68
FFC (Find First Clear) instruction, (P) MACRO,
                                                       /FIELD qualifier, (U) Sort/Merge, SORT-62
                                                       FIFO ("first in, first out") scheduling, (P)
F-floating conversion, (P) RTL Math, 1–5
                                                           DECthreads, 2-6
FFS (Find First Set) instruction, (P) MACRO,
                                                       .FIGURE command, (U) Text Processing, 3-22,
    9 - 40
                                                           3-23, 3-26; (U) DSR Ref, 2-36
FFx instruction
```

File (cont'd) .FIGURE DEFERRED command, (U) Text copying to magnetic tape, (U) Files and Processing, 3-22, 3-24, 3-26; (U) DSR Ref, Devices, 4-15 2 - 36corrupted, (P) File Applications, 10-1; (P) **Figures** Analyze / RMS\_File, ARMS-14 formatting, (U) DSR Ref, A-3 creating, V5.5 New Features, E-13; (U) VMS example, (U) DSR Ref, 2-37 Intro, 2-4; (U) Files and Devices, 1-6; File, (P) File Applications, 1–1 (U) DCL Dictionary, DCL1-74, DCL1-84, See also Command procedure, Log file, DCL1-213; (U) EVE Ref, 1-9; (P) File Def Initialization file, Source file Language, FDL-39 See also Directory file flowchart, (M) Security, 5-8 See also File characteristic with EDT editor, (U) DCL Dictionary, See also File protection DCL1-180 See also File sharing with EVE, (U) DCL Dictionary, DCL1–189, DCL1-192 See also File structure with TECO editor, (U) DCL Dictionary, access in a VAXcluster, (P) File Applications, DCL1-186 with VAXTPU, (U) DCL Dictionary, accessing remote, (M) DECnet-VAX Guide, 2-2 access strategies, (P) Programming Resources, DCL1-189, DCL1-192 creating at a remote node, (M) DECnet-VAX adding lines to a, (P) SUMSLP, SUM-7 Guide, 2-7 aligning, (P) File Applications, 3-13creating FDL, (P) Analyze/RMS\_File, ARMS-10 allocating headers, (U) DCL Dictionary, creating in command procedure, (U) Using DCL1-244 VMS. 6-13 analysis, (P) Analyze/RMS File, ARMS-10 creating owner UIC, (U) DCL Dictionary, analyzing remote file structure, (M) DCL1-85 DECnet-VAX Guide, 2-9 deassigning logical name, (U) DCL Dictionary, appending to, (U) DCL Dictionary, DCL1-34 DCL1-58 attributes, (P) Programming Resources, 8-1, default access control. (M) Networking, 1-25 8-3; (P) File Def Language, FDL-1 default extension size on disk, (U) DCL backing up to remote node, (M) DECnet-VAX Dictionary, DCL1-244 Guide, 2-9default name for journaling, (P) VAXTPU, 1-12 batch job definition, (U) VMS Intro, 2-1; (U) Using deleting after processing, (U) DCL VMS, 2-1 Dictionary, DCL2-379 deleting, (U) VMS Intro, 2-4; (U) DCL carriage control in, (U) Using VMS, 2-5 Dictionary, DCL1-131; (M) Exchange, characteristics argument for FAB, (P) RMS, EXCH-23 deleting remote, (M) DECnet-VAX Guide, 2-7 closing, (U) DCL Dictionary, DCL1-58 deletion after printing or submitting, V5.5 comparing, (U) DCL Dictionary, DCL1-151 Release Notes, 1-4 comparing remote files, (M) DECnet-VAX displaying, (U) VMS Intro, 2-5 Guide, 2-8 allocated blocks, (U) DCL Dictionary, compressing, (P) Programming Resources, 8-26 DCL1-164 concatenating, (U) DCL Dictionary, DCL1-74 at terminal, (U) DCL Dictionary, contiguity, (P) File Applications, 3-4, 3-24 DCL2-389 controlling access over the network, (M) backup date, (U) DCL Dictionary, DECnet-VAX Guide, 2-6 DCL1-161 copying, V5.5 New Features, E-13; (U) VMS blocks used. (U) DCL Dictionary, Intro, 6-8; (U) Using VMS, 2-16; (U) DCL DCL1-164 Dictionary, DCL1-74, DCL1-213 creation date, (U) DCL Dictionary, between nodes, (U) Using VMS, 2-16 DCL1-161 with access control string, (U) Using VMS, expiration date, (U) DCL Dictionary, 2 - 19DCL1-161 copying from local to remote node, (M)files opened by the system, (U) DCL DECnet-VAX Guide, 3-29 Dictionary, DCL2-266 copying from magnetic tape, (U) Files and help, (U) DCL Dictionary, DCL1-231 Devices, 5-3

copying remote, (M) DECnet-VAX Guide, 2-5

File	File
displaying (cont'd)	getting information about (cont'd)
latest version, (U) DCL Dictionary, DCL1-165	synchronously, (P) System Services Ref, SYS-365
modification date, (U) DCL Dictionary, DCL1–161	header, (P) File Applications, 3–9, 3–12, 3–15, 10–11
names of installed files, $(U)$ $DCL$	how CONVERT processes, (P) Convert,
Dictionary, DCL2–265, DCL2–266	CONVENT processes, (F) Convert,
names of open files, (U) DCL Dictionary,	identifier field, (U) Files and Devices, B-10
DCL2-265	ignoring characters in comparisons, (U) DCL
on current output device, (U) DCL	Dictionary, DCL1–154
Dictionary, DCL2-389	ignoring records in comparisons, (U) DCL
owner UIC, (U) DCL Dictionary,	Dictionary, DCL1–154
DCL1-163	ignoring strings in comparisons, (U) DCL
protection, (U) DCL Dictionary, DCL1-163	$Dictionary,\mathrm{DCL1} ext{}154$
displaying contents of, (M) Exchange, EXCH-41	including in conversation, (U) Phone, PHONE-13
displaying contents over the network, (M)  DECnet-VAX Guide, 2-6	indexed, (U) Files and Devices, 1–6; (P) File Applications, 10–28, 10–30
displaying list of remote files, (M) DECnet-VAX	initial allocation, (P) File Applications, 3-4
Guide, 2–5	input
DOS-11 format, (M) Exchange, EXCH-5	EVE, (U) DCL Dictionary, DCL1–189
dump, (M) System Generation, SGN-14	VAXTPU, (U) DCL Dictionary, DCL1-189
dumping, (U) DCL Dictionary, DCL1-174	input source, (P) SUMSLP, SUM-1
dumping remote, (M) DECnet-VAX Guide, 2-9	insertion of, (P) Librarian, LIB-27
editing, (U) EVE Ref, 1–13	installed
with EDT editor, (U) DCL Dictionary,	displaying names of, (U) DCL Dictionary,
DCL1-180	DCL2-266
with EVE, (U) DCL Dictionary, DCL1-189,	integrity, (P) Analyze/RMS_File, ARMS-13
DCL1-197	internal structure, (P) File Applications, 10-1;
with SUMSLP editor, (U) DCL Dictionary,	(P) Analyze/RMS_File, ARMS-1
DCL1-185	list in directory, (U) DCL Dictionary,
with TECO editor, (U) DCL Dictionary,	DCL1-159
DCL1-186	listing, (U) VMS Intro, 2-6; (P) SUMSLP,
with VAXTPU, (U) DCL Dictionary,	SUM-3, SUM-6
DCL1-189, DCL1-197	locking in a VAXcluster, (P) File Applications,
editing at a remote node, (M) DECnet-VAX	3–29
Guide, 2–7	logical name in specification, (M) Networking,
editing in command procedure, (U) Using	1–27
VMS, 6-15	magnetic tape, (P) File Applications, 1–9
examining remote, (M) DECnet-VAX Guide,	manipulation over the network, $(M)$
2–9	Networking, 1–21
exceptions, (P) Convert, CONV-3	mapping, (P) Programming Resources, 8-4
expanding, (P) Programming Resources, 8–32	maximum number on disk, (U) DCL
expiration date, (M) Maintaining VMS, 4–3	Dictionary, DCL1–245
extending, (U) DCL Dictionary, DCL1-36	merging, (U) Using VMS, 1–42; (P)
extension, (P) File Applications, 3–23	Programming Resources, 8–19
extension size, (P) File Applications, 3–5	and sequence checking, (U) Using VMS,
FDL, (P) File Applications, 4–2, 4–17, 10–1,	1–42
10–24; (P) File Def Language, FDL–42	multiple, (U) Using VMS, 1-37
Files-11 format, (M) Exchange, EXCH-4	remote, (M) DECnet-VAX Guide, 2–8
format, (M) Exchange, EXCH-3	modifying, (P) Programming Resources, 8–58
	characteristics of, (U) DCL Dictionary,
formatting text	DCL2–144
See DSR	queue entry for, (U) DCL Dictionary,
fragmentation, (M) Setting Up VMS, 6-17	DCL2–136
getting information about	RMS defaults for file operations, $(U)$ DCL
asynchronously, (P) System Services Ref,	Dictionary, DCL2–214
SYS-323	Dictional y, DO12-214

File (cont'd) File modifying queue entry for, Obsolete Features, restricted (cont'd) 1 - 20access to, (U) DCL Dictionary, DCL2-236 name, (U) VMS Intro, 2-1 RT-11 format, (M) Exchange, EXCH-4 NETPROXY.DAT, (M) DECnet-VAX Guide, searching for character string, (U) DCL Dictionary, DCL2-81 NETSERVER.LOG, (M) DECnet-VAX Guide, searching remote, (M) DECnet-VAX Guide, 2-8 sensitive 4-11, 4-15 nonstandard format, (U) Files and Devices, application of alarm, (M) Security, 4-42 4-2, 4-13 sequential, (P) Programming Resources, 8-10 on public volumes, (M) Maintaining VMS, 2-1 sharing open file quota, (U) Using VMS, 6-33 considerations for a VAXcluster, (M) opening, (U) DCL Dictionary, DCL2-5 Security, 9-2 operations over the network, (U) Using VMS, sharing and exchanging in network environment, (M) Security, 2 - 14organization, (P) Analyze/RMS\_File, ARMS-1; 8-18, 8-22 (P) Convert, CONV-1; (P) RMS, 1-1 sorting, (U) Using VMS, 1-37; (P) output, (U) EVE Ref, 1-14, 1-19; (P) Programming Resources, 8–15 SUMSLP, SUM-3 remote, (M) DECnet-VAX Guide, 2-8 EVE, (U) DCL Dictionary, DCL1-197, specification, (M) Networking, 1-23 DCL1-203 specification access control string, (M) VAXTPU, (U) DCL Dictionary, DCL1-197, Networking, 1-25 DCL1-203 specification argument for FAB, (P) RMS, 1-2 page, (M) System Generation, SGN-14 specification over the network, (M) Networking, printing, (U) VMS Intro, 2-7; (U) DCL Dictionary, DCL2-13 specifying one or many, (P) File Applications, printing remote, (M) DECnet-VAX Guide, 2-6 privileges, (U) Files and Devices, 2-8 specifying remote, (M) DECnet-VAX Guide, 2-2 Prolog 3 indexed files, (P) Utility Routines, specifying remote VAXcluster, (M) DECnet-VAX CONV-1, CONV-18 Guide, 2-2 protecting, (U) VMS Intro, 2-8; (U) Mail, startup, (M) SYSMAN, SM-11, SM-80, SM-82, MAIL-12 SM-90 public, (M) System Management Intro, 4-1; STARTUP.COM, (M) SYSMAN, SM-11 (M) Maintaining VMS, 2-2 structure of, (P) Analyze/RMS\_File, ARMS-1 purging, (U) VMS Intro, 2-5; (U) Using VMS, swap, (M) System Generation, SGN-14 2-17; (U) DCL Dictionary, DCL2-24 SYSMAN.LIS, (M) SYSMAN, SM-26, SM-33, SM-34, SM-50, SM-52, SM-53, SM-63, purging remote, (M) DECnet-VAX Guide, 2-7 queueing for printing at remote node, (M) SM-90 DECnet-VAX Guide, 2-6 system, (M) Setting Up VMS, 6-16 system parameter, (M) System Generation, quorum, (M) System Management Intro, 6-14 quota, (M) SYSMAN, SM-8 SGN-44 temporary, (P) Convert, CONV-27; (P) File See also Quota file Def Language, FDL-19 QUOTA.SYS, (M) SYSMAN, SM-9 transferring, V5.5 New Features, E-13, E-15; reading from command procedure, (U) Using (U) DCL Dictionary, DCL1-213 VMS, 6-15 transferring from one volume to another, (M) reading records from, (U) DCL Dictionary, Exchange, EXCH-15 DCL2-28 recovering in EVE, (U) Text Processing, 1-37 transferring to and from remote node, (P) recovering lost, (M) Setting Up VMS, 4-24 Convert, CONV-3 renaming, (U) VMS Intro, 2-7; (U) Using transfers over the network, (M) DECnet-VAX VMS, 2-17; (U) DCL Dictionary, DCL2-34; Guide, 2-5 transfers with MAIL, (M) Security, 8-18 (M) Exchange, EXCH-38 type, (U) VMS Intro, 2-2 reorganization, (P) Convert, CONV-4 unlocking, (U) DCL Dictionary, DCL2-395 reserved update, (P) SUMSLP, SUM-1 list of, (U) Files and Devices, A-1 produced by DIFFERENCES/SLP DCL restoring from remote node, (M) DECnet-VAX command, (P) SUMSLP, SUM-3 Guide, 2-9 updating restricted

File	File characteristic, (U) Using VMS, 2-4 to 2-5;
updating (cont'd)	(P) File Applications, 4–14, 4–27, 4–28
with SUMSLP editor, (U) DCL Dictionary,	ACP-QIO attributes, (P) I/O User's I, 1–18
DCL1-185	record, (U) Using VMS, 2-4
version, (U) VMS Intro, 2-3	size, (U) Using VMS, 2-5
version limit	FILE command, (U) Using VMS, 1-33; (U) Mail,
defining at directory creation, (U) DCL	MAIL-10, MAIL-50
Dictionary, DCL1-90	See also MOVE command
volume configurations, (U) Files and Devices,	File component descriptor
B-3, B-4, B-5, B-7	address field, (P) RMS, 6-3
write-only, (M) Security, 4-8	example, (P) RMS, 6-4
writing in command procedure, (U) Using	field value logic, (P) RMS, 6–3
VMS, 6-13	list of, (P) RMS, 6-3
writing records to, (U) DCL Dictionary,	size field, (P) RMS, 6-3
DCL2-399	suggested use of, (P) RMS, 6-4
File access	File control block
See also Access	See FCB
See also Access type	File Definition Language
See also UIC	See FDL
and ownership categories, (U) Using VMS, 7-4	File Definition Language Editor
category summary, (P) File Applications, 4–21	
controlling, (M) VAXcluster, 4–12	See FDL Editor
controlling through access control lists, (P)	File Definition Language routine
Utility Routines, ACL-1	See FDL routine
defaults, (P) File Applications, 7–5	File design
on disk, (U) Using VMS, 2-9; (U) Files and	attributes, V5.5 Release Notes, C-1; (P) File
Devices, 4–13; (U) DCL Concepts, 3–5	Applications, 3–4
on tape, (U) Using VMS, 2-9; (U) Files and	File disposition, (P) File Applications, 9–12
Devices, 4–13; (U) DCL Concepts, 3–5	File expiration date
options, (P) File Applications, 4–21	specifying retention time values, (U) DCL Dictionary, DCL2-242
over network, (M) Networking, 1-3	File Expiration Date and Time
protection, (P) Routines Intro, A-5t	evaluation criteria, V5.5 New Features, B-112
remote, (M) Networking, 1–21 transparent	usage, V5.5 New Features, B-112
providing with DFS, Dependability	File extension
Handbook, 7–22	using Extend service, (P) RMS, RMS-36
File access block, (P) Routines Intro, A-5t	File extension size
See FAB	changing default, (U) DCL Dictionary,
	DCL2-240
File access block address field	File handling
See RAB\$L_FAB field	network operations, (M) DECnet-VAX Guide,
File access field	2–4
See FAB\$B_FAC field	File header, (U) Files and Devices, 1-5; (M)
File access listener	Analyze/Disk, B-2; (P) File Applications, 1-7
See FAL	$(P) Analyze / RMS\_File, ARMS\_1$
FILE attribute, (P) File Def Language, FDL-2,	description of, (U) Files and Devices, 1-6
FDL-16	extension, $(M)$ Analyze $/$ Disk, B-2
File attribute options, (M) Exchange, EXCH-7 File attributes	Files–11 structure, (U) Files and Devices, A–2
altering over the network, (M) DECnet-VAX	primary, (M) Analyze/Disk, B-2
Guide, 2–9	File header characteristic extended address block
specifying, (U) Sort/Merge, SORT-43	See XABFHC block
FILE ATTRIBUTES structure, (P) File	File header label
Applications, 10–12, 10–16, 10–19	See Header label
File banner pages, (M) Maintaining VMS, 5–32	FILE HEADER structure, (P) File Applications,
	10–12, 10–16, 10–19
See also Job banner pages File browser (M) Security 3-13 4-42 7-3 7-5	File highwater mark, (U) DCL Dictionary,
File browser, (M) Security, 3–13, 4–42, 7–3, 7–5	DCL1-244

File object (cont'd) File identification analyzing global symbol directory records, (U) See FID DCL Dictionary, DCL1-27 File identification field analyzing link option specification records, (U) See NAM\$W\_FID field DCL Dictionary, DCL1-28 File image analyzing module header records, (U) DCL analyzing, (U) DCL Dictionary, DCL1-22 Dictionary, DCL1-28 fixup section analysis, (U) DCL Dictionary, analyzing module traceback records, (U) DCL DCL1-23 Dictionary, DCL1-28 File management, (P) Programming Resources, analyzing relocation records, (U) DCL 1 - 23Dictionary, DCL1-29 File name analyzing text, (U) DCL Dictionary, DCL1-29 See also File name field identifying errors, (U) DCL Dictionary, ANSI, (U) Files and Devices, 4-18 DCL1-26changing, (U) DCL Dictionary, DCL2-34 File-opening option changing during copy operation, (M) Exchange, See also Creation-time option EXCH-5 definition, (U) Using VMS, 2-2 adding records, (P) File Applications, 9-10 to rules for entering, (U) Using VMS, 2-2; (U) data reliability. (P) File Applications, 9-11 DCL Concepts, 3–13 file access and sharing, (P) File Applications, valid characters, (U) Using VMS, 2-2; (U) 9-6 to 9-7 DCL Concepts, 3-13 file disposition, (P) File Applications, 9–12 VMS, (U) Files and Devices, 4–18 file performance, (P) File Applications, 9-7 to File name address descriptor See NAM\$L\_NAME descriptor file specification, (P) File Applications, 9-7 File name address field for indexed files, (P) File Applications, 9-12 to See NAM\$L\_NAME field File name field for magnetic tape processing, (P) File default value, (U) Using VMS, 2-12; (U) DCL Applications, 9-13 to 9-14 Concepts, 3-22 for nonstandard file processing, (P) File definition, (U) DCL Concepts, 3-1 Applications, 9-14 in full file specification, (U) Using VMS, 2-11 record access, (P) File Applications, 9-10 rules for using an asterisk (\*) wildcard, (U)File operations, network Using VMS, 2-14; (U) DCL Concepts, error messages, (M) DECnet-VAX Guide, 2-10 3-18, 3-19 File optimizations rules for using a percent sign (%) wildcard, (U) using DEC File Optimizer for VMS, Using VMS, 2-15; (U) DCL Concepts, 3-19 Dependability Handbook, 9-6 with a null value, (U) DCL Concepts, 3-16 File organization, (P) File Applications, 1–2, 2–13; File name length field (P) VAXTPU, F-1 See NAM\$B\_NAME field See also Indexed file File name size descriptor See also Relative file See also Sequential file See NAM\$B\_NAME descriptor changing over the network, (M) DECnet-VAX File name status field Guide, 2-9 See NAM\$L\_FNB field changing with CONV routines, (P) Utility File name string Routines, CONV-1 component parts, (P) RMS, 4-9 selecting, (P) File Applications, 2-1 File name string address (FAB\$L\_FNA) field specifying output from SORT/MERGE how used to specify file name string, (P) RMS, operation, (U) Using VMS, 1-41 File organization and record format field File name string size (FAB\$B\_FNS) field how used to specify file name size, (P) RMS, See XAB\$B\_RFO field 4 - 9File organization field File object See FAB\$B ORG field analyzing, (U) DCL Dictionary, DCL1-26 File organization option, (P) File Applications, analyzing debugger information records, (U) 4-28 DCL Dictionary, DCL1-27 File owner group number field See also XAB\$W\_GRP field

File owner group number field (cont'd) in XABPRO field, (P) RMS, 14-4 File owner member number field See XAB\$W\_MBM field File ownership rules, (M) Security, 4-32 FILE parameter for DECnet-VAX command procedure, (M) Networking, 3-79 File positioning, (P) File Applications, 4-30 effect on shared files, (P) RMS, RMS-7 FILE primary attribute ALLOCATION secondary attribute, (P) File Applications, 3-4, 3-24, 4-30 BEST TRY CONTIGUOUS secondary attribute, (P) File Applications, 3-4, 4-31 BUCKET\_SIZE secondary attribute, (P) File Applications, 3-13, 3-24, 4-28, 7-19, 7-20 CONTIGUOUS secondary attribute, (P) File Applications, 3-4, 3-24, 4-30 CONTROL\_FIELD\_SIZE secondary attribute, (P) File Applications, 4–29 CREATE\_IF secondary attribute, (P) File Applications, 4-27 DEFAULT\_NAME secondary attribute, (P) File Applications, 6-4, 9-7 DEFERRED\_WRITE secondary attribute, (P) File Applications, 3–14, 3–27, 7–19, 7–20, DIRECTORY\_ENTRY secondary attribute, (P) File Applications, 4–28 EXTENSION secondary attribute, (P) File Applications, 3-5, 4-31, 9-8, 9-9 GLOBAL\_BUFFER\_COUNT secondary attribute, (P) File Applications, 3-9, 7-17, MAXIMIZE\_VERSION secondary attribute, (P) File Applications, 4–27 MAX\_RECORD\_NUMBER secondary attribute, (P) File Applications, 4–29 MT\_BLOCK\_SIZE secondary attribute, (P) File Applications, 4–28 MT\_CLOSE\_REWIND secondary attribute, (P) File Applications, 9–14 MT\_CURRENT POSITION secondary attribute, (P) File Applications, 9–14 MT\_NOT\_EOF secondary attribute, (P) File Applications, 9-14 MT OPEN REWIND secondary attribute, (P) File Applications, 9-14 MT\_PROTECTION secondary attribute, (P) File Applications, 4–28 NAME secondary attribute, (P) File Applications, 6-4, 9-7 NON FILE STRUCTURED secondary

attribute. (P) File Applications, 9-14

ORGANIZATION secondary attribute, (P) File

Applications, 4–28

FILE primary attribute (cont'd) OWNER secondary attribute, (P) File Applications, 4-28PRINT\_ON\_CLOSE secondary attribute, (P) File Applications, 9–12 PROTECTION secondary attribute, (P) File Applications, 4-28 READ\_CHECK secondary attribute, (P) File Applications, 9–11 REVISION secondary attribute, (P) File Applications, 4–28 SEQUENTIAL ONLY secondary attribute, (P) File Applications, 9–10 SUBMIT\_ON\_CLOSE secondary attribute, (P) File Applications, 9–12 SUPERSEDE secondary attribute, (P) File Applications, 4–27 TEMPORARY secondary attribute, (P) File Applications, 4-27 USER FILE OPEN secondary attribute, (P) File Applications, 7-4, 9-14 WINDOW SIZE secondary attribute, (P) File Applications, 9-8, 9-10 WRITE\_CHECK secondary attribute, (P) File Applications, 9-11 File primitive statistics, (M) Monitor, MON-51 File processing, (P) SUMSLP, SUM-7 many files, (P) File Applications, 5-15 to 5-16 nonstandard file, (P) File Applications, 9-14 services listed, (P) RMS, 3-3 single file, (P) File Applications, 5–14 to 5–15 File-processing option as service output, (P) RMS, 5-12 categories listed, (P) RMS, 5-12 naming convention, (P) RMS, 5-12 File-processing options field See FAB\$L FOP field File protection, (U) Using VMS, 7-9; (U) Files and Devices, 2-8; (P) File Applications, 4-28; (P) File Def Language, FDL-23 See also Protection access types, (U) DCL Concepts, 8-9 ACL-based, (M) System Management Intro, 3-1 applying to public disk volumes, (M)Maintaining VMS, 2-2 changing default, (U) DCL Concepts, 8-9 changing default for volume, (U) DCL Dictionary, DCL2-240 commands for setting, (U) DCL Concepts, 8-9 defining at file creation, (U) DCL Dictionary, DCL1-85 defining default, (U) DCL Dictionary, DCL1-244 displaying default, (U) DCL Concepts, 8-9 displaying for a specific file, (U) DCL Concepts, 8-9 establishing default, (U) DCL Dictionary, DCL2-199

File protection (cont'd) File section number field, (U) Files and Devices, EXCHANGE/NETWORK command, V5.5 New Features, E-17; (U) DCL Dictionary, File sequence number field, (U) Files and Devices, B-12how default is determined, (U) DCL Concepts, File-set identifier field, (U) Files and Devices, B - 12modifying, (U) DCL Dictionary, DCL2-196 File shareable image UIC-based, (M) System Management Intro, 3-1 analyzing, (U) DCL Dictionary, DCL1-22 File protection extended address block File sharing, (P) File Applications, 3-8, 9-6 compatibility with subsequent record access, See XABPRO block (P) File Applications, 7–5 to 7–6 File protection field defaults, (P) File Applications, 7-5 See XAB\$W\_PRO field features, (P) RMS, 1–1 File protection option field interlocked interprocess, (P) File Applications, See XAB\$B\_PROT\_OPT field 7-2, 7-5 to 7-6 File protection violations multistreaming, (P) File Applications, 7-2, 7-4 auditing, (M) Security, 7-3 no-access function, (P) File Applications, 7–4 File qualifier options, (P) File Applications, 7-4 OPTIONS, (P) Linker, 1-5 user-interlocked interprocess. (P) File Files-11 directory structure, (M) Analyze/Disk, Applications, 7-2, 7-4, 7-7 File-sharing field Files-11 disk See FAB\$B\_SHR field Exchange Utility (EXCHANGE), (U) Files and File space, (M) Monitor, MON-9 Devices, 5-3, 5-10 File specification, (U) VMS Intro, 3-1; (U) Files initializing, (U) DCL Dictionary, DCL1-240 and Devices, B-10; (M) DECnet-VAX Guide, save set, (M) Backup, BCK-12 2-12; (P) File Applications, 6-3; (P) Convert, structure, (U) Files and Devices, 1-2, A-1 CONV-5; (P) File Def Language, FDL-19 Level 1, (U) Files and Devices, 5–2 See also Default file specification Level 2, (U) Files and Devices, 5–2 reserved files, (U) Files and Devices, A-1 See also Device structure levels compared. (U) Files and See also Directory name Devices, A-3 See also File name field using Exchange Utility (EXCHANGE) to See also File type field transfer data, (M) Maintaining VMS, 2-8 See also File version number field Files-11 On-Disk Structure, (P) File Applications, See also Node field 1 - 3See also Wildcard character file headers, (P) File Applications, 1-7 alternate form for magnetic tapes, (U) DCL home block, (P) File Applications, 1-7 Concepts, 3-16 index file, (P) File Applications, 1-7 ANSI, (U) Files and Devices, 4-18 Files-11 On-Disk Structure Level 1, (U) DCL applicable services and routines, (P) File Dictionary, DCL1-240 Applications, 5-8 to 5-14 Files-11 On-Disk Structure Level 2 ACP, V5.5 as a parameter value, (U) DCL Concepts, 1-6 New Features, B-112 as a qualifier value, (U) DCL Concepts, 1-10 Files-11 structure, (M) Security, 4-9 See also Output file specifications for creating, (M) Maintaining VMS, 2-4 qualifiers shadowing support, (M) VAXcluster, 3-7 as a search list, (U) Using VMS, 4-15; (U) Files-11 volume DCL Concepts, 4-20 modifying characteristics of, (U) DCL as multiple search lists, (U) DCL Concepts, Dictionary, DCL2-240 4 - 21Files-11 volume format, (M) Exchange, EXCH-2, component descriptors, (P) RMS, 6-2 EXCH-3 components, (P) File Applications, 5–1 to 5–2 devices supported, (M) Exchange, EXCH-4 default specifying files, (M) Exchange, EXCH-4 See Default file specification using wildcards in file specifications, (M) default requirements, (P) RMS, 4-9 Exchange, EXCH-4 default values, (U) DCL Concepts, 3-22 File section defining in context of multiple volumes, (P)

RMS, RMS-56

File specification File specification (cont'd) default values (cont'd) using, (P) File Applications, 5-1 created by logical name translation, (U) using logical name, (P) File Applications, 6-5 Using VMS, 4-13; (U) DCL Concepts, to 6-7 4-13 to 4-14 using name block, (P) File Applications, 5-8 using search lists, (P) File Applications, 5-8 to in output file specification, (U) Using VMS, 2 - 135-16, 6-7 to 6-8 device field in, (U) Using VMS, 2-11 using SYS\$DISK, (P) File Applications, 6-2 directory, (U) Using VMS, 2-11; (P) File using wildcard characters, (P) File Applications, 6–12 to 6–20 Applications, 5–8 to 5–16 with CONV routines, (P) Utility Routines, DOS-11 volume format, (M) Exchange, EXCH-5 CONV-12 example, (U) Using VMS, 2-11; (U) DCL File specification address Concepts, 3-1 See FAB\$L\_FNA field file name, (U) Using VMS, 2-11; (U) DCL File specification parsing, (P) File Applications, Concepts, 3-13 5-7 to 5-8, 6-4 to 6-12 Files-11 volume format, (M) Exchange, conventions used by VMS RMS, (P) File EXCH-4 Applications, 6-4 to 6-12 file type, (U) Using VMS, 2-11; (U) DCL for input file, (P) File Applications, 6-10 Concepts, 3-14for output file, (P) File Applications, 6-10 file version number, (U) Using VMS, 2-11; (U) for related file, (P) File Applications, 6-9 DCL Concepts, 3–15 logical name, (P) File Applications, 6-5 to 6-7 for a command procedure, (P) Patch, PAT-48 search list, (P) File Applications, 6-7 to 6-8 foreign, (U) Using VMS, 2-12 File specification size for installing images, (M) Install, INS-5 See FAB\$B FNS field format, (U) Using VMS, 2-11; (U) DCL File specification specifier Concepts, 3-1, 3-13; (P) File Applications, See also SHOW FILES 5-1 to 5-4, 6-5 to 6-7 with EXIT, (U) EDT Ref, EDT-138 for remote files, (M) DECnet-VAX Guide, 2-2; with HELP, (U) EDT Ref, EDT-179 (P) File Applications, 5–2 to 5–4, 5–8 with INCLUDE, (U) EDT Ref, EDT-147 how handled by Search service, (P) RMS, 4-9 with PRINT, (U) EDT Ref, EDT-157 in parameter list, (U) Using VMS, 2-13 with SET COMMAND, (U) EDT Ref, EDT-173 input, (P) File Applications, 6-10 with WRITE, (U) EDT Ref, EDT-253 in VAXcluster, (M) DECnet-VAX Guide, 2-4 File specification string address, (P) RMS, 4–9 list of included fields, (U) DCL Concepts, 3-1 File specification string size, (P) RMS, 4-9 logical name in, (U) Using VMS, 4-1 Files required for the batch and print queuing maximum length, (P) File Applications, 5-2 system, V5.5 Release Notes, 2–8 node field in, (U) Using VMS, 2-11 File structure, (P) File Applications, 10–11; (P) node name, (U) Using VMS, 2-11, 2-16; (U) Analyze/RMS\_File, ARMS-1 DCL Concepts, 3-2 analyzing interactively, (P) Analyze/RMS\_File, output, (P) File Applications, 6-10 ARMS-1 parsing, (P) RMS, RMS-66 examining, (P) Analyze/RMS\_File, ARMS-15 parsing components of, (P) System Services Ref, File structured device, (P) Device Support (B), SYS-236 1 - 74partial, (P) File Def Language, FDL-19 File system preprocessing, (P) File Applications, 5-8 coordinating, (M) VAXcluster, 4-11 primary, (P) File Applications, 5-4, 6-1 to 6-4, synchronizing access to, (P) Device Support (A), 9-7process default, (P) File Applications, 5-4 File system (XQP) I/O activity, (M) Performance program-supplied, (P) File Applications, 5-4, Management, 3-36 6-1 to 6-4 File system ACP, (P) I/O User's I, 1-1 related, (P) File Applications, 5-4, 6-1 to 6-4, File system cache 6-9, 9-7adjusting, (M) Performance Management, 5-15 RT-11 volume format, (M) Exchange, EXCH-4 File system cache (ACP) SYSGEN parameters, rules for entering, (U) DCL Concepts, 3-1 to (M) Monitor, MON-56 File system cache (ACP/XQP) parameters searching string for, (P) System Services Ref. SYS-236

File system cache (ACP/XQP) parameters (cont'd) File type field (cont'd) relationship to MONITOR FILE\_SYSTEM\_ default values created by logical name CACHE statistics, (M) Performance translation, (U) Using VMS, 4-13; (U) Management, 3-36 DCL Concepts, 4-13 File system cache statistics, (M) Monitor, definition, (U) DCL Concepts, 3-1 in full file specification, (U) Using VMS, 2-11 MON-53 File system requests rules for using an asterisk (\*) wildcard, (U) responding to, (U) DCL Dictionary, DCL2-39 Using VMS, 2-14; (U) DCL Concepts, File tag 3-18, 3-19 creating, V5.5 New Features, E-1 rules for using a percent sign (%) wildcard, (U) DDIF, V5.5 New Features, E-1 Using VMS, 2-15; (U) DCL Concepts, 3-19 disposition by COPY command, V5.5 New with a null value, (U) DCL Concepts, 3-16 Features, E-4 File type length field requirement for, V5.5 New Features, E-1 See NAM\$B\_TYPE field stored semantics file attribute, V5.5 New File type size descriptor Features, E-1 See NAM\$B\_TYPE descriptor using, V5.5 New Features, E-1 File version address descriptor File terminator, (P) Programming Resources, 7-54 See NAM\$L\_VER descriptor File tuning File version address field See Tuning See NAM\$L\_VER field File type, (P) Convert, CONV-5 File version length field ANL, (P) File Applications, 10–5; (P) Analyze/RMS\_File, ARMS-16 See NAM\$B\_VER field BIX, (U) DSR Ref, 6-6 File version limit field BRN, (U) DSR Ref, 4-14, 5-1, 5-2, 6-1, 6-6 See XAB\$W\_VERLIMIT field BTC, (U) DSR Ref, 5-1, 5-2 File version number changing, (U) DCL Dictionary, DCL2-34 changing, (U) DCL Dictionary, DCL2-34 DAT, (P) Analyze/RMS File, ARMS-10 definition, (U) Using VMS, 2-3 default, (U) Command Procedures, 1-2; (U) format in a file specification, (U) DCL DSR Ref, 4-17, 5-2 Concepts, 3-15 default for command definition file, (P) File version number field Command Def, CDU-4 default value, (U) Using VMS, 2-12; (U) DCL default for input files, (P) National Char Set, Concepts, 3-22 NCS-21 definition, (U) DCL Concepts, 3-1 definition, (U) Using VMS, 2-2; (U) DCL in full file specification, (U) Using VMS, 2-11 Concepts, 3-14 rules for using an asterisk (\*) wildcard, (U) EXC, (P) Convert, CONV-3 Using VMS, 2-14; (U) DCL Concepts, FDL, (P) Analyze/RMS\_File, ARMS-16 3-18, 3-19 list of default, (U) Using VMS, 2-2 File version size descriptor LNI, (U) DSR Ref, 4-9, B-1 See NAM\$B\_VER descriptor MEC, (U) DSR Ref. 5-3 File window mapping pointers MEX, (U) DSR Ref, 6-4, 6-6 allocating, (M) Mount, MOUNT-42 RNO, (U) DSR Ref. 5-2 File windows RNT, (U) DSR Ref, 5-2 mapping pointer allocation, (U) DCL RNX, (U) DSR Ref, 6-1, 6-6 Dictionary, DCL1-248 rules for entering, (U) Using VMS, 2-2; (U) specifying mapping pointers, (U) DCL DCL Concepts, 3-14 Dictionary, DCL2-242 used for linker input, (P) Linker, 1-4 File work area File type address descriptor See FWA See NAM\$L\_TYPE descriptor FILE\_ID option, (P) File Applications, 4-31 File type address field FILE\_MONITORING attribute, (P) File Def See NAM\$L\_TYPE field Language, FDL-20 File type field, (U) Files and Devices, B-10 FILE\_NAME option, (P) File Applications, 4-31 default values, (U) Using VMS, 2-12; (U) DCL /FILE\_NAME qualifier, (P) Message, MSG-10 Concepts, 3-14, 3-22 "File\_name" string constant parameter to GET\_INFO, (P) VAXTPU, 7-171, 7-177

FIND command FILE PARSE built-in procedure, (P) VAXTPU, line mode (cont'd) 7-140 to 7-142 See also Locating text file\_protection data type, (P) Routines Intro, A-5t specifying direction of search (EVE), (U) Text FILE\_SEARCH built-in procedure, (P) VAXTPU, Processing, 1–30 7-143 to 7-145 Find key FILE\_SYSTEM\_CACHE class record, (M) EVE editor, (U) Text Processing, 1-27 Monitor, A-20 on LK201 keyboard, (U) EDT Ref, EDT-69 FILL built-in procedure, (P) VAXTPU, 7-146 to on VT200- and VT300-series terminals, (U) 7 - 148Using VMS, 8-17 FILL command, (U) Using VMS, 8-29, 8-36, VT100 terminal equivalent of, (U) Using VMS, 8-67, 8-68; (U) EVE Ref, EVE-59 to EVE-60 8-17 See also Formatting, text FIND keypad function EVE editor, (U) Text Processing, 1-43 EDT, (U) Text Processing, 2-16 formatting text with (EVE), (U) Text FIND NEXT command, (U) EVE Ref, EVE-66 to Processing, 1–39 keypad mode, (U) EDT Ref, EDT-67 after a REPLACE command, (U) EVE Ref, line mode, (U) EDT Ref, EDT-141 EVE-120 nokeypad mode, (U) EDT Ref, EDT-289 after a WILDCARD FIND command, (U) EVE using with search string (EVE), (U) Text Ref, EVE-246 Processing, 1–20 EVE editor, (U) Text Processing, 1-28 with paragraph indent, (U) EVE Ref, EVE-203 finding text with (EVE), (U) Text Processing, FILL command, (U) Text Processing, 3–14; (U) DSR Ref, 2-39 using with search string (EVE), (U) Text Fill factor, (P) File Applications, 3-26; (P) File Processing, 1-20 Def Language, FDL-5, FDL-28 FIND SELECTED command, (U) EVE Ref, FILL keypad function EVE-68 EDT, (U) Text Processing, 2-21 EVE editor, (U) Text Processing, 1-29 Fill level finding text with (EVE), (U) Text Processing, comparing primary key and alternate keys, (P) RMS, 13-10 using with search string (EVE), (U) Text FILLM (open file limit), (M) Setting Up VMS, 5-4; Processing, 1-20 (M) Networking, 5–38 Find service, (P) File Applications, 8-1, 8-2 to FILL PARAGRAPH command, (U) Using VMS, 8-3; (P) RMS, RMS-38  $8–29,\,8–36;\ \ (U)\ EVE\ Ref,\, EVE-61$ and key matches, (P) File Applications, 8–10 EVE editor, (U) Text Processing, 1-44 capabilities, (P) RMS, RMS-39 formatting text with (EVE), (U) Text compared with Get service, (P) File Processing, 1-39 Applications, 8-2 FILL RANGE command, (U) Using VMS, 8-36; condition values, (P) RMS, RMS-41 (U) EVE Ref, EVE-62 control block input fields, (P) RMS, RMS-39 formatting text with (EVE), (U) Text control block output fields, (P) RMS, RMS-41 Processing, 1-40 effect on next-record position, (P) File using with search string (EVE), (U) Text Applications, 8-16 Processing, 1-20 high-level language equivalents, (P) File FILL\_BUCKETS attribute, (P) File Def Language, Applications, 8-1 FDL-10 improved performance, (P) File Applications, /FILL\_BUCKETS qualifier, (P) Convert, 8-3 CONV-14; (P) File Def Language, FDL-27, requirement for end-of-file test, (P) File FDL-28 Applications, 8-3 FILSYS spin lock, (P) Device Support (A), 3-13 run-time options, (P) File Applications, 9-14 to Final handler, (P) Debugger, 9–13 9 - 17FINALLY exception, (P) DECthreads, 4-7, 4-12 "Find\_buffer" string constant parameter to FIND command, (U) Using VMS, 8-62; (U) EVE GET\_INFO, (P) VAXTPU, 7-169 Ref, EVE-63 to EVE-65 FIND\_CPU\_DATA macro, (P) Device Support (A), EVE editor, (U) Text Processing, 1-27 E-6; (P) Device Support (B), 2-31 finding text with (EVE), (U) Text Processing, example, (P) Device Support (B), 2-31 1 - 26Fine granularity, (P) RTL Parallel Processing, 5–2 keypad mode, (U) EDT Ref, EDT-69

line mode, (U) EDT Ref, EDT-143

Fire protection, Dependability Handbook, 5-6 "first" string parameter to ADD\_KEY\_MAP, (P) VAXTPU, 7-17 FIRST command, (U) Mail, MAIL-52; (P) File Applications, 10-12; (P) Analyze/RMS\_File, ARMS-27 First data bucket start virtual block number field See XAB\$L\_DVB field First free byte field See XAB\$W\_FFB field First in first out (FIFO) queue, (P) RTL Parallel Processing, 4-16, 4-18 First Order Linear Recurrence, (P) RTL Math, MTH-192, MTH-197, MTH-201, MTH-205 See also FOLR routine First-Order Linear Recurrence subroutines See FOLR subroutines "First" string constant parameter to GET\_INFO, (P) VAXTPU, 7-166, 7-167, 7-169, 7-181, 7–183, 7–184, 7–191, 7–218 First-time flag testing and setting, (P) Modular Procedures, 3 - 14.FIRST TITLE command, (U) Text Processing, 3-42; (U) DSR Ref, 2-40 "First\_marker" string constant parameter to GET\_INFO, (P) VAXTPU, 7-172 "First range" string constant parameter to GET INFO. (P) VAXTPU. 7-172 Fixed control, (P) File Def Language, FDL-34, FDI\_35 FIXED format, (P) File Def Language, FDL-35 Fixed-length cell, (P) File Applications, 3–12 Fixed-length control area size field See FAB\$B\_FSZ field Fixed-length control field, (P) File Applications, 3 - 12size option, (P) File Applications, 4-28 Fixed-length descriptor, (P) Routines Intro, 2-23 Fixed-length header control size field See XAB\$B\_HSZ field Fixed-length record, (U) Files and Devices, B-13; (P) Convert, CONV-18, CONV-26; (P) File Def Language, FDL-35 specifying, (U) Sort/Merge, SORT-43 Fixed-length record format option See FAB\$C FIX option Fixed-length string, (P) RTL String Manipulation, 2-1FIXED option record format, (M) Exchange, EXCH-8 /FIXED\_CONTROL qualifier, (P) Convert, CONV-15 Fix-up image section

condition for insertion of, (P) Linker, 6-20

creation of, (P) Linker, 6-20

Fix-up image section (cont'd) in relation to code reference, (P) Linker, 6-21 purpose of, (P) Linker, 6-20, 6-21 Fixup section analyzing, (U) DCL Dictionary, DCL1-23 See also Event flag Accept, (U) DSR Ref, 3-5 Bold, (U) DSR Ref. 3-6 Break, (U) DSR Ref, 3-7 Capitalize, (U) DSR Ref, 3-8, 6-2 Case control, (U) DSR Ref, 3-8 Comment, (U) DSR Ref, 3-9 Control, (U) DSR Ref, 3-10 Hyphenate, (U) DSR Ref, 3–11 Index, (U) DSR Ref. 3-12 in DSR source file, (U) Using VMS, 9-1 login, (M) Authorize, AUTH-6 Lowercase, (U) DSR Ref, 3-13 Overstrike, (U) DSR Ref, 3-14 Period, (U) DSR Ref. 3-15 restricted modifications in Authorize Utility, V5.5 Release Notes, 2-3 Space, (U) DSR Ref, 3-16 Subindex, (U) DSR Ref, 3-17 Substitute, (U) DSR Ref, 3-18 Underline, (U) DSR Ref, 3-19 Uppercase, (U) DSR Ref, 3–20, 6–2 Flag character default, (U) DSR Ref, 3-4 enabling, (U) DSR Ref. 3-3 literal translation of, (U) DSR Ref, 3-5 pairing, (U) DSR Ref, 3-6, 3-18, 3-19, 3-20 redefining, (U) DSR Ref, 3-3 Flag page, (M) Maintaining VMS, 5-32 file, (M) Maintaining VMS, 5-34 job, (M) Maintaining VMS, 5-32 Flag recognition, (U) DSR Ref, 3-2, A-5 enabling, (U) DSR Ref, 2-42 /FLAGS=CAPTIVE qualifier, (M) Security, 5-45 /FLAGS=DISIMAGE qualifier, (M) Security, 5–49 /FLAGS=DISMAIL qualifier, (M) Security, 5–21 /FLAGS=DISNEWMAIL qualifier. (M) Security. 5-21/FLAGS=DISRECONNECT qualifier. (M) Security, 5–22 /FLAGS=DISREPORT qualifier, (M) Security, /FLAGS=DISUSER qualifier, (M) Security, 5–20 /FLAGS=DISWELCOME qualifier, (M) Security, 5-21/FLAGS=GENPWD qualifier, (M) Security, 5-17, 5 - 19/FLAGS=LOCKPWD qualifier, (M) Security, 5–19 /FLAGS=PWD\_EXPIRED qualifier, (M) Security, 5 - 18

/FLAGS=RESTRICTED qualifier, (M) Security, Floating-point multiplication, (P) RTL Math, 1-8 Floating-point number, (P) MACRO, 9-101 .FLAGS ACCEPT command, (U) DSR Ref, 2-41 D\_floating complex, (P) Routines Intro, A-3t .FLAGS BOLD command, (U) DSR Ref, 2-43 D\_floating standard, (P) Routines Intro, A-6t .FLAGS BREAK command, (U) DSR Ref, 2-44 format, (P) MACRO, 3-3 .FLAGS CAPITALIZE command, (U) DSR Ref, .F\_FLOATING, (P) MACRO, 6-35 F\_floating complex, (P) Routines Intro, A-3t .FLAGS COMMENT command, (U) DSR Ref, F\_floating standard, (P) Routines Intro, A-6t .G\_FLOATING, (P) MACRO, 6-36 .FLAGS CONTROL command, (U) DSR Ref, 2-47 G\_floating complex, (P) Routines Intro, A-4t .FLAGS HYPHENATE command, (U) DSR Ref, G\_floating standard, (P) Routines Intro, A-7t .H\_FLOATING, (P) MACRO, 6-38 H\_floating standard, (P) Routines Intro, A-7t .FLAGS INDEX command, (U) DSR Ref, 2-49 .FLAGS LOWERCASE command, (U) DSR Ref. in source statement, (P) MACRO, 3-3 rounding, (P) MACRO, 6-23 storage, (P) MACRO, 6-20 FLAGS OVERSTRIKE command, (U) DSR Ref. 2-51storing, (P) MACRO, 6-35, 6-36, 6-38 .FLAGS PERIOD command, (U) DSR Ref, 2-52 truncating, (P) MACRO, 6-23 .FLAGS SPACE command, (U) DSR Ref, 2-53 Floating-point operator, (P) MACRO, 3-14 .FLAGS SUBINDEX command, (U) DSR Ref. Floating-point positive difference, (P) RTL Math, 2 - 54.FLAGS SUBSTITUTE command, (U) DSR Ref. Floating-point sign function, (P) RTL Math, 1-9 2 - 55Floating-point storage directive .D\_FLOATING, (P) MACRO, 6-20 FLAGS UNDERLINE command, (U) DSR Ref. (.F\_FLOATING), (P) MACRO, 6-35 2-56(.G\_FLOATING), (P) MACRO, 6-36 .FLAGS UPPERCASE command, (U) DSR Ref. 2-57Floating-point underflow, (P) RTL Library, 4–31 Flag word, (P) Routines Intro, A-10t Floating underflow enable (FU), (P) MACRO, FLG=CHG option, (P) File Def Language, FDL-26 8-16 FLG=DUP option, (P) File Def Language, FDL-28 Floating vector space FLG=NUL option, (P) File Def Language, FDL-29 assigning to device, (P) Device Support (A), 12-22 .FLOAT directive, (P) MACRO, 6-35 Floating address, (M) System Generation, B-1; current base, (P) Device Support (A), 12-22 (P) Device Support (A), 12–14 floating\_point data type, (P) Routines Intro, A-6t Floating CSR space /FLOAT qualifier, (P) Debugger, CD-59, CD-82 assigning to device, (P) Device Support (A), Floppy disk 12 - 22See Diskette current base, (P) Device Support (A), 12-22 Flow control Floating overflow fault, (P) MACRO, 8–16 type of, (M) DTS/DTR, DTS-8 Floating-point Flush service, (P) File Applications, 7–7, 8–5; (P) accuracy, (P) MACRO, 9-103 RMS, RMS-43, RMS-44 rounding, (P) MACRO, 9-104 condition values, (P) RMS, RMS-44 zero, (P) MACRO, 9-102 See also Completion status code Floating-point constants (.D\_FLOATING), (P) control block input fields, (P) RMS, RMS-44 MACRO, 6-20control block output fields, (P) RMS, RMS-44 Floating-point conversion to nearest value, (P) /FLUSH\_INTERVAL qualifier, (M) Monitor, RTL Math, 1-8 MON-23 Floating-point data type, (P) MACRO, 8-3, 9-101 /FMASK qualifier. (P) Debugger, 11–13, CD–84 D\_floating, (P) MACRO, 8-4 FNA argument, (P) RMS, B-5 G\_floating, (P) MACRO, 8-4 FNDNXT command, (U) Using VMS, 8-63; (U) H\_floating, (P) MACRO, 8-5 EDT Ref, EDT-71 Floating-point emulation code FNDNXT keypad function base address, (P) System Dump Analyzer, EDT, (U) Text Processing, 2–16 FNM argument, (P) RMS, B-3 Floating-point instructions. (P) MACRO, 9-101 FNM keyword in device driver, (P) Device Support (A), 5-3 for specifying FAB\$L\_FNA and FAB\$B\_FNS vector, (P) MACRO, 10-68 fields from VAX MACRO, (P) RMS, 5-11

FNS argument, (P) RMS, B-5 Folder name parameters in Mail Utility, V5.5 Release Notes, 1-21 Folders, (U) Mail, MAIL-88 changing the name of, (U) Mail, MAIL-98 copying messages to, (U) Mail, MAIL-32 creating, (U) Mail, MAIL-10 default, (U) VMS Intro, 1-12; (U) Mail, MAIL-9 deleting, (U) Mail, MAIL-12 displaying, (U) Mail, MAIL-11 modifying, (U) Mail, MAIL-10 moving messages to, (U) Mail, MAIL-39 NEWMAIL folder, (U) Mail, MAIL-69 searching for text in, (U) Mail, MAIL-75 selecting, (U) Mail, MAIL-11 using to organize messages, (U) Mail, MAIL-9 wastebasket, (U) Mail, MAIL-66, MAIL-83 FOLR (First-Order Linear Recurrence) subroutines, V5.5 New Features, B-7, B-21, B - 23FOLR routine, (P) RTL Math, MTH-192, MTH-197, MTH-201, MTH-205 definition of, (P) RTL Math, 2-7 error checking, (P) RTL Math, 2-7 naming conventions, (P) RTL Math, 2-7 FONT command, V5.5 New Features, B-41; (U) DCL Dictionary, DCL1-226 Font definitions LN01 laser printer, (U) DSR Ref. 4-10 LNI file, (U) DSR Ref, B-3 loading, (U) DSR Ref, B-4 command procedure for, (U) DSR Ref, B-4 Font kit installing, (U) DSR Ref, B-2 LN01, (U) DSR Ref, B-1 for layered products, V5.5 Release Notes, 3-14 narrow terminal, V5.5 Release Notes, 3-15 Footnote See also Text formatting creating with DSR, (U) Text Processing, 3-44 formatting with DSR, (U) Using VMS, 9-12 inserting in text, (U) DSR Ref, A-3 .FOOTNOTE command, (U) DSR Ref, 2-58 Forced exit, (P) System Services Intro, 8-15 FORCE option SET VOLUME command, V5.5 New Features, FOR command, (P) Debugger, 8-9, CD-99 Foreign command, (U) Using VMS, 5-1; (U) DCL Concepts, 5-1; (P) RTL Library, 2-3 definition, (U) Using VMS, 1-7; (U) DCL Concepts, 5-8 parsing in a command line, (U) DCL Concepts,

Foreign command name use of dollar sign, (P) RTL Library, 2-4 Foreign device, (P) System Services Intro, 7-6 Foreign file specification on a network, (U) Using VMS, 2-12; (U) DCL Concepts, 3-3 /FOREIGN qualifier, (M) Mount, MOUNT-21 Foreign terminal definition, (P) RTL Screen Management, 5-1 input support, (P) RTL Screen Management, Foreign volume, (P) System Services Intro, 7-4, mounting, (U) Files and Devices, 3-8; (M) Exchange, EXCH-2; (M) Mount, MOUNT-21 See also MOUNT command Forgery of network information, (M) Security, 8-5 FORGET subcommand with LMCP REPAIR command, V5.5 New Features, B-90 Fork block, (P) Device Support (A), 1-5, 1-8, 3-24, 3-27, 4-16, 8-7, 10-1; (P) Device Support (B), 2-104, 3-26, 3-30, 3-104 to 3-106 dequeuing, (P) Device Support (A), 3-5 in CRB, (P) Device Support (A), 12-7; (P) Device Support (B), 1-21 in extended UCB, (P) Device Support (A), 11-6 in UCB, (P) Device Support (B), 1-72 to 1-73 Fork context, (P) Device Support (A), 1-8, 3-22 to 3-23, 4-16Fork database, (P) Device Support (A), 3-5 accessing, (P) Device Support (B), 2-33 to 2-34 synchronizing access to, (P) Device Support (A), 3-22 to 3-25 Fork dispatcher, (P) Device Support (A), 2-6, 3-3, 3-5, 3-8, 3-24; (P) Device Support (B), 2-33 functions, (P) Device Support (A), 4-18 Forking, (P) Device Support (A), 3-16, 3-23, E-9; (P) Device Support (B), 2-32, 2-43, 3-26, 3-30 avoiding multiple, (P) Device Support (A), 11-6 from controller initialization routine, (P) Device Support (A), 11-6; (P) Device Support (B), from driver unloading routine, (P) Device Support (B), 4-10 from interrupt service routine, (P) Device Support (A), 9–5 from unit initialization routine, (P) Device Support (A), 11-6; (P) Device Support (B), in terminal port driver, (P) Device Support (A), 18-14, 18-20 Fork IPL, (P) Device Support (A), 2-4, 3-2, 3-5, 3-16, 3-22, 4-18; (P) Device Support (B), 1-73, 2-33 to 2-34

syntax, (U) DCL Concepts, 5-8

Format (cont'd) Fork lock, (P) Device Support (A), 2-4, 3-6, 3-8, for DEFINE SYNTAX statement, (P) 3-13, 3-16, 3-22, 11-7, 14-16; (P) Device Command Def, CDU-5 Support (B), 1-21, 1-68 for DEFINE TYPE statement, (P) Command See also Spin lock Def, CDU-7 acquisition IPL, (P) Device Support (B), 3-111 for DEFINE VERB statement, (P) Command multiple acquisition of, (P) Device Support (B), Def, CDU-8 2-35, 3-116 for definition path, (P) Command Def, CDU-12 obtained by fork dispatcher, (P) Device Support for DISALLOW verb clause, (P) Command Def, (A), 3-5 CDU-9 obtaining, (P) Device Support (A), 3-10; (P) for IDENT statement, (P) Command Def, Device Support (B), 2-33 to 2-34, 3-111 to CDU-14 3 - 112for LINK command, (P) Linker, 1-2 ownership, (P) Device Support (A), 13-30 for MODULE statement, (P) Command Def, rank, (P) Device Support (A), 3-13 to 3-14CDU-14 releasing, (P) Device Support (A), 3-10; (P) for SET COMMAND command, (P) Command Device Support (B), 2-35 to 2-36, 3-114 Def, CDU-18 restoring, (P) Device Support (B), 2-35, 3-116 of accounting reports, (M) Maintaining VMS, Fork lock index, (P) Device Support (A), 3-13 to 3-14; (P) Device Support (B), 1-73 of fixed-length record, (P) Convert, CONV-18 list, (P) Device Support (A), E-8 of hexadecimal dump, (P) Analyze/RMS\_File, placing in UCB\$B\_FLCK, (P) Device Support ARMS-25 (A), 6-2, E-8; (P) Device Support (B), 2-25 of LIBRARY command, (P) Librarian, LIB-11 FORKLOCK macro, (P) Device Support (A), 3-9, of message source file statements, (P) Message, 3-10, E-4; (P) Device Support (B), 2-33 to MSG-3 2-34, 3-111 FORMAT attribute, (P) File Def Language, example, (P) Device Support (B), 2-34 FDL-35 FORK macro, (P) Device Support (A), 3-12, 3-24, FORMAT command, (P) System Dump Analyzer, 14-18, 14-20; (P) Device Support (B), 2-32, SDA-26, SDA-56, SDA-64 Format for SHOW CLUSTER See also IOFORK macro initialization file, (M) Show Cluster, SHCL-4 Fork process, (P) Device Support (A), 1–8, 3–22 to specifying processor types, (M) Show Cluster, 3-25.8-1SHCL-48 context, (P) Device Support (A), 4-15, 4-16, Format heading, (P) Routines Intro, 1–2 4-17, 8-1 to 8-2 See also System routine documentation creating, (P) Device Support (B), 2-32, 2-43, /FORMAT qualifier, (U) Sort/Merge, SORT-37, 3-26, 3-30SORT-43; (P) National Char Set, NCS-29 creation by driver, (P) Device Support (A), 2-6, FORMAT secondary attribute, (P) File 4-17, 10-1 to 10-2 Applications, 4-30 creation by IOC\$INITIATE, (P) Device Support Formatting (A), 4-13 to 4-15, 8-1, 10-3; (P) Device See also Text formatting Support (B), 3-70 to 3-71 document, (U) DSR Ref, 1-1 reactivating, (P) Device Support (A), 4–18 figures, (U) DSR Ref, A-3 rules, (P) Device Support (A), 3-24 index, (U) DSR Ref, A-4 suspending, (P) Device Support (A), 4-16, 8-6 to 8-7; (P) Device Support (B), 2-104, lists, (U) DSR Ref, A-3 of DIFFERENCES output, (U) DCL Dictionary, 3-104 to 3-106 DCL1-155 Fork queue, (P) Device Support (A), 3-24, 4-17, text 4-18, E-14; (P) Device Support (B), 1-17, breaking terms logically, (U) DSR Ref, 3-7 1-72, 3-26, 3-30 Ctrl/F, (U) EDT Ref, EDT-67 FORKUNLOCK macro, (P) Device Support (A), example, (U) DSR Ref, 2-4 3-10, E-4; (P) Device Support (B), 2-35 to .KEEP, (U) DSR Ref, 2-73 2-36, 3-114, 3-116 .LAYOUT, (U) DSR Ref, 2-75 example, (P) Device Support (B), 2-34 .NO SPACE, (U) DSR Ref, 2-84 Formal argument, (P) MACRO, 4–1 FILL, (U) EDT Ref, EDT-67, EDT-141, **Format** EDT-289 See also Volume format FILLSR., (U) EDT Ref, EDT-67 ANSI-labeled volume, (U) Files and Devices, indexing, (U) DSR Ref, 6-4 B-1

Formatting	Forms (cont'd)
text (cont'd)	using to specify sheet feed paper, (M)
RESEQUENCE, (U) EDT Ref, EDT-167	Maintaining VMS, 5–40
/SEQUENCE qualifier, (U) EDT Ref,	/FORM_SIZE qualifier, (U) DSR Ref, 4-13
EDT-170	FORTRAN
SET TRUNCATE, (U) EDT Ref, EDT-201	See VAX FORTRAN
SET WRAP, (U) EDT Ref, EDT-204	FORTRAN carriage control, (U) Using VMS, 2-5;
TAB, (U) EDT Ref, EDT-103	(P) Convert, CONV-2
TAB ADJUST, (U) EDT Ref, EDT-249	FORTRAN carriage control option
table of contents, $(U)$ DSR Ref, 5–3	
Formatting disks, (M) Maintaining VMS, 2-3	See FAB\$V_FTN option
Form feed, (U) EDT Ref, EDT-40	FORTRAN carriage control option list, (P) RMS, 5-24
in DSR output, (U) Using VMS, 9-20	<del>-</del>
line printer, (P) I/O User's I, 5-4	FORTRAN command, (U) VMS Intro, 4-7
mechanical, (P) I/O User's I, 5-4	FORWARD command, (U) VMS Intro, 1–12; (U)
terminal, $(P) I/O User's I$ , 8–21	Mail, MAIL-53; (U) EVE Ref, EVE-69
Forms	moving the cursor with (EVE), (U) Text
See also Preprinted forms	Processing, 1–9
application interface, Dependability Handbook,	Forward indexing, (P) RTL Math, 2–6
8–47	FORWARDING_DELAY parameter, (M)
assigning default for a queue, (M) Maintaining	VAXcluster, 2–13
VMS, 5-43	FORWARD keyword, (P) VAXTPU, 7–85, 7–379
associating with jobs and queues, (M)	with SEARCH, (P) VAXTPU, 7–328
Maintaining VMS, 5-41	with SEARCH_QUIETLY, (P) VAXTPU, 7–333
changing, V5.5 Release Notes, 2-9	Found range
changing DEFAULT, (M) Maintaining VMS,	definition (EVE), (U) Text Processing, 1-26
5-43	Found range selection
commands used with, (M) Maintaining VMS,	in EVE editor, (P) VAXTPU, 4–18
5–40	%FP, (P) Debugger, 4–22, D–3
DECforms, Dependability Handbook, 8-48	FPEMUL symbol, (P) System Dump Analyzer,
default, (M) Maintaining VMS, 5-43	SDA-13 ED gymbol (D) System Dynam Anglynon SDA 12
DEFAULT, (M) Maintaining VMS, 5-43	FP symbol, (P) System Dump Analyzer, SDA-13
defining, (M) Maintaining VMS, 5-41, 5-55	Frame
deleting, (M) Maintaining VMS, 5-44	call, (P) MACRO, 9-64
deleting default, V5.5 Release Notes, 2-8	stack, (P) MACRO, 9-64
description, (M) Maintaining VMS, 5-40	Frame control  V. 25 lines (M) Naturaline 2, 62
displaying, (M) Maintaining VMS, 5-42	X.25 lines, (M) Networking, 3–62
displaying assigned, (M) Maintaining VMS,	Frame pointer, (P) System Dump Analyzer, SDA-13
5–44	Free bucket list, (P) Convert, CONV-4
getting information about	Free cursor movement, (U) EVE Ref, EVE-155;
asynchronously, (P) System Services Ref,	(P) VAXTPU, 7-95, 7-96
SYS-323	with EDT keypad, (U) EVE Ref, EVE-172
synchronously, (P) System Services Ref,	with the MOVE DOWN command, (U) EVE
SYS-365	Ref, EVE-87
mounting, (M) Maintaining VMS, 5-43	with the MOVE LEFT command, (U) EVE Ref,
problems deleting, (M) Maintaining VMS, 5-91	EVE-88
procedure for using, (M) Maintaining VMS,	with the MOVE RIGHT command, (U) EVE
5–41	Ref, EVE-89
using to control line overflow, (M) Maintaining	with the MOVE UP command, (U) EVE Ref,
VMS, 5–40	EVE-90
using to control page width, length, and margin	with WPS keypad, (U) EVE Ref, EVE-186
size, (M) Maintaining VMS, 5-40	FREEGOAL parameter, (M) System Generation,
using to control paper stock, (M) Maintaining	A-11
VMS, 5–40	page faulting, $(M)$ Performance Management,
using to format jobs, (M) Maintaining VMS,	3–25
5–40	FREELIM parameter, (M) System Generation,
using to specify setup modules, (M)	A-12
Maintaining VMS, 5-40	12-14

FREELIM parameter (cont'd) /FULL qualifier, (M) Install, INS-18; (M) page faulting, (M) Performance Management, Backup, BCK-20, BCK-50; (M) Error Log, ERR-12; (M) Audit Analysis, AUD-15; (M) Free marker, (P) VAXTPU, 2-9 to 2-10, 7-70 Accounting, ACC-13; (P) Debugger, CD-230, Free page list CD-246; (P) Librarian, LIB-23; (P) Linker, displaying, (P) System Dump Analyzer, LINK-8; (P) National Char Set, NCS-30 SDA-115 used with /LIST and /HISTORY qualifiers, (P) evaluating, (M) Performance Management, National Char Set, NCS-31 3 - 25using with /HISTORY, (P) Librarian, LIB-26 /FREE qualifier, (P) System Dump Analyzer, Full-reentrancy, (P) Modular Procedures, 3-19 SDA-115, SDA-118 Full Name String identifier, V5.5 New Features, Free queue C-42FUNCTAB macro, (P) Device Support (A), 6-7; See DR32 driver, FREEQ (P) Device Support (B), 2-37 to 2-38 Free service, (P) File Applications, 8-5; (P) RMS, example, (P) Device Support (B), 2-38 RMS-45 Function condition values, (P) RMS, RMS-46 definition of, (P) Routines Intro, 2-3; (P) RTL control block input and output fields, (P) RMS, Intro, 1-1 RMS-46 Functional units, redundant, Dependability FREE CURSOR keyword Handbook, 1–16 with MARK, (P) VAXTPU, 7-261 automatic, Dependability Handbook, 1-17 FROM parameter capacity related, Dependability Handbook, COPY KNOWN NODES command, (M) Networking, 3-23 in computing systems, Dependability Front-end Handbook, 1-18 defined, Dependability Handbook, Glossary-3 manual, Dependability Handbook, 1-17 Front-end processor Function code, (P) System Services Intro, 7–11; failover, Dependability Handbook, 8-48, 8-53 (P) I/O User's II, A-1 to A-6 Full backup See also I/O function See Image mode IO\$ ACCESS. (P) I/O User's I, 1-26 Full callable interface IO\$\_ACPCONTROL, (P) I/O User's I, 1-30, See VAXTPU routines 6 - 15Full-checking synchronization image, (P) Device IO\$\_ADDSHAD, (P) I/O User's I, 10-5 Support (A), 13-28, E-17 to E-18 IO\$\_AVAILABLE, (P) I/O User's I, 3-33, 6-27, loading, (P) Device Support (A), E-2 Full-duplex device driver, (P) Device Support (A), IO\$ COPYSHAD, (P) I/O User's I, 10-6 7-5; (P) Device Support (B), 4-2 IO\$ CREATE, (P) I/O User's I, 1-22 I/O completion for, (P) Device Support (B), 3-5 IO\$\_CRESHAD, (P) I/O User's I, 10-4 Full-duplex mode, (P) I/O User's I, 8-10 IO\$\_DEACCESS, (P) I/O User's I, 1-28 Full format listing, (M) Audit Analysis, AUD-3, IO\$\_DELETE, (P) I/O User's I, 1-29 AUD-15 IO\$\_DSE, (P) I/O User's I, 6-27 Full image map, (P) Linker, 1–12 IO\$ FORMAT, (P) I/O User's I, 3-31 Full map, (P) Linker, 5-1, LINK-8 IO\$ INITIALIZE, (P) I/O User's I, 4-9 module information in, (P) Linker, 5-2, 5-3 IO\$ LOADMCODE, (P) I/O User's I, 4-8; (P) sections in, (P) Linker, 5–2 I/O User's II, 4-20 symbols cross-referenced in, (P) Linker, IO\$\_MODIFY, (P) I/O User's I, 1-28 LINK-5 IO\$ PACKACK, (P) I/O User's I, 3-32 Full name IO\$\_READLBLK, (P) I/O User's I, 2-6, 3-29, converting to opaque, V5.5 New Features, 6-17, 7-5, 8-26; (P) I/O User's II, 1-5, C-31; (P) System Services Ref, SYS-178 2-7, 3-13, 5-5, 6-17 converting to string, V5.5 New Features, C-30; IO\$\_READPBLK, (P) I/O User's I, 2-6, 3-29, (P) System Services Ref, SYS-176 6-17, 7-5; (P) I/O User's II, 1-5, 2-7, FULL prompt, (P) File Def Language, FDL-55 3-13, 5-5, 6-17IO\$\_READPROMPT, (P) I/O User's I, 8–26 IO\$ READVBLK, (P) I/O User's I, 2-6, 3-29, 6-17, 7-5, 8-26; (P) I/O User's II, 1-5, 2-7, 3-13, 5-5, 6-17

IO\$\_REMSHAD, (P) I/O User's I, 10-7

Function modifier (cont'd) Function code (cont'd) IO\$ REWIND, (P) I/O User's I, 6-19 IO\$M\_ACCESS, (P) I/O User's I, 1-23, 1-26, IO\$ REWINDOFF, (P) I/O User's I, 6-21 IO\$\_SEARCH, (P) I/O User's I, 3-31 IO\$M ATTNAST, (P) I/O User's II, 1-8, 2-19, IO\$\_SEEK, (P) I/O User's I, 3-33 3-14, 5-10, 6-36 IO\$\_SENSECHAR, (P) I/O User's I, 3-31, IO\$M\_BINARY, (P) I/O User's I, 2-6 IO\$M\_BRDCST, (P) I/O User's I, 8-46, 8-55 8-53, 10-8 IO\$\_SENSEMODE, (P) I/O User's I, 2-7, IO\$M BREAKTHRU, (P) I/O User's I, 8-10, 3-31, 5-9, 6-22, 8-53; (P) I/O User's II, 2-19, 5-10, 6-37 IO\$M CANCTRLO, (P) I/O User's I, 8-5, 8-35 IO\$\_SETCHAR, (P) I/O User's I, 2-10, 5-9, IO\$M\_CLR\_COUNTS, (P) I/O User's II, 2-20, 6-23, 8-38; (P) I/O User's II, 1-7, 2-9, 3-13, 5-6, 6-21 IO\$M CREATE, (P) I/O User's I, 1-23, 1-26, IO\$\_SETCLOCK, (P) I/O User's I, 4-10 6 - 13IO\$\_SETMODE, (P) I/O User's I, 2-8, 5-9, IO\$M\_CTRL, (P) I/O User's II, 2-9, 2-18 to 6-23, 8-38; (P) I/O User's II, 1-7, 2-9, 2-20, 2-25, 5-6, 5-9 to 5-11, 6-22, 6-36, 3-13, 5-6, 6-21 IO\$\_SETPRFPTH, (P) I/O User's I, 3-34 IO\$M\_CTRLCAST, (P) I/O User's I, 8-42 IO\$\_SKIPFILE, (P) I/O User's I, 6-19 IO\$M\_CTRLYAST, (P) I/O User's I, 8-5, 8-42 IO\$M\_CVTLOW, (P) I/O User's I, 8-27 IO\$\_SKIPRECORD, (P) I/O User's I, 6-20 IO\$\_STARTDATA, (P) I/O User's I, 4-11; (P) IO\$M\_CYCLE, (P) I/O User's II, 3-5, 3-11 IO\$M DATACHECK, (P) I/O User's I, 3-15, I/O User's II, 4-4, 4-7, 4-20 IO\$\_UNLOAD, (P) I/O User's I, 3-32, 6-22 3-29, 3-30, 6-8, 6-17, 6-18 IO\$\_WRITECHECK, (P) I/O User's I, 3-33 IO\$M\_DATAPATH, (P) I/O User's II, 3-15  ${\rm IO\$M\_DELDATA}, \ \ \textit{(P) I/O User's I}, \ 3\text{--}30$ IO\$\_WRITELBLK, (P) I/O User's I, 3-30, 5-5, IO\$M\_DELETE, (P) I/O User's I, 1-23, 1-30 6-18, 7-6, 8-34; (P) I/O User's II, 1-6, IO\$M DMOUNT, (P) I/O User's I, 1-31 2-8, 3-13, 5-5, 6-19 IO\$\_WRITEOF, (P) I/O User's I, 6–21 IO\$M\_DSABLMBX, (P) I/O User's I, 8-27; (P) IO\$ WRITEPBLK, (P) I/O User's I, 3-30, 5-5, I/O User's II, 1-6 6-18, 7-6, 8-34; (P) I/O User's II, 1-6, IO\$M ENABLMBX. (P) I/O User's I. 8-35: 2-8, 3-13, 5-5, 6-19 (P) I/O User's II, 1-6 IO\$\_WRITEVBLK, (P) I/O User's I, 3-30, 5-5, IO\$M\_ERASE, (P) I/O User's I, 3-27, 3-31, 6-18, 7-6, 8-34; (P) I/O User's II, 1-6, IO\$M\_ESCAPE, (P) I/O User's I, 8-7, 8-27 2-8, 3-13, 5-5, 6-19 IO\$M\_EXTEND, (P) I/O User's I, 8-27, 8-29 list of, (P) I/O User's I, A-1 to A-9 IO\$M\_HANGUP, (P) I/O User's I, 8–42 Function decision table IO\$M\_INCLUDE, (P) I/O User's I, 8-43, 8-46 See FDT IO\$M\_INHEXTGAP, (P) I/O User's I, 6–10 Function key, (M) LATCP, LAT-16 IO\$M\_INHRETRY, (P) I/O User's I, 3-29, 6-9 Function keys, (U) VMS Intro, 1-1; (U) Using IO\$M\_MAINT, (P) I/O User's I, 8-44, 8-45 VMS, 1-17 to 1-19; (U) DCL Concepts, 2-5 to IO\$M\_NOECHO, (P) I/O User's I, 8-10, 8-24, 2-6, 2-7 to 2-8 8 - 27control code, (P) VAXTPU, 7-241 IO\$M NOFILTR. (P) I/O User's I, 8-27 control sequence, (P) VAXTPU, 7-241 IO\$M\_NOFORMAT, (P) I/O User's I, 8-11, on LK201 keyboard, (U) EDT Ref, EDT-4, 8 - 35EDT-130 IO\$M\_NORSWAIT, (P) I/O User's I, 7-7 Function modifier, (P) System Services Intro, IO\$M NOW, (P) I/O User's I, 7-6, 7-7; (P) 7-12; (P) I/O User's II, A-1 to A-6 I/O User's II, 1-6, 2-8, 5-5, 6-19 for DR11-W/DRV11-WA driver, (P) I/O User's IO\$M\_NOWAIT, (P) I/O User's I, 6-19, 6-21, II, 4-20for DR11-W/DRV11-WA driver, (P) I/O User's IO\$M\_OUTBAND, (P) I/O User's I, 8-46 II, 3-11IO\$M\_PACKED, (P) I/O User's I, 2-6 for asynchronous DDCMP driver, (P) I/OIO\$M PURGE, (P) I/O User's I, 8-27 User's II. 5-5 IO\$M\_RD\_COUNTS, (P) I/O User's II, 2-20, for DMC11/DMR11 driver, (P) I/O User's II, IO\$M\_RD\_MEM, (P) I/O User's II, 2-25 for DMP11/DMF32 driver, (P) I/O User's II, IO\$M RD MODEM, (P) I/O User's I, 8-54; (P) I/O User's II, 2-24 for Ethernet/802 driver, (P) I/O User's II, 6-19

Function modifier (cont'd) Gateway node IO\$M READATTN, (P) I/O User's I, 7-9 See X.25 IO\$M\_REFRESH, (P) I/O User's I, 8-36 GBD (global buffer descriptor), (P) System Dump IO\$M\_RESET, (P) I/O User's II, 3-12 Analyzer, SDA-77 IO\$M\_RESPONSE, (P) I/O User's II, 6-21 GBD (global buffer descriptor) summary page, (P) IO\$M\_REVERSE, (P) I/O User's I, 6-17 System Dump Analyzer, SDA-77 IO\$M\_SETEVF, (P) I/O User's I, 4-11; (P) GBH (global buffer header), (P) System Dump I/O User's II, 4-20, 4-22 Analyzer, SDA-77  ${\tt IO\$M\_SETFNCT}, \ \ \textit{(P) I/O User's II}, \ 3\text{--}5, \ 3\text{--}11$ GBLPAGES system parameter, (M) System IO\$M\_SETPROT, (P) I/O User's I, 7-11 Generation, A-12; (P) File Applications, 1-16 IO\$M\_SET\_MODEM, (P) I/O User's I, 8-44; GBLPAGFIL system parameter, (M) System (P) I/O User's II, 2-24 Generation, A-12; (P) File Applications, 1-16 IO\$M\_SHUTDOWN, (P) I/O User's II, 1-8, GBLSECTIONS system parameter, (M) System 2-18, 5-9, 6-36 Generation, A-13; (P) File Applications, 1-16IO\$M\_STARTUP, (P) I/O User's II, 1-8, 2-9, GBSB (global buffer synchronization block), (P) 2-15, 5-6, 5-8, 6-22 System Dump Analyzer, SDA-77  $IO$M_TIMED$ , (P) I/O User's I, 8–27; (P) I/O GE. User's II, 3-11 in a numeric comparison, (U) DCL Concepts, IO\$M\_TRMNOECHO, (P) I/O User's I, 8–28 IO\$M\_TT\_ABORT, (P) I/O User's I, 8-46 General cancelability, (P) DECthreads, 2-19 IO\$M\_TYPEAHDCNT, (P) I/O User's I, 8-54 General identifier, (M) System Management Intro, IO\$M\_UNLOOP, (P) I/O User's I, 8-45 3-5; (M) Security, 4-19, 4-20 IO\$M\_WORD, (P) I/O User's II, 3-11 reasons for using, (M) Security, 4-28 list of, (P) I/O User's I, A-1 to A-9 General mode, (P) MACRO, 5-15 types of General-purpose registers IO\$M\_DATACHECK, (P) System Services rules for using in driver code, (P) Device Intro, 7–12 Support (A), 5–3 IO\$M\_INHERLOG, (P) System Services General register Intro. 7-7See also Register IO\$M\_INHRETRY, (P) System Services General register mode, (P) MACRO, 5-1 Intro, 7–12 summary, (P) MACRO, 8-28 Function procedures, (P) VAXTPU, 3-19 General register symbol, (P) Delta/XDelta, Function return value, (P) RTL Intro, 3-5; (P) DELTA-9, DELTA-13 RTL String Manipulation, 2-6 General user returned in output argument, (P) RTL String of network, (M) DECnet-VAX Guide, 2-1 to Manipulation, 2-6 returned in R0/R1, (P) RTL String /GENERATE qualifier, (P) Debugger, CD-67 Manipulation, 2–6 /GENERATE\_PASSWORD qualifier, (M) Security, Function value, (P) Routines Intro, 2-7 registers, (P) Routines Intro, 2–12 Generation version number, (U) Files and Devices, Function value returned B - 12in registers, (P) Routines Intro, 2-7 Generic device name, (U) DCL Dictionary, function\_code data type, (P) Routines Intro, A-7t DCL1-15 FWA (file work area), (P) System Dump Analyzer, definition, (U) Using VMS, 2-10; (U) DCL SDA-77 Concepts, 3-6 F\_floating data type, (P) MACRO, 8-3, 9-102 Generic key match, (P) File Applications, 8–11 .F FLOATING directive, (P) MACRO, 6–35 Generic queue, (U) DCL Dictionary, DCL1-251 batch, (M) Maintaining VMS, 5-4 G recommended use, (M) Maintaining VMS, G symbol, (P) Delta/XDelta, DELTA-9; (P) 5 - 9clusterwide batch, (M) VAXcluster, 6-8 System Dump Analyzer, SDA-14 clusterwide printer, (M) VAXcluster, 6-4 G command, (P) Delta/XDelta, DELTA-33 creating, (M) Maintaining VMS, 5-57 Gadget, (P) VAXTPU, 2-25 definition, (U) Using VMS, 2-18 Gateway, (M) DECnet-VAX Guide, 1-5, 1-6, 1-10 description, (M) Maintaining VMS, 5-3, 5-4 DECnet/SNA, (M) DECnet-VAX Guide, 1-6, establishing, (M) VAXcluster, 6-4

Generic queue (cont'd) implementing, (M) System Management Intro, in a VAXcluster environment, (M) Maintaining VMS, 5-4 initializing, (U) DCL Dictionary, DCL1-257, DCL2-350 output, (M) Maintaining VMS, 5-4, 5-14, 5-15 recommended use, (M) Maintaining VMS, 5 - 14relationship to execution queue, (M) Maintaining VMS, 5-4 restriction, V5.5 New Features, 5-8 specifying target execution queues, (M) Maintaining VMS, 5-57 Generic SCSI class driver, (P) I/O User's I, 11-1 to 11-16 assigning a channel to, (P) I/O User's I, 11-10 flow of, (P) I/O User's I, 11-4 to 11-6 I/O status block returned by, (P) I/O User's I, 11-11 loading, (P) I/O User's I, 11–9 obtaining device information from, (P) I/OUser's I, 11-14 programming example, (P) I/O User's I, 11-15 to 11-16 \$QIO system service format for, (P) I/O User's I, 11-11 to 11-14 security considerations, (P) I/O User's I, 11-6 Generic SCSI descriptor format of, (P) I/O User's I, 11-12 to 11-14 Generic VAXBI device, (P) Device Support (A), 11-2, 16-1 to 16-30 See also VAXBI node initialized by driver, (P) Device Support (A), 16-11 to 16-18 initialized by VMS, (P) Device Support (A), 16-7 to 16-11 interrupt destination, (P) Device Support (A), 16 - 10Geometric model of performance, (P) RTL Parallel Processing, 5-10 to 5-13 in a string comparison, (U) DCL Concepts, 6-2 GET attribute, (P) File Def Language, FDL-3, \$GETDVI, (P) System Services Ref, SYS-266 GET FILE command, (U) Using VMS, 8-9, 8-31, 8-34; (U) EVE Ref, EVE-70 creating a new buffer with (EVE), (U) Text Processing, 1-52for buffer manipulation (EVE), (U) Text Processing, 1-47 reading file into buffer with (EVE), (U) Text Processing, 1-54 \$GETJPI

item-specific flags, (P) System Services Intro,

\$GET macro program example, (P) RMS, 4-16 GET option, (P) File Def Language, FDL-3, FDL-37 See also FAB\$V\_GET option \$GETQUI function codes, (P) System Services Ref, SYS-326 \$GETQUI system service QUI\$\_QUEUE\_STATUS longword, V5.5 Release Notes, 3-44 GET secondary attribute, (P) File Applications, 7-4, 7-22 Get service, (P) File Applications, 8-1, 8-2; (P) RMS, RMS-47, RMS-53 and current record, (P) File Applications, 8-15 applicable access modes, (P) RMS, RMS-48 compared with Find service, (P) File Applications, 8–2 condition values, (P) RMS, RMS-53 See also Completion status code control block input fields, (P) RMS, RMS-50 control block output fields, (P) RMS, RMS-53 effect on next-record position, (P) File Applications, 8–16 high-level language equivalents, (P) File Applications, 8-1 requirement for end-of-file test, (P) File Applications, 8-3 requirement for user record area, (P) RMS, RMS-50 returning terminator character for terminal input, (P) RMS, RMS-49 return status for various file access methods, (P) RMS, RMS-7 run-time options, (P) File Applications, 9-14 to using input from mailbox devices, (P) RMS, RMS-50using stream input, (P) RMS, RMS-48 using terminal input, (P) RMS, RMS-48 using the RAB\$L\_STV field for additional status information. (P) RMS, RMS-50 Get sharing option See FAB\$V\_GET option \$GETSYI, V5.5 Release Notes, 3-44 to 3-46 Getting started, License Management, LMF-1, LMF-5 GET\_CLIPBOARD built-in procedure, (P) VAXTPU, 7-149 example of use, (P) VAXTPU, B-11 to B-13 GET\_DEFAULT built-in procedure, (P) VAXTPU, 7 - 151GET GLOBAL SELECT built-in procedure, (P) VAXTPU, 7-153 example of use, (P) VAXTPU, B-13 to B-15

9 - 6

GET\_INFO built-in procedure GET\_INFO built-in procedure, (P) VAXTPU, string constant parameter (cont'd) 7-156 to 7-161 "create", (P) VAXTPU, 7-177 buffer variable parameter "cross\_window\_bounds", (P) VAXTPU, "read\_routine", (P) VAXTPU, 7-174, 7-201 7-197 COMMAND\_LINE keyword parameter "line", (P) VAXTPU, 7-176, 7-177 "current", (P) VAXTPU, 7-166, 7-167, 7-169, 7-184, 7-191, 7-218 key\_name parameter "current\_column", (P) VAXTPU, 7-197, "key\_modifiers", (P) VAXTPU, 7-162 7 - 222marker\_variable parameter "current\_row", (P) VAXTPU, 7-197, 7-222 "record\_number", (P) VAXTPU, 7-186 "decwindows", (P) VAXTPU, 7-197 mouse\_event\_keyword parameter "dec\_crt", (P) VAXTPU, 7-197 "mouse\_button", (P) VAXTPU, 7-188 "dec\_crt2", (P) VAXTPU, 7-197 "window", (P) VAXTPU, 7-188 "default\_directory", (P) VAXTPU, 7-206 SCREEN keyword parameter "active\_area", (P) VAXTPU, 7–196
"decwindows", (P) VAXTPU, 7–197 "defined", (P) VAXTPU, 7-190 "detached\_action", (P) VAXTPU, 7-197 "detached\_reason", (P) VAXTPU, 7–198 "event", (P) VAXTPU, 7-199 "direction", (P) VAXTPU, 7-171 "global\_select", (P) VAXTPU, 7–199 "display", (P) VAXTPU, 7-177, 7-206 'grab\_routine", (P) VAXTPU, 7-199 "display\_value", (P) VAXTPU, 7-186, "icon\_name", (P) VAXTPU, 7-199 7 - 222"input\_focus", (P) VAXTPU, 7-199 "edit\_mode", (P) VAXTPU, 7-198 "length", (P) VAXTPU, 7-199 "eightbit", (P) VAXTPU, 7-198 "new\_length", (P) VAXTPU, 7-200 "enable\_resize", (P) VAXTPU, 7–206 "new\_width", (P) VAXTPU, 7-200 "eob\_text", (P) VAXTPU, 7-171 "old\_length", (P) VAXTPU, 7-200 "erase\_unmodifiable", (P) VAXTPU, 7-169, "old\_width", (P) VAXTPU, 7-200 "original\_length", (P) VAXTPU, 7-200 7 - 171"read\_routine", (P) VAXTPU, 7–201 "screen\_limits", (P) VAXTPU, 7–201 "event", (P) VAXTPU, 7-199 "examine", (P) VAXTPU, 7-179 "facility\_name", (P) VAXTPU, 7-206 "time", (P) VAXTPU, 7-202 "file\_name", (P) VAXTPU, 7-171, 7-177 "ungrab\_routine", (P) VAXTPU, 7–202 "find\_buffer", (P) VAXTPU, 7-169 string constant parameter "first", (P) VAXTPU, 7-166, 7-167, 7-169, "active\_area", (P) VAXTPU, 7-196 7-181, 7-183, 7-184, 7-191, 7-218 "Ansi\_crt", (P) VAXTPU, 7-196 "first\_marker", (P) VAXTPU, 7-172 "auto\_repeat", (P) VAXTPU, 7-196 "first\_range", (P) VAXTPU, 7–172 "bell", (P) VAXTPU, 7-205 "global\_select", (P) VAXTPU, 7–199 "beyond\_eob", (P) VAXTPU, 7-185 "grab\_routine", (P) VAXTPU, 7-199 "beyond\_eol", (P) VAXTPU, 7-185, 7-220 "high\_index", (P) VAXTPU, 7-167 "blink\_status", (P) VAXTPU, 7-221 "blink\_video", (P) VAXTPU, 7–221 "bold\_status", (P) VAXTPU, 7–221 "icon\_name", (P) VAXTPU, 7-199 "informational", (P) VAXTPU, 7-206 "initialization", (P) VAXTPU, 7-177 "bold\_video", (P) VAXTPU, 7–221 "initialization\_file", (P) VAXTPU, 7-177 "bottom", (P) VAXTPU, 7-222 "bound", (P) VAXTPU, 7-171, 7-185, 7-221 "init\_file", (P) VAXTPU, 7-177 "input\_focus", (P) VAXTPU, 7-199 "breakpoint", (P) VAXTPU, 7-179 "is\_managed", (P) VAXTPU, 7–214 "buffer", (P) VAXTPU, 7-185, 7-193, 7-222 "is\_subclass", (P) VAXTPU, 7-214 "callback\_parameters", (P) VAXTPU, 7-209 "journal", (P) VAXTPU, 7-177, 7-203 "callback\_routine", (P) VAXTPU, 7-214 "journaling", (P) VAXTPU, 1–12, 5–10, "character", (P) VAXTPU, 7–171 7 - 172"children", (P) VAXTPU, 7-210 "journaling\_frequency", (P) VAXTPU, "class", (P) VAXTPU, 7-214 7 - 206"client\_message", (P) VAXTPU, 7-197 "journal\_file", (P) VAXTPU, 1-12, 5-11, "client\_message\_routine", (P) VAXTPU, 7-172, 7-177, 7-206 7 - 197"journal\_name", (P) VAXTPU, 7-172 "column\_move\_vertical", (P) VAXTPU, "key\_map\_list", (P) VAXTPU, 7-172 7 - 206"key\_map\_list", (P) VAXTPU, 7-222 "command", (P) VAXTPU, 7-176 "key\_modifiers", (P) VAXTPU, 7-162 "command\_file", (P) VAXTPU, 7-176

GET\_INFO built-in procedure GET\_INFO built-in procedure string constant parameter (cont'd) string constant parameter (cont'd) "key\_type", (P) VAXTPU, 7-162 "pad", (P) VAXTPU, 7-223 "last", (P) VAXTPU, 7-166, 7-167, 7-169, "pad overstruck tabs", (P) VAXTPU, 7-207 7-181, 7-183, 7-184, 7-191, 7-218 "parameter", (P) VAXTPU, 7-180 "parent", (P) VAXTPU, 7-215 "left", (P) VAXTPU, 7-222 "left\_margin", (P) VAXTPU, 7-172, 7-186 "permanent", (P) VAXTPU, 7-174 "left\_margin\_action", (P) VAXTPU, 7-172 "pid", (P) VAXTPU, 7-192 "length", (P) VAXTPU, 7-199, 7-223 "post\_key\_procedure", (P) VAXTPU, 7-204 "line", (P) VAXTPU, 7-172 "previous", (P) VAXTPU, 7-166, 7-168, "line", (P) VAXTPU, 7-176, 7-177 7-169, 7-180, 7-181, 7-183, 7-184, "line\_editing", (P) VAXTPU, 7–199 7-191, 7-218, 7-223 "line\_number", (P) VAXTPU, 7-179, 7-206 "pre\_key\_procedure", (P) VAXTPU, 7-204 "local", (P) VAXTPU, 7-179 "procedure", (P) VAXTPU, 7-180 "map\_count", (P) VAXTPU, 7-173 "prompt\_length", (P) VAXTPU, 7-200 "maximum\_parameters", (P) VAXTPU, "prompt\_row", (P) VAXTPU, 7–201 7 - 190"read only", (P) VAXTPU, 7-178 "max lines", (P) VAXTPU, 7-173 "read\_routine", (P) VAXTPU, 7-174, 7-201 "menu\_position", (P) VAXTPU, 7-210 "record\_count", (P) VAXTPU, 7-175 "record\_number", (P) VAXTPU, 7–175 "record\_number", (P) VAXTPU, 7–186 "message\_action\_level", (P) VAXTPU, 7 - 206"record\_size", (P) VAXTPU, 7-175 "message\_action\_type", (P) VAXTPU, "recover", (P) VAXTPU, 7-178 7 - 206"message\_flags", (P) VAXTPU, 7–207 "middle\_of\_tab", (P) VAXTPU, 7–223 "recover", (P) VAXTPU, 7-207 "resize\_action", (P) VAXTPU, 7-207 "minimum\_parameters", (P) VAXTPU, "resources", (P) VAXTPU, 7-215 7 - 190"reverse\_status", (P) VAXTPU, 7-224 "mode", (P) VAXTPU, 7-173 "reverse\_video", (P) VAXTPU, 7-224 "modifiable", (P) VAXTPU, 7-173 "right", (P) VAXTPU, 7-224 "modified", (P) VAXTPU, 7-173 "right\_margin", (P) VAXTPU, 7-175, 7-186 "modify", (P) VAXTPU, 7-177 "right\_margin\_action", (P) VAXTPU, 7-175 "mouse", (P) VAXTPU, 7-200 "safe\_for\_journaling", (P) VAXTPU, 7-175 "screen\_limits", (P) VAXTPU, 7-201 "mouse button", (P) VAXTPU, 7-188 "name", (P) VAXTPU, 7-164, 7-173, 7-182 "screen\_update", (P) VAXTPU, 7-201 "scroll", (P) VAXTPU, 7-201, 7-224 "name", (P) VAXTPU, 7-215 "scroll\_amount", (P) VAXTPU, 7-224 "new\_length", (P) VAXTPU, 7-200 "new\_width", (P) VAXTPU, 7-200 "scroll\_bar", (P) VAXTPU, 7-224 "next", (P) VAXTPU, 7-166, 7-168, 7-169, "scroll\_bar auto\_thumb", (P) VAXTPU, 7-180, 7-181, 7-183, 7-184, 7-191, 7 - 2247-218, 7-223 "scroll\_bottom", (P) VAXTPU, 7-224 "next\_marker", (P) VAXTPU, 7-173 "scroll\_top", (P) VAXTPU, 7-225 "next\_range", (P) VAXTPU, 7–173 "section", (P) VAXTPU, 7-178 "nomodify", (P) VAXTPU, 7-177 "section\_file", (P) VAXTPU, 7-178, 7-207 "no\_video", (P) VAXTPU, 7-223 "self\_insert", (P) VAXTPU, 7-204 "no\_video\_status", (P) VAXTPU, 7-223 "shift amount", (P) VAXTPU, 7-225 "no\_write", (P) VAXTPU, 7-174 "shift\_key", (P) VAXTPU, 7-204, 7-207 "offset", (P) VAXTPU, 7-174, 7-186 "special\_graphics\_status", (P) VAXTPU, "offset\_column", (P) VAXTPU, 7-174, 7 - 2257 - 186"start\_character", (P) VAXTPU, 7-178 "start\_record", (P) VAXTPU, 7-178 "old\_length", (P) VAXTPU, 7-200 "old\_width", (P) VAXTPU, 7-200 "status\_line", (P) VAXTPU, 7–225 "original\_bottom", (P) VAXTPU, 7–223 "status\_video", (P) VAXTPU, 7-225 "original\_length", (P) VAXTPU, 7-223 "success", (P) VAXTPU, 7-207 "original\_length", (P) VAXTPU, 7-200 "system", (P) VAXTPU, 7-175 "original\_top", (P) VAXTPU, 7–223 "tab\_stops", (P) VAXTPU, 7-175 "original\_width", (P) VAXTPU, 7-200 "text", (P) VAXTPU, 7-225 "output", (P) VAXTPU, 7–177 "text", (P) VAXTPU, 7-215 "output\_file", (P) VAXTPU, 7-174, 7-178 "time", (P) VAXTPU, 7-202

GET_INFO built-in procedure	GET_INFO built-in procedure
string constant parameter (cont'd)	window_variable parameter (cont'd)
"timed_message", (P) VAXTPU, 7-207	example of use, (P) VAXTPU, B-16 to
"timer", (P) VAXTPU, 7–207	B-22
"top", (P) VAXTPU, 7–225	"key_map_list", (P) VAXTPU, 7–222
"traceback", (P) VAXTPU, 7–207	Givens plane rotation
"type", (P) VAXTPU, 7–165	applying to a vector, (P) RTL Math, MTH-173
"undefined_key", (P) VAXTPU, 7–204	generating the elements for, (P) RTL Math,
"underline_status", (P) VAXTPU, 7–225	MTH-178
"underline_video", (P) VAXTPU, 7–225	Global attributes
"ungrab_routine", (P) VAXTPU, 7–202	See also Command file
"unmodifiable_records", (P) VAXTPU,	EVE editor, (U) Text Processing, 1–71
7–175, 7–186, 7–193	Global buffer, (P) File Applications, 1–16, 3–8,
"update", (P) VAXTPU, 7–208	3–27; (P) File Def Language, FDL–20; (P)
"version", (P) VAXTPU, 7–208	RMS, 5–19
"video", (P) VAXTPU, 7–187, 7–193, 7–226	determining number of, (P) RMS, 5–20
"visible", (P) VAXTPU, 7–226	number, (P) File Applications, 7–17
"visible_bottom", (P) VAXTPU, 7–226	performance, (P) File Applications, 9–9
"visible_length", (P) VAXTPU, 7–202,	restricted use, (P) File Applications, 7–21
7–226	with deferred-write option, (P) File
"visible_top", (P) VAXTPU, 7–226	Applications, 3–9
"vk100", (P) VAXTPU, 7–202	with indexed file, (P) File Applications, 7–21
"vt100", (P) VAXTPU, 7–202	with relative file, (P) File Applications, 7–21
"vt200", (P) VAXTPU, 7–202	with shared file, (P) File Applications, 7–20 to
"vt300", (P) VAXTPU, 7–202	7–22
"widget_id", (P) VAXTPU, 7–209	with shared sequential file, (P) File
"widget_info", (P) VAXTPU, 7–216	Applications, 3–12
"width", (P) VAXTPU, 7–202	Global buffer count
"width", (P) VAXTPU, 7–226	example of run-time specification, (P) File
"window", (P) VAXTPU, 7–188	Applications, 5–10 to 5–12
"within_range", (P) VAXTPU, 7–187	Global buffer count field
"write", (P) VAXTPU, 7–178	See FAB\$W_GBC field
SYSTEM keyword parameter	
"enable_resize", (P) VAXTPU, 7–206	Global buffer descriptor
"recover", (P) VAXTPU, 7–207	See GBD
"resize_action", (P) VAXTPU, 7-207	Global buffer header
"timer", (P) VAXTPU, 7–207	See GBH
WIDGET keyword parameter	Global buffer synchronization block
"callback_parameters", (P) VAXTPU, 4–11,	See GBSB
7–209	GLOBAL clause
"widget_id", (P) VAXTPU, 7–209	for PLACEMENT clause, (P) Command Def,
widget variable parameter	CDU-25, CDU-34
"name", (P) VAXTPU, 7–215	GLOBAL directive, (P) MACRO, 6–37
"text", (P) VAXTPU, 7-215	Global expression, (P) MACRO, 3–9
"widget_info", (P) VAXTPU, 7–216	Global label, (P) MACRO, 2–2
widget_variable parameter	use with NCS routines, (P) National Char Set,
"callback_routine", (P) VAXTPU, 7–214	NCS-36
window variable parameter	Global lock, (P) DECthreads, 3–3
"left", (P) VAXTPU, 7–222	using to avoid nonreentrant software, (P)
"length", $(P)$ VAXTPU, 7–223	DECthreads, 3–3
"right", (P) VAXTPU, 7–224	Global mutex
"scroll_bar", (P) VAXTPU, 7-224	locking, (P) DECthreads, cma-75, pthread-68
"scroll_bar_auto_thumb", (P) VAXTPU,	unlocking, (P) DECthreads, cma-116,
7-224	pthread-104 Clobal page file section (P) File Applications
"top", (P) VAXTPU, 7–225	Global page-file section, (P) File Applications, 1–16
"width", (P) VAXTPU, 7–226	Global page table, (P) File Applications, 1–16
window_variable parameter	Giovai page table, (F) File Applications, 1–10
"bottom", $(P)$ VAXTPU, 7–222	

Global page table (cont'd) Global selection (cont'd) displaying, (P) System Dump Analyzer, specifying expiration period for, (P) VAXTPU, 7 - 387SDA-111 specifying grab routine for, (P) VAXTPU, 7-382 /GLOBAL qualifier, (M) Install, INS-18; (P) System Dump Analyzer, SDA-111 specifying read routine for, (P) VAXTPU, 7-385 /GLOBALS-/NOGLOBALS qualifier specifying ungrab routine for, (P) VAXTPU, with DELETE command, (P) Patch, PAT-53 7 - 389with DEPOSIT command, (P) Patch, PAT-56 support for, (P) VAXTPU, 4-6 to 4-8 GLOBALS-NOGLOBALS mode, (P) Patch, with EXAMINE command, (P) Patch, PAT-63 PAT-17 with INSERT command, (P) Patch, PAT-68 /GLOBALS qualifier, (P) Librarian, LIB-24 with REPLACE command, (P) Patch, PAT-72 with SET MODE command, (P) Patch, PAT-77 Global symbol, (U) DCL Dictionary, DCL1-1, with VERIFY command, (P) Patch, PAT-91 DCL1-5; (P) Programming Resources, 5-11; (P) Linker, 2-8; (P) Patch, PAT-7; (P) Global section, (P) Programming Resources, 5-15; (P) Routines Intro, A-12t; (P) System Services MACRO, 3-6, 6-101 Intro, 12-10; (P) RTL Parallel Processing, See also Message symbol 3-1; (P) File Applications, 1-16 See also Symbol characteristic, (P) System Services Intro, 12-10 absolute. (P) Linker, 1-9, 3-11 controlling access through access control lists, attribute directive (.GLOBAL), (P) MACRO, (P) Utility Routines, ACL-1 6 - 37creating, (P) System Services Ref, SYS-117 command levels available to, (U) Using VMS, defining, (P) System Services Intro, 12-7 deleting, (P) System Services Ref, SYS-158 conversion of to universal, (P) Linker, 3-12 for interprocess communication, (P) System creating in command procedure, (U) Using Services Intro, 8-10 VMS, 6-11 linker-assigned name of, (P) Linker, 5-6 defining, (P) MACRO, 6-22, 6-34, 6-37 mapping, (P) System Services Intro, 12-13; (P) defining by option, (P) Linker, 1-9, 3-11 System Services Ref, SYS-117, SYS-425 defining for shareable image, (P) MACRO, multiprocessing, (P) Programming Resources, 6-96 4 - 18designation of, (P) Linker, 2-8 name, (P) System Services Intro, 12-11 resolving. (P) Programming Resources, 5-11 paging file, (P) System Services Intro, 12-14 signaling with, (P) Programming Resources, permanent, (P) Programming Resources, 5-19 9 - 11processing of by image activator, (P) Linker, strong definition of, (P) Linker, 2-10 4 - 12strong reference to, (P) Linker, 2-9 protection weak definition of, (P) Linker, 2-10 access types, (U) DCL Concepts, 8-10 weak reference to, (P) Linker, 2-10 how to set, (U) DCL Concepts, 8-10 Global symbol definitions temporary, (P) Programming Resources, 5-19 specifying case sensitivity, V5.5 New Features, writable, (P) Programming Resources, 4-18 19-2, 19-6 Global section watchpoint, (P) Debugger, 10-15 Global symbol directory records Global selection analyzing in object file, (U) DCL Dictionary, determining ownership of, (P) VAXTPU, 7-199 DCL1-27 fetching grab routine for, (P) VAXTPU, 7-199 Global symbol table fetching information about, (P) VAXTPU, See GST 7 - 153Global variable, (P) VAXTPU, 3-4 fetching read request for, (P) VAXTPU, 7-199 in VAXTPU procedure (EVE), (U) Text fetching read routine for, (P) VAXTPU, 7-174, Processing, 1-69 7 - 201parts of (EVE), (U) Text Processing, 1-70 fetching ungrab routine for, (P) VAXTPU, /GLOBAL\_BUFFERS qualifier, (P) File 7 - 202Applications, 7-22 fetching wait time for, (P) VAXTPU, 7-202 GLOBAL BUFFER COUNT attribute, (P) File obtaining data from, (P) VAXTPU, 7-300 Def Language, FDL-20 reading information about, (P) VAXTPU, 7-299 GLOBAL\_BUFFER\_COUNT secondary attribute, requesting ownership of, (P) VAXTPU, 7-380 (P) File Applications, 7–17, 7–22 sending information about to an application, Go button (P) VAXTPU, 7-546 with DECwindows, (P) Debugger, 1-9

GOLD/R, (U) EDT Ref, EDT-44 GO command, (P) Debugger, 2-12, CD-100; (P) Delta/XDelta, DELTA-33 GOLD-Remove multiprocess program, (P) Debugger, 10-5 moving text with, (U) Text Processing, 1-18 with DECwindows, (P) Debugger, 1-23 GOLD-Select GOLD-↑ moving text with, (U) Text Processing, 1-18 moving the cursor with, (U) Text Processing, GOLD/T, (U) EDT Ref, EDT-45 1-8 See also Tabbing functions GOLD-1 GOLD/U, (U) EDT Ref, EDT-47 moving the cursor with, (U) Text Processing, See also Deleting text 1-8 GOLD/W, (U) EDT Ref, EDT-48 GOLD-← See also Refreshing screen moving the cursor with, (U) Text Processing, GOLD/Z, (U) EDT Ref, EDT-49 G operator, (P) System Dump Analyzer, SDA-12 GOLD-→ GOSUB command, (U) Using VMS, 6-25; moving the cursor with, (U) Text Processing, (U) Command Procedures, 5-10; (U) DCL 1-8 Dictionary, DCL1-227 to DCL1-228 GOLD/A, (U) EDT Ref, EDT-30 GO TO command, (U) Using VMS, 8-19, 8-31; See also Tabbing functions (U) EVE Ref, EVE-71GOLD/D, (U) EDT Ref, EDT-34 EVE editor, (U) Text Processing, 1-32 See also Tabbing functions for buffer manipulation (EVE), (U) Text GOLD/E, (U) EDT Ref, EDT-35 Processing, 1-47 See also Tabbing functions using (EVE), (U) Text Processing, 1-32 GOLD-F13 GOTO command, (U) VMS Intro, 5-6; (U) Using VMS, 6-22; (U) DCL Dictionary, DCL1-229 erasing text with, (U) Text Processing, 1-15 GOLD function, (U) EDT Ref, EDT-73 to DCL1-230 GOLD-Insert Here with labels, (U) Command Procedures, 5-9 erasing text with, (U) Text Processing, 1-15 with the IF...THEN language construct, (U) GOLD key, (U) Using VMS, 8-41; (U) EVE Ref, Command Procedures, 5-10 EVE-166 Grab routine canceling, (U) EVE Ref, EVE-197 fetching event in, (P) VAXTPU, 7-199 canceling key press (EVE), (U) Text Processing, global selection fetching, (P) VAXTPU, 7-199 creating your own key combinations for (EVE), specifying, (P) VAXTPU, 7-382 (U) Text Processing, 1–63 input focus, (P) VAXTPU, 7-398 default combinations, (U) EVE Ref, EVE-166, fetching, (P) VAXTPU, 7-199 specifying, (P) VAXTPU, 7-400 EVE-167 defining (EVE), (U) Text Processing, 1-62 GRANT/IDENTIFIER command, (M) Setting Up defining in an initialization file (EVE), (U) Text VMS, 4-19; (M) Security, 5-6, 5-13; (M) Processing, 1-65 Authorize, AUTH-27 in EDT, (U) Using VMS, 8-49; (U) Text Granularity, (P) RTL Parallel Processing, 5-1 Processing, 2-10, 2-18in lock, (P) System Services Intro, 13-2 in EVE, (U) Using VMS, 8-41 GRANULARITY qualifier, (P) File Def Language, list of default GOLD key combinations (EVE), FDL-42, FDL-51 (U) Text Processing, 1-63 Graphic symbol restriction on defining in EVE, (P) VAXTPU, VT100 terminals, (U) Using VMS, A-5 7 - 472VT200 terminals, (U) Using VMS, A-5 GOLD-Next Screen VT300 terminals, (U) Using VMS, A-5 in window environment, (U) Text Processing, GRAPHIC\_TABS keyword, (P) VAXTPU, 7-483 Greater than operator moving the cursor with, (U) Text Processing, symbol for in expressions, (U) Command 1-8Procedures, 2–13 GOLD-Prev Screen Greater than or equal to operator in window environment, (U) Text Processing, symbol for in expressions, (U) Command Procedures, 2-13 moving the cursor with, (U) Text Processing, Group, (M) LATCP, LAT-30, LAT-34, LAT-53 design of, (M) Security, 5-2, 5-7 1-8impact on user privileges, (M) Security, 5-2

Group (cont'd) GSMATCH option, (P) Programming Resources, overlapping user, (M) Security, 4-15 ownership category, (M) System Management See also Linker Utility Intro, 3–3 GSMATCH processing, (P) Linker, 3-8 GROUP category GST (global symbol table), (P) Librarian, LIB-2; definition, (U) DCL Concepts, 8-3 (P) Linker, 1-6, 2-7, 6-13 Group license, License Management, LMF-35 analyzing, (U) DCL Dictionary, DCL1-23 Group logical name table, (P) System Services building of in Pass 1, (P) Linker, 6-11 *Intro*, 6–5 creating, (P) Debugger, 5-4 canceling entries, (U) DCL Dictionary, DCL reserved symbols, (U) Using VMS, 5-4; DCL1-105 (U) DCL Concepts, 5-2 definition, (U) Using VMS, 4-7; (U) DCL definition, (U) Using VMS, 5-3; (U) DCL Concepts, 4-6 Concepts, 5-2 including logical name, (U) Using VMS, deleting symbols from, (U) DCL Dictionary, 4-7; (U) DCL Concepts, 4-6; (U) DCL DCL1-145 Dictionary, DCL1-41, DCL1-116 entering symbol in, (U) DCL Dictionary, Group name DCL1-263 in UIC, (M) Security, 4-3 in the search order, (U) DCL Concepts, 5-3 Group number, (M) SYSMAN, SM-29; (P) File limiting symbols in, (P) Linker, LINK-29 Def Language, FDL-22 search order, (U) Using VMS, 5-5 See also Security management shareable image, (P) Debugger, 5-13 displaying, (M) SYSMAN, SM-33 .GT. in UIC, (U) Using VMS, 7-2; (M) System in a numeric comparison, (U) DCL Concepts, Management Intro, 3-2; (M) Security, 4-3 6 - 7uniqueness requirement for VAXcluster, (M) .GTS. Security, 9-2 in a string comparison, (U) DCL Concepts, 6-2 Group ownership category, (U) Using VMS, 7-3 Guardsize attribute, (P) DECthreads, 2-8, GROUP parameter cma-19, cma-31 for X25-SERVER module, (M) Networking, Guest accounts 3 - 82as limited-access accounts, (M) Security, 5-50 GROUP privilege, (M) Setting Up VMS, 5-9, Guidelines 5-12; (M) Security, A-3 for system configuration, (M) Networking, 5-35 GROUP protection code, (P) File Def Language, to 5-42 FDL-23 G\_floating data type, (P) MACRO, 8-4, 9-102 **GROUP** qualifier .G\_FLOATING directive, (P) MACRO, 6-36 for X25-PROTOCOL module, (M) Networking, /G\_FLOAT qualifier, (P) Debugger, CD-59, CD-82 use with DTE parameter, (M) Networking, н 3 - 34H operator, (P) System Dump Analyzer, SDA-12 use with NUMBER parameter, (M) H symbol, (P) Delta/XDelta, DELTA-9; (P) Networking, 3-34 System Dump Analyzer, SDA-14 use with TYPE parameter, (M) Networking, H4000 transceiver, (M) DECnet-VAX Guide, 3-5 3 - 34Half-duplex mode, (P) I/O User's I, 8-10, 8-21 /GROUP qualifier, (M) Mount, MOUNT-22 GROUP user, (M) Security, 4-4 See also Duplex mode Group\_Member identifier, V5.5 New Features, HALT (Halt) instruction, (P) MACRO, 9-74, C-4210 - 43/GROUP\_SIZE qualifier, (M) Backup, BCK-52 interrupt stack not valid, (P) MACRO, E-10 GROWLIM parameter, (M) System Generation, synchronizing vector memory before, (P) MACRO, 10-43 GRPNAM privilege, (M) Setting Up VMS, 5–12; Handle, (P) DECthreads, 2-4 assigning to an object, (P) DECthreads, cma-63 (M) Security, A-4 GRPPRV privilege, (U) DCL Concepts, 8-6; (M) comparing, (P) DECthreads, cma-65 Setting Up VMS, 5-13; (M) Security, 4-6, A-4 copying, (P) DECthreads, cma-63 and user category, (M) Security, 4-4 obtaining for thread, (P) DECthreads, cma-106 effect on ownership privilege, (M) Security, Handler 4 - 31change and compatibility mode, (P) System

Services Intro, 11-5

Handler (cont'd)	HARDWARE ADDRESS parameter, (M)
condition, (P) Debugger, 9–13	Networking, 4–11
declaring a condition handler, (P) DECthreads,	Hardware-based fault tolerance
B-1	defined, Dependability Handbook, Glossary-3
Hang condition	Hardware clock
diagnosing, (M) VAXcluster, C-7	See Interval clock
Hanging up, (U) Phone, PHONE-14	Hardware component
Hang up	computer interconnect (CI), (M) System
function modifier, (P) I/O User's I, 8-42	Management Intro, 6–4
terminal, (P) I/O User's I, 8-18, 8-24	Ethernet, (M) System Management Intro, 6-4
HANGUP command, (U) Phone, PHONE-3	hierarchical storage controller, (M) System
HANGUP parameter, (M) Networking, 3–61	Management Intro, 6–4
Hardcopy change mode, (U) EDT Ref, EDT-122, EDT-183	optional, (M) System Management Intro, 6-4
	star coupler, (M) System Management Intro,
Hardcopy terminal, (U) EDT Ref, EDT-232 logout considerations, (M) Security, 3-21	6–4
Hardcopy terminal output, (P) File Def Language,	VAXcluster, (M) System Management Intro,
FDL-55	6–3
Hard faults	VAX processor, (M) System Management Intro,
characterizing, (M) Performance Management,	6–4
4–6	Hardware error, (P) File Applications, 10–1
Hard page break	DECnet-VAX messages, (M) DECnet-VAX
See INSERT PAGE BREAK command	Guide, 3–30
Hard-positioning option, (P) File Applications,	vector, (P) MACRO, 10–31, 10–47
4–31	Hardware loopback device, (M) Networking, 7-6
Hardware	Hardware problem
analyzing options, Dependability Handbook,	reporting, (M) Setting Up VMS, 3-5 Hashing passwords, (P) System Services Ref,
3–4 to 3–6	SYS-399
building block, Dependability Handbook, 1-19	HDR1 labels
applying dependability strategies,	accessing from XAB\$B_MTACC field, (P) RMS
Dependability Handbook, 1–21	14–5
catastrophic failures in, Dependability	/HDR3 qualifier, (M) Mount, MOUNT-23
Handbook,9–15	Head
causes of multiple failures in, Dependability	See Running head
Handbook,9–16	Header
connecting for communications, (M)	crash dump, (P) System Dump Analyzer,
DECnet-VAX Guide, 3-4	SDA-106
conventional VAX systems, Dependability	library, (P) Programming Resources, 8-50
Handbook, 6–6	library module, (P) Programming Resources,
eliminating single points of failure,	8–48
Dependability Handbook, 6–2	Header allocation
failures in, Dependability Handbook, 9–13	on disk volumes, (U) DCL Dictionary,
false failures in, Dependability Handbook, 9–17 fault tolerant VAXft systems, Dependability	DCL1-244
Handbook, 6–10	Header files, (P) DECthreads, B-2
intermittent failures in, Dependability	Header label, (U) Files and Devices, B-3
Handbook, 9–15	HDR1 label, (U) Files and Devices, 2–4, B–10
MIRA AS systems, Dependability Handbook,	accessibility field, (U) Files and Devices,
6–12	B-13
selecting new, Dependability Handbook, 3–4	creation date field, (U) Files and Devices,
VAXcluster topologies, Dependability	B-12
Handbook, 6-15	expiration date field, (U) Files and Devices
dependability characteristics summary,	B-12
Dependability Handbook, 6–29	file identifier field, (U) Files and Devices,
when to enlarge capacity, (M) Performance	B-10
Management, 5–14	file section number field, (U) Files and
Hardware address	Devices, B-12
Ethernet, (M) Networking, 3–13	

Header label Help (cont'd) HDR1 label (cont'd) for EVE keypad diagram, (U) Text Processing, file sequence number field, (U) Files and 1-36 Devices, B-12 keypad mode, (U) EDT Ref, EDT-76 file-set identifier field, (U) Files and line mode, (U) EDT Ref, EDT-145 nokeypad mode, (U) EDT Ref, EDT-291 Devices, B-12 online, (P) Debugger, 2-7, CD-102 generation number field, (U) Files and Devices, B-12 for debugger messages, (P) Debugger, 2-7, generation version-number field, (U) Files and Devices, B-12 with DECwindows, (P) Debugger, 1-18 setting up and decompressing, V5.5 New HDR2 label, (U) Files and Devices, B-10, B-13 block length field, (U) Files and Devices, Features, B-44 B-14 HELP command, (U) VMS Intro, 1-8, 1-14, buffer-offset length field, (U) Files and 1-17; (U) Using VMS, 1-7, 1-27, 1-36, 8-22, Devices, B-15 8-51; (U) Mail, MAIL-1, MAIL-55; (U) record format field, (U) Files and Devices, Phone, PHONE-15; (U) DCL Dictionary, DCL1-231 to DCL1-236; (U) EVE Ref. record length field, (U) Files and Devices, EVE-72 to EVE-74; (M) SYSMAN, SM-55; (M) Exchange, EXCH-30; (M) Install, B - 15system-dependent field, (U) Files and INS-17; (M) LATCP, LAT-4, LAT-23; (M) Devices, B-15 LADCP, LADCP-8; (M) System Generation, HDR3 label, (U) Files and Devices, B-10, B-16 SGN-19; (M) Terminal Fallback, TFU-17; RMS attributes field, (U) Files and (M) Authorize, AUTH-28; (M) Audit Analysis, Devices, B-16 AUD-32; (M) Monitor, MON-36; (M) HDR4 label, (U) Files and Devices, B-10, B-16 Show Cluster, SHCL-55; (M) DECnet-VAX information on, (U) Files and Devices, 1-7 Guide, 3-32; (M) Network Control Program, on magnetic tape, (U) Files and Devices, 4-17 NCP-55; (P) Debugger, 2-7, CD-102; (P) .HEADER LEVEL command, (U) Text Processing, Patch, PAT-67; (P) File Applications, 10-12; 3-29, 3-42; (U) DSR Ref, 2-60 (P) Analyze / RMS\_File, ARMS-28; (P) System Header levels, (U) DSR Ref. 2-60 Dump Analyzer, SDA-58; Obsolete Features, See also Section headers displaying command list (EVE), (U) Text displaying, (U) DSR Ref, 5-3 Processing, 1-35 example, (U) DSR Ref, 2-61, 2-111 displaying keypad diagram (EVE), (U) Text indentation of numbers, (U) DSR Ref, 5-4 Processing, 1-36 section numbers, (U) DSR Ref, 5-5 Edit/FDL, (P) File Def Language, FDL-62 Header page, (U) VMS Intro, 2-7 EDT editor, (U) Text Processing, 2-4 /HEADER qualifier, (P) Linker, LINK-10; EVE editor, (U) Text Processing, 1-35 (P) SUMSLP, SUM-18; (P) System Dump in LMCP Utility, V5.5 New Features, B-84 Analyzer, SDA-118 recording output, (P) System Dump Analyzer, HEADERS LOWER command, (U) DSR Ref. SDA-71 2 - 65using abbreviations with (EVE), (U) Text .HEADERS MIXED command, (U) DSR Ref, 2-65 Processing, 1-36 .HEADERS ON command, (U) Text Processing, using to get information, (U) EDT Ref, EDT-2 3-37; (U) DSR Ref, 2-63 with specific command (EVE), (U) Text .HEADERS UPPER command, (U) DSR Ref, 2-65 Processing, 1-35 /HEADER\_RESIDENT qualifier, (M) Install, INS-10 Help desk consulting service from Digital, Dependability Heap storage, (P) RTL String Manipulation, 2-3 Handbook, 10-8 HEIGHT parameter to SET built-in procedure, Help display (P) VAXTPU, 7-391 of default libraries, (U) DCL Dictionary, Hello timer, (M) Networking, 3-41 DCL1-232 Hello World! sample application Help Facility, (U) EDT Ref, EDT-2; (M) LADCP, corrections, V5.5 Release Notes, 4-6 LADCP-2; (M) ACL Editor, ACL-3; (M) HELLO\_INTERVAL parameter, (M) VAXcluster, Network Control Program, NCP-11 2 - 13EDT, (U) Using VMS, 8-51 Help EVE, (U) Using VMS, 8-22 for a specific EVE command, (U) Text in interactive utilities, (U) Using VMS, 1-8 Processing, 1-35

Help files /HEXADECIMAL qualifier, (P) Debugger, 4–11, comment lines in, (P) Librarian, LIB-6 CD-77, CD-79, CD-83 creating, (P) Librarian, LIB-4 to LIB-5 Hexadecimal text formatting, (P) Librarian, LIB-5 converting to binary, (P) RTL Library, LIB-76 qualifier lines in. (P) Librarian, LIB-6 Hexadecimal value. (U) DCL Concepts. B-1 restrictions in, (P) Librarian, LIB-4 Hexadecimal value of an expression, (P) System Help key Dump Analyzer, SDA-48 on LK201 keyboard, (U) EDT Ref, EDT-76 Hex password, (M) Network Control Program, HELP KEYPAD command NCP-9 EVE editor, (U) Text Processing, 1–62 Hibernation, (P) System Services Intro, 8-10 Help library, (P) Programming Resources, 1–18; alternate method, (P) System Services Intro, (P) Librarian, LIB-1, LIB-4 8 - 12character case in, (P) Librarian, LIB-2 and AST, (P) System Services Intro, 5-3 creating, (U) DCL Dictionary, DCL1-231 and RUN command, (U) DCL Dictionary, decompressing system messages, V5.5 New DCL2-55 compared with suspension, (P) System Services Features, B-44 displaying text, (P) Programming Resources, Intro, 8-11 8-52 LIB\$WAIT. (P) RTL Library, LIB-465 index keywords in. (P) Librarian, LIB-4 HIBER system service key names in, (P) Librarian, LIB-4 to LIB-5 use of, (P) RTL Parallel Processing, 5-5 user, (U) DCL Dictionary, DCL1-234 /HIDE qualifier, (P) Debugger, CD-67 HELP LIBRARY command display, (P) Librarian, Hierarchical storage controller LIB-8 to LIB-10 See HSC **HELP** parameter Hierarchical storage controller (HSC) subsystem use with LOOP CIRCUIT command. (M) See HSC subsystem Networking, 7-12 Hierarchical structure, (P) Analyze/RMS\_File, /HELP qualifier, (P) Librarian, LIB-25 ARMS-1 HELP subcommand Hierarchy with LMCP REPAIR command, V5.5 New See Directory hierarchy Features, B-91 Higher-level language statements, (M)Help text Networking, 1-22 example of, (P) Librarian, LIB-6 to LIB-8 Highest virtual block field retrieving, (P) Librarian, LIB-8 to LIB-10 HELP\_TEXT built-in procedure, (P) VAXTPU, See XAB\$L HBK field 7-228 to 7-229 High-level language, (U) VMS Intro, 4-2 Heterogeneous command terminal, (M) argument evaluation, (P) Routines Intro, 2-6 Networking, 1-3, 1-22, 8-1 argument transmission, (P) Routines Intro, 2-6 Heterogeneous network call from, (P) System Services Intro, 2-15 remote file operations, (M) Networking, 9-1 mapped into argument lists, (P) Routines Intro, %HEX, (P) Debugger, 4-11, D-5 2-6Hexadecimal Highly available computing UIC identifier, (M) Security, 4-20 business example, Dependability Handbook, Hexadecimal/decimal conversion, (P) MACRO, 1-3, 1-4 defined, Dependability Handbook, 1-2 table, (P) MACRO, B-1 High-speed terminal output, (P) File Def Hexadecimal dump, (U) DCL Dictionary, Language, FDL-55 DCL1-176; (P) Analyze/RMS\_File, ARMS-25 High-water marking, (M) Security, 4-40, 5-43 HEXADECIMAL mode, (P) Patch, PAT-17 and performance, (M) Security, 5-44 /HEXADECIMAL qualifier disabling to improve system performance, with DELETE command, (P) Patch, PAT-53 (M) System Management Intro, 5-7; (M) with DEPOSIT command, (P) Patch, PAT-56 Performance Management, 1–11 with EVALUATE command, (P) Patch, PAT-59 "High\_index" string constant parameter to with EXAMINE command, (P) Patch, PAT-63 GET\_INFO, (P) VAXTPU, 7-167 with INSERT command, (P) Patch, PAT-68 /HISTORY qualifier, (P) Librarian, LIB-26 with REPLACE command, (P) Patch, PAT-72 used to limit listing output, (P) National Char with SET MODE command, (P) Patch, PAT-76 Set, NCS-31 with VERIFY command, (P) Patch, PAT-91 History records

History records (cont'd) HSC40 disk controller, (P) I/O User's I, 3-3 commands that write, License Management, HSC50 disk controller, (P) I/O User's I, 3-3 LMF-50 HSC70 disk controller, (P) I/O User's I, 3-3 deleting, License Management, LMF-24 HSC disk, (M) System Management Intro, 6-4; in the LICENSE database, License (M) VAXcluster, 1-2, 2-4, 5-2; (P) I/O User's Management, LMF-24 I, 3-15HLD (host loader), (M) Networking, 1-16, 2-32, dual-pathed, (M) VAXcluster, 5-4, 5-9 HSC subsystem, (M) VAXcluster, 1-2 mapping table, (M) Networking, 4-22 changing allocation class values, (M) HLDTB\$, (M) Networking, 4-22 VAXcluster, 7-23 HLP\$LIBRARY logical name, V5.5 New Features, HSC tape, (M) VAXcluster, 5-2 B-44dual-pathed, (M) VAXcluster, 5-4 HNODE\$, (M) Networking, 4-22 HTASK\$, (M) Networking, 4–22 Hold Human factor placing a call on, (U) Phone, PHONE-16 See also Personnel taking a caller off, (U) Phone, PHONE-20 minimizing errors, Dependability Handbook, HOLDBACK TIMER parameter, (M) Networking, 3 - 62Humidity, Dependability Handbook, 5-4 Holder HWCLK spin lock, (P) Device Support (A), 3-8, associating with identifier, (M) Security, 5-6 3-9, 3-14, E-13, E-15; (P) Device Support displaying records, (M) Security, 5-7 (B), 3–29, 3–48 removal of, (M) Security, 5-6 Hyperbolic arc tangent, (P) RTL Math, MTH-21, Holder record, (P) System Services Intro, 3-5 MTH-84 adding, (P) System Services Intro, 3-8 Hyperbolic cosine, (P) RTL Math, MTH-51, format of, (P) System Services Intro, 3-5 MTH-88 modifying, (P) System Services Intro, 3–12 Hyperbolic sine, (P) RTL Math, MTH-100, removing, (P) System Services Intro, 3-14 MTH-133 Holding a job, (M) Maintaining VMS, 5-79 Hyperbolic tangent, (P) RTL Math, MTH-108, Holding job state, (M) Maintaining VMS, 5-69, MTH-143 5-78, 5-88 Hyphen (-) /HOLD qualifier, (P) Debugger, 10-3, 10-6, 12-15, See also Continuation character 12-19, 12-23, CD-158, CD-179, CD-230, and command line continuation, (U) Using CD-247 VMS, 1-10; (U) DCL Concepts, 1-4 Home block, (U) Files and Devices, 1-5, A-1; (P) line-continuation character, (P) Debugger, File Applications, 1–7 CD-4Hop, (M) DECnet-VAX Guide, 1-3; (M) wildcard Networking, 2-28 in a directory name, (U) Using VMS, 2-24 Host, (P) System Services Ref, SYS-270 to 2-25; (U) DCL Concepts, 3-12 Host identification Hyphenate flag, (U) DSR Ref, 3-11 for downline task load, (M) Networking, 4-12 See also Text formatting Host loader default, (U) DSR Ref, 3-11 See HLD example, (U) DSR Ref, 3-11 Host node recognizing, (U) DSR Ref, 2-48 for X.25 connection, (M) Networking, 1-3, 3-85, Hyphenation, (U) DSR Ref, 2-30, 2-48 3 - 86H\_floating data type, (P) MACRO, 8-5 Host services .H\_FLOATING directive, (P) MACRO, 6-38 DECnet-VAX, (M) Networking, 1-3, 1-15, 4-1 H\_floating-point storage directive (.H\_FLOATING), on Ethernet, (M) Networking, 2-3 (P) MACRO, 6-38 Hot standby /H\_FLOAT qualifier, (P) Debugger, CD-59, CD-83 defined, Dependability Handbook, Glossary-3 in disaster tolerant configurations, Dependability Handbook, 5-14 \$\$Hours, (U) DSR Ref, 3-18 I (insert) command, (U) EDT Ref, EDT-292 HRD option, (P) File Def Language, FDL-7 See also Inserting text HSC (hierarchical storage controller) I/O, (P) Modular Procedures, 2-16, A-4 revision levels required, V5.5 Release Notes, See also Input/output 2 - 27asynchronous, (P) Modular Procedures, 3-25

I/O (cont'd)	I/O database, (P) Device Support (A), 1-4 to 1-7;
at AST level, (P) Modular Procedures, 3–25	(P) Device Support (B), 1–1, 1–2
buffered, (M) Error Log, ERR-22	creation, (P) Device Support (A), $6-1$ , $6-3$ ,
direct, (M) Error Log, ERR-22	11-4, 12-3 to 12-7, 12-14, 15-7; (P) Device
file, (P) Modular Procedures, 2–18	Support (B), 1–33, 2–25
synchronous, (P) Modular Procedures, 3–25	displaying SDA information, (P) System Dump
I/O adapter, (P) Device Support (A), 1-6, 1-10 to	Analyzer, SDA-98
1–16, 1–22	examining with XDELTA, (P) Device Support
See also MBA	(A), 13–10
See also Q22-bus	for MASSBUS configuration, (P) Device
See also UNIBUS adapter	Support (A), 15–7 to 15–8, 15–13
configuration register, (P) Device Support (B),	for two-controller configuration, (P) Device
1–6	Support (A), 4-7
data path register, (P) Device Support (B),	global symbols, (P) System Dump Analyzer,
2–51	SDA-60
displaying nexus value, (P) Device Support (A),	initializing, (P) Device Support (A), 11-4, 12-14
12-8, 12-11	locating, (P) Device Support (A), 12–12
number of address bits, (P) Device Support (B),	referencing fields in, (P) Device Support (A),
1-8, 2-3	5–2
on VAXBI bus, (P) Device Support (A), 16-2	reinitializing, (P) Device Support (A), 11-4
type, (P) Device Support (A), 16-9; (P) Device	I/O device
Support (B), 1-7, 1-33, 2-3, 2-21	getting information about
I/O adapter registers	asynchronously, (P) System Services Ref,
See Byte count register	SYS-266
See Data path register	synchronously, (P) System Services Ref,
See Map registers	SYS-285
See MBA	I/O driver
See Vector register	ACP-QIO interface, V5.5 Release Notes, 3-22
I/O address space, (P) Device Support (A), 19–1 to	card reader, (P) I/O User's I, 2-1
19–7	device status messages, (M) Maintaining VMS, 6-7
access to during bus power failure, (P) Device	disk, (P) I/O User's I, 3–1
Support (A), 19–7	DMC11/DMR11, (P) I/O User's II, 1–1
error in mapping, (P) Device Support (A), 19-7	DR11-W/DRV11-WA, (P) I/O User's II, 3-1
mapping to process address space, (P) Device	DR32, (P) I/O User's II, 4–1
Support (A), 19-4, 19-5 to 19-7, 19-8	Ethernet/802 drivers, (P) I/O User's II, 6–1
of SCU/XMI bus, (P) Device Support (A), 16-5	line printer, $(P) I/O User's I, 5-1$
of VAXBI bus, (P) Device Support (A), 16-2	loading, (M) System Generation, SGN-22
rules for referencing, (P) Device Support (A),	logical end-of-volume detection, V5.5 Release
19–7	Notes, 3–22
I/O and performance, (P) File Applications, 3-1	magnetic tape, $(P) I/O User's I$ , 6–1
I/O buffers	mailbox, (P) I/O User's I, 7-1
pseudoterminal, (P) I/O User's I, 9-4	opening a sequential-media file, V5.5 Release
I/O channel, (P) System Services Intro, 7–12	Notes, 3-22
See also Process I/O channel	replacing with new version of, (M) System
assigning, (P) System Services Ref, SYS-31	Generation, SGN-24
deassigning, (P) System Services Intro, 7-18;	I/O error
(P) System Services Ref, SYS-131	in command procedures, (U) Using VMS, 6-18
index, (P) Routines Intro, A-2t	I/O function
I/O completion	See also Function code
See also I/O postprocessing	See also Function modifier
recommended test, (P) System Services Intro,	ACP-QIO interface, (P) $I/O$ User's $I$ , 1–2
7–15	analyzing, (P) Device Support (A), 8–2
status, (P) System Services Intro, 7-17	arguments, (P) I/O User's II, A-1 to A-6
synchronizing, (P) System Services Intro, 7-13	card reader, (P) I/O User's I, 2-5
I/O counts, (P) Convert, CONV-24	code, (P) System Services Intro, 7–11, 7–13;
	(P) $I/O$ User's $I$ , $A-1$ ; (P) $I/O$ User's $II$ ,
	A-1 to A-6

I/O operation (cont'd) I/O function (cont'd) quotas, privileges, and protection, (P) System disk, (P) I/O User's I, 1-2, 3-24 for DR11-W/DRV11-WA driver, (P) I/O User's Services Intro, 7-2 summary of, (P) System Services Intro, 7-6 II, 3-9 for asynchronous DDCMP driver, (P) I/O virtual, (P) System Services Intro, 7-7 User's II, 5-4 I/O postprocessing, (P) Device Support (A), 3-5, for DMC11/DMR11 driver, (P) I/O User's II, 10-1 to 10-4; (P) Device Support (B), 1-41 device-dependent, (P) Device Support (A), 2-7, for DMP11/DMF32 driver, (P) I/O User's II, 4-19 to 4-20, 7-8, 10-2 to 10-4 device-independent, (P) Device Support (A), for DR32 driver, (P) I/O User's II, 4-20 2-7, 4-20, 7-8; (P) Device Support (B), for Ethernet/802 driver, (P) I/O User's II, 6-16 3-72 to 3-73 indicating a buffered, (P) Device Support (A), for aborted I/O request, (P) Device Support (B), 4-11, 6-4 3 - 10indicating as legal to a device, (P) Device for buffered I/O, (P) Device Support (A), 7-8, Support (A), 4-11, 6-4 14 - 25for DMA transfer, (P) Device Support (A), line printer, (P) I/O User's I, 5-5 list of, (P) I/O User's I, A-1 to A-9 14-16, 14-24 to 14-26 LPA11-K device, (P) I/O User's I, 4-8 for full-duplex device driver, (P) Device Support magnetic tape, (P) I/O User's I, 1-2, 6-13 (B), 3-5 mailbox, (P) I/O User's I, 7-5 for I/O request involving no device activity, (P) modifier, (P) System Services Intro, 7-12; (P) Device Support (B), 3-24 to 3-25 I/O User's II, A-1 to A-6 synchronization flow, (P) Device Support (A), preprocessing, (P) Device Support (A), 4-12 terminal, (P) I/O User's I, 8-26 I/O postprocessing queue, (P) Device Support (A), I/O function code, (P) Device Support (A), 4-11; 10-3, 11-7, E-14; (P) Device Support (B), (P) Device Support (B), 1-39 1-17, 1-79, 3-5, 3-95 converting to device-specific function code, (P) I/O preprocessing Device Support (A), 8-4 See also FDT routine defined by VMS, (P) Device Support (A), 6-5 to See also SYS\$QIO completing, (P) Device Support (A), 4-13, 6-4 defining device-specific, (P) Device Support (A), device-dependent, (P) Device Support (A), 2-3 6-8 to 2-4, 4-10 to 4-13, 7-1 to 7-9 I/O function modifier, (P) Device Support (A), 4-11 device-independent, (P) Device Support (A), I/O limitation 2-3, 4-4 to 4-10 adding capacity, (M) Performance Management, IPL requirements, (P) Device Support (A), 3-4 4 - 30I/O rates compensating for, (M) Performance determining, (M) Performance Management, Management, 5-12 4-26 device I/O rate below capacity, (M) Performance I/O request Management, 4-27 aborting, (P) Device Support (A), 7-5, 10-6; direct I/O rate abnormally high, (M) (P) Device Support (B), 3-10 to 3-11 Performance Management, 4-29 as serviced by SCSI class and port drivers, (P) for disk and tape operations, (M) Performance Device Support (A), 17-22 to 17-24 Management, 4-26 canceling, (P) System Services Intro, 7-19; isolating, (M) Performance Management, 4-26 (P) Device Support (A), 11-6 to 11-9; (P) reducing demand, (M) Performance Device Support (B), 1-30, 1-78, 3-68 Management, 4-30 canceling on channel, (P) System Services Ref, I/O mode SYS-48 how to switch for sequential files, (P) RMS, completing, (P) Device Support (B), 3-94 to 3 - 95procedure for delaying decision until stream example, (P) Device Support (A), 2-1 to 2-7 connection, (P) RMS, 4-24 outstanding on channel, (P) Device Support when mode switching allowed, (P) RMS, 4-24 (B), 1–12 I/O operation queuing, (P) System Services Intro, 7-13 logical, (P) System Services Intro, 7-7 asynchronously, (P) System Services Ref, physical, (P) System Services Intro, 7-6

SYS-483

I/O request	Icon (cont'd)
queuing (cont'd)	specifying text for, (P) VAXTPU, 7-392
synchronously, (P) System Services Ref, SYS-488	Icon box, V5.5 Release Notes, 1–15 ICONIFY_PIXMAP parameter to SET built-in,
restarting after power failure, (P) Device	(P) VAXTPU, 7–395
Support (A), 8-5	ICON_PIXMAP parameter to SET built-in, (P)
retrying, (P) Device Support (A), 10-5 to 10-6	VAXTPU, 7–393
returning completion status of to process, (P)  Device Support (A), 2-7, 4-20, 7-4, 10-2,	IDB\$L_ADP, (P) Device Support (A), 4-7 IDB\$L_CSR, (P) Device Support (A), 4-7, 15-4,
10–3	15–5, 15–13, 16–9
status, (P) Device Support (B), 1–40 synchronizing simultaneous processing of	IDB\$L_OWNER, (P) Device Support (A), 3–26, 4–6, 4–7, 8–4, 8–7, 9–3, 11–2; (P) Device
multiple, (P) Device Support (A), 7–5	Support $(B)$ , 3–86, 3–100
validating device-dependent arguments, (P)  Device Support (A), 2–3	IDB\$V_NO_CSR, (P) Device Support (B), 1–36 IDB\$W_UNITS, (P) Device Support (A), 12–6,
validating device-independent arguments, (P)	16–9
Device Support (A), 2-2 to 2-3, 4-8 to 4-9	IDB (interrupt dispatch block), (P) System Dump
with no parameters, (P) Device Support (A), 7-9; (P) Device Support (B), 3-62	Analyzer, SDA-99; (P) Device Support (A), 1-6, 4-7 to 4-8, 14-23; (P) Device Support
with one parameter, (P) Device Support (A),	(B), 1-35 to 1-37
7–9; (P) Device Support (B), 3–37  I/O request packet	address, (P) Device Support (A), 4–6, 8–4, 14–30, 14–32
See IRP	creation, (P) Device Support (A), 12-4; (P)
I/O segment, (P) Linker, 1-6, 2-11	Device Support (B), 2-22
I/O service	for generic VAXBI device, (P) Device Support (A), 16-9
synchronous version, (P) System Services Intro, 7–16	for MBA, (P) Device Support (A), 15-4, 15-7 to 15-8, 15-13, 15-15
I/O space	size, (P) Device Support (B), 2–22
of MASSBUS, (P) Device Support (A), 15-4	IDENT attribute, (P) File Def Language, FDL-2,
of Q22-bus, (P) Device Support (A), 14-4	FDL-39
of UNIBUS, (P) Device Support (A), 14-4	.IDENT directive, (P) MACRO, 6-39
rules for referencing, (P) Device Support (A), 5-3, 5-5	Identification of circuits, (M) Networking, 3-34
writing to, (P) Device Support (A), 5-4	of events, (M) Networking, 3–34
I/O space references	of lines, (M) Networking, 3–52
vector, (P) MACRO, 10-29, 10-42, 10-43,	of network, (M) Networking, 3–28
10–47	of node address, (M) Networking, 2–2, 3–8
I/O statements	of node name, (M) Networking, 2-2, 3-8
to access remote files, (M) DECnet-VAX Guide,	of objects, (M) Networking, 3–77
2–12	of X.25 connector node, (M) Networking, 3–87
to access remote task, (M) DECnet-VAX Guide,	Identification directive (.IDENT), (P) MACRO,
2-15 I/O statistics (M) Manitan MON 57	6–39
I/O statistics, (M) Monitor, MON-57	in message source file, (P) Message, MSG-20
I/O status block See IOSB	IDENTIFICATION parameter
I/O unit, (P) File Applications, 3–6, 3–7, 3–11	for local node, (M) Networking, 3–10
IAN (index bucket area number)	/IDENTIFICATION qualifier, (U) DSR Ref, 5-4,
program example, (P) RMS, 4-8	6–7
IAS, (P) File Def Language, FDL-38	in message definition, (P) Message, MSG-22
IAS node, (M) Networking, 9–2	Identifier, (M) System Management Intro, 3-5;
ICCS register	(P) System Services Intro, 3–2; (P) VAXTPU,
displaying, (P) System Dump Analyzer,	3–4
SDA-90	adding to rights database, (P) System Services
Icon	Intro, 3–8
fetching text of, (P) VAXTPU, 7–199	alias node, (M) DECnet-VAX Guide, 3–10
implementing in DECwindows VAXTPU, (P)	associating with holders, (M) Security, 5–6
VAXTPU, 7–393, 7–395	attributes, (M) Security, 4–29; (P) System
	Services Intro 3-4

Identifier (cont'd) Identifier name, (P) System Services Intro, 3-3 circuit, (M) DECnet-VAX Guide, 3-32 translating, (P) System Services Intro, 3-7 combined in one ACE /IDENTIFIER qualifier, (P) Debugger, 6-6, example, (M) Security, 5-4 CD-115 default, (M) Authorize, AUTH-14 Identifier record, (P) System Services Intro, 3-5 defining, (P) System Services Intro, 3-2 adding to rights database, (P) System Services definition, (U) Using VMS, 7-6 Intro, 3-8 description, (P) Programming Resources, 6-1 format of, (P) System Services Intro, 3-5 design considerations, (M) Security, 5-3 modifying, (P) System Services Intro, 3-12 determining holders of, (P) System Services removing from rights database, (P) System Intro, 3-9 Services Intro, 3-14 format of, (P) System Services Intro, 3-2, 3-3 Identifier value general, (M) System Management Intro, 3-5; translating, (P) System Services Intro, 3-7 (M) Security, 4-19, 4-20; (P) System Identifying Services Intro, 3-4 business requirements, Dependability global section, (P) Routines Intro, A-12t Handbook, 1-5, 4-1granting, (M) Authorize, AUTH-27 constraints, Dependability Handbook, 1-6 line, (M) DECnet-VAX Guide, 3-32 to achieving dependable systems, node, (M) DECnet-VAX Guide, 3-32 Dependability Handbook, 4-1 removal of, (M) Security, 5-6 IDENT keyword removing from rights database, (P) System using to identify conversion function, (P) Services Intro, 3-14 National Char Set, NCS-14, NCS-16 renaming, (M) Authorize, AUTH-47 Ident produced by EVE\$BUILD, (P) VAXTPU, reserved, (M) Security, 5-4 G-2revoking, (M) Authorize, AUTH-48 /IDENT qualifier, (M) Accounting, ACC-14 rights database, (P) Routines Intro, A-12t IDENT statement, (P) Command Def, CDU-14, search string, (P) Debugger, 6-6 CDU-36; (P) VAXTPU, 3-14 to 3-15 sharing, (P) RTL Parallel Processing, 5-9 Idle queue status, (M) Maintaining VMS, 5-71 system-defined, (M) System Management Intro, IDX (index descriptor), (P) System Dump 3-5; (M) Security, 4-19, 4-20; (P) System Analyzer, SDA-77 Services Intro, 3-3 IDX\_NCMPR option, (P) File Def Language, types, (M) Security, 4-19 FDL-28 UIC, (M) System Management Intro, 3-5 IFAB (internal file access block), (P) System Dump UIC format, (P) System Services Intro, 3-3 Analyzer, SDA-77 uniqueness requirement IF command, (U) VMS Intro, 5-6; (U) Using for VAXcluster, (M) Security, 9-2 VMS, 6-21; (U) DCL Concepts, 7-1, 7-4, 7-6; user, (P) Routines Intro, A-11t, A-12t (U) DCL Dictionary, DCL1-237 to DCL1-239; IDENTIFIER access control list entry, (U) Using (P) Debugger, 8–9, CD–103 VMS, 7–8 and CONTINUE command, (U) DCL Identifier ACE, (M) Security, 4-22; (M) ACL Dictionary, DCL1-63 Editor, ACL-13; (P) System Services Intro, controlling execution flow, (U) Command Procedures, 5-6 example, (M) Security, 4-23; (M) ACL Editor, evaluating input of INQUIRE command, (U) ACL-15, ACL-16 Command Procedures, 5–8 specifying, (M) ACL Editor, ACL-13 executing a block of commands after, (U) specifying access, (M) Security, 4-24; (M) ACL Command Procedures, 5-8 Editor, ACL-15 restrictions to the IF-THEN-ELSE construct, specifying identifiers, (M) Security, 4-22 (U) Command Procedures, 5-6 specifying options, (M) Security, 4-23; (M) syntax rules for, (U) Command Procedures, 5-6 ACL Editor, ACL-14 testing severity level, (U) Command identifier data type, (P) Routines Intro, A-7t Procedures, 7–2 Identifier field with GOTO command, (U) Command file, (U) Files and Devices, 4-17, B-10 Procedures, 5-10 file-set, (U) Files and Devices, B-12 IF command, (U) DSR Ref, 2-66, A-5 implementation, (U) Files and Devices, B-9 %IFDEF lexical keyword, (P) VAXTPU, 3-36 owner, (U) Files and Devices, 3-13, B-9 .IF directive, (P) MACRO, 6-40 volume, (U) Files and Devices, 3-13, 3-17, B-9

Image (cont'd) IFI (internal file identifier), (P) System Dump for subprocess, (P) System Services Intro, 8-3 Analyzer, SDA-76 installation at startup, (M) Install, INS-1 removing, (P) System Services Intro, 6-10 length of, in map, (P) Linker, 5-8 IFL (index bucket fill size) linkable, (M) Install, INS-3 program example, (P) RMS, 4-8 linking to VMS, (P) DECthreads, B-2 %IF lexical keyword, (P) VAXTPU, 3-36 loading site-specific, (P) System Services Intro, IFNORD macro, (P) Device Support (B), 2-39 to noncommand, (U) Using VMS, 3-4 IFNOT command, (U) DSR Ref, 2-66 privileged, (M) Install, INS-3, INS-4; (P) IFNOWRT macro, (P) Device Support (B), 2-39 to Programming Resources, 6-2 privileged, securing, (P) Debugger, 5-5 IFRD macro, (P) Device Support (B), 2-39 to 2-40 protecting installed, (M) Install, INS-4 example, (P) Device Support (B), 2-40 reasons to install, (M) Install, INS-1 If state, (P) RTL Screen Management, 3-3 resuming execution of, (U) DCL Dictionary, composed input, (P) Programming Resources, DCL1-63 7 - 28rundown activity, (P) System Services Intro, IF statement, (P) VAXTPU, 3-22 to 3-23 8 - 13IF-THEN-ELSE construct (DCL) running, (U) DCL Dictionary, DCL2-51 setting \$STATUS symbol, V5.5 Release Notes. security ramifications, (M) Security, 5-33 3 - 22shareable, (M) Install, INS-3, INS-4; (P) IFWRT macro, (P) Device Support (B), 2-39 to Programming Resources, 5-3 shareable, debugging, (P) Debugger, 5-12 .IF\_FALSE directive, (P) MACRO, 6-43 with DECwindows, (P) Debugger, 1-28 /IF\_STATE qualifier, (P) Debugger, 8-8, CD-50; system, (U) DCL Dictionary, DCL1-389 (P) System Dump Analyzer, SDA-44 terminating with EXIT command, (U) DCL .IF\_TRUE directive, (P) MACRO, 6-43 Dictionary, DCL1-222 .IF\_TRUE\_FALSE directive, (P) MACRO, 6-43 types of, (P) Linker, 6-1 /IGNORE qualifier, (M) Backup, BCK-53; (M) Image accounting, (M) Install, INS-10 Audit Analysis, AUD-16 Image activation, (P) Linker, 1-6, 2-11; (P) File LABEL\_PROCESSING option, (M) Backup, Applications, 5-5 BCK-8 accounting, (M) Maintaining VMS, 6-2 .IIF directive, (P) MACRO, 6-46 analyzing, (M) Performance Management, 4-6 IJOBLIM parameter, (M) System Generation, reducing, (M) Performance Management, 5-2 Image activator ILLQBUSCFG bugcheck, (P) Device Support (B), description, (P) Linker, 1-6 1 - 22global symbols, (P) System Dump Analyzer, Image, (U) VMS Intro, 4-1 SDA-60 See also Command image GSMATCH processing, (P) Linker, 3-8, 4-12 See also Foreign command locating a shareable image, (P) Linker, 4-12 See also Known image mapping of shareable image, (P) Linker, 4-1 See also Shareable image memory allocation, (P) Linker, 6-7 See also System loadable image processing of .ADDRESS, (P) Linker, 6-20 IMAGE clause base address of, in map, (P) Linker, 5-8 compression of, (P) Utility Routines, DCX-1 for DEFINE SYNTAX statement, (P) continuing execution of, (U) DCL Dictionary, Command Def, CDU-23 for DEFINE VERB statement, (P) Command DCL1-63 Def, CDU-31 defining base address, (U) DCL Dictionary, DCL1-390 Image data records definition, (U) Using VMS, 3-1, 3-3 login echo problem, V5.5 Release Notes, 1-19 verification, V5.5 Release Notes, 1-19 executable, (M) Install, INS-3, INS-4 execute-only, (M) Install, INS-4 Image exit, (P) System Services Ref, SYS-217 executing in detached process, (U) DCL Image file Dictionary, DCL2-53 See also PATCH command executing in subprocess, (U) DCL Dictionary, analyzing, (U) DCL Dictionary, DCL1-22 DCL2-53 analyzing fixup section, (U) DCL Dictionary, exit, (P) System Services Intro, 8-13 DCL1-23

exiting, (P) Programming Resources, 9-26

Image file (cont'd) Image section (cont'd) analyzing patch text records, (U) DCL placement of program sections in, (P) Linker, Dictionary, DCL1-24 anayzing global symbol table, (U) DCL promotion of to global section, (P) Linker, 4-1 Dictionary, DCL1-23 protection of, (P) Linker, 5-6 error analysis of, (U) DCL Dictionary, relocation of, (P) Linker, 6-18 DCL1-22 type of, (P) Linker, 2-11 invoking, (U) DCL Dictionary, DCL2-11 Image section descriptor linker's writing of, (P) Linker, 6-21 See ISD Image header, (P) Linker, 2-3, 2-11, LINK-10 Image size ID field, (P) Linker, 1-8, 3-9 specifying with RUN command, (U) DCL image name field, (P) Linker, 1-8, 3-10 Dictionary, DCL2-57 Image hibernation Image specification and RUN command, (U) DCL Dictionary, effect of version number delimiter on overhead, DCL2-55 (P) File Applications, 5–5 Image I/O segment, (P) Linker, 1-8, 3-9 Image termination, (P) Device Support (A), 11-7; Image I/O structures, (P) System Dump Analyzer, (P) Device Support (B), 4-4 SDA-77 Image wakeup Image-id field and RUN command, (U) DCL Dictionary, setting, (P) Linker, 1-8, 3-9 DCL2-55 Image initialization, (P) Linker, 1-6, 2-11, 6-18 IMAGE\_MANAGEMENT.EXE Image-level accounting data global symbols, (P) System Dump Analyzer, collecting, (M) Performance Management, 3-3, SDA-60 3-4IMGDEF.STB, (P) System Dump Analyzer, IMAGELIB.OLB SDA-60 See SYS\$LIBRARY:IMAGELIB.OLB Immediate conditional assembly block directive Image map, (P) Linker, LINK-11 (.IIF), (P) MACRO, 6-46 See also Linker Utility Immediate mode, (P) MACRO, 5-14 brief, (P) Linker, LINK-3 contrasted with literal mode, (P) MACRO, 5-15 full, (P) Linker, LINK-8 Immediate mode addressing linker's output, (P) Linker, 2-6 usage restricted in vector memory instructions. linker's writing of, (P) Linker, 6-22 (P) MACRO, 10-51, 10-53 linker output, (P) Linker, 1-5 Immediate value, (P) Routines Intro, 2-3 module information in, (P) Linker, 5-2, 5-3 Implementation table sections in, (P) Linker, 1-5, 2-6, 5-2 VAX Ada, (P) Routines Intro, A-13 specification of, (P) Linker, 1-12, 5-1 VAX APL, (P) Routines Intro, A-15 symbol cross-referenced in, (P) Linker, LINK-5 VAX BASIC, (P) Routines Intro, A-18 type of, (P) Linker, 1-12, 5-1 VAX BLISS, (P) Routines Intro, A-22 Image mode, (M) Backup, BCK-17, BCK-55 VAX C, (P) Routines Intro, A-25 Image name field VAX COBOL, (P) Routines Intro, A-28 setting, (P) Linker, 1-8, 3-10 VAX FORTRAN, (P) Routines Intro, A-31 /IMAGE qualifier, (M) Backup, BCK-55; (M) VAX MACRO, (P) Routines Intro, A-36 Accounting, ACC-15; (P) System Dump VAX Pascal, (P) Routines Intro, A-38 Analyzer, SDA-159 VAX PL/I, (P) Routines Intro, A-42 Image rundown, (P) Programming Resources, VAX RPG II, (P) Routines Intro, A-48 9 - 26VAX SCAN, (P) Routines Intro, A-51 effect on logical names, (P) System Services VMS Usage, (P) Routines Intro, A-1 Intro, 6-5 INACTIVE BASE parameter, (M) Networking, forcing, (P) System Services Ref, SYS-249 Image section, (P) System Services Intro, 12-17 INACTIVE INCREMENT parameter, (M) copy-on-reference, (P) Linker, 4-3, 5-6 Networking, 3-43 demand-zero, (P) Linker, 1-8, 3-7, 5-6, 6-19 INACTIVE THRESHOLD parameter, (M) fix-up, (P) Linker, 6-20, 6-21 Networking, 3-42 generation of, (P) Linker, 6-3, 6-15 INACTIVITY TIMER parameter, (M) Networking, initialization of, (P) Linker, 6-18 length of, in map, (P) Linker, 5-5 Inbound logical link connection, (M) Networking, maximum number of, (P) Linker, 3-10 1-25order of, in cluster, (P) Linker, 6-17

Indentation (cont'd) INBOUND parameter, (M) Networking, 3-96 increasing tab position, (U) EDT Ref, EDT-30 for node type specification, (M) DECnet-VAX increment tab level, (U) EDT Ref, EDT-35 Guide, 3-25 moving text to right, (U) EDT Ref, EDT-315 INCB (Increment Byte) instruction, (P) MACRO, repeat count, (U) EDT Ref. EDT-45 9 - 21setting level, (U) EDT Ref, EDT-318 INCL (Increment Long) instruction, (P) MACRO, .INDENT command, (U) Text Processing, 3-19; (U) DSR Ref, 2-69 INCLUDE command, (U) Using VMS, 8-69; (U) /INDENT qualifier, (U) DSR Ref, 5-4 EDT Ref, EDT-147 Independently recoverable system kernels, EDT editor, (U) Text Processing, 2-36, 2-51 Dependability Handbook, 4-8 INCLUDE FILE command, (U) Using VMS, 8-11, Independently recoverable units 8-34; (U) EVE Ref, EVE-75 EVE editor, (U) Text Processing, 1-12, 1-47 See IRU reading file into buffer with (EVE), (U) Text Independent processes paradigm, Dependability Processing, 1–54 Handbook, 8-7 /INCLUDE positional qualifier, (P) Linker, Index LINK-24 creating, (U) DCL Dictionary, DCL2-77; (U) /INCLUDE qualifier, (U) Sort/Merge, SORT-64; DSR Ref, 2-70 (M) Error Log, ERR-13; (P) Linker, 2-4, 2-10 creating source file with DSR, (U) DCL Error Log Utility (ERROR LOG) Dictionary, DCL2-63 device class keywords, V5.5 New Features, creating with DSR, (U) Text Processing, 3-47, 3 - 52entry type keywords, V5.5 New Features, designating entries, (U) DSR Ref, 2-49, 3-12 entries, (U) DSR Ref, 2-35 B - 62unknown entries, (M) Error Log, ERR-14 formatting, (U) DSR Ref, 6-6, A-4 Inclusive OR operator, (P) MACRO, 3-16 of a vector, (P) RTL Math, MTH-149 Incoming calls to a DTE, (M) Networking, 2-36 output file, (U) DSR Ref, 6-1 Incoming LAT connections, (M) LATCP, LAT-1, producing, (U) Using VMS, 9-18; (U) DSR LAT-28 Ref. 6-4 INCOMING PROXY parameter, (M) Networking, subentries, (U) DSR Ref, 2-54, 3-17 2-45, 3-96 INDEX (Compute Index) instruction, (P) MACRO, INCOMING TIMER parameter, (M) Networking, 9 - 75Index bucket 3 - 74INCONSTATE bugcheck, (P) Device Support (B), reclaiming, (P) Convert, CONV-24 3-88, 3-97 Index bucket area number Incremental mode, (M) Backup, BCK-16 See IAN restoring files, (M) Backup, BCK-57 Index bucket area number field /INCREMENTAL qualifier, (M) Backup, BCK-57 See XAB\$B\_IAN field Increment specifier Index bucket fill size with EXIT/SEQUENCE, (U) EDT Ref, See IFL EDT-138 Index bucket fill size field with RESEQUENCE/SEQUENCE, (U) EDT See XAB\$W\_IFL field Ref. EDT-167 Index bucket size field with /SEQUENCE qualifier, (U) EDT Ref, See XAB\$B IBS field EDT-170 INDEX BUCKET structure, (P) File Applications, with WRITE/SEQUENCE, (U) EDT Ref, 10 - 20EDT-253 INDEX built-in procedure, (P) VAXTPU, 7-230 to INCW (Increment Word) instruction, (P) MACRO, .INDEX command, (U) DSR Ref, 2-70, 4-8 Indefinite repeat argument directive (.IRP), (P) example, (U) DSR Ref, 2-70 MACRO, 6-47 Index compression Indefinite repeat character directive (.IRPC), (P) prohibition against using, (P) File Applications, MACRO, 6-49 3-3, 3-16, 3-25, 4-9 Indentation, (U) EDT Ref, EDT-103, EDT-230, Index depth, (P) File Applications, A-2 EDT-249 Index descriptor decreasing level, (U) EDT Ref, EDT-320 See IDX decreasing tab level, (U) EDT Ref, EDT-34

increasing level, (U) EDT Ref, EDT-323

Indexed file (cont'd) INDEXED attribute, (P) File Def Language, Prolog 1 and Prolog 2 type, (P) File FDL-22 Applications, 3–16 Indexed file, (U) Using VMS, 2-4; (P) File Prolog 3, (P) Convert, CONV-1 Applications, 2–18, 3–15 PROLOG selection, (P) RMS, RMS-19 advantages and disadvantages of using, (P) reclaiming buckets in, (P) File Applications, File Applications, 2-24 10 - 30allocating, (P) File Applications, A-1 record access, (P) File Applications, 8-9 to alternate key, (P) File Applications, 2-19 8 - 13and Sort/Merge Utility, (U) Using VMS, 1-41 redesigning, (P) File Applications, 10–28 block allocation, (P) RMS, 8-3 reformatting, (P) Convert, CONV-1 bucket size, (P) File Applications, 3-6, 3-24, restriction against VFC format, (P) RMS, 5-18 7-20, A-1restriction to changing primary key, (P) RMS, bucket size for multiple areas, (P) RMS, RMS-100 RMS-15 run-time options, (P) File Applications, 9-12 to buffering, (P) File Applications, 7-20 9-13composition, (P) RMS, RMS-18 separating index levels, (P) RMS, 13-11 compression, (P) File Applications, 3-16, 3-25; setting bucket size, (P) RMS, 5-4 (P) File Def Language, FDL-28 size of data bucket, (P) RMS, 13-4 creating, (P) RMS, RMS-18 specifying bucket size, (P) RMS, 8-5 creating with multiple key, (P) RMS, 4-5 specifying index area, (P) RMS, 13-10 default bucket size, (P) RMS, 5–3 specifying index bucket size, (P) RMS, 13-10 deferred-write option with, (P) File string key options, (P) RMS, 13-8 Applications, 3–8 structure, (P) Analyze/RMS\_File, ARMS-1 designing, (P) File Applications, 3-15 to 3-28 tuning, (P) File Applications, 3-15 to 3-28 determining keys and areas, (P) RMS, 17-1 update-if option, (P) RMS, 7-17 determining key size, (P) RMS, 7-4 use of areas in, (P) RMS, 4-8 determining key value, (P) RMS, RMS-48 use of end-of-file option, (P) RMS, RMS-7 determining maximum record size, (P) RMS, verifying sort order, (P) RMS, RMS-7 with allocation options, (P) RMS, 5–14 determining number of buffers, (P) RMS, 7-6 with collating sequences, (P) RMS, 13-3 duplicate keys, (P) File Def Language, FDL-27 with deferred-write option, (P) RMS, RMS-12 establishing index, (P) RMS, RMS-7 with Get service, (P) RMS, RMS-48 examining, (P) File Applications, 10-19 with global buffers, (P) File Applications, 3-27 example of processing duplicate keys, (P) RMS, with XABKEY, (P) RMS, 13-1 Indexed file compression, (P) File Applications, example of specifying, (P) RMS, 3-5 3 - 3fast delete option, (P) RMS, 7-15 Indexed file organization, (P) File Applications, fill factor, (P) File Applications, 3-6 global buffers, (P) File Applications, 7-21 reorganizing, (P) File Applications, 10-31 identifying data area, (P) RMS, 13-4 /INDEXED qualifier, (P) File Applications, 7–20 inhibiting index update, (P) RMS, 13-12 Indexed sort, (U) Using VMS, 1-39 initial extent quantity, (P) RMS, 5-3 /INDEXED\_SEQUENTIAL qualifier, (U) inserting records with Put service, (P) RMS, Sort/Merge, SORT-45 RMS-71INDEXF.SYS reserved file, (M) Analyze/Disk, invoking Get and Find services for, (P) RMS, Index file, (U) Files and Devices, 1-6, 3-9 key of reference, (P) RMS, 7-3 bitmap, (U) Files and Devices, A-2 key type, (P) File Applications, 2–19 description of, (U) Files and Devices, 1-5 Level 1 index, (P) File Def Language, FDL-28 INDEXF.SYS, (U) Files and Devices, A-1 loading, (P) Convert, CONV-11 placing on disk, (U) DCL Dictionary, making contiguous, (P) File Applications, DCL1-245 10 - 30Index flag, (U) DSR Ref, 3-12 methods of accessing records, (P) RMS, 7-5 default, (U) DSR Ref, 3-12 optimizing performance, (P) File Applications, subindex flag, (U) DSR Ref, 3-17 3-15 to 3-28 Indexing options, (P) RMS, 7–10 backward, (P) RTL Math, 2-6 positioning area, (P) RMS, 8-7 case in entries, (U) DSR Ref, 2-130 primary key, (P) File Applications, 2-19

Indexing (cont'd) INFORMATIONAL keyword, (P) VAXTPU, 7–397 changing heading, (U) DSR Ref, 6-9 Error Log Utility (ERROR LOG), V5.5 New DSR Indexing Utility, (U) DSR Ref, 6-1 Features, B-62 emphasizing entries, (U) DSR Ref, 6-3 /INFORMATIONAL qualifier enabling operation of, (U) DSR Ref, 2-31 in message definition, (P) Message, MSG-23 entering commands, (U) DSR Ref, 6-4 "Informational" string constant parameter to example, (U) DSR Ref, 2-70, 6-4 GET\_INFO, (P) VAXTPU, 7-206 forward, (P) RTL Math, 2-6 Information exchange, (M) DECnet-VAX Guide, input files, (U) DSR Ref, 6-6 merging entries, (U) DSR Ref, 6-2 InfoServer system, (M) LADCP, LADCP-1, merging page number references, (U) DSR Ref, LADCP-5 INFO\_WINDOW identifier, (P) VAXTPU, 7-506 processing a BRN file, (U) DSR Ref, 6-6 INFO\_WINDOW variable, (P) VAXTPU, 4-29 processing an RNO file, (U) DSR Ref. 6-4 Inherit scheduling attribute, (P) DECthreads, producing a MEX file, (U) DSR Ref, 6-4 2-8, cma-21 producing an RNX file, (U) DSR Ref, 6-4, 6-9 obtaining, (P) DECthreads, pthread-7 punctuation, (U) DSR Ref, 6-1 usefulness, (P) DECthreads, cma-33, qualifiers, (U) DSR Ref, 6-7 pthread-15 sorting entries, (U) DSR Ref, 6-3 INI\$BRK, (P) Delta/XDelta, DELTA-7, **Indexing Utility** DELTA-29; (P) Device Support (A), 13-6 See also DSR Indexing Utility Initial breakpoint in XDELTA, (P) Delta/XDelta, case control, (U) DSR Ref, 6-2 DELTA-7 Initialization, (P) Modular Procedures, 3-12, A-4 features, (U) DSR Ref, 6-1 Index keywords at run time, (P) Modular Procedures, 3-17 in help libraries, (P) Librarian, LIB-4 automatic, (P) RTL Parallel Processing, 2-1 Index levels, (P) File Def Language, FDL-5 debugging session, (P) Debugger, 3-1, 9-7 comparing primary key and alternate keys, (P) with DECwindows, (P) Debugger, 1-5 RMS, 13-10 multiprocessing system, (M) Setting Up VMS, Index mode, (P) MACRO, 5-16 2 - 19operand specifier format, (P) MACRO, 8-26 of DDCMP node, (M) Networking, 1-8 /INDEX qualifier, (U) DSR Ref, 6-4; (P) System of Ethernet node, (M) Networking, 1-7 Dump Analyzer, SDA-73, SDA-126 of modular procedures, (P) Modular Index records, (P) File Def Language, FDL-5 Procedures, 3–12 Index sort of Phase III node, (M) Networking, 2-39, A-15 reasons for selecting, (U) Sort/Merge, of storage, (P) Modular Procedures, 3-14 SORT-29 one-time, (P) DECthreads, cma-87, pthread-88 specifying, (U) Sort/Merge, SORT-70 tape Index structure, (P) File Applications, 3-15, 3-24 using REPLY/BLANK\_TAPE, (U) DCL Level 0, (P) File Applications, 3-17 Dictionary, DCL2-40 Level 1, (P) File Applications, 3-17 using REPLY/INITIALIZE\_TAPE, (U) DCL primary, (P) File Applications, 3-17 Dictionary, DCL2-40 INDEX\_AREA attribute, (P) File Def Language, using LIB\$INITIALIZE, (P) Modular FDL-27, FDL-28 Procedures, 3-17, A-4 volumes, (U) DCL Dictionary, DCL1-240 INDEX\_AREA secondary attribute, (P) File Applications, 3-24 Initialization code, (P) Debugger, 9-9 INDEX\_COMPRESSION attribute, (P) File Def with DECwindows, (P) Debugger, 1-5 Language, FDL-5, FDL-28 Initialization file, (U) Mail, MAIL-16 INDEX\_FILL attribute, (P) File Def Language, See also Command procedure, debugger FDL-5, FDL-28 at startup, (U) EVE Ref, 1-11, 1-32 INDEX\_SPACE\_OCCUPIED attribute, (P) File creating, (M) Show Cluster, SHCL-12 to Def Language, FDL-5 SHCL-13, SHCL-73 Indirection operator debugger, (P) Debugger, 8-4, D-1 with DECwindows, (P) Debugger, 1-28 See Contents-of operator default handling, (P) VAXTPU, 4-22 Information defining keys in EVE, (U) Using VMS, 8-39 retrieving about subordinate, (P) RTL Parallel definition, (P) VAXTPU, 1-11 Processing, 2-4 during a session, (P) VAXTPU, 4-32

Initialization file (cont'd) INITIALIZE command (cont'd) editing-environment commands in, (U) Using protection codes, (U) Files and Devices, 4-11 VMS, 8-44 /SIZE qualifier, V5.5 New Features, 2–3 effects on buffer settings, (P) VAXTPU, 4-32 using to set protection, (U) Files and Devices, EVE\$INIT.EVE file, (U) EVE Ref, 1-24, 1-32 2-6 EVE\$INIT logical name, (U) EVE Ref, 1-24, Initialize command table 1 - 32LPA11-K device, (P) I/O User's I, 4-9 INITIALIZE/ERASE command, (M) Security, EVE editor, (U) DCL Dictionary, DCL1-194; (U) Text Processing, 1–71, 1–78; (P) 5 - 43VAXTPU, 4-31 to 4-33 INITIALIZE/MEDIA file specification, (M) SYSMAN, SM-14 FORMAT=[NO]COMPACTION command, for default settings, (U) EVE Ref, 1-31, EVE-3 V5.5 Release Notes, 4-4 /INITIALIZE qualifier, (M) Backup, BCK-59; (P) invoking EVE with, (U) Using VMS, 8-44 saving attributes in (EVE), (U) Text Processing, Patch, PAT-19 1-61, 1-71, 1-74, 1-75 with SET PATCH\_AREA command, (P) Patch, SHOW\_CLUSTER\$INIT, (M) Show Cluster, PAT-79 SHCL-12 to SHCL-13 INITIALIZE/QUEUE command, (U) DCL use with SYSMAN, (M) SYSMAN, SM-14 Concepts, 8-7; (U) DCL Dictionary, with @ command, (U) EVE Ref, EVE-2 DCL1-249 to DCL1-261; (M) Maintaining Initialization macro VMS, 5-68advantages described, (P) RMS, 3-7 /AUTOSTART\_ON qualifier, V5.5 New Features, 5-7, 5-8; (M) Maintaining VMS, example, (P) RMS, 3-5 functions, (P) RMS, 3-1 multiple bit field, (P) RMS, 3-5 /BLOCK\_LIMIT qualifier, (M) Maintaining placement guidelines, (P) RMS, 3-7 VMS, 5-30using, (P) RMS, 3-6 /CHARACTERISTICS qualifier, (M) Initialization procedures, (M) Analyze/Disk, C-1 Maintaining VMS, 5-26 /INITIALIZATION qualifier, (U) EVE Ref, 1–11, /DEFAULT qualifier 1-33; (P) VAXTPU, 5-9 to 5-10 for banner pages, (M) Maintaining VMS, Initialization routine 5 - 32See also Controller initialization routine for controlling page overflow, (M) See also Unit initialization routine Maintaining VMS, 5-45 for forms, (M) Maintaining VMS, 5-43 one-time, (P) DECthreads, 2-17 "Initialization" string constant parameter to /FORM\_MOUNTED qualifier, (M) Maintaining GET\_INFO, (P) VAXTPU, 7-177 VMS, 5-43 Initialization table, (P) Device Support (A), 6-2; GENERIC qualifier, (M) Maintaining VMS, (P) Device Support (B), 1-34, 2-25 5 - 57"Initialization\_file" string constant parameter to /NOCHARACTERISTICS qualifier, (M) GET\_INFO, (P) VAXTPU, 7-177 Maintaining VMS, 5-26 /INITIALIZE=CONTINUATION qualifier, (M) /NORETAIN qualifier, (M) Maintaining VMS, Mount, MOUNT-24 5 - 25INITIALIZE command, (U) Files and Devices, ON qualifier, (M) Maintaining VMS, 5-57 3-3; (U) DCL Concepts, 8-7; (U) DCL /RETAIN qualifier, (M) Maintaining VMS, Dictionary, DCL1-240 to DCL1-248; (M) Exchange, EXCH-31 to EXCH-34; (M) SCHEDULE qualifier, (M) Maintaining VMS, Maintaining VMS, 2-4, 3-4; (M) Monitor, 5 - 30MON-37; (M) Show Cluster, SHCL-56; (P) /SEPARATE qualifier I/O User's I, 6-27 for banner pages, (M) Maintaining VMS, See also Disk commands for reset modules, (M) Maintaining VMS, See also Volume and window size, (P) File Applications, 9-8 specifying queue options with, (M) Maintaining continuation volumes, (U) Files and Devices, VMS, 5-18 3-17/START qualifier displaying messages using. (M) Exchange. for activating an autostart queue, (M) EXCH-2 Maintaining VMS, 5-56, 5-68 Files-11 On-Disk Structure. (U) Files and for starting a nonautostart queue, (M) Devices, 3-4

Maintaining VMS, 5-57

magnetic tape, (U) Files and Devices, 5-2

```
INITIALIZE/QUEUE command (cont'd)
                                                     INKEY$ function, V5.5 Release Notes, 3-2
   with BURST qualifier. Obsolete Features, 1-29
                                                     Inner product
   with /PRIORITY qualifier, Obsolete Features,
                                                        of a vector, (P) RTL Math, MTH-165
                                                     Input
   with /TERMINAL qualifier, Obsolete Features,
                                                        data lines, (U) Command Procedures, 1-2, 3-5
       1 - 30
                                                        entering from a terminal, (U) Command
   with /[NO]FLAG qualifier. Obsolete Features.
                                                            Procedures, 3-6
                                                        obtaining with INQUIRE command, (U)
  /WSEXTENT qualifier, (M) Maintaining VMS,
                                                            Command Procedures, 3-4
      5 - 30
                                                        obtaining with READ command, (U) Command
Initializing
                                                            Procedures, 3-4
   disk volume, (U) Files and Devices, 3-4
                                                        opening a file to accept, (U) Command
   magnetic tape volume, (U) Files and Devices.
                                                            Procedures, 6-2
      3-5, 4-7
                                                        passing as a parameter to a command
   volume, (U) Files and Devices, 3-3
                                                            procedure, (U) Command Procedures, 3-1
      definition, (M) System Management Intro,
                                                        to an executable image, (U) Command
                                                            Procedures, 3–5
Initializing a condition variable, (P) DECthreads,
                                                        to batch jobs, (U) Command Procedures, 8-4
    cma-45, pthread-37
                                                     Input, debugger
Initializing a disk volume, (M) Maintaining VMS,
                                                        DBG$DECW$DISPLAY
                                                            with DECwindows, (P) Debugger, 1-32,
   guidelines, (M) Maintaining VMS, 2-4
                                                                D-1
Initializing a queue, (M) Maintaining VMS, 5-56
                                                        DBG$INPUT, (P) Debugger, 9-5, D-1
Initializing a tape volume, (M) Maintaining VMS,
                                                            with DECwindows, (P) Debugger, 1-33
                                                     Input/output
Initializing a volume
                                                        terminator
   from within a program, (P) System Services
                                                            end-of-file, (P) Programming Resources,
      Intro, 7-24; (P) System Services Ref,
      SYS-407
                                                     Input address array, (P) System Services Intro,
      example, (P) System Services Intro, 7-24
                                                         12 - 4
Initializing threads routines, (P) DECthreads,
                                                     Input data register
    cma-67
                                                        See DR11-W/DRV11-WA driver, IDR
Initializing variables, (P) VAXTPU, 2–24
                                                     Input data stream
Initial specifier
                                                        marking beginning of, (U) DCL Dictionary,
   with EXIT/SEQUENCE, (U) EDT Ref,
                                                            DCL1-111
      EDT-138
                                                        marking end of, (U) DCL Dictionary,
  with RESEQUENCE/SEQUENCE, (U) EDT
                                                            DCL1-206
      Ref, EDT-167
                                                     Input device, (P) Device Support (B), 1-75
  with /SEQUENCE qualifier, (U) EDT Ref,
                                                     Input file, (P) VAXTPU, 1-9, 5-19
      EDT-170
                                                        concatenating, (P) Convert, CONV-5
  with WRITE/SEQUENCE, (U) EDT Ref.
                                                        default file type for, (P) National Char Set,
      EDT-253
                                                            NCS-21
Initiator, (P) Device Support (A), 17-2
                                                        EVE, (U) DCL Dictionary, DCL1-189,
  completing an operation (in AEN mode), (P)
                                                            DCL1-192
      Device Support (B), 2-74
                                                        qualifier, (U) Sort/Merge, SORT-37
  enabling selection of, (P) Device Support (A),
                                                        record size, (U) Sort/Merge, SORT-37
      17-28 to 17-30; (P) Device Support (B),
                                                        restriction to using shareable image, (P)
      2-70, 2-73 to 2-90
                                                            Linker, 1-1
  receiving data from target (in AEN mode), (P)
                                                        specifying for NCS command, (P) National
      Device Support (B), 2-80
                                                            Char Set, NCS-21
  sending bytes to target (in AEN mode), (P)
                                                        temporary defaults in a parameter list, (U)
      Device Support (B), 2-83
                                                            DCL Concepts, 3–16
INIT processor state, (P) Device Support (B), 1–16
                                                        VAXTPU, (U) DCL Dictionary, DCL1-189,
"Init_file" string constant parameter to GET_
                                                           DCL1-192
    INFO, (P) VAXTPU, 7-177
                                                     Input file specification, (U) EVE Ref, 1-2; (P)
$INIT_VOL, (P) System Services Intro, 7-24
                                                         Librarian, LIB-11
  example, (P) System Services Intro, 7-24
                                                        default file type, (P) Librarian, LIB-12
```

Input focus Input request determining ownership of, (P) VAXTPU, 7-199 queuing and waiting for event flag, Obsolete fetching grab routine for, (P) VAXTPU, 7-199 Features, 2-19 Input source file, (P) SUMSLP, SUM-1 fetching ungrab routine for, (P) VAXTPU, 7 - 202Input specifier, (M) Backup, BCK-2 requesting, (P) VAXTPU, 7-398 Input stream specifying grab routine for, (P) VAXTPU, 7-400 defining for created process, (U) DCL specifying ungrab routine for, (P) VAXTPU, Dictionary, DCL2-53 definition, (U) Using VMS, 4-6; (U) DCL 7-402 support for, (P) VAXTPU, 4-5 to 4-6 Concepts, 4–5 Input image file, (P) Patch, PAT-3 switching control to other processes, (U) DCL device driver image, (P) Patch, PAT-3, PAT-19 Dictionary, DCL1-49; (M) SYSMAN, executable, (P) Patch, PAT-3 SM-27shareable, (P) Patch, PAT-3 Input symbiont Input/output running interactively, (M) Maintaining VMS, See also I/O INQUIRE command, (U) VMS Intro, 5-5; (U) asynchronous, (P) Programming Resources, Using VMS, 5-5, 6-9; (U) DCL Concepts, 5-1, 5-4; (U) DCL Dictionary, DCL1-262 to channel, (P) Programming Resources, 7-45 DCL1-264 checking device type, (P) Programming converting input data with, (U) Command Resources, 7–50 Procedures, 3-4 complex, (P) Programming Resources, 7-2 evaluating input from using the IF command, device, (P) Programming Resources, 1-23 (U) Command Procedures, 5–8 echo, (P) Programming Resources, 7-40 in a batch job command procedure, (U)exit handler, (P) Programming Resources, 7-53 Command Procedures, 3-4 file, (P) Programming Resources, 1–23 obtaining input, (U) Command Procedures, 3-4 lowercase, (P) Programming Resources, 7-42 reasons to omit from captive command reading a single line, (P) Programming procedures, (M) Setting Up VMS, 4-13 Resources, 7-4 using to obtain a value for a variable, (U) reading several lines, (P) Programming Command Procedures, 5-2 Resources, 7-5 INRANGE case constant, (P) VAXTPU, 3-24 screen updates, (P) Programming Resources, INSERT command, (U) EDT Ref, EDT-148; (P) 7 - 31Patch, PAT-68 simple, (P) Programming Resources, 7-1 EDT editor, (U) Text Processing, 2-24 status of, (P) Programming Resources, 7-49 with /ABSOLUTE qualifier, (P) Patch, PAT-27 synchronous, (P) Programming Resources, 7-46 with /INSTRUCTION qualifier, (P) Patch, terminator, (P) Programming Resources, 7-4 PAT-69 record, (P) Programming Resources, 7-53 Inserted records, (P) VAXTPU, 6-5 timeout, (P) Programming Resources, 7-41 Insert Here buffer unsolicited input, (P) Programming Resources, EVE contents of, (U) Text Processing, 1-20 uppercase, (P) Programming Resources, 7-42 INSERT HERE command, (U) Using VMS, 8–15; using SYS\$QIO, (P) Programming Resources, (U) EVE Ref, EVE-767-45, 7-49 moving text with (EVE), (U) Text Processing, using SYS\$QIOW, (P) Programming Resources, 1 - 187-45, 7-49 Insert Here key writing simple character data, (P) Programming Resources, 7–6 See also PASTE moving text with (EVE), (U) Text Processing, Input/output operations 1 - 18See also I/O statements on LK201 keyboard, (U) EDT Ref, EDT-84 over network, (M) DECnet-VAX Guide, 2-1 Inserting comments, (U) DSR Ref, 2-46 remote, (M) DECnet-VAX Guide, 1-5 Inserting date, (P) VAXTPU, 7-138, 7-268, 7-271 /INPUT qualifier, (M) Monitor, MON-24; (P) Inserting record Debugger, 7–19, CD–117, CD–164, CD–256; program example, (P) RMS, 4-16 (P) System Dump Analyzer, SDA-162 Inserting text, (U) DSR Ref, 3-9 Input queue blank lines, (U) DSR Ref, 2-115 See DR32 driver, INPTQ date, (U) DSR Ref, 2-109, 3-18

Inserting text (cont'd)	Installation procedure (cont'd)
_	
EVE editor, (U) Text Processing, 1–20	verification of successful network, (M)
footnotes, (U) DSR Ref, A-3	DECnet-VAX Guide, 3–30
line mode, (U) EDT Ref, EDT-148	VMS operating system, (M) System
nokeypad mode, (U) EDT Ref, EDT-292	Management Intro, 1–5
notes, (U) DSR Ref, A-3	Installation routine, (U) Files and Devices, 2–4
repeating characters, (U) DSR Ref, 2-102	INSTALL command, (U) DCL Dictionary,
time, (U) DSR Ref, 2–109, 3–18	DCL1-265; (M) System Generation, SGN-21
Inserting time, (P) VAXTPU, 7–138, 7–268, 7–271	Installed file
Insertion of files/modules, (P) Librarian, LIB-27	See Known image
See also /REPLACE qualifier	Installed files
Insertion operations, (P) RTL Screen	displaying names of, (U) DCL Dictionary,
Management, 2–8	DCL2-265
INSERT keyword, (P) VAXTPU, 7–404	Installing products, License Management, LMF-6
Insert line	sequence with license registration, License
with INSERT, (U) EDT Ref, EDT-148	Management, LMF-20
with REPLACE, (U) EDT Ref, EDT-165	Install Utility (INSTALL), (M) Install, INS-8
Insert mode	alarms, (M) Security, E-3
COPY_TEXT, (P) VAXTPU, 7-53	benefits of using for shareable image, (P)
definition, (U) DCL Concepts, 2-4 editing command line in, (U) Using VMS, 1-23	Linker, 1–9
EVE editor, (U) Text Processing, 1–12	commands, (M) Install, INS-10 to INS-26 exiting, (M) Install, INS-8
MOVE_TEXT, (P) VAXTPU, 7–280	invoking, (M) Install, INS-8
using EVE in, (U) Using VMS, 8–11	Instruction, (P) MACRO, 1–1, 9–1
INSERT MODE command, (U) EVE Ref, EVE-77	See also Vector instruction
EVE editor, (U) Text Processing, 1–12	
INSERT PAGE BREAK command, (U) Using	address, (P) MACRO, 9-33
VMS, 8–36; (U) EVE Ref, EVE–78	arithmetic, (P) MACRO, 9-5, 9-101, 9-144 as operator, (P) MACRO, 2-3
formatting text with (EVE), (U) Text	character string, (P) MACRO, 9-126
Processing, 1–40	control, (P) MACRO, 9-42
with WPS keypad, (U) EVE Ref, EVE-186	decimal string, (P) MACRO, 9–144
/INSERT qualifier, (U) VMS Intro, 6–15; (P)	depositing, (P) Debugger, 4-18, 4-21
Librarian, LIB-12, LIB-27; (P) National	with DECwindows, (P) Debugger, 1–24
Char Set, NCS-32	display (INST), (P) Debugger, 4–18, 7–7, 10–14,
Inspection	C-5
See Audit analysis inspection	for routine on call stack, (P) Debugger,
INSQHI (Insert Entry into Queue at Head,	7–9, CD–166
Interlocked) instruction, (P) MACRO, 9–89	with DECwindows, (P) Debugger, 1-9,
INSQTI (Insert Entry into Queue at Tail,	1–11, 1–21
Interlocked) instruction, (P) MACRO, 9–91	display kind, (P) Debugger, 7-16, C-1
INSQUE (Insert Entry in Queue) instruction, (P)	EXAMINE/INSTRUCTION command, (P)
MACRO, 9–93	Debugger, 4–19, 7–9, C–5
INSTALL	EXAMINE/OPERANDS command, (P)
See Install Utility	Debugger, 4–19
Installation	examining, (P) Debugger, 4-18, 4-19, 7-7
of network, (M) Networking, 6-1	with DECwindows, (P) Debugger, 1–21,
of privileged image, (P) Programming	1–24
Resources, 6–2	floating-point, (P) MACRO, 9–101
of shareable image, (P) Linker, 4-1, 4-12	format, (P) MACRO, 8–16
of VAX PSI, (M) Networking, 6-2	how to display instructions, (P) Delta/XDelta,
requirement for sharing, (P) Linker, 4-2	DELTA-20
/SHARE, (P) Linker, 4–12	integer, (P) MACRO, 9-5
Installation procedure	interlocked, (P) Programming Resources, 4–18
asynchronous connection, (M) DECnet-VAX	logical, (P) MACRO, 9-5
Guide, 3-18	operand, (P) Debugger, 4–19, CD–83, CD–150
for DECnet-VAX network, (M) DECnet-VAX	optimized code, (P) Debugger, 7–7, 9–1
Guide, 3–1, 3–11	with DECwindows, (P) Debugger, 1–11,
	1-41

Instruction (cont'd) Integer overflow. (P) RTL Library, LIB-255 packed decimal, (P) MACRO, 9-144 Integer overflow enable (IV), (P) MACRO, 8-15 procedure call. (P) MACRO, 9-63 Integer to floating-point conversion, (P) RTL queue, (P) Programming Resources, 4-19; (P) Math, 1-5 MACRO, 9-82 Integer type, (P) Debugger, 4-14, 4-23, 4-25 selecting from DECwindows window, (P) Integer variable Debugger, 1-22 in VAXTPU procedure, (U) Text Processing, set, (P) MACRO, 9-1 SET SCOPE/CURRENT command, (P) Integrated network, (M) DECnet-VAX Guide, 1-1, Debugger, 7-9, CD-166 1 - 11string, (P) MACRO, 9-126, 9-144 Integrated storage elements (ISE) variable-length bit field, (P) MACRO, 9-36 See ISE vector, (P) MACRO, 10-9, 10-18, 10-21 Integration stage, (P) Modular Procedures, 5-1 window (INST), DECwindows, (P) Debugger, Integration testing, (P) Modular Procedures, 4-1, 1-11, 1-21 /INSTRUCTION-/NOINSTRUCTION qualifier Integrity with DELETE command. (P) Patch, PAT-53 of VAXcluster, (M) VAXcluster, 3-1 with DEPOSIT command, (P) Patch, PAT-56, Integrity of file, (P) Analyze/RMS\_File, ARMS-13 PAT-57 Interactive with EVALUATE command, (P) Patch, PAT-60 assignment of symbols, (U) DCL Dictionary, with EXAMINE command, (P) Patch, PAT-63 DCL1-262 with INSERT command, (P) Patch, PAT-68 help, (U) DCL Dictionary, DCL1-233 with REPLACE command, (P) Patch, PAT-72 Interactive command, (P) Analyze/RMS File, with SET MODE command, (P) Patch, PAT-76 ARMS-21 with VERIFY command, (P) Patch, PAT-91 definition, (U) DCL Concepts, 1-1 INSTRUCTION-NOINSTRUCTION mode, (P) Interactive execution of command procedure, (U)Patch, PAT-15 Command Procedures, 1–5 Instruction notation INTERACTIVE identifier, (M) Security, 4–19, 5–4 operand specifier, (P) MACRO, 9-2 Interactive jobs operation description. (P) MACRO, 9-3 accounting, (M) Maintaining VMS, 6-2 /INSTRUCTION qualifier, (P) Debugger, 7–9, Interactive login, (M) Security, 3-1 7-19, CD-17, CD-30, CD-60, CD-83, CD-118, Interactive mode. (M) Audit Analysis, AUD-7. CD-126, CD-185, CD-258; (P) System Dump AUD-27; (P) Analyze/RMS\_File, ARMS-1, Analyzer, SDA-51 ARMS-10, ARMS-15, ARMS-21 %INST\_SCOPE, (P) Debugger, 7–16, C–5 definition, (U) Using VMS, 1-6; (U) DCL Insufficient virtual memory error Concepts, 1–1 reasons for, (P) RTL Parallel Processing, Interactive mode command. (M) Audit Analysis. PPI\_11 AUD-27 INSV (Insert Field) instruction, (P) MACRO, 9-41 entering, (M) Audit Analysis, AUD-7, AUD-17 Inswapping Interactive processing of selective patches, (P) reducing rate, (M) Performance Management, Patch, PAT-35 5 - 11/INTERACTIVE qualifier, (M) Audit Analysis, INT2 value. (P) File Def Language, FDL-32 AUD-17; (P) File Applications, 10-11; (P) INT4 value, (P) File Def Language, FDL-32 Analyze/RMS\_File, ARMS-1, ARMS-15 INT8 value, (P) File Def Language, FDL-32 limitation, (P) Analyze/RMS\_File, ARMS-10, INT built-in procedure, (P) VAXTPU, 7-232 to ARMS-13, ARMS-14, ARMS-20 7 - 233using with /OUTPUT qualifier, (P) Integer Analyze/RMS\_File, ARMS-16 See also Number Interchange environment data type, (P) MACRO, 8-1 protection, (U) Files and Devices, 2-7 in source statement, (P) MACRO, 3-3 /INTERCHANGE qualifier, (M) Backup, BCK-60 unsigned, (P) MACRO, 8-1, 8-2 Interconnect path Integer and floating-point routine, (P) RTL failures, Dependability Handbook, 4-14 Library, 2-12 Interface Integer constants, (P) VAXTPU, 3-5 See Command interface, DECwindows interface INTEGER data type, (P) VAXTPU, 2-5

Integer instructions, (P) MACRO, 9–5 vector, (P) MACRO, 10–57

/INTERFACE qualifier, (U) EVE Ref, 1–12; (P) Interprocessor interrupt, (P) Device Support (A), VAXTPU, 5-10 3-4, 3-14; (P) Device Support (B), 1-16 Interfacing with application users, Dependability Interrecord gap Handbook, 8-47 See IRG Interlocked instructions, (P) Programming Interrupt, (P) Device Support (A), 3-3; (P) Resources, 4-18; (P) MACRO, 10-43 MACRO, 10-43; (P) DECthreads, cma-51 using in multiprocessing environment, (P) See also Device interrupt Device Support (A), E-13 to E-14 blocking, (P) Device Support (B), 2-27, 2-65 Interlocked queue debugging session, (P) Debugger, 3-4 validating, (P) System Dump Analyzer, dismissing, (P) Device Support (A), 10-1 SDA-164 execution of command, (P) Debugger, 2-7, Intermediate file CD-38 with DSR, (U) Text Processing, 3-48, 3-53 with DECwindows, (P) Debugger, 1-20 /INTERMEDIATE qualifier, (U) DSR Ref, 4-14, execution of program, (P) Debugger, 2-7, 3-3, 5-2, 6-410-5, 10-9, 10-12, CD-36, CD-38, CD-41, Intermittent failures CD-149 in hardware components, Dependability with DECwindows, (P) Debugger, 1-20 Handbook, 9-15 interprocessor, (P) Device Support (A), 3-4, Internal buffer, (P) File Applications, 8-3 3-14; (P) Device Support (B), 1-16 Internal clock, (M) Network Control Program, reasons for DR32, (P) I/O User's II, 4-3 NCP-94 reducing, (M) Performance Management, 5-17 Internal file access block requesting an XDELTA, (P) Device Support (A), See IFAB 13-7 to 13-8 Internal file identifier requesting a software, (P) Device Support (A), See IFI 3-10; (P) Device Support (B), 2-67 Internal file identifier field request level, V5.5 New Features, A-12 See FAB\$W\_IFI field with VME devices, V5.5 New Features, A-11 Internal processor register INTERRUPT command, (M) DTS/DTR, DTS-12 Interrupt context, (P) Device Support (A), 1-8, 9-3 See Processor register symbol Interrupt dispatch block Internal record access block See IDB See IRAB Interrupt dispatcher, (P) Device Support (A), 3-6, Internal stream identifier field 14-24, 16-9, 16-11; (P) Device Support (B), See RAB\$W\_ISI field Internal structure for MASSBUS, (P) Device Support (A), 15-8 to of file, (P) Analyze/RMS\_File, ARMS-1 15-12, 15-15 to 15-16; (P) Device Support Interpreters (B), 4-24VAX APL, (P) Programming Resources, 1-6 for Q22-bus, (P) Device Support (A), 14-26 to VAX BASIC, (P) Programming Resources, 1-6 14 - 34VAX LISP, (P) Programming Resources, 1-8 for UNIBUS, (P) Device Support (A), 14-26 to Interprocess communication, (P) Programming 14-34; (P) Device Support (B), 1-25 Resources, 3-7; (P) System Services Intro, Interrupt enable bit, (P) Device Support (A), 8-4 8-7, 8-9 Interrupt expected bit using event flags for, (P) System Services Intro, See UCB\$V\_INT 8 - 10Interrupt handler using global sections for, (P) System Services inserting a queue element from, (P) Intro, 8-10 DECthreads, cmalib-27 using lock management services for, (P) System Interrupting a DCL command, (U) DCL Concepts, Services Intro, 8-10 2-1 to 2-3 using logical names for, (P) System Services Interruption, (U) EDT Ref, EDT-7 Intro, 8-10 of program, (P) VAXTPU, 4-20 using mailboxes for, (P) Programming recovering from, (U) EDT Ref, EDT-169 Resources, 3-7; (P) System Services Intro, Interrupt priority level Interprocess control, (P) System Services Intro, See IPL 8 - 7

```
/INTERRUPT qualifier, (P) System Dump
Analyzer, SDA-157
```

Interrupt request for XDELTA, V5.5 Release Notes, 3–54; (P) Delta/XDelta, DELTA-6 to DELTA-7

See also entries for specific processors

Interrupt service routine, (P) Device Support (A), 1-3, 3-3, 3-15, 9-1 to 9-8, 14-24; (P) Device Support (B), 1-73

address, (P) Device Support (A), 6–3, 14–32, E–5; (P) Device Support (B), 1–25, 2–26, 4–13

context, (P) Device Support (A), 9-3; (P) Device Support (B), 4-13

entry point, (P) Device Support (A), 4-16; (P) Device Support (B), 4-13

example, (P) Device Support (A), 9-6 to 9-8 exit method, (P) Device Support (B), 4-14 for connect to interrupt facility, (P) Device

Support (A), 19–10, 19–16 to 19–18

for LP11 printer, (P) Device Support (A), 2-6 to 2-7

for MASSBUS device, (P) Device Support (A), 15-12, 15-17; (P) Device Support (B), 4-13

for solicited interrupt, (P) Device Support (A), 9-3 to 9-4

for terminal port driver, (P) Device Support (A), 18-18

for unsolicited interrupt, (P) Device Support (A), 9-4 to 9-8; (P) Device Support (B), 4-24

functions, (P) Device Support (A), 4-16, 9-1; (P) Device Support (B), 4-14

input, (P) Device Support (B), 4-14

of CONINTERR.EXE, (P) Device Support (A), 19-13

of UNIBUS adapter, (P) Device Support (A), 14-29

preemption of device timeout handling, (P) Device Support (A), 10-5

register usage, (P) Device Support (A), 8-7; (P) Device Support (B), 4-14

specifying more than one, (P) Device Support (B), 4-13

synchronization requirements, (P) Device Support (A), 3-6, 3-22, 9-3, E-11; (P) Device Support (B), 4-13

Interrupt stack, (P) Device Support (A), 8-1 address, (P) Device Support (B), 1-16 displaying contents, (P) System Dump Analyzer, SDA-157

excessive activity, (M) Performance Management, 4-35

excessive time, (M) Performance Management, 4-33

Interrupt test, (M) DTS/DTR, DTS-12 types of, (M) DTS/DTR, DTS-13

Interrupt transfer routine, (P) Device Support (A), 14–31

Interrupt transfer vector

See VEC

Interrupt vector, (P) Device Support (A), 12–11 See also Device interrupt vector

number, (P) Device Support (A), 12-6

Intersystem communication, (P) Programming Resources, 3–26

Interval clock, (P) Device Support (A), 3–6, 3–8, 3–14

interrupt service routine, (P) Device Support (A), 3-8, 3-9

role in device timeouts, (P) Device Support (A), 1-4

/INTERVAL qualifier, (M) Monitor, MON-25; (M) Show Cluster, SHCL-7, SHCL-19

relationship of qualifier and event, (M)

Monitor, MON-25

specifying for playback, (M) Monitor, MON-25

/INTO qualifier, (P) Debugger, CD-126, CD-185, CD-196, CD-258

Intraprocess communication, (P) Programming Resources, 3-1

common blocks, (P) Programming Resources, 3-6

global symbols, (P) Programming Resources, 3-6

INTSTKPAGES parameter, (M) System Generation, A-13

INT suffix on DECthreads routines, (P) DECthreads, B-1

INVALIDATE spin lock, (P) Device Support (A), 3-14

INVALIDATE\_TB macro, (P) Device Support (A), E-15; (P) Device Support (B), 2-41 to 2-42 INVALID macro

replaced by INVALIDATE\_TB macro, (P)

Device Support (A), E-15

Invalid qualifiers

removed from print commands, V5.5 Release Notes, 1–3

Investing

in system planning, Dependability Handbook, 3-5

INVEXCEPTN bugcheck, (P) System Dump Analyzer, SDA-16

Invisible record, (P) VAXTPU, 7-448

INVOKE command, (P) File Applications, 4–5; (P) File Def Language, FDL-57, FDL-63

Invoking, (U) EVE Ref, 1-5; (M) Analyze/Disk, ADSK-4

See also Bootstrap procedures for XDELTA

See also Interrupt request for XDELTA

ANALYZE/RMS\_FILE, (P) Analyze/RMS\_File, ARMS-10

CONVERT, (P) Convert, CONV-5

```
Invoking (cont'd)
  CONVERT/RECLAIM, (P) Convert, CONV-5
  CREATE/FDL, (P) File Def Language, FDL-43
  debugger, (P) Debugger, 2-4, 2-6, 3-1, 10-1,
      10-12, CD-41
      with DECwindows, (P) Debugger, 1-2, 1-4,
          1 - 31
  DELTA, (P) Delta/XDelta, DELTA-1
  EDIT/FDL, (P) File Def Language, FDL-43
  SYSMAN, (M) SYSMAN, SM-18
      privilege requirements, (M) SYSMAN,
          SM-18
  VAXTPU, (P) VAXTPU, 1-9, 5-1
      from a batch job, (P) VAXTPU, 5-5
      from DCL command procedure, (P)
          VAXTPU, 5-2
      interactively, (P) VAXTPU, 5-1
      restriction, (P) VAXTPU, 5-1
  XDELTA, (P) Delta/XDelta, DELTA-2
IO$M_NOW modifier
  for Get and Put services, (P) RMS, 7-14
IO$V_INHERLOG, (P) Device Support (B), 3-8
IO$_AVAILABLE function, (P) Device Support (A),
    7 - 9
IO$_CONINTREAD function, (P) Device Support
   (A), 19–9, 19–10
IO$_CONINTWRITE function, (P) Device Support
   (A), 19-9, 19-10
IO$_PACKACK function, (P) Device Support (A),
    7 - 9
IO$_SENSECHAR function
  servicing, (P) Device Support (B), 3-49
IO$_SENSEMODE function
  servicing, (P) Device Support (B), 3-49
IO$_SETCHAR function, (P) Device Support (A),
   11-9
  servicing, (P) Device Support (B), 3-50 to 3-51
IO$_SETMODE function, (P) Device Support (A),
  servicing, (P) Device Support (B), 3-50 to 3-51
IO$_SETPRFPTH function
  specifying preferred path for DSA disks, V5.5
      New Features, B-56
IO$_TTY_PORT function, (P) Device Support (A),
   18 - 14
IO$_UNLOAD function, (P) Device Support (A),
$IO650DEF macro, (P) Device Support (A), 19-1
$IO730DEF macro, (P) Device Support (A), 19-1
$IO750DEF macro, (P) Device Support (A), 19-1
$IO780DEF macro, (P) Device Support (A), 19-1
$IO790DEF macro, (P) Device Support (A), 19-1
$IO8NNDEF macro, (P) Device Support (A),
   16-17, 19-1
$IO8PSDEF macro, (P) Device Support (A), 16-17
$IO8SSDEF macro, (P) Device Support (A), 16-16,
   19-1
```

```
$IO9AQDEF macro, (P) Device Support (A), 16-17
$IO9CCDEF macro, (P) Device Support (A),
   16-17, 19-1
IOC$ALLOSPT
  replaced by LDR$ALLOC_PT, (P) Device
      Support (A), E-7
IOC$ALOALTMAP, (P) Device Support (B), 1-10,
   3-63 to 3-64, 3-93
IOC$ALOALTMAPN, (P) Device Support (A),
   14-20; (P) Device Support (B), 3-63 to 3-64
IOC$ALOALTMAPSP, (P) Device Support (B),
   3-63 to 3-64
IOC$ALOUBAMAP, (P) Device Support (B), 3-65
   to 3-66, 3-90, 3-99
IOC$ALOUBAMAPN, (P) Device Support (A),
   14-20; (P) Device Support (B), 3-65 to 3-66
IOC$ALOVMEMAP_DMAN routine, V5.5 New
   Features, A-23
IOC$ALOVMEMAP_DMA routine, V5.5 New
   Features, A-23
IOC$ALOVMEMAP_PIO routine, V5.5 New
   Features, A-29
IOC$APPLYECC, (P) Device Support (B), 1-83,
   3 - 67
IOC$CANCELIO, (P) Device Support (A), 11-8 to
   11-9; (P) Device Support (B), 1-77, 3-68, 4-4
IOC$DIAGBUFILL, (P) Device Support (B), 1-30,
   1-42, 3-69
IOC$GL_CRBTMOUT, (P) Device Support (B),
IOC$GL_DEVLIST, (P) Device Support (A), 11-5;
   (P) Device Support (B), 1-27
IOC$GL_DPTLIST, (P) Device Support (A), 12-3,
   12 - 8
IOC$GL_IRPFL
  replaced in VMS Version 5.0, (P) Device
      Support (A), E-14
IOC$GL LRPFL
  replaced in VMS Version 5.0, (P) Device
      Support (A), E-14
IOC$GL_MUTEX, (P) Device Support (A), 11–12;
   (P) Device Support (B), 4-6
IOC$GL_PSFL
  replaced by IOC$GQ_POSTIQ, (P) Device
      Support (A), E-14
IOC$GL_SRPFL
  replaced in VMS Version 5.0, (P) Device
      Support (A), E-14
IOC$GQ_IRPIQ, (P) Device Support (A), E-14
IOC$GQ_LRPIQ, (P) Device Support (A), E-14
IOC$GQ_SRPIQ, (P) Device Support (A), E-14
IOC$GW_MAXBUF, (P) Device Support (B), 3-20,
   3 - 22
IOC$INITIATE, (P) Device Support (A), 3-23,
   4-13 to 4-15, 8-1, 10-3; (P) Device Support
   (B), 1-30, 1-40, 1-41, 1-77, 1-79, 3-28, 3-38,
```

3-69, 3-70 to 3-71, 3-95, 4-17

- IOC\$IOPOST, (P) Device Support (A), 3-5; (P) Device Support (B), 1-41, 1-42, 1-43, 3-72 to 3-73
  - unlocking process buffers, (P) Device Support (B), 3–109
- IOC\$LOADALTMAP, (P) Device Support (A), 14–22; (P) Device Support (B), 2–44, 3–74 to 3–75
- IOC\$LOADMBAMAP, (P) Device Support (A), 15–3 to 15–4; (P) Device Support (B), 2–45, 3–76
- IOC\$LOADUBAMAP, (P) Device Support (A), 14–21 to 14–22; (P) Device Support (B), 1–26, 2–46, 3–77 to 3–78
- IOC\$LOADUBAMAPA, (P) Device Support (A), 14–22; (P) Device Support (B), 3–77 to 3–78
- IOC\$LOADVMEMAP\_DMAN routine, V5.5 New Features, A-25
- IOC\$LOADVMEMAP\_DMA routine, V5.5 New Features, A-25
- IOC\$LOADVMEMAP\_PIO routine, V5.5 New Features, A-30
- IOC\$MNTVER, (P) Device Support (B), 1–30 IOC\$MOVFRUSER, (P) Device Support (A),
- 16–22; (P) Device Support (B), 2–21, 3–79
- IOC\$MOVFRUSER2, (P) Device Support (B), 3–79 IOC\$MOVTOUSER, (P) Device Support (A), 16–22; (P) Device Support (B), 2–21, 3–80 to
- IOC\$MOVTOUSER2, (P) Device Support (B), 3–80 to 3–81
- IOC\$PURGDATAP, (P) Device Support (A), 14–24 to 14–25; (P) Device Support (B), 1–26, 2–51, 3–82 to 3–83
- IOC\$RELALTMAP, (P) Device Support (A), 14–26; (P) Device Support (B), 1–10, 1–73, 2–53, 3–84 to 3–85
- IOC\$RELCHAN, (P) Device Support (A), 10–2; (P) Device Support (B), 1–21, 1–36, 1–73, 2–54, 3–86, 3–95
  - called by IOC\$WFIRLCH, (P) Device Support (B), 3-106
- IOC\$RELDATAP, (P) Device Support (A), 14–25; (P) Device Support (B), 1–7, 1–9, 1–73, 2–55, 3–87
- IOC\$RELMAPREG, (P) Device Support (A), 14–26; (P) Device Support (B), 1–8, 1–9, 1–25, 1–26, 1–73, 2–56, 3–89 to 3–90
- IOC\$RELSCHAN, (P) Device Support (B), 1–21, 1–22, 1–36, 2–57, 3–91
- IOC\$RELVMEMAP\_DMA routine, V5.5 New Features, A-27
- IOC\$RELVMEMAP\_PIO routine, V5.5 New Features, A-32
- IOC\$REQALTMAP, (P) Device Support (A), 14–19; (P) Device Support (B), 1–10, 1–73, 2–58, 3–92 to 3–93

- IOC\$REQCOM, (P) Device Support (A), 3–5, 3–23, 8–1, 10–3 to 10–4; (P) Device Support (B), 1–30, 1–38, 1–41, 1–76, 1–77, 1–79, 1–81, 2–59, 3–13, 3–94 to 3–95, 4–17 error logging activities, (P) Device Support (A),
- 11–10 IOC\$REQDATAP, (P) Device Support (A), 14–17; (P) Device Support (B), 1–7, 1–9, 1–26, 1–73,
- 2-60, 3-96 to 3-97 IOC\$REQDATAPNW, (P) Device Support (A), 14-18; (P) Device Support (B), 3-96 to 3-97
- IOC\$REQMAPREG, (P) Device Support (A), 14–19 to 14–20; (P) Device Support (B), 1–8, 1–9, 1–25, 1–26, 1–73, 2–61, 3–98 to 3–99
- IOC\$REQPCHANH, (P) Device Support (B), 1–21, 1–36, 1–73, 2–62, 3–100 to 3–101
- IOC\$REQPCHANL, (P) Device Support (A), 8-2 to 8-4; (P) Device Support (B), 1-21, 1-36, 1-73, 2-62, 3-100 to 3-101
- IOC\$REQSCHANH, (P) Device Support (B), 1–21, 1–22, 1–36, 2–63, 3–100 to 3–101
- IOC\$REQSCHANL, (P) Device Support (B), 1–21, 1–22, 1–36, 1–73, 2–63, 3–100 to 3–101
- IOC\$RETURN, (P) Device Support (A), 11–8; (P) Device Support (B), 2–13, 3–102
- IOC\$SEARCHDEV, (P) Device Support (B), 1–74 IOC\$VERIFYCHAN, (P) Device Support (B), 3–103
- IOC\$VME\_BYTE\_SWAP\_LONG routine, V5.5 New Features, A-34
- IOC\$WFIKPCH, (P) Device Support (A), 4–16, 8–7; (P) Device Support (B), 1–73, 1–77, 1–79, 3–104 to 3–106
- IOC\$WFIRLCH, (P) Device Support (A), 4–16; (P) Device Support (B), 1–77, 1–79, 3–104 to 3–106
- \$IODEF macro, (P) Device Support (A), 6–5 IOFORK macro, (P) Device Support (A), 3–12, 3–24, 4–17, 9–4, 10–1, 14–24; (P) Device Support (B), 2–43, 3–30
- IOLOCK10 fork lock, (P) Device Support (A), 3–14
  IOLOCK11 fork lock, (P) Device Support (A), 3–14
  IOLOCK8 fork lock, (P) Device Support (A), 3–8, 3–13
- IOLOCK9 fork lock, (P) Device Support (A), 3–14
  IOSB (I/O status block), (P) Routines Intro, A–7t;
  (P) Device Support (A), 7–4, 10–2, 10–3; (P)
  Device Support (B), 1–39, 1–41, 3–5, 3–10, 3–73, 3–95
  - ACP-QIO interface, (P) I/O User's I, 1–35 asynchronous DDCMP driver, (P) I/O User's II, 5–14
  - card reader, (P) I/O User's I, 2–11 disk, (P) I/O User's I, 3–36 DMC11/DMR11 driver, (P) I/O User's II, 1–9 DMP11/DMF32 driver, (P) I/O User's II, 2–25

```
IOSB (I/O status block) (cont'd)
   DR11-WDRV11-WA driver, (P) I/O User's II,
       3 - 15
  DR32 driver, (P) I/O User's II, 4-34
  Ethernet/802 drivers, (P) I/O User's II, 6-39
  in synchronization, (P) System Services Intro,
       7 - 13
  LAT port driver, (P) I/O User's I, 8-56
  line printer, (P) I/O User's I, 5-10
  LPA11-K device, (P) I/O User's I, 4-33
  magnetic tape, (P) I/O User's I, 6-28
  mailbox, (P) I/O User's I, 7-12
  return condition value field, (P) System
       Services Intro, 7-17
  returned by generic SCSI class driver, (P) I/O
       User's I, 11–11
  terminal, (P) I/O User's I, 8-56
  validating access to, (P) Device Support (A),
       4-9
IOTA (Generate Compressed Iota Vector)
    instruction, (P) MACRO, 10-86
$IOUV1DEF macro, (P) Device Support (A), 19-1
$IOUV2DEF macro, (P) Device Support (A), 19-1
IO_ROUTINES.EXE
  global symbols, (P) System Dump Analyzer,
       SDA-60
io_status_block data type, (P) Routines Intro,
    A-7t
IPC (interprocess communication)
  files required for the queuing system, V5.5
       Release Notes, 2-8
  use with queue manager, (M) Maintaining
       VMS, 5–1
IPC (interrupt priority C)
  using to cancel mount verification, (M)
       Maintaining VMS, 3-13
IPL$_ASTDEL, (P) Device Support (A), 3-2, 3-4,
    3-19, 4-9; (P) Device Support (B), 3-10, 3-12,
    3-31, 3-34, 3-37, 3-38, 3-40, 3-43, 3-49,
    3-50, 3-56, 3-62, 3-73, 3-103, 3-114, 3-116,
    3-117, 4-6, 4-11
  PGFIPLHI bugcheck, (P) System Dump
       Analyzer, SDA-19
IPL$_EMB, (P) Device Support (B), 3-8
IPL$_FILSYS, (P) Device Support (A), 3-13
IPL$_IOLOCK8, (P) Device Support (A), 3–13
IPL$_IOPOST, (P) Device Support (A), 2-7, 3-2,
    3-5, 4-20, 10-3, 11-7; (P) Device Support (B),
    3-5, 3-10, 3-25, 3-73, 3-95
IPL$_JIB, (P) Device Support (A), 3-13
IPL$_MAILBOX, (P) Device Support (A), 3-2, 3-8,
    3-14, 9-7, 10-7; (P) Device Support (B), 3-52,
    3 - 61
IPL$_MMG, (P) Device Support (A), 3-13
```

IPL\$\_POOL, (P) Device Support (A), 3-2; (P)

Device Support (B), 3-14, 3-15

```
IPL$_POWER, (P) Device Support (A), 3-7, 8-5 to
    8-6, 11-4, 12-4; (P) Device Support (B), 4-8,
    4 - 10
IPL$_QUEUEAST, (P) Device Support (A), 3-2,
    3-7, 3-13, 19-15, 19-18; (P) Device Support
    (B), 3-2, 3-3
IPL$_RESCHED, (P) Device Support (A), 3-2,
    3-5, 3-7; (P) Device Support (B), 2-31, 3-111,
    3 - 113
IPL$_SCHED, (P) Device Support (A), 3-13
IPL$_SYNCH, (P) Device Support (A), 3-2, 3-7,
IPL$ TIMER, (P) Device Support (A), 3-13; (P)
    Device Support (B), 3-29, 3-48
IPL$_TIMERFORK, (P) Device Support (A), 3-2,
    3-8, 10-4, 10-5
IPL (interrupt priority level), (P) Device Support
    (A), 1-7, 3-1 to 3-12
  See also Device IPL
  See also Fork IPL
  hardware, (P) Device Support (A), 3-1
  lowering, (P) Device Support (A), 3-9 to 3-12,
      3-23, 8-7; (P) Device Support (B), 2-97,
      3-26, 3-30
  modifying, (P) Device Support (B), 2-17 to
      2-18, 2-19 to 2-20, 2-27, 2-28, 2-33 to
      2-34, 2-35 to 2-36, 2-47 to 2-48, 2-65,
      2 - 96
  raising, (P) Device Support (A), 3-9 to 3-12,
      3-15; (P) Device Support (B), 2-49, 2-65
  relation to spin lock, (P) Device Support (A),
      3 - 15
  saving, (P) Device Support (A), 3-10; (P)
      Device Support (B), 2–17, 2–33, 2–47, 2–64
  software, (P) Device Support (A), 3-2
IPR (internal processor register)
  definition symbols, V5.5 Release Notes, 3-27
  vector, (P) MACRO, 10-3, 10-9
IRAB (internal record access block), (P) System
    Dump Analyzer, SDA-77
IRG (interrecord gap), (P) File Applications, 1-8
IRP$B_CARCON, (P) Device Support (B), 1-41,
    3-32, 3-41, 3-55
IRP$B_PRI, (P) Device Support (B), 3-27
IRP$L_BCNT, (P) Device Support (A), 8-2; (P)
   Device Support (B), 3-32, 3-35, 3-41, 3-43,
    3-46, 3-55, 3-56, 3-59, 3-70, 3-71, 3-72
  writing, (P) Device Support (A), 7-6
IRP$L_DIAGBUF, (P) Device Support (B), 3-69,
    3-70, 3-71
IRP$L_IOST2, (P) Device Support (B), 3-32, 3-41,
IRP$L_KEYDESC, (P) Device Support (B), 3-72
IRP$L_MEDIA, (P) Device Support (A), 7-4, 10-3,
    11-7; (P) Device Support (B), 1-41, 3-37,
```

3-51, 3-62

IRP\$L\_PID, (P) Device Support (A), 11-8; (P) IRPCOUNTV parameter, (M) System Generation, Device Support (B), 3-68, 4-5 IRP\$L\_SVAPTE, (P) Device Support (A), 8-2; (P) .IRP directive, (P) MACRO, 6-47 Device Support (B), 3-33, 3-35, 3-41, 3-46, IRPE (I/O request packet extension), (P) Device 3-55, 3-59, 3-70, 3-71 Support (B), 1-40, 1-42 to 1-44, 3-72 for buffered I/O, (P) Device Support (A), 7-7, address, (P) Device Support (B), 1-42 7 - 8allocating, (P) Device Support (B), 1-42 IRP\$V\_BUFIO, (P) Device Support (B), 3-72 deallocating, (P) Device Support (B), 1-43, IRP\$V\_DIAGBUF, (P) Device Support (B), 3-69, 3-73, 3-109 unlocking buffers specified in, (P) Device 3-70, 3-71, 3-72 IRP\$V\_EXTEND, (P) Device Support (B), 3-72 Support (B), 3-73, 3-109 IRP\$V\_FUNC, (P) Device Support (A), 7-6, 7-8, IRP lookaside list 11-7; (P) Device Support (B), 3-32, 3-35, displaying contents, (P) System Dump 3-41, 3-43, 3-46 Analyzer, SDA-118 IRP\$V\_KEY, (P) Device Support (B), 3-72 /IRP qualifier, (P) System Dump Analyzer, IRP\$V\_MBXIO, (P) Device Support (B), 3-72 SDA-118 IRP\$V\_PHYSIO, (P) Device Support (B), 3-72 **IRU** IRP\$W\_BOFF, (P) Device Support (A), 7-7, 7-8, circuit level redundancy, Dependability 8-2; (P) Device Support (B), 3-33, 3-35, 3-41, Handbook, 4-4 3-46, 3-55, 3-59, 3-70, 3-71, 3-72 hardware redundancy, Dependability IRP\$W\_CHAN, (P) Device Support (A), 11-8; (P) Handbook, 4-5 Device Support (B), 3-68, 4-5 performance characteristics, Dependability IRP\$W\_FUNC, (P) Device Support (A), 8-4 Handbook, 4-4 to 4-15 IRP\$W\_STS system kernel redundancy, Dependability for read function, (P) Device Support (A), 7-6, Handbook, 4-6 ISD (image section descriptor), (P) Linker, 2-11 7 - 8for write function, (P) Device Support (A), 7-8 in GSMATCH processing, (P) Linker, 3-7 IRP (I/O request packet), (P) System Dump ISE (integrated storage elements), (M) Analyzer, SDA-99, SDA-118; (P) Device VAXcluster, 2-5 Support (A), 1-6 to 1-7; (P) Device Support DSSI connection, (M) VAXcluster, 5-4, 5-6 (B), 1-37 to 1-42in DSSI-based cluster. (M) VAXcluster, 1-3 allocating, (P) Device Support (A), 4-9 use in clusters, (M) VAXcluster, 1-2 copying to UCB, (P) Device Support (A), 8-2 ISO networks, (M) Networking, 3-33 ISO standard, (U) Files and Devices, B-1 creation, (P) Device Support (A), 2-3, 4-9 current, (P) Device Support (B), 1-77 structure of magnetic tape, (U) Files and deallocation, (P) Device Support (A), 2-7; (P) Devices, 1–6 ISSUE command, License Management, LMF-72 Device Support (B), 3–73 dequeuing from UCB, (P) Device Support (B), to LMF-75 1 - 38Issuer device-independent portion of, (P) Device See PAK issuer Support (A), 4-9 to 4-10"is\_managed" string constant parameter to insertion in pending-I/O queue, (P) Device GET INFO. (P) VAXTPU, 7-214 Support (A), 2-4, 4-13, 7-4, 8-1; (P) "is subclass" string constant parameter to Device Support (B), 3-27, 3-28 GET\_INFO, (P) VAXTPU, 7-214 insertion in postprocessing queue, (P) Device Item list, (P) RMS, 18-1 Support (A), 2–7 guidelines for supplying, (P) RMS, 18-1 removal from pending-I/O queue, (P) Device with ACL Editor routine, (P) Utility Routines, Support (A), 2-7, 4-13, 10-3 size, (P) Device Support (B), 1-37 with TPU routines, (P) Utility Routines, storing data in, (P) Device Support (A), 5-2, **TPU-49** E - 16Item list address field unlocking buffers specified in, (P) Device See XAB\$L ITEMLIST field Support (B), 3–109 See XAB\$L\_ITMLST field .IRPC directive, (P) MACRO, 6-49 Item list extended address block IRPCOUNT parameter, (M) System Generation, See XABITM block A-13; (M) Networking, 5-36 Item list length field

See XAB\$W\_ITMLST\_LEN field

Job (cont'd) Itemlist read operations, (P) I/O User's I, 8-29 defining default CPU time limit, (U) DCL item\_list\_2 data type, (P) Routines Intro, A-8t Dictionary, DCL1-253, DCL2-204, item list 3 data type, (P) Routines Intro, A-8t DCL2-347 item\_list\_pair data type, (P) Routines Intro, A-9t defining maximum CPU time limit, (U) item\_quota\_list data type, (P) Routines Intro, DCL Dictionary, DCL1-253, DCL2-205, A-9tDCL2-348 Iterative substitution deleting, (M) Maintaining VMS, 5-82 definition, (U) DCL Concepts, 7-5 deleting from queue, (U) DCL Dictionary, during the three phases of command processing, DCL1-136, DCL1-143 (U) DCL Concepts, 7-4 executing in batch mode on remote nodes, (M) in an expression, (U) DCL Concepts, 7-6 DECnet-VAX Guide, 2-12 using apostrophes, (U) DCL Concepts, 7–5 getting information about using command synonyms, (U) DCL Concepts, asynchronously, (P) System Services Ref, 7-6SYS-286, SYS-323 Iterative translation synchronously, (P) System Services Ref, See also Logical name translation SYS-305, SYS-365 and SHOW LOGICAL command, (U) Using holding, (M) Maintaining VMS, 5-88 VMS, 4-4holding and releasing, (M) Maintaining VMS, and SHOW TRANSLATION command, (U) 5 - 79Using VMS, 4-4 merging, (M) Maintaining VMS, 5-75 definition, (U) Using VMS, 4-4, 4-12; (U) modifying, (M) Maintaining VMS, 5-78 DCL Concepts, 4-3, 4-12 moving from one queue to another, (M)preventing, (U) Using VMS, 4-13 Maintaining VMS, 5-76 pending, (M) Maintaining VMS, 5-88 redirecting to another queue, (U) DCL Dictionary, DCL1-46 Jacket routine, (P) RTL Library, 2-1 removing from queue compiling code with, (P) DECthreads, A-3 with ASSIGN/MERGE command, (U) DCL macro definitions file, (P) DECthreads, A-1 Dictionary, DCL1-46 Jacket routine for UNIX services, (P) DECthreads, requeuing an executing, (M) Maintaining VMS, 5-80 JBCSYSQUE.DAT file, V5.5 New Features, 5-2 requeuing a pending, (M) Maintaining VMS, JFB (journaling file block), (P) System Dump 5 - 81Analyzer, SDA-77 retaining in a queue, (M) Maintaining VMS, JIB\$L\_BYTCNT, (P) Device Support (A), 3-13, 5 - 817-6, 7-8, E-5; (P) Device Support (B), 3-12, suspending, (M) Maintaining VMS, 5-83 3-18, 3-20, 3-22 JIB\$L\_BYTLM, (P) Device Support (A), 3-13, Job attached bit E-5; (P) Device Support (B), 3-12, 3-18, See UCB\$V\_JOB Job banner pages, (M) Maintaining VMS, 5-32 3-20, 3-22JIB\$V\_BYTCNT\_WAITERS, (P) Device Support See also File banner pages (B), 3–18 Job batch card JIB (job information block), (P) System Dump end of, (U) DCL Dictionary, DCL1-208 Analyzer, SDA-128; (P) Device Support (A), JOB card, (M) Maintaining VMS, 5-94 3 - 13password, (U) DCL Dictionary, DCL2-9 JIB spin lock, (P) Device Support (A), 3–13; (P) JOB command, (U) DCL Dictionary, DCL1-266 to Device Support (B), 3-18, 3-20, 3-23 DCL1-271 JMP (Jump) instruction, (P) MACRO, 9-58 in card reader batch job, (P) I/O User's I, 2-2 Job Job controller. (M) System Management Intro. See also Batch job 6-3; (M) VAXcluster, 1-4; (P) Device Support See also Output job (B), 1–78 affected by shift restrictions, (M) Security, 3-16 accounting, (M) Maintaining VMS, 6-2 and batch jobs, (M) Maintaining VMS, 5-1 changing scheduling priority, (M) Maintaining VMS, 5-80 communication with queue manager, (M) controlling print position and alignment. (M) Maintaining VMS, 5-1 Maintaining VMS, 5-83, 5-84 dump file, (M) Maintaining VMS, 5-66 enforcing work time restrictions, (M) Security, 5 - 30

Job controller (cont'd) Job scheduling output (cont'd) function, V5.5 New Features, 5-1; (M) Maintaining VMS, 5-3; (P) Utility based on job size, (M) Maintaining VMS, Routines, PSM-4 major interface Job scheduling priority, V5.5 Release Notes, 2-9; asynchronous, (P) System Services Ref, (M) Maintaining VMS, 5-6 SYS-558 Job state synchronous, (P) System Services Ref, stalled, V5.5 New Features, 3-2 SYS-614 Job states, (M) Maintaining VMS, 5-78 queue file, (M) System Management Intro, 6-15 Job status request to symbiont, (P) Utility Routines, holding, (M) Maintaining VMS, 5-88 pending, (M) Maintaining VMS, 5-88 sending a message to, (P) Device Support (A), Job table quota 9-7 to 9-8; (P) Device Support (B), 3-53, See JTQUOTA 3-61Job termination separation from queue manager, V5.5 New imposed by shift restrictions, (M) Security, Features, 5-1; (M) VAXcluster, 6-1 3 - 16starting queue manager, V5.5 Release Notes, Job tree, (U) Using VMS, 3-5 2-10; V5.5 New Features, 5-1, 5-4 definition, (U) Using VMS, 4-5; (U) DCL Job-controller queue database file Concepts, 4-5 specifying location of, (M) VAXcluster, 6-2 JOU file type, (U) EDT Ref, EDT-7 Job information block Journal See JIB EVE, (U) DCL Dictionary, DCL1-195, Job logical name DCL1-198 definition, (U) Using VMS, 4-6; (U) DCL VAXTPU, (U) DCL Dictionary, DCL1-195, Concepts, 4–6 DCL1-198 function in a job tree, (U) Using VMS, 4-6; /JOURNAL command qualifier, (P) VAXTPU, (U) DCL Concepts, 4-6 1-11, 1-12 Job logical name table, (P) System Services Intro, Journal file, V5.5 New Features, 5-2; (U) EDT 6-5Ref, EDT-7, EDT-169; (U) EVE Ref, 1-12, canceling entries, (U) DCL Dictionary, 1-15; (M) Maintaining VMS, 5-3; (P) Patch, DCL1-105 PAT-6; (P) VAXTPU, 7-307 default contents, (U) DCL Concepts, 4-6 See also Queue database including logical name, (U) DCL Dictionary, changing location, (M) Maintaining VMS, 5-66 DCL1-41, DCL1-116 changing location after upgrade, V5.5 New limiting its size, (U) DCL Concepts, 4-17 Features, 5-4 list of default contents of, (U) Using VMS, 4-6 default name, (P) VAXTPU, 1-12 logical name for, (U) Using VMS, 4-6; (U) definition of, (M) Backup, BCK-22 DCL Concepts, 4-6 deleting, (U) EVE Ref, 1-23 /JOB qualifier, (M) Accounting, ACC-16 directory for, (U) EVE Ref, 1-21 Job quota, (P) Device Support (A), E-5 EDT, (U) Using VMS, 8-54; (U) Text byte count, (P) Device Support (A), 2-3, 3-13; Processing, 2-6, 2-36 (P) Device Support (B), 3-12, 3-18, 3-20 to EVE editor, (U) Using VMS, 8-23; (U) Text 3-21, 3-22 to 3-23 Processing, 1-37 byte limit, (P) Device Support (A), 3-13; (P) getting characteristics of, (P) VAXTPU, 7-203 Device Support (B), 3-12, 3-18, 3-20 to getting name of, (P) VAXTPU, 1-12, 5-11 3-21, 3-22 to 3-23 listing contents of, (M) Backup, BCK-20, Job retention BCK-22 changing for a job, (M) Maintaining VMS, 5-81 location, V5.5 New Features, 5-4; (M) specifying for a job, (M) Maintaining VMS, Maintaining VMS, 5-54, 5-66 naming, (U) EVE Ref, 1-21 specifying for a queue, (M) Maintaining VMS, recovering buffer contents, (P) VAXTPU, 7-307 saving, (U) EDT Ref, EDT-138 user-specified, V5.5 New Features, 3-3 security caution, (P) VAXTPU, 1-12, 7-59, Job scheduling, (M) Maintaining VMS, 5-5 7-234, 7-235, 7-406 batch, (M) Maintaining VMS, 5-5 where location is stored, (M) Maintaining output, (M) Maintaining VMS, 5-5 VMS, 5–3

Journal file (cont'd) JOURNAL\_CLOSE built-in procedure, (P) with /SAVE qualifier, (U) EDT Ref, EDT-140, VAXTPU, 7-234 EDT-161 "Journal\_file" GET\_INFO request\_string, (P) Journaling, (U) EVE Ref. 1–12 VAXTPU, 7-177 buffer change, (P) VAXTPU, 1-11 "journal\_file" string constant parameter converting buffer to journal file name. (P) GET\_INFO built-in, (P) VAXTPU, 1-12, 5-11, VAXTPU. 7-172 7 - 172default file name, (P) VAXTPU, 1-12 "Journal\_file" string constant parameter to EVE GET\_INFO, (P) VAXTPU, 7-206 buffer-change, (U) Text Processing, 1-37; "journal\_name" string constant parameter (U) EVE Ref, 1-2, 1-12, 1-15 GET\_INFO built-in, (P) VAXTPU, 7-172 keystroke, (U) Text Processing, 1-37; (U) JOURNAL OPEN built-in procedure, (P) EVE Ref. 1-12, 1-15 VAXTPU, 1-12, 5-11, 7-235 to 7-237 EVE default behavior, (P) VAXTPU, 1-12 controlling errors related to, (P) VAXTPU, getting file name of buffer change journal, (P) 7-408 VAXTPU, 7–172 JSB (Jump to Subroutine) instruction, (P) getting journal file information, (P) VAXTPU, MACRO, 9-59 7 - 203JSB call format, (P) Routines Intro, 1-4 keystroke JSB entry point, (P) Modular Procedures, 2–12, enabling and disabling, (P) VAXTPU, A-2; (P) RTL Math, 1-2 /JSB qualifier, (P) Debugger, 3-12, CD-126, layered application control, (P) VAXTPU, 1–12 CD-185, CD-258 recovery of buffer contents, (P) VAXTPU, 7-307 JTQUOTA (job table quota), (M) Setting Up VMS, role of source file, (P) VAXTPU, 7-308 sensing a safe buffer, (P) VAXTPU, 7-175 .JUSTIFY command sensing the enable of buffer change journaling, example, (U) DSR Ref, 2-71 (P) VAXTPU, 1-12, 5-10 Justifying text sensing the enable of keystroke journaling, (P) See also Text formatting VAXTPU, 1-12, 5-11 example, (U) DSR Ref, 2-71 using both keystroke and buffer change using DSR, (U) Text Processing, 3-14 journaling, (P) VAXTPU, 1-12 Journaling extended address block K See XABJNL block Journaling facility, (U) EDT Ref, EDT-7 KDA50 disk controller, (P) I/O User's I, 3-3 KDB50 disk controller, (P) I/O User's I, 3-3 Journaling file block Keepalive timer, (M) LATCP, LAT-31 See JFB .KEEP command, (U) DSR Ref, 2-73 JOURNALING keyword, (P) VAXTPU, 7-405 example, (U) DSR Ref, 2-73 Journaling not supported /KEEP qualifier, (U) VMS Intro, 5-11 error message, (P) Analyze/RMS\_File, Kernel ARMS-8 security, (M) Security, 2-2 JOURNALING parameter Kernel mode SET built-in procedure. (P) VAXTPU, 7-405 See also Access mode "journaling" string constant parameter changing to, (P) System Services Ref, SYS-77 GET\_INFO built-in, (P) VAXTPU, 1-12, 5-10 excessive time, (M) Performance Management, "Journaling" string constant parameter to GET INFO, (P) VAXTPU, 7-172 Kernel-mode requirements, (P) Device Support "Journaling\_frequency" string constant parameter (A), E-1to GET INFO. (P) VAXTPU, 7-206 /KERNEL qualifier, (P) System Dump Analyzer, /JOURNAL qualifier, (U) EVE Ref, 1–12; (M) SDA-157 Backup, BCK-20, BCK-22, BCK-61; (M) Kernel stack, (P) Device Support (A), 8-1 ACL Editor, ACL-25; (P) Patch, PAT-29; (P) displaying contents, (P) System Dump *VAXTPU*, 5–10 Analyzer, SDA-157 "journal" string constant parameter Kernel stack pointer, (P) System Dump Analyzer, GET INFO built-in, (P) VAXTPU, 7-203 SDA-14 "Journal" string constant parameter to GET Key, (P) Librarian, LIB-2, LIB-4, LIB-5 INFO, (P) VAXTPU, 7-177 See also Key definition

Key (cont'd)	Key (cont'd)
See also Key map	segment length, (P) File Def Language,
See also Library key	FDL-30
See also Sort/Merge Utility	selecting path, $(P)$ RMS, $4-12$
Alt combinations, (U) EVE Ref, 1–25	shifted function, (U) EVE Ref, 1–25
alternate, (P) File Def Language, FDL-5	size, (P) File Applications, 9–13, 9–15, 9–18
duplicate values, (P) File Applications,	size restriction for string type, (P) RMS, 13-15
3–22	sort, (U) Using VMS, 1–38
performance of, (P) File Applications, 3-22	specifying, (U) Sort/Merge, SORT-1, SORT-2,
auto-compose, (M) Terminal Fallback, TFU-22,	SORT-66
TFU-23	data type, (U) Sort/Merge, SORT-26
built-in procedures for defining	order, (U) Sort/Merge, SORT-26
DEFINE_KEY, (P) VAXTPU, 7–100	position, (U) Sort/Merge, SORT-26
LAST_KEY, (P) VAXTPU, 7-242	size, (U) Sort/Merge, SORT-26
LOOKUP_KEY, (P) VAXTPU, 7–254	type, (P) File Def Language, FDL-30 types of matches, (P) RMS, 7-5
SET (POST_KEY_PROCEDURE), (P)	use of to store indexed records sequentially, (P.
VAXTPU, 7–442	File Applications, 2-5
SET (PRE_KEY_PROCEDURE), (P)	Key 0, (P) File Applications, 3–17
VAXTPU, 7–444	KEY attribute, (P) File Def Language, FDL-2,
SET (SELF_INSERT), (P) VAXTPU, 7–470	FDL-26, FDL-40
SET (UNDEFINED_KEY), (P) VAXTPU,	Keyboard control character, (P) I/O User's I, 8-4
7–490 UNDEFINE_KEY, <i>(P) VAXTPU</i> , 7–532	to 8–6, 8–9
creating a name for, (P) VAXTPU, 7–238	Keyboard keys, (U) VMS Intro, 1-1
DECnet-VAX, (M) DECnet-VAX Guide, 1-5,	Key buffer, (P) File Applications, 8-3, 9-13, 9-18
3–11	Key buffer address field
DECnet-VAX license, (M) System Management	See RAB\$L_KBF field
Intro, 7–3; (M) Networking, 1–16, 2–24	Key-characteristics option, (P) File Applications,
DECwindows-style, (U) EVE Ref, 1–27,	4–29
EVE-164	Key compression
defining, (M) SYSMAN, SM-14, SM-35; (M)	front, (P) File Applications, 3–16
LATCP, LAT-16	prohibition against using, (P) File Applications
defining as simple or segmented, (P) RMS,	3-3, 3-16, 3-25, 4-9
13–13	rear, (P) File Applications, 3-16
defining for SDA, (P) System Dump Analyzer,	Key definition, (U) EDT Ref, EDT-131
SDA-43	assigning, (U) Using VMS, $1-24$ , $1-25$
determining match method, (P) RMS, 7-5	in EDT, (U) Using VMS, 8-71
displaying definition, (M) SYSMAN, SM-73	in EVE, (U) Using VMS, 8-39
duplicate values, (P) File Applications, 2-20	creating, (P) Debugger, 8-8, CD-49
DVNETEND, (M) DECnet-VAX Guide, 3-12	debugger predefined, (P) Debugger, B-1
DVNETRTG, (M) DECnet-VAX Guide, 3-12	with DECwindows, (P) Debugger, 1–29
equal, (U) Sort/Merge, SORT-2	debugger predefined, multiprocess, (P)
example of finding and deleting a record, (P)	Debugger, 10–14
RMS, 4–20	definable keys, (U) Using VMS, 1–24; (U)
example of updating a record, (P) RMS, 4-21	DCL Concepts, 2-9
for Prolog 1 and 2 files, (P) File Applications, 3–16	deleting, (U) Using VMS, 1-26; (P) Debugger,
function, (U) Using VMS, 1–17 to 1–19	8–8, CD–56 description, (U) DCL Concepts, 2–9
length, (P) File Def Language, FDL-28	displaying, (U) Using VMS, 1–26; (U) Mail,
list of defined keys, (U) EVE Ref, EVE-72	MAIL-102; (U) EDT Ref, EDT-38; (P)
multiple, (U) Sort/Merge, SORT-2	Debugger, 8–8, CD–218
null value, (P) File Applications, 2–20	EDT, (U) Text Processing, 2–44, 2–48
number of, (P) File Applications, 3–23	EVE editor, (U) Text Processing, 1–60
primary, (P) File Applications, 3–16, 3–22	in an initialization file (EVE), (U) Text
registering the DECnet-VAX, (M) DECnet-VAX	Processing, 1–61
Guide, 3–12, 3–15	preset, $(U)$ EDT Ref, EDT-215
segmented, (P) File Applications, 3-16	•

Key definition extended address block	Key of reference, (P) File Applications, 2–5; (P)
See XABKEY block	Convert, CONV-16
KEY DESCRIPTOR	establishing, (P) RMS, RMS-48
how updated by CONVERT, (P) Convert,	Key of reference field
CONV-11	See RAB\$B_KRF field
KEY DESCRIPTOR structure, (P) File	See XAB\$_REF field
Applications, 10–19	Key option
Key greater than	comparing primary and alternate keys, (P)
See RAB\$V_NXT option	<i>RMS</i> , 13–8
Key-greater-than option	Key options flag field
See Next-key option	See XAB\$B_FLG field
Key greater than or equal	Keypad
See RAB\$V_EQNXT option	ACL Editor diagram, (U) Using VMS, 7–15 application
Key-greater-than-or-equal option	setting for DECterm, (U) DCL Dictionary,
See Equal-or-next key option	DCL1–98
Key line	default definitions, (U) Mail, MAIL-15
formatting, (P) Librarian, LIB-5	default editing keys for EDT, (U) Text
Key map	Processing, 2-5
built-in procedures	default editing keys for EVE, (U) Text
ADD_KEY_MAP, (P) VAXTPU, 7–17 CREATE_KEY_MAP, (P) VAXTPU, 7–63	Processing, 1–4
REMOVE_KEY_MAP, (P) VAXTPU, 7–313	displaying EDT keypad in EVE, (U) Using
SHOW (KEY_MAP), (P) VAXTPU, 7–505	VMS, 8–23 displaying EVE keypad, (U) Using VMS, 8–23
SHOW (KEY_MAPS), (P) VAXTPU, 7–505	displaying WPS keypad in EVE, (U) Using
Key map list	VMS, 8–23
See also Key	EDT option, (U) Using VMS, 8-49
built-in procedures	EVE, (U) Text Processing, 1-6
$CREATE_KEY_MAP_LIST$ , $(P)$ $VAXTPU$ ,	EVE
7–65	on VT100-series terminal, (U) Using VMS,
SET (KEY_MAP_LIST), (P) VAXTPU, 7–410	8–6
SHOW (KEY_MAP_LIST), (P) VAXTPU,	on VT200- and VT300-series terminals, (U) Using VMS, 8-6
7–505	getting help for
SHOW (KEY_MAP_LISTS), (P) VAXTPU,	EVE editor, (U) Text Processing, 1–36
7–505	MAIL diagram, (U) Using VMS, 1-35
example of fetching, (P) VAXTPU, B-19 to	reading from, (P) Programming Resources,
B-22	7–25
Key match	WPS option (EVE), (U) Text Processing, 1-6
approximate, (P) File Applications, 8–11	Keypad commands
exact, (P) File Applications, 8–11 generic, (P) File Applications, 8–11	list of by function, (U) EDT Ref, EDT-15 Keypad definition, (M) Show Cluster, SHCL-5,
generic and approximate, (P) File Applications,	SHCL-79
8–12	Keypad diagram, (U) EVE Ref, EVE-72
Key name, (U) EVE Ref, 1-25	Keypad editing, (M) ACL Editor, ACL-3
character restrictions in, (P) Librarian, LIB-4	control key editing commands, (M) ACL Editor,
in help libraries, (P) Librarian, LIB-4 to	ACL-11
LIB-5, LIB-9	editing commands, (M) ACL Editor, ACL-3
table, (P) VAXTPU, 2–6	VT200-specific editing commands, (M) ACL
Key name buffer address field	Editor, ACL-10
See XAB\$L_KNM field	Keypad key numbers figure of, $(U)$ EDT Ref, EDT-10
Key name specifier with DEFINE KEY, (U) EDT Ref, EDT-130	Keypad keys
KEY NULL_VALUE attribute, (P) File Def	See also SHOW KEY command
Language, FDL-29	defining, (U) EDT Ref, EDT-8, EDT-9
Key number, (P) Librarian, LIB-5	figure of VT100-series terminals, (U) EDT Ref,
See also Module	EDT-3

Keypad keys (cont'd) Key string descriptor figure of VT52-series terminals, (U) EDT Ref, program example, (P) RMS, 4-16 EDT-3 Key string length redefining, (U) EDT Ref, EDT-9 program example, (P) RMS, 4-16 Keypad mode, (U) EDT Ref, EDT-2, EDT-4; (P) Keystroke journaling, (U) EVE Ref, 1-12, 1-20, Debugger, 8-7, CD-49, CD-149, CD-218, B-1 1 - 23See also SHOW KEYPAD command and buffer change journaling, (P) VAXTPU, changing to line mode, (U) EDT Ref, EDT-1 7 - 307deleting text with EDT, (U) Text Processing, comparative to buffer change journaling, (P) VAXTPU, 1-11 2-14editing file, (U) EDT Ref, EDT-1 enabling and disabling, (P) VAXTPU, 7-408 EDT, (U) Text Processing, 2-2, 2-7 EVE editor, (U) Text Processing, 1-36 finding text with EDT, (U) Text Processing, restrictions, (U) EVE Ref, 1-24 2 - 16sensing the enable, (P) VAXTPU, 1-12, 5-11 HELP key, (U) EDT Ref, EDT-2 with software performance report, (U) EVE inserting text with EDT, (U) Text Processing, Ref, 1-24 KEYSTROKE\_RECOVERY keyword, (P) moving text with EDT, (U) Text Processing, VAXTPU, 7-408 KEYSTROKE RECOVERY parameter 2 - 18moving the cursor with EDT, (U) Text SET built-in procedure, (P) VAXTPU, 7-408 Processing, 2-10 Key table replacing text with EDT, (U) Text Processing, reading from, (P) Programming Resources, 7 - 28restoring text with EDT, (U) Text Processing, Key value 2 - 14generating for per-thread context, (P) Keypad mode definitions DECthreads, cma-69, pthread-65 on LK201 keyboard, (U) EDT Ref, EDT-3 obtaining per-thread context for, (P) DECthreads, cma-71, pthread-61 Key position field setting per-thread context for, (P) DECthreads, See XAB\$W POS0 through XAB\$W\_POS7 field cma-73, pthread-101 KEY primary attribute, (P) File Applications, Key value clause, (P) Command Def, CDU-28 4 - 29256 keyword DATA\_AREA secondary attribute, (P) File for /FORMAT qualifier, (P) National Char Set, Applications, 3–24 **NCS-29** DATA\_FILL secondary attribute, (P) File Keyword, (U) VMS Intro, 1-4; (P) Command Def, Applications, 3–26 CDU-2; (P) Librarian, LIB-4; (P) File Def INDEX AREA secondary attribute, (P) File Language, FDL-2; (P) VAXTPU, 3-12 Applications, 3-24 See also DEFINE TYPE statement INDEX\_FILL secondary attribute, (P) File abbreviating, (U) DCL Concepts, 1-12; (P) File Applications, 3–26 Def Language, FDL-40 LEVEL1\_INDEX\_AREA secondary attribute, ALL (P) File Applications, 3–24 with EXPAND\_NAME, (P) VAXTPU, TYPE secondary attribute, (P) File Applications, 3–22 7 - 135with REMOVE\_KEY\_MAP, (P) VAXTPU, KEY PROLOG attribute, (P) Convert, CONV-19; 7-313 (P) File Def Language, FDL-27, FDL-28 with SET (BELL), (P) VAXTPU, 7-355 /KEY qualifier, (U) Sort/Merge, SORT-26, with SET (DEBUG), (P) VAXTPU, 7-364 SORT-66; (P) Convert, CONV-16; (P) System with UPDATE, (P) VAXTPU, 7-538 Dump Analyzer, SDA-44 ANCHOR, (P) VAXTPU, 7-24 to 7-25 Key size field with SEARCH, (P) VAXTPU, 7-327, 7-328 See RAB\$B\_KSZ field with SEARCH\_QUIETLY, (P) VAXTPU, See XAB\$B\_SIZ0 through XAB\$B\_SIZ7 field 7 - 332Key state, (U) Using VMS, 1-25; (P) Debugger, BELL, (P) VAXTPU, 7-355 8-8, CD-49, CD-218, B-1 with SET (MESSAGE ACTION\_TYPE), changing, (U) Using VMS, 1-25 (P) VAXTPU, 7-426 Key string buffer BLANK\_TABS, (P) VAXTPU, 7-483 program example, (P) RMS, 4-16 BLINK with SELECT, (P) VAXTPU, 7-337

Keyword	Keyword (cont'd)
BLINK (cont'd)	JOURNALING, (P) VAXTPU, 7–405
with SET (PROMPT_AREA), (P) VAXTPU,	key name, (P) VAXTPU, 2-6
7–446	KEYSTROKE_RECOVERY, (P) VAXTPU,
with SET (STATUS_LINE), (P) VAXTPU,	7–408
7–476	KEYWORDS
with SET (VIDEO), (P) VAXTPU, 7–492	with EXPAND_NAME, (P) VAXTPU,
BOLD	7–135
with SELECT, (P) VAXTPU, 7–337	KEY_MAP
with SET (PROMPT_AREA), (P) VAXTPU,	with LOOK_UP_KEY, (P) VAXTPU, 7–254
7–446	KEY_MAP_LIST, (P) VAXTPU, 7-410
with SET (STATUS_LINE), (P) VAXTPU,	LEFT_MARGIN, (P) VAXTPU, 7–412
7–476	LEFT_MARGIN_ACTION, (P) VAXTPU, 7-414
with SET (VIDEO), (P) VAXTPU, 7–492	lexical, (P) VAXTPU, 3–36
BROADCAST	LINE_BEGIN, (P) VAXTPU, 7-249 to 7-250
with SET (BELL), (P) VAXTPU, 7-355	with POSITION, (P) VAXTPU, 7–288
BUFFER_BEGIN	with SEARCH, (P) VAXTPU, 7-327
with POSITION, (P) VAXTPU, 7–287	with SEARCH_QUIETLY, (P) VAXTPU,
with SEARCH, (P) VAXTPU, 7-327	7–332
with SEARCH_QUIETLY, (P) VAXTPU,	LINE END, (P) VAXTPU, 7–251
7–332	with POSITION, (P) VAXTPU, 7–288
BUFFER_END	with SEARCH, (P) VAXTPU, 7–327
with POSITION, (P) VAXTPU, 7–287	with SEARCH_QUIETLY, (P) VAXTPU,
	7–332
with SEARCH, (P) VAXTPU, 7–327	· · ·
with SEARCH_QUIETLY, (P) VAXTPU,	LINE_NUMBER, (P) VAXTPU, 7–416
7–332	MARGINS, (P) VAXTPU, 7–419
COMMENT	MAX_LINES, (P) VAXTPU, 7-421
with LOOK_UP_KEY, (P) VAXTPU, 7–254	MESSAGE_FLAGS, (P) VAXTPU, 7-427
$CROSS\_WINDOW\_BOUNDS$ , (P) VAXTPU,	MODIFIABLE, (P) VAXTPU, 7–429
7–361	MOUSE
DEBUG, (P) VAXTPU, 7–362, 7–363, 7–364	with POSITION, (P) VAXTPU, 7–288,
definition, (U) Using VMS, 1-9; (U) DCL	7-289
Concepts, $1-3$ ; (U) DSR Ref, $1-2$	NAME
DEVICE	with FILE_PARSE, (P) VAXTPU, 7-141
with FILE_PARSE, (P) VAXTPU, 7-140	with FILE_SEARCH, (P) VAXTPU, 7-144
with FILE_SEARCH, (P) VAXTPU, 7-143	NODE
DIRECTORY	with FILE_PARSE, (P) VAXTPU, 7–140
with FILE_PARSE, (P) VAXTPU, 7–140	with FILE_SEARCH, (P) VAXTPU, 7–143
with FILE_SEARCH, (P) VAXTPU, 7–143	NONE NONE
EOB_TEXT, (P) VAXTPU, 7–374	with SELECT, (P) VAXTPU, 7–337
EXACT	with SET (MESSAGE_ACTION_TYPE),
with LEARN_BEGIN, (P) VAXTPU, 7–244	(P) VAXTPU, 7–426
with SEARCH, (P) VAXTPU, 7–328	with SET (PROMPT_AREA), (P) VAXTPU
with SEARCH_QUIETLY, (P) VAXTPU,	7–446
7–333	with SET (STATUS_LINE), (P) VAXTPU,
FACILITY_NAME, (P) VAXTPU, 7–378	7–476
for /FORMAT qualifier, (P) National Char Set,	with SET (VIDEO), (P) VAXTPU, 7–492
NCS-29	$NO\_EXACT$
FORWARD, (P) VAXTPU, 7–85, 7–379	with LEARN_BEGIN, (P) VAXTPU, 7-244
with SEARCH, (P) VAXTPU, 7–328	with SEARCH, (P) VAXTPU, 7–328
with SEARCH_QUIETLY, (P) VAXTPU,	with SEARCH_QUIETLY, (P) VAXTPU,
7–333	7–333
GRAPHIC_TABS, (P) VAXTPU, 7–483	NO_TRANSLATE, (P) VAXTPU, 7-483
how to define, (P) Command Def, CDU-7 to	NO_WRITE, (P) VAXTPU, 7-434
CDU-8, CDU-30	occluded, (P) VAXTPU, 3–12
INFORMATIONAL, (P) VAXTPU, 7–397	OFF
in keyword table, (P) RTL Library, LIB-261	
	with CREATE_WINDOW, (P) VAXTPU,
INSERT, (P) VAXTPU, 7-404	7–77

Keyword	Keyword
OFF (cont'd)	ON (cont'd)
with HELP_TEXT, (P) VAXTPU, 7-228	with SET (NO_WRITE), (P) VAXTPU,
with QUIT, (P) VAXTPU, 7–291	7–434
with SET (AUTO_REPEAT), (P) VAXTPU,	with SET (PAD), (P) VAXTPU, 7-437
7–353	with SET (PAD_OVERSTRUCK_TABS),
with SET (BELL), (P) VAXTPU, 7–355	(P) VAXTPU, 7–439
with SET (COLUMN_MOVE_VERTICAL),	with SET (SCREEN_UPDATE), (P)
(P) VAXTPU, 7–359	VAXTPU, 7–460
with SET (CROSS_WINDOW_BOUNDS),	with SET (SCROLLING), (P) VAXTPU,
	with SET (SCROLLING), $(F)$ VAXIFU, $7-467$
(P) VAXTPU, 7–361	
with SET (DEBUG), (P) VAXTPU, 7–363,	with SET (SELF_INSERT), (P) VAXTPU,
7–364	7–470
with SET (INFORMATIONAL), (P)	with SET (SUCCESS), (P) VAXTPU, 7–479
VAXTPU, 7–397	with SET (TIMER), (P) VAXTPU, 7–486
with SET (LINE_NUMBER), (P) VAXTPU,	with SET (TRACEBACK), (P) VAXTPU,
7–416	7–488
with SET (MODIFIABLE), (P) VAXTPU,	with SPAWN, (P) VAXTPU, 7–515
7–429	OUTPUT_FILE, (P) VAXTPU, 7–435
with SET (MOUSE), (P) VAXTPU, 7-432	OVERSTRIKE, (P) VAXTPU, 7–436
with SET (NO_WRITE), (P) VAXTPU,	PAD, (P) VAXTPU, 7–437
7–434	PAD_OVERSTRUCK_TABS, (P) VAXTPU,
with SET (PAD), (P) VAXTPU, 7-437	7–439
with SET (PAD_OVERSTRUCK_TABS),	PAGE_BREAK, (P) VAXTPU, 7–286
(P) VAXTPU, 7 $-439$	with SEARCH, (P) VAXTPU, 7–327
with SET (SCREEN_UPDATE), (P)	with SEARCH_QUIETLY, (P) VAXTPU,
<i>VAXTPU</i> , 7–460	7–332
with SET (SCROLLING), (P) VAXTPU,	PERMANENT, (P) VAXTPU, 7-441
7–467	POST_KEY_PROCEDURE, (P) VAXTPU,
with SET (SELF_INSERT), (P) VAXTPU,	7-442
7–470	PROCEDURES
with SET (SUCCESS), (P) VAXTPU, 7-479	with EXPAND_NAME, (P) VAXTPU,
with SET (TIMER), (P) VAXTPU, 7-486	7–135
with SET (TRACEBACK), (P) VAXTPU,	PROGRAM, (P) VAXTPU, 7–362
7–488	with LOOK_UP_KEY, (P) VAXTPU, 7–254
with SPAWN, (P) VAXTPU, 7–515	PROMPT_AREA, (P) VAXTPU, 7-446
ON	REMAIN, (P) VAXTPU, 7–312
with CREATE WINDOW, (P) VAXTPU,	with SEARCH, (P) VAXTPU, 7–327
7–77	with SEARCH_QUIETLY, (P) VAXTPU,
with CREATE_WINDOW, (P) VAXTPU,	7–332
7–77	returned by CURRENT_DIRECTION, (P)
	VAXTPU, 7–85
with HELP_TEXT, (P) VAXTPU, 7–228	•
with QUIT, (P) VAXTPU, 7–291	returned by READ_KEY, (P) VAXTPU, 7–301
with SET (AUTO_REPEAT), (P) VAXTPU,	REVERSE, (P) VAXTPU, 7–85, 7–453
7–353	with SEARCH, (P) VAXTPU, 7–328
with SET (BELL), (P) VAXTPU, 7–355	with SEARCH_QUIETLY, (P) VAXTPU,
with SET (COLUMN_MOVE_VERTICAL),	7–333
(P) VAXTPU, 7–359	with SELECT, (P) VAXTPU, 7–337
with SET (CROSS_WINDOW_BOUNDS),	with SET (MESSAGE_ACTION_TYPE),
(P) VAXTPU, 7–361	(P) VAXTPU, 7–426
with SET (DEBUG), (P) VAXTPU, 7–363	with SET (PROMPT_AREA), (P) VAXTPU,
with SET (INFORMATIONAL), (P)	7-446
VAXTPU, 7–397	with SET (STATUS_LINE), (P) VAXTPU,
with SET (LINE_NUMBER), (P) VAXTPU,	7–476
7–416	with SET (VIDEO), (P) VAXTPU, 7-492
with SET (MODIFIABLE), (P) VAXTPU,	RIGHT_MARGIN, (P) VAXTPU, 7–454
7-429	RIGHT_MARGIN_ACTION, (P) VAXTPU,
with SET (MOUSE), (P) VAXTPU, 7–432	7–456

Keyword (cont'd)	KEY_GREATER_THAN attribute, (P) File Def
SCREEN_UPDATE, (P) VAXTPU, 7-460	Language, FDL-10
SCROLLING, (P) VAXTPU, 7-467	KEY_GREATER_THAN secondary attribute, (P)
SELF_INSERT, (P) VAXTPU, 7–470	File Applications, 8–9, 8–10
SHIFT_KEY, (P) VAXTPU, 7–472	
SPECIAL_GRAPHICS	KEY_LIMIT attribute, (P) File Def Language,
with SET (STATUS_LINE), (P) VAXTPU,	FDL-11
7–476	KEY_MAP keyword
STATUS_LINE, (P) VAXTPU, 7–476	with LOOK_UP_KEY, (P) VAXTPU, 7–254
SUCCESS, (P) VAXTPU, 7–479	KEY_MAP_LIST keyword, (P) VAXTPU, 7–410
SYSTEM, (P) VAXTPU, 7–480	"Key_map_list" string constant parameter to
· · · · · · · · · · · · · · · · · · ·	GET_INFO, (P) VAXTPU, 7–172
TEXT, (P) VAXTPU, 7-483	KEY_NAME built-in procedure, (P) VAXTPU,
TIMER, (P) VAXTPU, 7-486	7–238 to 7–241
TRACEBACK, (P) VAXTPU, 7–488	KEY_NCMPR option, (P) File Def Language,
TYPE	FDL-27
with FILE_PARSE, (P) VAXTPU, 7–141	KEY_OF_REFERENCE attribute, (P) File Def
with FILE_SEARCH, (P) VAXTPU, 7–144	Language, FDL-11
UNANCHOR, (P) VAXTPU, 7–530 to 7–531	"Key_type" string constant parameter to
with SEARCH_QUIETLY, (P) VAXTPU,	GET_INFO, (P) VAXTPU, 7–162
7–333	KFQSA adapter, $(P) I/O User$ 's $I$ , 3–5
UNDEFINED_KEY, (P) VAXTPU, 7–490	KGE option, (P) File Def Language, FDL-10,
UNDERLINE	FDL-11
with SELECT, (P) VAXTPU, 7–337	KILL_SELECTION client message, (P) VAXTPU,
with SET (PROMPT_AREA), (P) VAXTPU,	7–344
7–446	KMS11-B device, (M) Networking, 2-20
with SET (STATUS_LINE), (P) VAXTPU,	KMS11 device
7–476	dumping microcode, (M) Networking, 7–14
with SET (VIDEO), (P) VAXTPU, 7–492	KMS1P device, (M) Networking, 2-20
VARIABLES	KMS/KMV Dump Analyzer
with EXPAND_NAME, (P) VAXTPU,	See PSIKDA
7–135	KMV11 device
VERSION	dumping microcode, (M) Networking, 7–14
with FILE_PARSE, (P) VAXTPU, 7–141	KMV1A interface, (M) Networking, 2–20
with FILE_SEARCH, (P) VAXTPU, 7–144	KMY interface, (M) Networking, 2–20
VIDEO, (P) VAXTPU, 7–492	
with SET, (P) VAXTPU, 7–347 to 7–348	Known file list, (M) Install, INS-1
with SHOW, (P) VAXTPU, 7-505 to 7-506	image lookup, (P) File Applications, 5–5
Keyword argument, (P) MACRO, 4-3	startup procedure, (M) Setting Up VMS, 2–10
Keyword clause	Known image, (M) Install, INS-1
types used in collating sequence expression, (P)	attributes of, (M) Install, INS-19
National Char Set, NCS-13	dismounting volume, (M) Install, INS-6
types used in conversion function expressions,	evaluating merits of installing, (M) Install,
(P) National Char Set, NCS-15	INS-2, INS-18
Keyword constants, (P) VAXTPU, 3-5	file specification for, (M) Install, INS-5
KEYWORD data type, (P) VAXTPU, 2-5 to 2-7	installing, (M) Setting Up VMS, 2–10; (M)
Keyword path, (P) Command Def, CDU-11	VAXcluster, 4–11
obtaining values of command string keywords,	privilege enhancement, (M) Install, INS-3
(P) Utility Routines, CLI-10	removing, (M) Install, INS-6, INS-11
referencing command string keywords, (P)	site-specific startup, (M) Setting Up VMS, 2-10
Utility Routines, CLI-13	updating, (M) Install, INS-25
KEYWORDS keyword	KNOWN reserved word
with EXPAND_NAME, (P) VAXTPU, 7–135	plural form of component name, (M) DECnet-
KEY_GREATER_EQUAL attribute, (P) File Def	$VAX\ Guide,\ 3-33,\ 4-2;\ (M)\ Networking,$
Language, FDL-10	3–99
KEY_GREATER_EQUAL secondary attribute, (P)	KS (KED substitute) command, (U) EDT Ref,
File Applications, 8–9	EDT-294
i we rippulculation, o-o	See also Cursor positioning

LAN bridge

failover, (M) VAXcluster, 2-13

VAXcluster, 2-13

VAXcluster, 2-13

FORWARDING\_DELAY parameter, (M)

LISTEN\_TIME parameter, (M) VAXcluster,

use of FDDI priority field, (M) VAXcluster,

HELLO\_INTERVAL parameter, (M)

Index-234

writing on volume, (U) DCL Dictionary,

for DEFINE TYPE statement, (P) Command

for PARAMETER clause, (P) Command Def,

for QUALIFIER clause, (P) Command Def,

DCL1-240

Def, CDU-28

CDU-23, CDU-32

CDU-25, CDU-34

LABEL clause

%LABEL, (P) Debugger, 3-10, D-7

LAN controller Large packet support on FDDI, Dependability physical address Handbook, 7–11 address, (M) LATCP, LAT-53 Large request packet device name, (M) LATCP, LAT-8 See LRP LANDSCAPE option, (U) DSR Ref, 4-9 Laser printers Language LN01, (U) DSR Ref, B-1 current, (P) Debugger, 4-10, CD-141 LN01E, (U) DSR Ref, B-1 identifying, (P) Debugger, CD-220 LN03, (U) DSR Ref, B-1 multilanguage program, (P) Debugger, 9-6 "last" string parameter to ADD\_KEY\_MAP, (P) with DECwindows, (P) Debugger, 1-28 VAXTPU, 7–17 native to VMS, (P) File Def Language, FDL-41 Last-chance exception vector, (P) Programming reinstalling, V5.5 Release Notes, 3-28 Resources, 9–13 setting, (P) Debugger, 4-10, CD-141 Last-chance handler, (P) Debugger, 9-13 support by debugger, (P) Debugger, E-1 LAST command with DECwindows, (P) Debugger, 1-2 See Reading Language compilers LASTDRIVER, (M) LADCP, LADCP-1 effects of qualifiers on output files, (U) DCL Last login messages, (M) Security, 3-5 *Concepts*, 1–10 to 1–11 disabling, (M) Security, 5-21 Language expression using, (M) Security, 4-40 compared to address expression, (P) Debugger, LASTport/Disk service, (M) LADCP, LADCP-1 4-7BIND description, (M) LADCP, LADCP-6 with DECwindows, (P) Debugger, 1-22 bindings, (M) LADCP, LADCP-1, LADCP-5 DEPOSIT command, (P) Debugger, 4-3, CD-58 ending a service binding, (M) LADCP, EVALUATE command, (P) Debugger, 4-5, LADCP-10 CD-77 ESS\$DADDRIVER, (M) LADCP, LADCP-1 evaluating, (P) Debugger, 4-5 password protection, (M) LADCP, LADCP-1 with DECwindows, (P) Debugger, 1-25 write protection, (M) LADCP, LADCP-1 FOR command, (P) Debugger, 8-9, CD-99 LASTport transport, (M) LADCP, LADCP-1 IF command, (P) Debugger, 8-9, CD-103 "Last" string constant parameter to GET\_INFO, REPEAT command, (P) Debugger, 8-10, (P) VAXTPU, 7-166, 7-167, 7-169, 7-181, CD-109 7-183, 7-184, 7-191, 7-218 WHEN clause, (P) Debugger, 3-13 Last-track device, (M) Bad Block, BAD-2 WHILE command, (P) Debugger, 8-10, CD-268 LAST\_KEY built-in procedure, (P) VAXTPU, Language extension, (P) Routines Intro, 2-6 7 - 242Language independence LAT testing for, (P) Modular Procedures, 4-1, 4-4 ACMS terminal failover, Dependability Language-Sensitive Editor, (P) Modular Handbook, 8-48, 8-53 Procedures, 1-12; (P) Debugger, CD-74 advantages and uses, V5.5 New Features, 9-6 Language-Sensitive Editor/Source Code Analyzer, application programs, V5.5 New Features, 9-6 Dependability Handbook, 8-57 creating a VMS service, V5.5 New Features, COHESION development tool, Dependability Handbook, 8-57 customizing, V5.5 New Features, 9-13 Language support procedure, (P) Routines Intro, enabling outgoing connections, V5.5 New 2-4Features, 9-5 LAN segment load balancing, V5.5 New Features, 9-6 three in local area VAXcluster configuration, managing the database size, V5.5 New (M) VAXcluster, 2–12 Features, 9-14 two in local area VAXcluster configuration, (M) modems, V5.5 New Features, 9-6 VAXcluster, 2-11 printers, V5.5 New Features, 9-6 LAN Traffic Monitor setting up logical ports, V5.5 New Features, See LTM 9-4LAN Traffic Monitor (LTM), (M) VAXcluster, 7-26 terminals, V5.5 New Features, 9-6 LAPBE line LAT\$CONFIG.COM procedure, V5.5 New See X.25, line Features, 9–13; (M) LATCP, LAT-2 LAPB line location, (M) LATCP, A-1 See X.25, line

LAT\$STARTUP.COM procedure, V5.5 New Features, 9-1, 9-13; (M) LATCP, LAT-2, LAT-35 invoking, (M) LATCP, A-1 location, (M) LATCP, A-1 LAT\$SYSTARTUP.COM procedure, V5.5 New Features, 9-1, 9-3, 9-13; (M) LATCP, LAT-2, A-1; (M) Maintaining VMS, 5-51 invoking, (M) LATCP, A-1 example, (M) LATCP, A-3 location, (M) LATCP, A-1 LAT\$SYSTARTUP.TEMPLATE, (M) LATCP, LAT-2 LAT (local area transport), V5.5 Release Notes, 3-22See also Terminal server LAT\$SYSTARTUP.COM, V5.5 Release Notes, LTLOAD.COM, V5.5 Release Notes, 2-29 protocol, (M) DECnet-VAX Guide, 1-7 setting up, V5.5 Release Notes, 2-29 starting XTERMINAL software, V5.5 Release Notes, 2-29 SYSTARTUP\_V5.COM, V5.5 Release Notes, 2 - 29LATACP (LAT ancillary control process), V5.5 New Features, 9-14; (M) LATCP, LAT-2 creating process, (M) LATCP, LAT-2 LAT ancillary control process See LATACP LAT characteristics added or changed, (M) LATCP, LAT-4 modifying in LAT\$SYSTARTUP.COM procedure, (M) LATCP, LAT-2 saving, (M) LATCP, LAT-2 storing, (M) LATCP, LAT-4, A-1, A-3 LAT connections, (M) LATCP, LAT-33, LAT-58 incoming, (M) LATCP, LAT-1, LAT-28 outgoing, V5.5 New Features, 9-5, 9-7; (M) LATCP, LAT-1, LAT-28 specifying type of, (M) LATCP, LAT-28 LAT Control Program See LATCP LAT Control Program (LATCP) Utility, V5.5 New Features, 9-7, 9-13 LATCP (LAT Control Program) commands replaced, V5.5 Release Notes, 2-29 exiting, (M) LATCP, LAT-2, LAT-22 help, (M) LATCP, LAT-4, LAT-23 installing, V5.5 Release Notes, 2-29 invoking, (M) LATCP, LAT-2, LAT-4 LATSYM print symbiont, V5.5 Release Notes, new qualifiers for SET NODE command, V5.5 Release Notes, 2–30

obsolete command, V5.5 Release Notes, 2-31

LATCP (LAT Control Program) (cont'd) obsolete qualifiers, V5.5 Release Notes, 2-30, priviledges required, V5.5 Release Notes, 2-29 setting LTA MAX units, V5.5 Release Notes, 2 - 32starting LATACP, V5.5 Release Notes, 2-31 stopping LATACP, V5.5 Release Notes, 2-31 stopping LTDRIVER, V5.5 Release Notes, 2-31 using FDDI Controller, V5.5 Release Notes, using SET NODE comand, V5.5 Release Notes, 2 - 31LATCP commands for setting up ports, (M) Maintaining VMS, 5 - 51LATCP utility See LAT Control Program (LATCP) Utility LAT database managing size, V5.5 New Features, 9-14 LAT device unit number, (M) LATCP, LAT-34 LATIN\_1 Table, (M) Terminal Fallback, TFU-3 replacement key, (M) Terminal Fallback, TFU-6 LAT network starting in SYSTARTUP\_V5.COM, V5.5 New Features, 9-1LAT node customizing, V5.5 New Features, 9-3 LAT port driver See LTDRIVER LAT port driver (LTDRIVER), (P) I/O User's I, LAT printers sample configuration, (M) Maintaining VMS, setting up, (M) Maintaining VMS, 5-51 spooling, (M) Maintaining VMS, 5-6 troubleshooting, (M) Maintaining VMS, 5-87 using PRTSMB symbiont, (M) Maintaining VMS, 5-87 LAT protocol software starting with LAT\$STARTUP.COM procedure, V5.5 New Features, 9-1, 9-13; (M) LATCP, LAT-2, A-1starting with SET NODE/STATE=ON, (M) LATCP, LAT-33 stopping with SET NODE/STATE=OFF, (M) LATCP, LAT-33 LAT QIO interface, V5.5 Release Notes, 3-22 LAT SENSEMODE \$QIO function, V5.5 New Features, 17–7 LAT service announcements, (M) LATCP, LAT-1 creating, (M) LATCP, LAT-13 database, (M) LATCP, LAT-1, LAT-31, LAT-34 dedicated applications, (M) LATCP, LAT-1

```
LAT service (cont'd)
      LAT-1
  deleting, (M) LATCP, LAT-21
      LAT-58
      LAT-41
```

defined, V5.5 New Features, 9-5; (M) LATCP,

displaying characteristics of, (M) LATCP,

displaying counters, (M) LATCP, LAT-58 displaying information, (M) LATCP, LAT-58 identifier, (M) LATCP, LAT-13, LAT-31,

limiting size of node database. (M) LATCP. LAT-31, LAT-34

modifying characteristics of, (M) LATCP, LAT-41

naming, (M) LATCP, LAT-13, LAT-26 rating, (M) LATCP, LAT-13, LAT-41, LAT-53, LAT-59

remote printing, (M) LATCP, LAT-1 LAT session limit, (M) LATCP, LAT-32 LAT SETMODE \$QIO function, V5.5 New Features, 17-1

LAT site-specific command procedure, (M)Maintaining VMS, 5-51

LAT symbiont, (M) Maintaining VMS, 5-4, 5-87 LATSYM symbiont, (M) Maintaining VMS, 5-4,

LAT terminal, (M) Setting Up VMS, 6-21 debugging using two, (P) Debugger, 9-6

LAVC\$FAILURE\_ANALYSIS.MAR sample program, (M) VAXcluster, E-3; Dependability Handbook, 7–12

related subroutine package, Dependability Handbook, 7–15

usage summary, Dependability Handbook, 7 - 13

LAVC\$START\_BUS.MAR sample program, (M) VAXcluster, E-1

LAVC\$STOP\_BUS.MAR sample program, (M) VAXcluster, E-2

%LAVC-I-ASUSPECT OPCOM message, (M) VAXcluster, E-9

%LAVC-S-WORKING OPCOM message, (M) VAXcluster, E-9

%LAVC-W-PSUSPECT OPCOM message. (M) VAXcluster, E-9

Layered products

accessing fonts, V5.5 Release Notes, 3-14 upgrade caution, V5.5 Release Notes, 2-56

.LAYOUT command, (U) DSR Ref, 2-75 example, (U) DSR Ref. 2-75

LBN (logical block number), (M) Bad Block, BAD-2

consistency across a shadow set, (M) VAXcluster, 3-6

LBR\$CLOSE routine, (P) Programming Resources, 8–36; (P) Utility Routines, LBR–20 LBR\$DELETE\_DATA routine, (P) Programming Resources, 8-42; (P) Utility Routines, LBR-21

LBR\$DELETE\_KEY routine, (P) Programming Resources, 8-42; (P) Utility Routines, LBR-23

LBR\$FIND routine, (P) Utility Routines, LBR-25 LBR\$FLUSH routine, (P) Utility Routines, LBR-27

LBR\$GET\_HEADER routine, (P) Programming Resources, 8-50; (P) Utility Routines, LBR-29 LBR\$GET\_HELP routine, (P) Utility Routines,

LBR-31LBR\$GET\_HISTORY routine, (P) Utility

Routines, LBR-34 LBR\$GET\_INDEX routine, (P) Programming Resources, 8-53; (P) Utility Routines, LBR-36

LBR\$GET\_RECORD routine, (P) Programming Resources, 8-43; (P) Utility Routines, LBR-38

LBR\$INI\_CONTROL routine, (P) Programming Resources, 8-36; (P) Utility Routines, LBR-40

LBR\$INSERT\_KEY routine, (P) Programming Resources, 8–40; (P) Utility Routines, LBR–42

LBR\$LOOKUP\_KEY routine, (P) Programming Resources, 8-40, 8-42, 8-43, 8-48; (P) Utility Routines, LBR-44

LBR\$OPEN routine, (P) Programming Resources, 8-36; (P) Utility Routines, LBR-46

LBR\$OUTPUT\_HELP routine, (P) Programming Resources, 8–52; (P) Utility Routines, LBR–50

LBR\$PUT\_END routine, (P) Programming Resources, 8-40; (P) Utility Routines, LBR-55

LBR\$PUT\_HISTORY routine, (P) Utility Routines, LBR-56

LBR\$PUT\_RECORD routine, (P) Programming Resources, 8-40; (P) Utility Routines, LBR-58

LBR\$REPLACE\_KEY routine, (P) Programming Resources, 8-40; (P) Utility Routines, LBR-60

LBR\$RET\_RMSSTV routine, (P) Utility Routines, LBR-62

LBR\$SEARCH routine, (P) Utility Routines, LBR-63

LBR\$SET\_INDEX routine, (P) Utility Routines, LBR-65

LBR\$SET\_LOCATE routine, (P) Utility Routines, LBR-67

LBR\$SET\_MODULE routine, (P) Programming Resources, 8-48; (P) Utility Routines, LBR-68

LBR\$SET\_MOVE routine, (P) Utility Routines, LBR-70

LBR\$\_KEYNOTFND routine, (P) Programming Resources, 8-40

LBR routines

control index, (P) Utility Routines, LBR-7 current index number

setting, (P) Utility Routines, LBR-65 data record

reading, (P) Utility Routines, LBR-38 writing, (P) Utility Routines, LBR-58 end-of-module record

LBR routines LBR routines end-of-module record (cont'd) module (cont'd) accessing with RFA, (P) Utility Routines, writing, (P) Utility Routines, LBR-55 examples, (P) Utility Routines, LBR-7 to LBR-25 LBR-19 deleting data records, (P) Utility Routines, creating a new library, (P) Utility LBR-21 Routines, LBR-7 to LBR-10 deleting header, (P) Utility Routines, deleting a module from a library, (P) LBR-21Utility Routines, LBR-16 to LBR-19 module header extracting a module from a library, (P) reading, (P) Utility Routines, LBR-68 setting, (P) Utility Routines, LBR-68 Utility Routines, LBR-14 to LBR-16 inserting a module into a library, (P) updating, (P) Utility Routines, LBR-68 Utility Routines, LBR-10 to LBR-14 move mode header, (P) Utility Routines, LBR-2 setting record access to, (P) Utility help text Routines, LBR-70 outputting, (P) Utility Routines, LBR-50 summary, (P) Utility Routines, LBR-5 to retrieving, (P) Utility Routines, LBR-31 LBR-6 index, (P) Utility Routines, LBR-2 update history records searching, (P) Utility Routines, LBR-63 writing, (P) Utility Routines, LBR-56 introduction, (P) Utility Routines, LBR-1 to virtual memory recovering, (P) Utility Routines, LBR-27 LBR-19 VMS RMS status value library closing, (P) Utility Routines, LBR-20 returning, (P) Utility Routines, LBR-62 creating, (P) Utility Routines, LBR-46 \$LCKPAG, (P) System Services Ref. SYS-420 opening, (P) Utility Routines, LBR-46 LCN (logical channel number), (M) Networking, shareable image, (P) Utility Routines, 3 - 29LDPCTX (Load Process Context) instruction, (P) LBR-1 structure, (P) Utility Routines, LBR-2 to MACRO, 9-193, 10-47 LBR-5 LDR\$ALLOC\_PT, (P) Device Support (A), 16–18, types, (P) Utility Routines, LBR-1 E-7; (P) Device Support (B), 3-107 user-developed, (P) Utility Routines, LDR\$DEALLOC\_PT, (P) Device Support (B), LBR-1 3 - 108library file LDR\$GL\_FREE\_PT, (P) Device Support (B), flushing, (P) Utility Routines, LBR-27 3-107, 3-108 library header information LDR\$GL\_SPTBASE, (P) Device Support (B), reading, (P) Utility Routines, LBR-29 3–107, 3–108 retrieving, (P) Utility Routines, LBR-29 .LE. in a numeric comparison, (U) DCL Concepts, library index getting contents, (P) Utility Routines, LBR-36 Leading separate numeric string initializing, (P) Utility Routines, LBR-40 data type, (P) MACRO, 8-11 searching for key, (P) Utility Routines, LEARN command, (U) EVE Ref, EVE-79 to LBR-36 EVE-80 library key. (P) Utility Routines, LBR-2 EVE editor, (U) Text Processing, 1-61 creating ASCII or binary, (P) Utility LEARN data type, (P) VAXTPU, 2-7 to 2-8 Routines, LBR-47 Learn sequence deleting, (P) Utility Routines, LBR-23 assigning to a key (EVE), (U) Text Processing, finding, (P) Utility Routines, LBR-25 inserting, (P) Utility Routines, LBR-42 canceling (EVE), (U) Text Processing, 1-61 looking up, (P) Utility Routines, LBR-44 defining, (U) Using VMS, 8-40 replacing, (P) Utility Routines, LBR-60 definition (EVE), (U) Text Processing, 1-59 library update history record saving (EVE), (U) Text Processing, 1-61 LEARN\_ABORT built-in procedure, (P) VAXTPU, retrieving, (P) Utility Routines, LBR-34 7 - 243locate mode setting record access mode to, (P) Utility LEARN\_BEGIN built-in procedure, (P) VAXTPU, Routines, LBR-67 7-244 to 7-246

module, (P) Utility Routines, LBR-2

LEARN\_END built-in procedure, (P) VAXTPU, Lettered list 7-244 to 7-246 See List LEF (local event flag) state, (M) Networking, 8-19 Level Left arrow key, (U) DCL Concepts, 2-5; (U) EDT number of, (P) File Applications, A-2 Ref, EDT-77, EDT-295 Level 1 router, (M) System Management Intro, 7-2; (M) DECnet-VAX Guide, 1-3; (M) See also Cursor movement Networking, 1–2, 2–21, 2–23, A–1 moving cursor with, (U) Using VMS, 1-18; (U) LEVEL1\_INDEX\_AREA attribute, (P) File Def Text Processing, 1-8 Language, FDL-27, FDL-28 Left margin LEVEL1\_INDEX\_AREA secondary attribute, (P) setting records, (P) VAXTPU, 7-448 File Applications, 3–24 LEFT MARGIN command, (U) Text Processing, LEVEL1\_RECORD\_COUNT attribute, (P) File 3-12; (U) DSR Ref. 2-78 Def Language, FDL-5 /LEFT qualifier, (P) Debugger, CD-94, CD-104, Level 2 router, (M) System Management Intro, CD-112 7-2; (M) DECnet-VAX Guide, 1-3; (M) LEFT\_MARGIN keyword, (P) VAXTPU, 7-412 Networking, 1-2, 2-21, 2-23, A-1 "Left\_margin" string constant parameter to subnetwork, (M) Networking, A-3 GET\_INFO, (P) VAXTPU, 7-172, 7-186 Level of prompting, (P) File Def Language, LEFT\_MARGIN\_ACTION keyword, (P) VAXTPU, FDL-55 Level of root bucket field "Left\_margin\_action" string constant parameter to See XAB\$B\_LVL field GET\_INFO, (P) VAXTPU, 7-172 Levels of abstraction, (P) Modular Procedures, Legal function bit mask, (P) Device Support (A), Levels of dependability, Dependability Handbook, LENGTH attribute, (P) File Def Language, 1-2, 2-5FDL-28, FDL-29 Levels of security LENGTH built-in procedure, (P) VAXTPU, 7-247 defined, (M) Security, 1-2 to 7-248 Lexical element, (P) VAXTPU, 3-1 Length field Lexical function, (U) VMS Intro, 5-8; (U) using to indicate constant (keyword) value, (P) Command Procedures, B-1 to B-3; (U) DCL RMS, 2–4 Dictionary, DCL1-273, DCL1-274 using to indicate mask or bit offset, (P) RMS, 2 - 3See also Built-in symbol Length modes, (P) Patch, PAT-16 and logical name translation, (U) Using VMS, See also Entry and display modes and remote files, (M) DECnet-VAX Guide, 2-12, Length of key segment, (P) File Def Language, 2-13FDL-30 definition, (U) Using VMS, 5-9; (U) DCL %LENGTH operator, (P) MACRO, 4-8 Concepts, 5-6; (U) Command Procedures, LEQUAL keyword 2-11, 4-1with GSMATCH option, (P) Programming evaluating, (U) Using VMS, 5-10; (U) Resources, 5-5 Command Procedures, 2-11 LES\$ACP (LES ancillary control process), (M) F\$CONTEXT, V5.5 Release Notes, 1-18; (U) Networking, 1–16 DCL Dictionary, DCL1-275 .LES. in a string comparison,  $\,$  (U) DCL Concepts, 6–2 F\$CSID, (U) DCL Dictionary, DCL1-280 F\$CVSI, (U) DCL Dictionary, DCL1-282 LES ancillary control process F\$CVTIME, (U) DCL Dictionary, DCL1-284 See LES\$ACP F\$CVUI, (U) DCL Dictionary, DCL1-286 Less than operator F\$DEVICE, (U) DCL Dictionary, DCL1-287 symbol for in expressions, (U) Command F\$DIRECTORY, (U) DCL Dictionary, Procedures, 2-13 DCL1-289 Less than or equal to operator F\$EDIT, (U) DCL Dictionary, DCL1-290 symbol for in expressions, (U) Command F\$ELEMENT, (U) DCL Dictionary, DCL1-292 Procedures, 2-13 F\$ENVIRONMENT, V5.5 New Features, 3-7; Letter (U) DCL Dictionary, DCL1-294 chapter number (DSR), (U) Text Processing, F\$EXTRACT, (U) DCL Dictionary, DCL1-297 F\$FAO, (U) DCL Dictionary, DCL1-299 page number (DSR), (U) Text Processing, 3-34 F\$FILE\_ATTRIBUTES, (U) DCL Dictionary, DCL1-306

Lexical function (cont'd) LGI\_BRK\_LIM parameter, (M) Security, 5-23 F\$GETDVI, (U) DCL Dictionary, DCL1-309 LGI BRK TERM parameter, (M) Security, 5-23 F\$GETJPI, (U) DCL Dictionary, DCL1-322 LGI\_BRK\_TMO parameter, (M) Security, 5-23 F\$GETQUI, V5.5 New Features, 3-8; (U) DCL LGI\_HID\_TIM parameter, (M) Security, 5-24 Dictionary, DCL1-328 LGI\_RETRY\_LIM parameter, (M) Security, 5-22 F\$GETSYI, (U) DCL Dictionary, DCL1-344 LGI\_RETRY\_TMO parameter, (M) Security, 5-22 F\$IDENTIFIER, (U) DCL Dictionary, LIB\$ADAWI, (P) RTL Library, LIB-3 DCL1-349 LIB\$ADDX, (P) Programming Resources, 3–24; F\$INTEGER, (U) DCL Dictionary, DCL1-351 (P) RTL Library, LIB-7 F\$LENGTH, (U) VMS Intro, 5-8; (U) DCL LIB\$ADD\_TIME, (P) Programming Resources, Dictionary, DCL1-352 3 - 24F\$LOCATE, (U) DCL Dictionary, DCL1-353 LIB\$ADD\_TIMES, (P) RTL Library, LIB-5 F\$MESSAGE, V5.5 New Features, 2-7; (U) LIB\$ANALYZE\_SDESC, (P) RTL Library, DCL Dictionary, DCL1-355 LIB-10; (P) RTL String Manipulation, 2-4 F\$MODE, (U) DCL Dictionary, DCL1-356 LIB\$ASN\_WTH\_MBX, (P) RTL Library, 2-23, F\$PARSE, (U) DCL Dictionary, DCL1-358 LIB-12 F\$PID, (U) DCL Dictionary, DCL1-361 LIB\$ASN WTH MBX library routine, (M) F\$PRIVILEGE, (U) DCL Dictionary, Networking, 8-14, 8-28 DCL1-363 LIB\$AST\_IN\_PROG, (P) RTL Library, 2-22, F\$PROCESS, (U) DCL Dictionary, DCL1-364 LIB-15 F\$SEARCH, (U) DCL Dictionary, DCL1-365; LIB\$ATTACH, (P) RTL Library, 2-9, LIB-17 (P) Device Support (A), 13-24 LIB\$BBCCI, (P) RTL Library, LIB-19 F\$SETPRV, (U) DCL Dictionary, DCL1-368 LIB\$BBSSI, (P) RTL Library, LIB-21 F\$STRING, (U) DCL Dictionary, DCL1-372 LIB\$CALLG, (P) RTL Library, 2-16, LIB-23 F\$TIME, (U) DCL Dictionary, DCL1-373 LIB\$CHAR, (P) RTL Library, LIB-25 F\$TRNLNM, (U) DCL Dictionary, DCL1-374 LIB\$CONVERT\_DATE\_STRING, (P) RTL F\$TYPE, (U) DCL Dictionary, DCL1-378 Library, LIB-27 F\$USER, (U) DCL Dictionary, DCL1-380 LIB\$CRC, (P) RTL Library, 2-16, LIB-31 F\$VERIFY, (U) DCL Dictionary, DCL1-381 LIB\$CRC TABLE, (P) RTL Library, 2-16, LIB-33 invoking, (U) Using VMS, 5-9 LIB\$CREATE\_DIR, (P) RTL Library, 2-24, list of functions used to save and restore process LIB-36 characteristics, (U) Using VMS, 6-34 LIB\$CREATE\_USER\_VM\_ZONE, (P) RTL overview, (U) DCL Dictionary, DCL1-272 Library, 5-12, 5-17, LIB-40 specifying arguments for, (U) Command LIB\$CREATE\_VM\_ZONE, (P) Programming Procedures, 2-11 Resources, 10-1; (P) RTL Library, 5-6, 5-16, summary of, (U) Command Procedures, B-1 **LIB-44** symbol substitution in, (U) Using VMS, 5-6 LIB\$CRF\_INS\_KEY, (P) RTL Library, 8-1, syntax, (U) Using VMS, 5-9; (U) DCL LIB-50 Concepts, 5–6 LIB\$CRF\_INS\_REF, (P) RTL Library, 8-1, using in command procedure, (U) Using VMS, LIB-52 5-9, 6-12 LIB\$CRF\_OUTPUT, (P) RTL Library, 8-1, vector processing support, V5.5 New Features, LIB-55 LIB\$CURRENCY. (P) RTL Library, LIB-59 with WRITE command, (U) Command LIB\$CVTF\_FROM\_INTERNAL\_TIME, (P) RTL Procedures, 6-5 Library, LIB-70 Lexical input phase LIB\$CVTF\_TO\_INTERNAL\_TIME, (P) RTL See Command input scanning Library, LIB-74 LIB\$CVT\_DTB, (P) RTL Library, LIB-76 Lexical keywords, (P) VAXTPU, 3-36 to 3-38 LF character, (P) File Def Language, FDL-35 LIB\$CVT\_DX\_DX, (P) RTL Library, LIB-61 LIB\$CVT FROM INTERNAL TIME, (P) RTL /LGICMD qualifier and captive accounts, (M) Security, 5-46 Library, LIB-67 LIB\$CVT\_HTB, (P) RTL Library, LIB-76 LGI parameters, (M) Security, 5-22 LIB\$CVT\_OTB, (P) RTL Library, LIB-76 LGI system parameters LIB\$CVT\_TO\_INTERNAL\_TIME, (P) RTL See System parameters

Library, LIB-72

LIB\$CVT\_VECTIM, (P) RTL Library, LIB-78

5-25

LGI\_BRK\_DISUSER parameter, (M) Security,

```
LIB$DATE_TIME, (P) Programming Resources,
   3-23; (P) RTL Library, LIB-80
LIB$DAY, (P) Programming Resources, 3–25; (P)
   RTL Library, LIB-82
LIB$DAY_OF_WEEK, (P) RTL Library, LIB-84
LIB$DECODE_FAULT, (P) RTL Library, 4-30,
   LIB-86
  use with vector processor, V5.5 Release Notes,
      3 - 29
LIB$DEC_OVER, (P) Programming Resources,
   9-26; (P) RTL Library, 4-32, LIB-104
LIB$DELETE_FILE, (P) RTL Library, LIB-106
LIB$DELETE_LOGICAL, (P) RTL Library, 2-8,
   LIB-114
LIB$DELETE_SYMBOL, (P) RTL Library, 2-8,
   LIB-116
LIB$DELETE_VM_ZONE, (P) RTL Library, 5-6,
   LIB-118
LIB$DIGIT_SEP, (P) RTL Library, LIB-120
LIB$DISABLE_CTRL, (P) RTL Library, 2-9,
   LIB-122
LIB$DO_COMMAND, (P) RTL Library, 2-6,
   LIB-124
LIB$EDIV, (P) RTL Library, LIB-126
LIB$EMODD, (P) RTL Library, LIB-128
LIB$EMODF, (P) RTL Library, LIB-130
LIB$EMODG, (P) RTL Library, LIB-132
LIB$EMODH, (P) RTL Library, LIB-134
LIB$EMUL, (P) RTL Library, LIB-136
LIB$ENABLE_CTRL, (P) RTL Library, 2-9,
   LIB-138
LIB$ESTABLISH, (P) RTL Library, 4-3, 4-13,
   4-20, LIB-140
LIB$EXTV, (P) RTL Library, LIB-142
LIB$EXTZV, (P) RTL Library, LIB-145
LIB$FFC, (P) RTL Library, LIB-147
```

LIB\$FFS, (P) RTL Library, LIB-147

LIB-153

LIB-159

LIB-160

LIB-163

LIB-165

LIB-169

4-32, LIB-167

LIB\$FILE\_SCAN\_END, (P) RTL Library,

LIB\$FIND\_FILE routine, (P) RTL Library,

LIB\$FIND\_FILE\_END, (P) RTL Library,

LIB\$FID\_TO\_NAME, (P) RTL Library, LIB-149 LIB\$FILE\_SCAN, (P) RTL Library, LIB-151

LIB-155; (P) File Applications, 5-8 to 5-12

LIB\$FIND\_IMAGE\_SYMBOL, (P) RTL Library,

LIB\$FLT\_UNDER, (P) Programming Resources,

LIB\$FORMAT\_DATE\_TIME, (P) RTL Library,

9–26; (P) RTL Intro, 3–7; (P) RTL Library,

LIB\$FIND\_VM\_ZONE, (P) RTL Library, 5-6,

LIB\$FIXUP\_FLT, (P) RTL Library, 4-30,

LIB\$FREE\_DATE\_TIME\_CONTEXT, (P) RTL Library, LIB-172 LIB\$FREE\_EF, (P) RTL Library, LIB-174 LIB\$FREE\_LUN, (P) RTL Library, LIB-175 LIB\$FREE\_TIMER, (P) Programming Resources, 3-21; (P) RTL Library, LIB-176 LIB\$FREE\_VM, (P) RTL Library, 5-3, LIB-177 LIB\$FREE\_VM\_PAGE, (P) RTL Library, 5-3, LIB-179 LIB\$GETDVI, (P) RTL Library, LIB-181 LIB\$GETJPI, (P) RTL Library, LIB-186 LIB\$GETQUI, V5.5 New Features, 13-1; (P) Programming Resources, 3-22; (P) RTL Library, LIB-191 LIB\$GETSYI, (P) RTL Library, LIB-196 LIB\$GET\_COMMAND, (P) RTL Library, LIB-199 LIB\$GET\_COMMON, (P) RTL Library, 2-5, 2-35, LIB-202 LIB\$GET\_DATE\_FORMAT, (P) RTL Library, LIB-204 LIB\$GET\_EF, (P) RTL Library, LIB-206 LIB\$GET\_FOREIGN, (P) RTL Library, 2-3, LIB-208 LIB\$GET\_INPUT, (P) Programming Resources, 7-3; (P) RTL Intro, 3-3; (P) RTL Library, LIB-212; (P) RTL String Manipulation, 2-8 example, (P) Programming Resources, 7-4; (P) RMS, 4-12 obtaining several lines of input with, (P) Programming Resources, 7–5 obtaining single line of input with, (P) Programming Resources, 7-4 prompt, (P) Programming Resources, 7-4 LIB\$GET\_LUN, (P) Programming Resources, 7-3; (P) RTL Library, LIB-215 LIB\$GET\_MAXIMUM\_DATE\_LENGTH, (P) RTL Library, LIB-216 LIB\$GET\_SYMBOL, (P) RTL Library, 2-8, LIB-219 LIB\$GET\_USERS\_LANGUAGE, (P) RTL Library, LIB-222 LIB\$GET\_VM, (P) RTL Library, 5-3, LIB-223; (P) RTL String Manipulation, 2-3 LIB\$GET\_VM\_PAGE, (P) Programming Resources, 10-1; (P) RTL Library, 5-3, LIB-225 LIB\$ICHAR, (P) RTL Library, LIB-227LIB\$INDEX, (P) RTL Library, LIB-229 LIB\$INITIALIZE, (P) Modular Procedures, 3–17; (P) Debugger, 9-9; (P) RTL Library, 7-1 See also Initialization LIB\$INIT\_DATE\_TIME\_CONTEXT, (P) RTL Library, LIB-231 LIB\$INIT\_TIMER, (P) Programming Resources, 3-20; (P) RTL Library, LIB-235 LIB\$INSERT\_KEY, (P) Programming Resources, 8-45

```
LIB$INSERT_TREE, (P) RTL Library, 2-31,
   LIB-237
LIB$INSQHI, (P) RTL Library, LIB-248
LIB$INSQTI, (P) RTL Library, LIB-251
LIB$INSV, (P) RTL Library, LIB-253
LIB$INT_OVER, (P) Programming Resources,
   9-26; (P) RTL Library, 4-32, LIB-255
LIB$LEN, (P) RTL Library, LIB-257
LIB$LOCC, (P) RTL Library, LIB-258
LIB$LOOKUP_KEY, (P) RTL Library, LIB-261
LIB$LOOKUP_TREE, (P) RTL Library, 2-31,
   LIB-265
LIB\$LP\_LINES, \ \ \textit{(P) RTL Library}, \ LIB-267
LIB$MATCHC, (P) RTL Library, LIB-270
LIB$MATCH_COND, (P) Programming Resources,
   9–16; (P) RTL Library, 4–10, 4–30, LIB–272
LIB$MOVC3, (P) RTL Library, LIB-275
LIB$MOVC5, (P) RTL Library, LIB-276
LIB$MOVTC, (P) RTL Library, LIB-278
LIB$MOVTUC, (P) RTL Library, LIB-295
LIB$MULTF_DELTA_TIME, (P) RTL Library,
   LIB-298
LIB$MULT DELTA TIME, (P) Programming
   Resources, 3-24; (P) RTL Library, LIB-297
LIB$PAUSE, (P) RTL Library, LIB-299
LIB\$POLYD,~(P)~RTL~Library,~LIB-300
LIB$POLYF, (P) RTL Library, LIB-302
LIB$POLYG, (P) RTL Library, LIB-305
LIB$POLYH, (P) RTL Library, LIB-307
LIB$PUT_COMMON, (P) RTL Library, 2-5, 2-35,
   LIB-309
LIB$PUT_OUTPUT, (P) Programming Resources,
   7-3; (P) RTL Library, LIB-311
  example, (P) Programming Resources, 7-7; (P)
      RMS, 4-12
  writing simple output with, (P) Programming
      Resources, 7-6
LIB$RADIX_POINT, (P) RTL Library, LIB-313
LIB$REMQHI, (P) RTL Library, LIB-315
LIB$REMQTI, (P) RTL Library, LIB-317
LIB$RENAME_FILE, (P) RTL Library, LIB-319
LIB$RESERVE_EF, (P) RTL Library, LIB-327
LIB$RESET_VM_ZONE, (P) RTL Library, 5–13,
    5-14, LIB-329
LIB$REVERT, (P) RTL Library, 4-3, 4-20,
   LIB-331
LIB$RUN_PROGRAM, (P) RTL Library, 2-5,
   LIB-332
LIB$SCANC, (P) RTL Library, LIB-334
LIB$SCOPY_DXDX, (P) RTL Library, LIB-336;
    (P) RTL String Manipulation, 2-7
LIB$SCOPY_R_DX, (P) RTL Library, LIB-338
LIB$SET_INDEX, (P) Programming Resources,
LIB$SET_LOGICAL, (P) RTL Library, 2-8,
   LIB-340
```

```
LIB$SET_SYMBOL, (P) RTL Library, 2-8,
    LIB-343
LIB$SFREE1_DD, (P) RTL Library, LIB-347
LIB$SFREEN DD, (P) RTL Library, LIB-348
LIB$SGET1_DD, (P) RTL Library, LIB-350
LIB$SHOW_TIMER, (P) Programming Resources,
   3-20; (P) RTL Intro, 3-1; (P) RTL Library,
   LIB-352
LIB$SHOW_VM, (P) RTL Library, LIB-356
LIB$SHOW_VM_ZONE, (P) RTL Library, 5-6,
   LIB-359
LIB$SIGNAL, (P) RTL Intro, 3-1; (P) RTL
   Library, 4-2, 4-3, 4-7, 4-10, 4-11, 4-12, 4-14,
   4-16, 4-22, 4-23 to 4-26, 4-31, LIB-365
  invoking, (P) Programming Resources, 9-5
LIB$SIGNAL (or LIB$STOP)
  using to signal errors. (P) RMS, 2-6
  using to signal VMS RMS errors, (P) RMS, 2-6
LIB$SIG_TO_RET, (P) RTL Library, 4-29,
   LIB-369
  establishing, (P) Programming Resources, 9-6
LIB$SIG TO STOP, (P) RTL Library, 4-29,
    LIB-372
LIB$SIM_TRAP, (P) RTL Library, 4-21, 4-29,
   LIB-374
LIB$SKPC, (P) RTL Library, LIB-376
LIB$SPANC, (P) RTL Library, LIB-378
LIB$SPAWN, (P) RTL Library, 2-9, LIB-382
LIB$STAT_TIMER, (P) Programming Resources,
    3-21: (P) RTL Library, LIB-388
LIB$STAT_VM, (P) RTL Library, LIB-392
LIB$STOP, (P) RTL Library, 4-2, 4-3, 4-4, 4-7,
    4-10, 4-12, 4-14, 4-16, 4-21, 4-22, 4-23 to
    4-26, LIB-394
LIB$STOP routine, (P) File Applications, 5–12
LIB$SUBX, (P) Programming Resources, 3–24;
    (P) RTL Library, LIB-399
LIB$SUB_TIME, (P) Programming Resources,
    3 - 24
LIB$SUB_TIMES, (P) RTL Library, LIB-397
LIB$SYS_ASCTIM, (P) RTL Library, LIB-401
LIB$SYS FAO, (P) RTL Library, LIB-404
LIB$SYS FAOL. (P) RTL Library, LIB-406
LIB$SYS GETMSG, (P) RTL Library, LIB-408
LIB$TPARSE, (P) RTL Library, LIB-411
LIB$TRAVERSE_TREE, (P) RTL Library, 2-31,
    LIB-459
LIB$TRA_ASC_EBC, (P) RTL Library, LIB-453
LIB$TRA EBC ASC, (P) RTL Library, LIB-457
LIB$TRIM_FILESPEC, (P) RTL Library,
   LIB-461
LIB$VERIFY_VM_ZONE, (P) RTL Library, 5-6,
    LIB-464
LIB$WAIT, (P) RTL Library, LIB-465
LIBDECOMP.COM procedure, (M) System
    Management Intro, 5-7
LIBRARIAN
  See Librarian Utility
```

```
Librarian Utility (LIBRARIAN) (cont'd)
Librarian routines
                                                         types of libraries. (P) Librarian, LIB-1
  See LBR routines
                                                         using to set up online help, V5.5 New Features,
LIBRARIAN routines, (P) Librarian, LIB-10
                                                             B-44
Librarian Utility (LIBRARIAN)
                                                      Library, (P) Message, MSG-5
  See also LIBRARY command
                                                         See Device control library
  character case of library keys, (P) Librarian,
                                                         adding module with LBR routine, (P)
                                                             Programming Resources, 8–40
  command qualifiers, (P) Librarian, LIB-13 to
                                                         closing with LBR$ routine, (P) Programming
                                                             Resources, 8-36
  creating libraries, (P) Programming Resources,
                                                         compressing, (P) Programming Resources, 8-25
       1 - 17
                                                         creating with LBR routine, (P) Programming
  DCL command LIBRARY, (P) Librarian,
                                                             Resources, 8-36
      LIB-11
                                                         creation of, (P) Linker, 1-5, 2-4
  DCL qualifiers, (P) Librarian, LIB-14 to
                                                         default object, (P) Programming Resources, 5-1
      LIB-45
                                                         default user, (P) Linker, LINK-21
  default logical names, (P) Programming
                                                         deleting module with LBR routine, (P)
      Resources, 1–18
                                                             Programming Resources, 8-42
  directing output from, (P) Librarian, LIB-12
                                                         expanding, (P) Programming Resources, 8-25
      See also /LIST qualifier
                                                         identification of, (P) Linker, LINK-24,
      See also /OUTPUT qualifier
                                                             LINK-25
  exiting, (P) Librarian, LIB-12
                                                         initializing with LBR routine, (P) Programming
  format, (P) Librarian, LIB-11
                                                             Resources, 8-36
  global symbol table (GST), (P) Librarian,
                                                         input to linker, (P) Linker, 1-5, 2-3, 6-3
       LIB-2
                                                         inserting module with LBR routine, (P)
  help files, (P) Librarian, LIB-4 to LIB-5
                                                             Programming Resources, 8-40
  help libraries, (P) Librarian, LIB-1, LIB-4 to
                                                         listing index entries, (P) Programming
       LIB-5
                                                             Resources, 8–53
  HELP LIBRARY command display, (P)
                                                         macro, (P) Programming Resources, 5-3, 5-13
      Librarian, LIB-8 to LIB-10
                                                         message object module, (P) Programming
  help text example, (P) Librarian, LIB-6 to
                                                             Resources, 9-9
      LIB-8
                                                         module header, (P) Programming Resources,
  input file specification, (P) Librarian, LIB-11
                                                             8-48
  input_file_spec type, (P) Librarian, LIB-12
                                                         multiple indexes, (P) Programming Resources,
  invoking, (P) Librarian, LIB-12
                                                             8 - 45
  key lines in help files, (P) Librarian, LIB-5 to
                                                         multiple keys, (P) Programming Resources,
      LIB-6
  LIBRARIAN routines, (P) Librarian, LIB-10
                                                         object, (P) Programming Resources, 5-1, 5-12
  library
                                                             adding modules, (P) Programming
       types of, (P) Programming Resources, 1-18
                                                                 Resources, 5-2
  LIBRARY command, (P) Programming
                                                             creating, (P) Programming Resources, 5-2
      Resources, 1-19
                                                             deleting a module, (P) Programming
  library file specification, (P) Librarian, LIB-11
                                                                 Resources, 5-2
  library-file-spec type, (P) Librarian, LIB-11
                                                             extracting a module, (P) Programming
  library header, (P) Librarian, LIB-2
                                                                 Resources, 5-2
  library index, (P) Librarian, LIB-2
                                                             listing modules, (P) Programming
  macro libraries, (P) Librarian, LIB-1
                                                                 Resources, 5-2
  module header, (P) Librarian, LIB-2
                                                             replacing modules, (P) Programming
  module name table (MNT), (P) Librarian,
                                                                 Resources, 5-2
      LIB-2
                                                             system default, (P) Programming
  object libraries, (P) Librarian, LIB-1
                                                                 Resources, 5-2
  overview, (P) Librarian, LIB-10
                                                             user default, (P) Programming Resources,
  restrictions, (P) Librarian, LIB-12
  retrieval of help text, (P) Librarian, LIB-8 to
                                                         object module, (U) DCL Dictionary, DCL1-28
      LIB-10
                                                         opening with LBR routine, (P) Programming
  shareable image libraries, (P) Librarian,
                                                             Resources, 8–36
      LIB-1, LIB-3
                                                         processing index entries, (P) Programming
  text libraries, (P) Librarian, LIB-1
                                                             Resources, 8-53
```

Library file (cont'd) Library (cont'd) processing index entry with LBR routine, (P) used as linker input, (P) Linker, 1-5 Programming Resources, 8-53 Library file specification, (P) Librarian, LIB-11 Library header, (P) Librarian, LIB-2 processing of default, (P) Linker, 6-14 Library index, (P) Librarian, LIB-2 reformatting, (P) Librarian, LIB-15, LIB-20 replacing module, (P) Programming Resources, Library key, (P) Librarian, LIB-2 Library module shareable image, (P) Programming Resources, extracting with LBR routine, (P) Programming Resources, 8-43 5-8 /LIBRARY positional qualifier, (P) Linker, adding, (P) Programming Resources, 5-8 LINK-25 deleting, (P) Programming Resources, 5-8 listing, (P) Programming Resources, 5–8 Library procedure, (P) Routines Intro, 2-4 replacing, (P) Programming Resources, 5-8 /LIBRARY qualifier, (P) Linker, 2-4; (P) National Char Set, NCS-33 symbol table, (P) Linker, 2-10 system default, (P) Programming Resources, Library routine, (P) Convert, CONV-1; (P) File 5-12; (P) Linker, 1-5, 2-4, 6-14 Def Language, FDL-41, FDL-42 system default object library, (P) Linker, Library size LINK-17, LINK-18 See /COMPRESS qualifier text, (P) Programming Resources, 5-3 See /CREATE qualifier type of, (P) Librarian, LIB-1; (P) Linker, 2-3 License updating, (P) Modular Procedures, 6-5 See also DECnet-VAX license user, (P) Linker, 2-4 activating, License Management, LMF-6, user default, (P) Programming Resources, 5-12 LMF-17, LMF-81 user-default shareable image, (P) Linker, 6-14 activating all, License Management, LMF-99 LIBRARY command, (U) DCL Dictionary, activating in a VAXcluster environment, DCL1-383; (P) Programming Resources, License Management, LMF-18 1-19; (P) Librarian, LIB-11; (P) Linker, 2-3 activating with SYSMAN, (M) SYSMAN, /CREATE qualifier, (P) Programming SM-56 Resources, 5-2 amending, License Management, LMF-14 creating a new library using authorization by user, License Management, /CREATE, (P) Librarian, LIB-17 LMF-31 cross-referencing authorization time, License Management, /CROSS\_REFERENCE qualifier, (P) LMF-32 Librarian, LIB-19 automatic registration, License Management, /DELETE qualifier, (P) Programming LMF-5, LMF-23, LMF-47 Resources, 5-2 combinable, License Management, LMF-35 directing output, (P) Librarian, LIB-12 combination, License Management, LMF-30, exiting, (P) Librarian, LIB-12 LMF-33, LMF-35 EXTRACT qualifier, (P) Programming combination of dates and version numbers, Resources, 5-2License Management, LMF-37 format of, (P) Librarian, LIB-11 combination of NO SHARE, License input file specification, (P) Librarian, LIB-11 Management, LMF-36 default file type, (P) Librarian, LIB-12 command procedure, V5.5 New Features, 10-2 invoking, (P) Librarian, LIB-12 controlling activation, License Management, library file specification, (P) Librarian, LIB-11 LMF-18, LMF-21 library-file-specification controlling user access to, License Management, default file type, (P) Librarian, LIB-11 LMF-41 /LIST qualifier, (P) Programming Resources, copying of a, V5.5 New Features, 10-1 5 - 2deactivating, License Management, LMF-100 qualifiers for, (P) Librarian, LIB-13 to LIB-45 deactivating on shutdown, License /REPLACE qualifier, (P) Programming Management, LMF-39 Resources, 5-2 deactivating with SYSMAN, (M) SYSMAN, restrictions on, (P) Librarian, LIB-12 SM-57specifying time in, (P) Librarian, LIB-14 displaying active, (U) DCL Dictionary, .LIBRARY directive, (P) MACRO, 6-51 DCL2-285 Library facility, (P) Modular Procedures, 3–2 displaying an active, License Management, Library file LMF-50

processing of, (P) Linker, 6-9, 6-13

License (cont'd) License examples of registration, License Management, sharing activity license units (cont'd) LMF-6 to LMF-12, LMF-102, LMF-111 in a VAXcluster environment, License identical, License Management, LMF-23 Management, LMF-34 kinds of, License Management, LMF-28 sharing in a VAXcluster environment, *License* managing after registration, License Management, LMF-29, LMF-38 Management, LMF-14 single authorization number, License manipulating with SYSMAN, (M) SYSMAN, Management, LMF-23 SM-12unlimited units, License Management, LMF-27 methods for registering, License Management, when to register, License Management, LMF-2 LMF-5 with the NO\_SHARE option, *License* modifying, License Management, LMF-6, Management, LMF-6, LMF-39 LMF-85 with the RESERVE UNITS option. License modifying to include a reservation list, License Management, LMF-88 Management, LMF-41 zero units, License Management, LMF-27 modifying to include SCS node name, License LICENSE (License Management Utility), (U) Management, LMF-6, LMF-38 DCL Dictionary, DCL2-285 MOD\_UNITS option, License Management, invoking, License Management, LMF-49 LMF-27 overview, License Management, LMF-49 more than one registered, License privileges, License Management, LMF-50 Management, LMF-23 restrictions, License Management, LMF-50 moving of a, V5.5 New Features, 10-1 usage summary, License Management, LMF-49 multiples of a, License Management, LMF-23, LICENSE command, (U) DCL Dictionary, LMF-39 DCL1-384 multiples with LICENSE LOAD command, LICENSE commands, (M) SYSMAN, SM-12; License Management, LMF-83 License Management, LMF-51 multiples with the LICENSE UNLOAD See also License command, License Management, LMF-101 entering long, License Management, LMF-49, NO\_SHARE option, License Management, LMF-55, LMF-97 LMF-115 list of, License Management, LMF-51 PAKs with reservation lists, V5.5 New privileges required to use, License Features, 10-2Management, LMF-50 providing activity use, License Management, that write history records, License LMF-32Management, LMF-50 providing availability LICENSE database, License Management, LMF-6 in a VAXcluster environment, License backup of, License Management, LMF-25 Management, LMF-30 common, with multiple system disks, License providing more activity, License Management, Management, LMF-25 LMF-33 creating, License Management, LMF-63 providing more availability defining a logical name for, *License* in a VAXcluster environment, License Management, LMF-24 Management, LMF-31 definition, License Management, LMF-24 registering, License Management, LMF-94 deleting history records, License Management, registering a System Integrated Product, LMF-24License Management, LMF-2, LMF-16 fields, License Management, LMF-24 example of, License Management, history records, License Management, LMF-24 LMF-102 location, License Management, LMF-24 registering a VMS system merging, License Management, LMF-93 example of, License Management, special location for VMS system, License LMF-111 Management, LMF-25, LMF-47, LMF-50 registration, V5.5 New Features, 10-1 versions, License Management, LMF-79 product installation and, License with multiple licenses, License Management, Management, LMF-20 LMF-23 reservation list, V5.5 New Features, 10-1 License Management Facility restricting access to, License Management, See LMF LMF-21 License Management Utility sharing activity license units

See LICENSE

Limit (cont'd) License types, License Management, LMF-28 working set extent, (M) Setting Up VMS, 5-7 activity, License Management, LMF-31 availability, License Management, LMF-28 Limit option codes for, License Management, LMF-26 group, License Management, LMF-35 See RAB\$V\_LIM option reserved user, License Management, LMF-34 RESERVE\_UNITS option, License Management, LMF-34 Limit working set License Unit Requirement Table See LURT License units, License Management, LMF-25, LMF-31 allocating, License Management, LMF-29 Networking, 2-14 combining, License Management, LMF-30, LMF-35combining NO\_SHARE, License Management, LMF-36 CONSTANT value, License Management, LMF-263-4creating a pool of, License Management, LMF-35 modifying, License Management, LMF-41 providing enough, License Management, LMF-29, LMF-32 providing more, License Management, LMF-30, LMF-33 sharing of activity, *License Management*, LMF-34 Lifetime definition of, (P) DECthreads, 3-4 B - 105Lifetime account, (M) Security, 3–14 Lifetime password, (M) Security, 3–10 Lights out computing, Dependability Handbook, 3-17, 5-10(M) Networking, 5-8 case study, Dependability Handbook, 11-1 CSC operations management, Dependability Handbook, 11-15environment, Dependability Handbook, 5-10 2-16, 5-8 Limit, (M) System Management Intro, 2-3 account jobs, (M) Setting Up VMS, 5-5 AST queue, (M) Setting Up VMS, 5-2 CPU time, (M) Setting Up VMS, 5-3 DEFAULT account, (M) Setting Up VMS, 4-15 detached process, (M) Setting Up VMS, 5-5 Networking, 5-11 direct I/O count, (M) Setting Up VMS, 5-3 enqueue quota, (M) Setting Up VMS, 5-4 5 - 9open file, (M) Setting Up VMS, 5-4 paged pool byte count, (M) Setting Up VMS, paging file, (M) Setting Up VMS, 5-5 process jobs, (M) Setting Up VMS, 5-5 shared file, (M) Setting Up VMS, 5-6 subprocess creation. (M) Setting Up VMS, 5-6 system resources, (M) Setting Up VMS, 5-1 timer queue entry, (M) Setting Up VMS, 5-6 working set default size, (M) Setting Up VMS, 5-6

working set quota, (M) Setting Up VMS, 5-7 Limits and quotas, (M) Setting Up VMS, 5-1 to displaying, (U) DCL Dictionary, DCL2-335 LIM option, (P) File Def Language, FDL-11 Line, (M) System Management Intro, 7-1; (M) DECnet-VAX Guide, 1-2; (M) Networking, 1-1 asynchronous DDCMP devices, (M) buffers for DDCMP line, (M) Networking, 3-58 buffer size, (M) Networking, 3-57 CI, (M) Networking, 2-13 commands, (M) Networking, 3-52 connections to port, (M) DECnet-VAX Guide, counters, (M) Networking, 3-64; (M) Network Control Program, A-7 database, (M) Networking, 3-1 DDCMP, (M) Networking, 2-13 dedicated, (M) DECnet-VAX Guide, 1-7, 1-10 definition, (M) Networking, 2-12 device name, (M) Networking, 3-52 devices, (M) Network Control Program, A-15 controllers, V5.5 New Features, B-105 DEMNA controller, V5.5 New Features, Second Generation Ethernet Controller (SGEC), V5.5 New Features, B-105 dialup, (M) DECnet-VAX Guide, 1-7, 1-10; displaying counter information with NCP, (M) DECnet-VAX Guide, 4-1 dynamic asynchronous, (M) Networking, 1-10, dynamic switching, (M) Networking, 2-16 Ethernet, (M) Networking, 2-13, 3-62 identification, (M) Networking, 3-52 identifier, (M) DECnet-VAX Guide, 3-32 installing dynamic asynchronous, (M) installing static asynchronous, (M) Networking, LAPB, (M) Networking, 3-54 LAPBE, (M) Networking, 3-54 multipoint, (M) Networking, 2-14 name, (M) Networking, 2-13 operational state, (M) Networking, 3-57 parameters, (M) Networking, 3-55 point-to-point, (M) DECnet-VAX Guide, 3-5; (M) Networking, 2-14 protocol, (M) Networking, 3-53 state, (M) Networking, 2-13; (M) Network Control Program, A-16 to A-19

Line (cont'd)	Line mode (cont'd)
static asynchronous, (M) Networking, 1–10, 2–15, 5–8	changing to nokeypad mode, (U) EDT Ref, EDT-1
synchronous DDCMP devices, (M) Networking,	command
2–13	with EXT (extend), (U) EDT Ref, EDT-288
terminal, (M) DECnet-VAX Guide, 1-10; (M) Networking, 1-10	copying text with EDT, (U) Text Processing, 2-30
timers, (M) Networking, 3-58	deleting text with EDT, (U) Text Processing,
transitions, (M) Network Control Program,	2–27
A-16 to A-19	editing file, $(U)$ EDT Ref, EDT-1
types, $(M)$ Networking, 3-55	EDT, (U) Text Processing, 2–2, 2–22
X.25, (M) Networking, 2–13	$\text{HELP}, \ (U) \ EDT \ Ref, \ EDT-2$
%LINE, (P) Debugger, D-7 EXAMINE command, (P) Debugger, 4-19	inserting text with EDT, (U) Text Processing, 2-24
EXAMINE/SOURCE command, (P) Debugger,	line numbers (EDT), (U) Text Processing, 2-22
6–4	moving text with EDT, (U) Text Processing,
GO command, (P) Debugger, CD-100	2–29
SET BREAK command, (P) Debugger, 3–10	qualifiers, (U) EDT Ref, EDT-6
SET TRACE command, (P) Debugger, 3–10 STEP command, (P) Debugger, 3–6	replacing text with EDT, (U) Text Processing, 2-28, 2-30
Linear recurrence	specifiers, (U) EDT Ref, EDT-6
definition of, (P) RTL Math, 2-7	specifying a range with EDT, (U) Text
Line break, (U) DSR Ref, 2–10	Processing, 2-25
in data from global selection, (P) VAXTPU,	Line-mode editing, (P) VAXTPU, C-3
7–300	example, $(P)$ $VAXTPU$ , A-1
LINE command, (U) Using VMS, 8–9, 8–56; (U)	Line number
EDT Ref, EDT-78; (U) EVE Ref, EVE-81;	See also %LINE
(P) VAXTPU, 4–18	selecting from DECwindows window, (P)
See also Cursor movement	Debugger, 1–22
moving the cursor with (EVE), (U) Text Processing, 1–9	source display, (P) Debugger, 6-1, 6-3, 6-4 with DECwindows, (P) Debugger, 1-10
Line commands	traceback information, (P) Debugger, 2-13, 5-3
list of by function, (U) EDT Ref, EDT-115	treated as symbol, (P) Debugger, 5–9
Line composition, (P) RTL Screen Management,	with LINE command, (U) EVE Ref, EVE-81
3–2	Line-oriented output, (P) RTL Screen Management, 2-9
Line counter summary, (M) Network Control	Line overflow
Program, A–7	controlling, (M) Maintaining VMS, 5-44
Line device	LINE parameter
See Communication, controller device	for DTE, (M) Networking, 3–29
Line editing	Line printer
See also Command line	carriage control, (P) I/O User's I, 5-6, 5-8
See also Editing the command line	character case, (P) I/O User's I, 5-4
inhibit, (P) Programming Resources, 7–42	character formatting, (P) I/O User's I, 5-2
Line feed, (P) File Def Language, FDL-33	device characteristics, (P) I/O User's I, 5-3
Linefeed key, (U) Using VMS, 1–18; (U) DCL	driver, $(P) I/O User's I, 5-1$
Concepts, 2–6; (U) EDT Ref, EDT–79	error recovery, (P) I/O User's I, 5-3
See also Deleting text	form feed, (P) $I/O$ User's $I$ , 5–4
EDT, (U) Text Processing, 2–14	function codes, (P) I/O User's I, 5-5, A-5
LINEFEED key command, (P) Delta/XDelta,	I/O functions
DELTA-22	IO\$_SENSEMODE, (P) I/O User's I, 5–9
LINEFEED key equivalent, (P) Delta/XDelta,	IO $_SETCHAR$ , (P) I/O User's I, 5–9
DELTA-22 LINE keypad function	IO\$_SETMODE, (P) I/O User's I, 5–9
EDT, (U) Text Processing, 2–11	IO\$_WRITELBLK, (P) I/O User's I, 5–5
Line mode, (U) EDT Ref, EDT-5; (P) Debugger,	IO\$_WRITEPBLK, (P) I/O User's I, 5-5
CD-149	IO\$_WRITEVBLK, (P) I/O User's I, 5–5
changing to keypad mode, (U) EDT Ref, EDT-1	I/O status block, (P) I/O User's I, 5–10
onanging to respect mode, (O) EDI Rej, EDI-I	printall mode, $(P) I/O User's I, 5-4$

## Line printer (cont'd) Link (cont'd) programming example, (P) I/O User's I, 5-11 satellite, (M) DECnet-VAX Guide, 1-2, 1-7 sense mode function, (P) I/O User's I, 5-9 state, (M) LATCP, LAT-8; (M) Network set characteristics, (P) I/O User's I, 5-9 Control Program, A-19 set mode function, (P) I/O User's I, 5-9 terminating dynamic asynchronous, (M) DECnet-VAX Guide, 3-27 status returns, (P) I/O User's I, A-5 supported devices, (P) I/O User's I, 5-1 Linkable image, (M) Install, INS-3 SYS\$GETDVI returns, (P) I/O User's I, 5-3 LINK command, (U) VMS Intro, 4-2, 4-8, 4-13; write function, (P) I/O User's I, 5-5 (U) Using VMS, 4-13; (U) DCL Concepts, carriage control, (P) I/O User's I, 5-6 4-13; (U) DCL Dictionary, DCL1-385 to /LINE qualifier, (P) Debugger, 3-12, CD-18, DCL1-391; (P) Debugger, 3-1, 5-4, 6-1 CD-31, CD-83, CD-127, CD-185, CD-259 in command procedure, (P) Linker, 3-5 Line spacing, (U) DSR Ref, 2-115, 2-116 invoking linker, (P) Linker, 1-2 Line speed qualifiers, (P) Linker, 1-3 setting, (M) DTS/DTR, DTS-5, DTS-7, incompatibility among, (P) Linker, LINK-1 shareable image, (P) Debugger, 5-12 DTS-10, DTS-12 with DECwindows, (P) Debugger, 1-3 LINE SPEED parameter, (M) Networking, 3-61 .LINK directive, (P) MACRO, 6-52 "Line" string constant parameter to GET\_INFO, (P) VAXTPU, 7-172 /INCLUDE qualifier, (P) MACRO, 6-52 /LIBRARY qualifier, (P) MACRO, 6-52 /LINES\_PER\_PAGE=n qualifier, (U) DSR Ref. /SELECTIVE\_SEARCH qualifier, (P) MACRO, Line terminator, (U) Using VMS, 1-19; (U) DCL Concepts, 2-1/SHAREABLE qualifier, (P) MACRO, 6-53 deleting, (P) VAXTPU, 7-28 Linker terminal, (P) I/O User's I, 8–9 combining psects, V5.5 Release Notes, 3-25 image-ID field, V5.5 Release Notes, 4-12 LINE\_BEGIN keyword, (P) VAXTPU, 7–69, 7–249 to 7-250, 7-273 Linker options file with POSITION, (P) VAXTPU, 7-288 case sensitivity of keyword arguments, V5.5 with SEARCH, (P) VAXTPU, 7-327 New Features, 19–2 with SEARCH\_QUIETLY, (P) VAXTPU, 7-332 CASE\_SENSITIVE= option, V5.5 New "Line\_editing" string constant parameter to Features, 19-1 GET\_INFO, (P) VAXTPU, 7-199 Linker Utility (LINK), (P) Programming Resources, 1–11 to 1–13; (P) Librarian, LINE\_END keyword, (P) VAXTPU, 7-69, 7-251, 7 - 273LIB-1, LIB-3 with POSITION, (P) VAXTPU, 7-288 additional controls, (P) Linker, 1-12 with SEARCH, (P) VAXTPU, 7-327 /BPAGE qualifier, V5.5 New Features, B-107, with SEARCH\_QUIETLY, (P) VAXTPU, 7-332 B - 108CASE\_SENSITIVE= option, V5.5 New LINE\_NUMBER keyword, (P) VAXTPU, 7-416 "Line\_number" string constant parameter to Features, 19-1 CLUSTER option, (P) Programming Resources, GET\_INFO, (P) VAXTPU, 7-179, 7-206 Line Plot graph, (P) File Applications, 4-12, A-2 cluster processing order. (P) Linker, 1-13 See also Logical link command qualifier summary, (P) Programming automatic disconnection, (M) DECnet-VAX Resources, 1–13 Guide, 3-3 DCL qualifiers, (P) Linker, LINK-1 to LINK-28 creating, (M) LATCP, LAT-8 directing output, (U) DCL Dictionary, deleting, (M) LATCP, LAT-19 displaying characteristics of, (M) LATCP. DCL1-385; (P) Linker, 1-1 examples, (P) Linker, LINK-31 LAT-47 displaying counters, (M) LATCP, LAT-43 exiting, (P) Linker, 1-1 GSMATCH option, (P) Programming Resources, displaying information, (M) LATCP, LAT-43 fiber optic, (M) DECnet-VAX Guide, 1-7 5-5, 5-6 how to invoke, (P) Linker, 1-1 microwave, (M) DECnet-VAX Guide, 1-2, 1-7 modifying characteristics of, (M) LATCP, image map, (P) Programming Resources, 1-13; LAT-26 (P) Linker, 1-12, 5-1 naming, (M) LATCP, LAT-8 input, (P) Programming Resources, 1–12 file types, (P) Linker, 1-4 problem with dropping, V5.5 Release Notes, introduction, (P) Linker, 1-1 2-14

Linker Utility (LINK) (cont'd)	List (cont'd)
invoking, (U) DCL Dictionary, DCL1-385	formatting with DSR, (U) Text Processing, 3-6
linker operations, (P) Linker, 6-1	lettered (DSR), (U) Text Processing, 3–10
linking the object module, (U) VMS Intro, 4-2	lettering in, (U) DSR Ref, 2-20
map	numbering in, (U) DSR Ref, 2-20
use in crash dump analysis, (P) System	numbering of, (U) DSR Ref, 2–90
Dump Analyzer, SDA-15	of network proxy database, (M) Authorize,
memory allocation file, (U) DCL Dictionary,	AUTH-34
DCL1-386, DCL1-387	of rights database, (M) Authorize, AUTH-32,
object language, (P) Programming Resources,	AUTH-35
1–13	of system user authorization file (SYSUAF),
options file, (P) Programming Resources, 1–13;	(M) Authorize, AUTH $-30$
(P) Linker, 1–6, 3–1	specifying as a resource value, (P) VAXTPU,
creating, (P) Modular Procedures, 5–8	4–13
descriptions, (P) Linker, 1–7 to 1–9	LIST/IDENTIFIER command, (M) Authorize,
how to build, (P) Linker, 1–7	AUTH-32
updating, (P) Modular Procedures, 6-6	LIST/PROXY command, (M) Authorize, AUTH-34
output, (P) Programming Resources, 1-12	LIST/RIGHTS command, (M) Authorize,
brief description, (P) Linker, 1-5	AUTH-35
qualifiers used to direct, (P) Linker, 1-5	LIST CIRCUIT command, (M) Network Control
overview, (P) Linker, 2-1	Program, NCP–136 LIST clause
parameter for creating executable image, (P) Linker,	for VALUE clause, (P) Command Def, CDU-34
1-1	with keywords, (P) Command Def, CDU-29
primary functions, (P) Linker, 1–6	with parameters, (P) Command Def, CDU-24
qualifiers for directing output, (P) Linker, 1–2	with qualifiers, (P) Command Def, CDU-26
searching object libraries, (P) Programming	LIST command, (M) Install, INS-18; (M)
Resources, 5-2	Authorize, AUTH-30; (M) Audit Analysis,
shareable image, (P) Linker, 1-9, 4-1	AUD-33; (M) DECnet-VAX Guide, 4-1;
UNIVERSAL option, (P) Programming	(M) Networking, 3–98; License Management,
Resources, 5–5	LMF-76 to LMF-80
VAX object language, (P) Linker, 7-1	active status, License Management, LMF-109
Linking image	difference from SHOW LICENSE command,
against system table of different VMS version,	License Management, LMF-108
V5.5 Release Notes, 3–1	displaying a license with, License Management,
Linking to VMS Images, (P) DECthreads, B-2	LMF-12
LINK/NOTRACE command, (M) Security, 5–34	example, License Management, LMF-12
Link options	to display network configuration database, (M)
See Options	DECnet-VAX Guide, 3–33
Link option specification records	LIST command, (U) Text Processing, 3-6, 3-12;
analyzing in object file, (U) DCL Dictionary,	(U) DSR Ref, 2–79
DCL1-28	example, (U) DSR Ref, 2–82
LINK/SHAREABLE command, (P) Programming	LIST directive, (P) MACRO, 6-55
Resources,5–14	See also .SHOW directive
LINK_CACHE_ENABLE attribute, (P) File Def	LIST ELEMENT command, (U) Text Processing,
$Language, { m FDL-}32$	3-6, 3-12; (U) DSR Ref, 2-82
LINK_TIMEOUT attribute, (P) File Def	Listener device, (M) Security, 6–10
Language, FDL-32	example, (M) Security, 6–10
LIS file, (P) Delta/XDelta, DELTA-10,	LISTEN_TIME parameter, (M) VAXcluster, 2–13
DELTA-11, DELTA-12	LIST EXECUTOR command, (M) Network Control
LISP	Program, NCP-142
See VAX LISP	List files
List	in directory, (U) DCL Dictionary, DCL1-159
bulleted (DSR), (U) Text Processing, 3-7	Listing
creating, (U) DSR Ref, 2-79	obtaining
elements in, (U) DSR Ref, 2–82	See /LIST qualifier
formatting. (II) Using VMS, 9-8. (II) DSR Ref	

A-3

/LIST qualifier (cont'd) Listing control directive using with /FULL, (P) Librarian, LIB-23; (P) .IDENT, (P) MACRO, 6-39 National Char Set, NCS-30 .LIST, (P) MACRO, 6-55 using with /HISTORY, (P) Librarian, LIB-26; .NLIST, (P) MACRO, 6-65 (P) National Char Set, NCS-31 .NOSHOW, (P) MACRO, 6-67, 6-89 using with /NAMES, (P) Librarian, LIB-33 .PAGE, (P) MACRO, 6-75 using with ONLY, (P) Librarian, LIB-35; (P) .SHOW, (P) MACRO, 6-89 National Char Set, NCS-38 Listing directives, (P) Message, MSG-25, MSG-28 using with other qualifiers, (P) National Char Listing level count, (P) MACRO, 6-90 Set, NCS-34 Listing output using with /SINCE, (P) Librarian, LIB-42; (P) brief format, (M) Audit Analysis, AUD-2; (M) National Char Set, NCS-41 Accounting, ACC-2 .LITERAL command, (U) Text Processing, 3-12, full format, (M) Audit Analysis, AUD-3; (M) 3-22, 3-25, 3-26; (U) DSR Ref, 2-83 Accounting, ACC-2 Literal directive (.LITERAL) summary format, (M) Audit Analysis, AUD-3; in message source file, (P) Message, MSG-21 (M) Accounting, ACC-2, ACC-3 Literal mode, (P) MACRO, 5-10 /LISTING qualifier, (P) Command Def, CDU-40; contrasted with immediate mode, (P) MACRO, (P) SUMSLP, SUM-16 Listing table of contents, (P) MACRO, 6-94 operand specifier format, (P) MACRO, 8-23 LIST LINE command, (M) Network Control Little-endian Program, NCP-145 VMEbus, V5.5 New Features, A-10 LIST LOGGING command, (M) Network Control LK201 keyboard Program, NCP-152 arrow keys, (U) EDT Ref, EDT-3 LIST MODULE CONFIGURATOR command, (M) Delete key, (U) EDT Ref, EDT-56 Network Control Program, NCP-155 DO key, (U) EDT Ref, EDT-61 LIST MODULE X25-ACCESS command, F13 key, (U) EDT Ref, EDT-79 Network Control Program, NCP-159 figure of, (U) EDT Ref, EDT-4 LIST MODULE X25-PROTOCOL command, (M) Find key, (U) EDT Ref, EDT-69 Network Control Program, NCP-161 function keys, (U) EDT Ref, EDT-3, EDT-130 LIST MODULE X25-SERVER command, (M) Help key, (U) EDT Ref, EDT-76 Network Control Program, NCP-165 Insert Here key, (U) EDT Ref, EDT-84 LIST MODULE X29-SERVER command, (M) LKB (lock block), (P) System Dump Analyzer, Network Control Program, NCP-165 SDA-108 List Names and Addresses of Loaded Executive \$LKWSET, (P) System Services Ref, SYS-422 Images command, (P) Delta/XDelta, DELTA-44 LIST NODE command, (M) DECnet-VAX Guide, See Log Manager Control Program Utility 3-33; (M) Network Control Program, LMF\$CONFIG NCP-167 and new VMS Licenses, License Management, LIST OBJECT command, (M) Network Control Program, NCP-173 and unsupported system message, License List operations, (M) Backup, BCK-19, BCK-20 Management, LMF-48 LMF\$GROUP\_TABLE.EXE /LIST qualifier, (M) Analyze/Disk, ADSK-7; global symbols, (P) System Dump Analyzer, (M) Backup, BCK-66; (P) Debugger, 6-1; (P) Librarian, LIB-12, LIB-28; (P) Message, SDA-60MSG-11 LMF (License Management Facility), V5.5 Release default output destination, (P) National Char Notes, 2–66; (M) Setting Up VMS, 2–11; Set, NCS-34 License Management, LMF-1 for obtaining listing of NCS library, (P) LN01E laser printer National Char Set, NCS-34 See Printers information provided by, (P) National Char LN01 laser printer Set, NCS-34 See Printers LIBRARY command, (P) Programming LN03 laser printer Resources, 5-2 See Printers specifying output file, (P) National Char Set, LNI file, (U) DSR Ref, B-1 NCS-34 font definitions, (U) DSR Ref, B-3 using with /BEFORE, (P) Librarian, LIB-14;

(P) National Char Set, NCS-23

LNK\$LIBRARY, (P) Programming Resources, 5–1; (P) Linker, LINK-22 See also Library See also Linker Utility LNM\$DCL\_LOGICAL, (U) DCL Concepts, 4-10 LNM\$DIRECTORIES, (U) DCL Concepts, 4-10  ${\tt LNM\$FILE\_DEV}, \ \ (U) \ DCL \ Concepts, \ 4\text{--}10$ to redefine the search order, (U) DCL Concepts, LNM\$GROUP, (U) Using VMS, 4-7; (U) DCL Concepts, 4-6, 4-9, 4-10 LNM\$JOB, (U) Using VMS, 4-6; (U) DCL Concepts, 4-6, 4-9, 4-10 LNM\$PERMANENT\_MAILBOX, (U) DCL Concepts, 4–10 LNM\$PROCESS, (U) Using VMS, 4-5; (U) DCL Concepts, 4-5, 4-9 LNM\$PROCESS\_DIRECTORY, (U) Using VMS, 4-9; (U) DCL Concepts, 4-8, 4-9 LNM\$PROCESS\_TABLE, (U) DCL Concepts, 4-9 LNM\$SYSTEM, (U) Using VMS, 4-7; (U) DCL Concepts, 4-7, 4-11 LNM\$SYSTEM\_DIRECTORY, (U) Using VMS, 4-9; (U) DCL Concepts, 4-8, 4-11 LNM\$SYSTEM\_TABLE, (U) DCL Concepts, 4–11 LNM\$TEMPORARY\_MAILBOX, (U) DCL Concepts, 4–11 LNMPHASHTBL parameter, (M) System Generation, A-15 LNMSHASHTBL parameter, (M) System Generation, A-15 use with AUTOGEN feedback, V5.5 New Features, B-52 LOADALT macro, (P) Device Support (A), 14-10, 14-22; (P) Device Support (B), 2-44, 3-74 Load assist agent, (M) Networking, 4–16 LOAD ASSIST AGENT parameter, (M) Networking, 4–16 LOAD ASSIST PARAMETER parameter, (M) Networking, 4–16 Load balancing, V5.5 New Features, B-55; (M) LATCP, LAT-13, LAT-41 and CPU power, (M) LATCP, LAT-29 LAT, V5.5 New Features, 9-6 of CPU resource in a VAXcluster, (M) Performance Management, 3–19 of disk I/O resource, (M) Performance Management, 3–38 of memory resource, (M) Performance Management, 3-23, 3-27, 3-29 using SYSGEN parameters, V5.5 New Features, B-55 Load Base Register command, (P) Delta/XDelta,

DELTA-40

LOAD command, (M) Setting Up VMS, 6-18; (M) System Generation, SGN-22; License Management, LMF-81 to LMF-84 in a VAXcluster environment, License Management, LMF-83 LOADER\$\_PTE\_NOT\_EMPTY status, (P) Device Support (B), 3-108 Load file identification for downline load, (M) Networking, 4-13 Loading downline, (M) DECnet-VAX Guide, 2-27 Load leveling dynamic, (M) Setting Up VMS, 2-19 LOADMBA macro, (P) Device Support (A), 15-3, 15-13, 15-14 to 15-15; (P) Device Support (B), 2–45, 3–76 LOAD NODE command, (M) Networking, 4-2, 4-10; (M) Network Control Program, NCP-57 HOST parameter, (M) Networking, 4-13 LOAD ASSIST AGENT parameter, (M) Networking, 4–16 LOAD ASSIST PARAMETER parameter, (M) Networking, 4–16 MANAGEMENT FILE parameter, (M) Networking, 4-14 overriding default parameters, (M) Networking, 4-11 SECONDARY LOADER parameter, (M) Networking, 4–16 SERVICE DEVICE parameter, (M) Networking, 4-16 SERVICE PASSWORD parameter, (M) Networking, 4-17 SOFTWARE IDENTIFICATION parameter, (M) Networking, 4–16 SOFTWARE TYPE parameter, (M) Networking, TERTIARY LOADER parameter, (M) Networking, 4–16 Load option See RAB\$V\_LOA option LOAD TABLE command, (M) Terminal Fallback, TFU-10, TFU-18 LOADUBA macro, (P) Device Support (A), 14–10, 14-11, 14-21; (P) Device Support (B), 2-46, 3 - 77LOAD VIA command, (M) Networking, 4–10; (M) Network Control Program, NCP-60 LOAD ASSIST AGENT parameter, (M) Networking, 4–16 LOAD ASSIST PARAMETER parameter, (M) Networking, 4–16 MANAGEMENT FILE parameter, (M) Networking, 4–14 PHYSICAL ADDRESS parameter, (M) Networking, 4-10, 4-17

Local area VAXcluster (cont'd) LOAD VIA command (cont'd) SERVICE DEVICE parameter, (M) LAN adapter support, Dependability Networking, 4-16 LOAD\_PWD\_POLICY parameter, V5.5 New Features, B-57 LOAD\_PWS\_POLICY parameter in System Generation Utility (SYSGEN), V5.5 New Features, B-57 LOAD SYS IMAGES parameter in System Generation Utility (SYSGEN), V5.5 New Features, B-57 LOA option, (P) File Def Language, FDL-10, FDL-11Lobe defined, Dependability Handbook, Glossary-4 description, Dependability Handbook, 7-17 VAXcluster, (M) VAXcluster, 2-7 Local, (M) DECnet-VAX Guide, 3-1, 3-12 \$LOCAL\$INI\$ buffer, (P) VAXTPU, 4-22 Local area cluster displaying network information, (M) SYSMAN, SM-33displaying system date and time, (M) SYSMAN, SM-34 modifying security data, (M) SYSMAN, SM-29 security, (M) SYSMAN, SM-10 setting system date and time, (M) SYSMAN, SM-31Local area interconnect device See DELNI Local area network See LAN Local area system transport See LASTport transport Local area transport See LAT Local area VAXcluster, V5.5 New Features, A-2; (M) VAXcluster, 2-2 alternate adapter booting, (M) VAXcluster, 7-32; Dependability Handbook, 7-12 configuration. (M) VAXcluster, 2-10, 2-11. 2-12; Dependability Handbook, 7-6, 7-7, creating a network component list, (M) VAXcluster, F-5 creating a network component representation, (M) VAXcluster, F-4 creating cluster security database, (M) VAXcluster, 2-15 debugging satellite booting, (M) VAXcluster, 7-33, C-1, C-4 downline loading, (M) VAXcluster, 7-33, 7-34 downline load sequence originating from, (M)

Handbook, 7-5 LAN address for satellite, (M) VAXcluster, 7-33; Dependability Handbook, 7-12 large packet support for FDDI, (M) VAXcluster, 2-14; Dependability Handbook, 7-11 monitoring LAN activity, (M) VAXcluster, 7–26 multiadapter support, Dependability Handbook, 7-5 network connections, (M) VAXcluster, D-1 network failure analysis, (M) VAXcluster, C-7, C-15, E-3; Dependability Handbook, 7-12 related subroutine package, Dependability Handbook, 7–15 usage summary, Dependability Handbook, 7 - 13OPCOM messages, (M) VAXcluster, E-9 sample programs, (M) VAXcluster, E-1, E-2, E-3; Dependability Handbook, 7-12 related subroutine package, Dependability Handbook, 7-15 usage summary, Dependability Handbook, 7 - 13satellite booting, (M) VAXcluster, 7-32, 7-33; Dependability Handbook, 7–12 starting DECnet, V5.5 Release Notes, 2-15 starting network failure analysis, (M) VAXcluster, F-7 starting protocol on LAN adapter, (M) VAXcluster, E-1, F-1 stopping network failure analysis, (M) VAXcluster, F-7 stopping protocol on LAN adapter, (M) VAXcluster, E-2, F-3 subroutine package, (M) VAXcluster, F-1, F-3, F-4, F-5, F-7 surviving LAN bridge failover, (M) VAXcluster, 2-13; Dependability Handbook, 7-11 SYSGEN parameter LRPSIZE, (M) VAXcluster, 2-14; Dependability Handbook, 7-11 SYSGEN parameter NISCS\_CONV\_BOOT, (M) VAXcluster, 7-33 Local area VAXcluster configuration boot server, (M) System Management Intro, 6-6 creating cluster security database, (M) System Management Intro, 6-12 Local buffer caching with lock management service, (P) System Services Intro, 13-13 Local buffer pool effect on I/O performance, V5.5 New Features, B-110 Local buffers increase in limit, V5.5 New Features, B-110 specifying number with multibuffer count XABITM, V5.5 New Features, B-110

Networking, 4-5

Handbook, 7-6

FDDI adapter support, Dependability

Local symbol table (cont'd) Local circuit deleting symbols from, (U) DCL Dictionary, defining at network startup, (M) DECnet-VAX DCL1-145 Guide, 3-31 entering symbol in, (U) DCL Dictionary, LOCAL clause DCL1-263 for PLACEMENT clause, (P) Command Def, in the search order, (U) DCL Concepts, 5-3 CDU-25, CDU-34 P1 through P8, (U) Using VMS, 5-3; (U) DCL LOCAL declaration, (P) VAXTPU, 3-34 to 3-35 Concepts, 5-1 Local disk search order, (U) Using VMS, 5-5 setting up, (M) VAXcluster, 4-10 Local tape UCB extension, (P) Device Support (B), Local disk UCB extension, (P) Device Support (B), 1-69, 1-81 to 1-82 1-69, 1-82 to 1-84 required for error logging, (P) Device Support required for error logging, (P) Device Support (A), 11-9; (P) Device Support (B), 3-9 (A), 11-9; (P) Device Support (B), 3-9 Local-to-local loopback test, (M) Networking, 7-5 required for IOC\$APPLYECC routine, (P) Local-to-remote loopback test, (M) Networking, Device Support (B), 3–67 Local event flag state Local variable, (P) VAXTPU, 3-4, 3-20, 3-34 See LEF state LOCAL\_PORTS class LOCAL identifier, (M) Security, 4-19, 5-4 adding, (M) Show Cluster, SHCL-45 Local label fields belonging to, (M) Show Cluster, saving, (P) MACRO, 6-87 SHCL-39 to SHCL-40 user-defined, (P) MACRO, 3-7 removing, (M) Show Cluster, SHCL-69 Local label block LOCAL\_PORTS window, (M) Show Cluster, ending, (P) MACRO, 6-22 SHCL-2 starting, (P) MACRO, 6-22 classes of data, (M) Show Cluster, SHCL-3 Local loopback test, (M) Networking, 7-6 Locate mode Local node, (M) SYSMAN, SM-2; (M) and record retrieval, (P) File Applications, 8-2 Networking, 1-15, 1-21, 2-2, 3-6 comparing with move mode for buffer handling, copying files from remote node to, (U) Using (P) RMS, 7-15 VMS, 2-14Locate mode option defining at network startup, (M) DECnet-VAX See RAB\$V\_LOC option Guide, 3-31 %LOCATE operator, (P) MACRO, 4-9 definition, (U) Using VMS, 1-3 LOCATE\_MODE attribute, (P) File Def Language, displaying counter with NCP, (M) DECnet-VAX FDL-11 Guide, 4-1 LOCATE\_MOUSE built-in procedure, (P) displaying name and address, (M) DECnet-VAX VAXTPU, 7-252 to 7-253 Guide, 3-2 Locating text displaying remote files from, (U) Using VMS, buffer specifier 2 - 11line mode, (U) EDT Ref, EDT-120 operational state, (M) Networking, 3-22 CLSS (clear search string), (U) EDT Ref, restrictions, (M) Networking, 6-3 EDT-270 setting address, (M) Networking, 3-9 FIND, (U) EDT Ref, EDT-61, EDT-69, states, (M) Networking, 6-3 EDT-143 Local processor, (P) Device Support (A), 1-7 FNDNXT, (U) EDT Ref, EDT-71 /LOCAL qualifier, (P) Debugger, 8-6, CD-47, KS (KED substitute), (U) EDT Ref, EDT-294 CD-54, CD-243 SET SEARCH, (U) EDT Ref, EDT-69, "Local" string constant parameter to GET\_INFO, EDT-192 (P) VAXTPU, 7-179 SHOW SEARCH, (U) EDT Ref, EDT-227 Local symbol, (U) Using VMS, 5-2; (U) SSEL (search and select), (U) EDT Ref. DCL Dictionary, DCL1-1, DCL1-5; (P) EDT-312 Programming Resources, 5-11; (P) Linker, string specifier 2-8; (P) Patch, PAT-8; (P) MACRO, 3-6 line mode, (U) EDT Ref, EDT-241 See also Symbol nokeypad mode, (U) EDT Ref, EDT-313 signaling with, (P) Programming Resources, Location 9 - 11examining, (P) System Dump Analyzer, Local symbol table SDA-51 definition, (U) Using VMS, 5-3; (U) DCL SDA default, (P) System Dump Analyzer, Concepts, 5-1 SDA-51

Location (cont'd) LOCKING.EXE, (P) System Dump Analyzer, translating to VAX MACRO instruction, (P) SDA-60 System Dump Analyzer, SDA-51 Locking a global mutex, (P) DECthreads, cma-75, Location control directive pthread-68 .ALIGN, (P) MACRO, 6-5 Locking a mutex, (P) DECthreads, cma-81, .BLKx, (P) MACRO, 6-12 cma-83, pthread-82, pthread-84 Location counter alignment directive Lock limit (.ODD), (P) MACRO, 6-71 specifying for detached process, (U) DCL Location counter control directive Dictionary, DCL2-57 (.EVEN), (P) MACRO, 6-33 specifying for subprocess, (U) DCL Dictionary, Location field in XABALL DCL2-57 See XAB\$L\_LOC field LOCK macro, (P) Device Support (A), 3-9, 3-10, Location of master file, (M) Maintaining VMS, E-4; (P) Device Support (B), 2-47 to 2-48, 5 - 553 - 111Location of queue and journal files, (M)Lock management routines Maintaining VMS, 5-3 global symbols, (P) System Dump Analyzer, LOCC (Locate Character) instruction, (P) MACRO, 9-130 Lock management service, (P) System Services Lock Intro, 1-2 See also Spin lock for interprocess communication, (P) System choice of mode, (P) System Services Intro, 13-3 Services Intro, 8-10 concept of, (P) System Services Intro, 13-1 LOCK management statistics, (M) Monitor, conversion, (P) System Services Intro, 13-5, MON-59 13 - 9Lock manager, V5.5 Release Notes, 3-25; (P) deadlock detection, (P) System Services Intro, Programming Resources, 4–13; (P) Modular 13-5Procedures, 3-21; (P) Routines Intro, A-9t; dequeuing, (P) System Services Intro, 13–12 (P) Device Support (B), 1-73 displaying SDA information, (P) System Dump See also Synchronization Analyzer, SDA-143 displaying SDA information, (P) System Dump getting information about Analyzer, SDA-108 asynchronously, (P) System Services Ref, distributed, (M) System Management Intro, 6-3 SYS-306 queueing a lock request, (P) Programming synchronously, (P) System Services Ref, Resources, 4-14 SYS-318 Lock manager limit, V5.5 New Features, C-1 global, (P) DECthreads, 3-3 Lock mode, (P) System Dump Analyzer, SDA-144 level, (P) System Services Intro, 13-3 LOCKPWD flag, (M) Security, 3-7 mode, (P) System Services Intro, 13-3 Lock record for read option root, (P) File Applications, 3-29 See RAB\$V REA option Lock block Lock record for write option See LKB See RAB\$V RLK option LOCK class record, (M) Monitor, A-24 Lock request Lock database dequeuing, (P) System Services Ref, SYS-149 in a VAXcluster, (P) System Services Ref. queuing, (P) System Services Intro, 13-4 SYS-315 asynchronously, (P) System Services Ref, LOCKDIRWT parameter, (M) System Generation, SYS-202 A-15synchronously, (P) System Services Ref. Lockdown (poor man's), (P) Device Support (A), SYS-213 E-16 to E-17; (P) Device Support (B), 2-49 to synchronizing, (P) System Services Intro, 13-7 2-50, 2-97 /LOCKS qualifier, (P) System Dump Analyzer, Lock ID, (P) Device Support (B), 1-73 SDA-127 /LOCKID qualifier, (P) System Dump Analyzer, Lock status block, (P) System Services Intro, 13-8; SDA-143 (P) System Services Ref, SYS-204 LOCKIDTBL parameter, (M) System Generation, Lock step defined, Dependability Handbook, Glossary-4 LOCKIDTBL\_MAX parameter, (M) System Lock value block, (P) System Services Ref, Generation, A-16 SYS-204

description, (P) System Services Intro, 13-11

Lock value block (cont'd) Log file operator (cont'd) using, (P) System Services Intro, 13-14 Lock values, (P) Routines Intro, A-9t security alarm messages, (M) Maintaining lock id data type, (P) Routines Intro, A-9t VMS. 6-10LOCK ON READ attribute, (P) File Def setting up, (M) Maintaining VMS, 6-11 use of, (M) Maintaining VMS, 6-7 Language, FDL-11 LOCK\_ON\_READ secondary attribute, (P) File using to troubleshoot queue manager, (M) Applications, 7–11 Maintaining VMS, 5-86 LOCK\_ON\_WRITE attribute, (P) File Def security audit, (M) Maintaining VMS, 6-1, Language, FDL-11 LOCK\_ON\_WRITE secondary attribute, (P) File creating, (M) Maintaining VMS, 6-14 Applications, 7–11 review policy, (M) Maintaining VMS, 6-14 /LOCK\_STATE qualifier, (P) Debugger, CD-50 status when batch job is stopped abnormally, lock\_status\_block data type, (P) Routines Intro, (U) Command Procedures, 8-8 A-9tLogging, (M) Networking, 1–20, 2–37 LOCK\_SYSTEM\_PAGES macro, (P) Device commands, (M) Networking, 3-87 console, (M) Networking, 2-38, 3-88 Support (B), 2–49 lock\_value\_block data type, (P) Routines Intro, database, (M) Networking, 3-1 A-10t file, (M) Networking, 2-38, 3-88 Logarithm monitor, (M) Networking, 2-38, 3-88, 3-92 base 2, (P) RTL Math, MTH-94, MTH-114 parameters, (M) Networking, 3-87 common, (P) RTL Math, MTH-96, MTH-116 sink, (M) Networking, 2–38, 3–88 natural, (P) RTL Math, MTH-92, MTH-112 state, (M) Networking, 3-91 natural complex, (P) RTL Math, MTH-35, Logging console default, (M) DECnet-VAX Guide, 4-4 MTH-37Log file Logging file of network events, (M) DECnet-VAX Guide, 4-4 See also Transaction log file Logging in, (U) DCL Dictionary, DCL1-392 to accounting, (M) Maintaining VMS, 6-1, 6-2 closing, (M) Maintaining VMS, 6-3 DCL1-395 error, (M) Maintaining VMS, 6-3 See also Login Logging out, (U) DCL Dictionary, DCL1-396 purging, (M) Maintaining VMS, 6-3 after remote logins, (M) Security, 3-21 as command procedure, (P) Debugger, 8-5 and device access, (U) DCL Dictionary, contents of, (U) Command Procedures, 8-5 DCL1-15 debugger, (P) Debugger, 8-5, CD-155 from disconnected processes, (M) Security, with DECwindows, (P) Debugger, 1-27 error, (M) Maintaining VMS, 6-1, 6-4 security considerations, (M) Security, 3-20, maintaining, (M) Maintaining VMS, 6-6 3 - 22printing, (M) Maintaining VMS, 6-6 Logging sink, (M) DECnet-VAX Guide, 4-4 examining during execution of batch job, (U) Command Procedures, 8-5 Logical AND operator for batch job, (U) Using VMS, 3-9 See AND operator name of, (P) Debugger, 8-5, CD-143, CD-221 Logical block number operator, (M) Maintaining VMS, 3-1, 6-1, 6-7 See LBN closing, (M) Maintaining VMS, 6-7 Logical-block-position option, (P) File creating, (M) Maintaining VMS, 6-7, 6-11 Applications, 4-31 device status message, (M) Maintaining Logical channel number VMS, 6-7See LCN enabling and disabling classes, (M) Logical end-of-tape marker, (M) Backup, BCK-84 Maintaining VMS, 6–11 information about system parameter Logical exclusive OR operator changes, (M) Maintaining VMS, 6-10 See Exclusive OR operator initialization message, (M) Maintaining Logical functions, vector, (P) MACRO, 10-64 VMS, 6-7Logical I/O location, (M) Maintaining VMS, 6-11 operations, (P) System Services Intro, 7-7 maintaining, (M) Maintaining VMS, 6-12 privilege, (P) System Services Intro, 7-4, 7-6, printing, (M) Maintaining VMS, 6-13 purging, (M) Maintaining VMS, 6-12

sample, (M) Maintaining VMS, 6-7

Logical I/O function translation from virtual function to, (P) Device Support (A), 2-3 translation to physical function, (P) Device Support (B), 3-31, 3-40, 3-54 Logical inclusive OR operator See Inclusive OR operator Logical instruction, (P) MACRO, 9-5 Logical link, (M) System Management Intro, 7-1; (M) DECnet-VAX Guide, 1-2; (M) Networking, 1-1, 1-20, 8-8, 8-11, 8-12, 8-15, 8-19 aborting, (M) Networking, 8-11, 8-33 access control information, (M) Networking, assigning channel for, (M) Networking, 8-19, 8-34 commands, (M) Networking, 3-73 completing connection of, (M) Networking, 8-12, 8-19, 8-31, 8-37 control, (M) Networking, 2-30 controlling activity, (M) Networking, 3-74 default access control information, (M) Networking, 1-26 definition, (M) Networking, 2-30 disconnecting, (M) Networking, 2-30, 3-74, 8-11, 8-15, 8-33, 8-40 handshaking sequence, (M) Networking, 8–12 inactivity timer, (M) Networking, 2-31 inbound, (M) Networking, 1-25, 3-73 incoming timer, (M) Networking, 2-31 maximum number, (M) Networking, 2-30, 3-73 outbound, (M) Networking, 1-25, 3-73 outgoing timer, (M) Networking, 2-31 parameters, (M) Networking, 2-30 protocol operation, (M) Networking, 2-31 protocol parameters, (M) Networking, 3-74 rejecting a request, (M) Networking, 8-38 requests, (M) Networking, 8-8, 8-12, 8-13, 8-19, 8-29, 8-31, 8-35 retransmission delay, (M) Networking, 2-31 retransmission time, (M) Networking, 2-31 SYS\$NET, (M) Networking, 8–13 terminating, (M) Networking, 8-11, 8-15, 8-21, 8-25, 8-34 timers, (M) Networking, 3-74 troubleshooting problems, (M) DECnet-VAX Guide, 4-15 Logical name, V5.5 New Features, C-8; (U) VMS Intro, 3-8, 4-14; (U) Mail, MAIL-15; (P) System Services Intro, 6-34, 7-26; (P) RTL Library, LIB-340 See also Job logical name See also Logical name table See also Process logical name access modes, (U) Using VMS, 4-13; (U) DCL Concepts, 4-14; (U) Command Procedures,

Logical name (cont'd) advantages, (P) File Applications, 5-4 as device name, (U) Using VMS, 2-10; (M) Networking, 1-27 as node name, (M) Networking, 1-27 assigning, (U) Command Procedures, 2-2; (U) DCL Dictionary, DCL1-39, DCL1-114 assigning systemwide, (M) Setting Up VMS, assigning to device, (U) DCL Dictionary, DCL1-15 attributes, (U) Command Procedures, 2-4; (P) System Services Intro, 6-7 canceling, (U) DCL Dictionary, DCL1-104 concealed attribute, (P) File Applications, 5-7 concealed-device, (P) File Applications, 6-15 concealed device name, (U) Using VMS, 4-13; (U) DCL Concepts, 4–13 creating, (U) DCL Concepts, 4-2; (U) Command Procedures, 2-2; (U) DCL Dictionary, DCL1-39, DCL1-114; (P) System Services Intro, 6–11; (P) System Services Ref, SYS-81; Obsolete Features, creating a table, (U) DCL Dictionary, DCL1-93 deassigning using CLOSE command, (U) DCL Dictionary, DCL1-58 debugger, (P) Debugger, D-1 defined as a search list, (U) Using VMS, 4-15; (U) DCL Concepts, 4–18 defining, (U) Using VMS, 4-2; (M) VAXcluster, 4-11; (P) System Services Intro, 6-2 defining for NETPROXY.DAT, (M) VAXcluster, 4-13defining for QMAN\$MASTER.DAT, (M) *VAXcluster*, 4–15, 6–2 defining for RIGHTSLIST.DAT, (M) VAXcluster, 4 - 13defining for SYLOGIN.COM, (M) VAXcluster, 4-10defining for SYSUAF.DAT, (M) VAXcluster, defining for VMSMAIL\_PROFILE.DATA, (M) VAXcluster, 4-14 defining in SYLOGICALS.COM, (M) Maintaining VMS, 3–1 definition, (U) Command Procedures, 2-1 deleting, (U) Command Procedures, 2–2; (P) System Services Intro. 6-15: (P) System Services Ref, SYS-139; Obsolete Features, 2-10differences from symbols, (U) Command Procedures, 2-15 displaying, (U) Using VMS, 4-4; (U) Command Procedures, 2-4 equivalence name for, (U) DCL Dictionary, DCL2-288, DCL2-329

Logical name Logical name displaying (cont'd) process-permanent (cont'd) translation of, (U) DCL Dictionary, defining equivalence name for detached DCL2-288, DCL2-329 process, (U) DCL Dictionary, DCL2-53 duplicating, (P) System Services Intro, 6-12 defining equivalence name for subprocess, (U) DCL Dictionary, DCL2-53 equivalence name, (U) Using VMS, 4-1 EVE\$INIT, (U) DCL Dictionary, DCL1-194; QMAN\$MASTER, V5.5 New Features, 5-4; (U) EVE Ref, 1-11, 1-24; (P) VAXTPU, (M) Maintaining VMS, 5-55, 5-65 4-31 requirement in a VAXcluster, V5.5 New Features, 5-5; (M) Maintaining VMS, 5-66 example program, (P) File Applications, 5-5 to rooted-device, (P) File Applications, 6-15 5-6for a mounted disk or tape, (U) Using VMS, RTL routines, (P) RTL Library, LIB-114 4-6; (U) DCL Concepts, 4-6 rules for creating, (U) Using VMS, 4-2; (U) for a network, (U) Using VMS, 4-16 DCL Concepts, 4-2 for a node specification, (U) Using VMS, 4-16; search list, (U) Using VMS, 4-15; (U) (U) DCL Concepts, 4-21 to 4-23 Command Procedures, 2-4; (P) File Applications, 5-7, 6-7 to 6-8 for a temporary mailbox, (U) DCL Concepts, SHUTDOWN\$DISABLE\_AUTOSTART, (M) for interprocess communication, (P) System Maintaining VMS, 5–75 Services Intro, 8-10 SHUTDOWN\$INFORM\_NODES, (M) Setting format convention, (P) System Services Intro,  $Up\ VMS,\ 3-10$ 6 - 10supersession, (P) System Services Intro, 6–14 getting information about, (P) System Services system, (M) VAXcluster, 4-2 Ref, SYS-645 system-created, (U) Using VMS, 4–17 image rundown, (P) System Services Intro, 6-5 system default, (U) VMS Intro, 3-10 in a file specification, (U) Command system-permanent, (U) Using VMS, 4–20 Procedures, 2-2 system services, (P) System Services Intro, 6-1 in an input file list, (U) DCL Concepts, 4-13 to obtain output value, (U) Command in process logical name table, (M) Networking, Procedures, 3–12 to refer to a device, (U) Command Procedures, 1-27in remote file specification, (M) DECnet-VAX 2-2TPU\$COMMAND, (U) DCL Dictionary, Guide, 2-4 DCL1-191; (U) EVE Ref, 1-8; (P) installing images, (M) Install, INS-5 in the device field of a file specification, (U) VAXTPU, 5-6 TPU\$DEBUG, (U) DCL Dictionary, DCL1-193; DCL Concepts, 3-6 MAIL\$EDIT, (U) EVE Ref, 1–24 (U) EVE Ref, 1–10; (P) VAXTPU, 5–8  $TPU$DISPLAY_MANAGER, (U) DCL$ multivalued, (P) System Services Intro, 6-2 Dictionary, DCL1-193; (U) EVE Ref, 1-10 OPC\$LOGFILE\_CLASSES, (M) Maintaining TPU\$JOURNAL, (U) DCL Dictionary, VMS, 6-12OPC\$LOGFILE\_ENABLE, (M) Maintaining DCL1-196; (U) EVE Ref, 1-21 VMS, 6-12TPU\$SECTION, (U) DCL Dictionary, DCL1-200; (U) EVE Ref, 1-16, 1-24; (P) OPC\$LOGFILE\_NAME, (M) Maintaining VMS, 6-11, 6-12 VAXTPU, 5-16 OPC\$OPA0\_CLASSES, (M) Maintaining VMS, TPU\$WORK, (U) DCL Dictionary, DCL1-202; (U) EVE Ref, 1-19 OPC\$OPA0\_ENABLE, (M) Maintaining VMS, translating, (P) System Services Intro, 6–16; (P) System Services Ref, SYS-645 overview, (U) Using VMS, 4-1; (U) DCL translation in file specifications, (U) Using Concepts, 4-1 VMS, 4–2; (U) DCL Concepts, 1–6 parsing, (P) File Applications, 5-7 translation of, (U) Command Procedures, placing in a user-defined table, (U) DCL 2-1; (M) Networking, 1-27; (P) File Applications, 5–7, 6–5 to 6–7; Obsolete Concepts, 4–16 preventing definition in subprocesses, (U) Features, 2–42 Using VMS, 3-8 types of, (P) File Applications, 5-6 to 5-7 process logical names defined by AUTOGEN. use in network application, (M) Networking, V5.5 New Features, B-52

process-permanent, (U) Using VMS, 4-17

use in programming, (U) VMS Intro, 4-14

use of the colon, (U) DCL Concepts, 4-2

Logical name (cont'd) Logical name table (cont'd) use with certain commands, (U) Phone, definition, (U) Using VMS, 4-5; (U) DCL PHONE-8 Concepts, 4-1, 4-4; (U) Command using with Files-11 file specifications, (M) Procedures, 2-3 deleting, (U) Using VMS, 4-14; (U) DCL Exchange, EXCH-4 using with public directories, (M) DECnet-VAX Dictionary, DCL1-104; (P) System Services Ref, SYS-139 Guide, 2-5 with MOUNT, (M) Mount, MOUNT-3 directory, (P) System Services Intro, 6-3 with RT-11 file specifications, (M) Exchange, displaying, (U) DCL Dictionary, DCL2-288 group, (U) Command Procedures, 2-3; (P) EXCH-4 with the OPEN command, (U) Command System Services Intro, 6-5 Procedures, 6-1 including a user-defined table in the search Logical name directory table order, (U) DCL Concepts, 4-16 definition, (U) Using VMS, 4-9; (U) DCL job, (U) Command Procedures, 2-3; (P) System Concepts, 4-1, 4-8 Services Intro, 6-5 process, (U) Using VMS, 4-9; (U) DCL limiting its size, (U) DCL Concepts, 4-16 list of system-provided, (U) Using VMS, 4-1; Concepts, 4-8 system, (U) Using VMS, 4-10; (U) DCL (U) DCL Concepts, 4-1 Concepts, 4-9 predefined logical names, (P) System Services Logical name inclusion Intro, 6-2 process, (U) Command Procedures, 2-3; (P) in group logical name table, (U) DCL Dictionary, DCL1-41, DCL1-116 System Services Intro, 6-4 in job logical name table, (U) DCL Dictionary, process-private, (U) Using VMS, 4-5; (U) DCL DCL1-41, DCL1-116 Concepts, 4–15; (P) System Services Intro, in process logical name table, (U) DCL Dictionary, DCL1-41, DCL1-116 quotas, (P) System Services Intro, 6-8 in system logical name table, (U) DCL rules for creating, (U) DCL Concepts, 4-15 Dictionary, DCL1-41, DCL1-116 search list, (P) System Services Intro, 6-11 Logical names modifying, (P) System Services Intro, 6-11 search order, (U) Using VMS, 4-5, 4-12; (U) defining shared information, Dependability DCL Concepts, 4-11 Handbook, 8-59shareable, (U) Using VMS, 4-6; (U) DCL Logical name system service call example of Concepts, 4–6, 4–15; (P) System Services SYS\$CRELNM, (P) System Services Intro, Intro, 6-6, 6-15 definition, (U) Using VMS, 4-5 6 - 11SYS\$CRELNT, (P) System Services Intro, system, (U) Command Procedures, 2-3; (P) System Services Intro, 6-6 6 - 15SYS\$DELLNM, (P) System Services Intro, types of, (P) System Services Intro, 6-2 UIC-based protection, (U) DCL Concepts, 4-18 SYS\$TRNLNM, (P) System Services Intro, user-defined, (P) System Services Intro, 6-6 6 - 16Logical name table protection Logical name table, (U) Files and Devices, 3-7 access types, (U) DCL Concepts, 8-10 how to set, (U) DCL Concepts, 8-10 See also Group logical name table Logical name translation See also Job logical name table and wildcards, (U) Using VMS, 4-15 See also Process logical name table default search order, (U) Using VMS, 4–11; See also System logical name table (U) DCL Concepts, 4-11 ACL-based protection, (U) DCL Concepts, 4–18 default values, (U) Using VMS, 4-13; (U) DCL controlling access through access control lists, Concepts, 4-13 (P) Utility Routines, ACL-1 in file specifications, (U) Using VMS, 4-13; creating, (U) Using VMS, 4-14; (U) Command (*U*) *DCL Concepts*, 4–13 to 4–14 Procedures, 2-3; (U) DCL Dictionary, iterative, (U) Using VMS, 4-12; (U) DCL DCL1-93; (P) System Services Intro, 6-14; Concepts, 4-12 (P) System Services Ref, SYS-87 preventing iterative translation, (U) Using default, (P) System Services Intro, 6-3 VMS, 4-13; (U) DCL Concepts, 4-13 defining access mode, (U) Using VMS, 4-13; requirements for parsing, (P) RMS, 4-9 (U) DCL Concepts, 4-17 when the file specification contains a wildcard, (U) DCL Concepts, 4–19

Logical name translation access mode subfield	Login (cont'd)
See FAB\$V_LNM_MODE subfield	interactive, (M) Security, 3-1
Logical NOT operator (#), (P) System Dump	local, (M) Security, 3–2
Analyzer, SDA-12	manual, (U) Using VMS, 1-1
	network, (U) Using VMS, 1-3; (M) Security,
Logical operators, (U) Using VMS, 5–12; (P)	3–3
System Dump Analyzer, SDA-12	noninteractive, (M) Security, 3-1
AND operator, (P) VAXTPU, 3-7	permitted time periods, (M) Security, 3–16
NOT operator, (P) VAXTPU, 3-7	procedure, (U) VMS Intro, 1-2
OR operator, (P) VAXTPU, 3-7	proxy, (M) Security, 3-3
XOR operator, (P) VAXTPU, 3-7	See Proxy login
LOGICAL option, (P) File Applications, 4-31	
Logical OR operator (   ), (P) System Dump	remote, (M) Security, 3-2
Analyzer, SDA-12	and system password, (M) Security, 5-15
Logical predecessor, (P) Debugger, 4-8, 4-13,	restricting by function, (M) Setting Up VMS,
4–19, D–5	4–26
with DECwindows, (P) Debugger, 1–9	restricting by time, (M) Setting Up VMS, 4-25,
Logical queue, (U) DCL Dictionary, DCL1-252	4–26
assigning, (M) Maintaining VMS, 5-75	simplifying for user with ALF, (M) Security,
deassigning, (U) DCL Dictionary, DCL1–109	5–28
description, (M) Maintaining VMS, 5-5	subprocess, (M) Security, 3-4
recommended use, (M) Maintaining VMS, 5-5,	timeout, $(M)$ Security, $3-12$
5–75	type as system identifier, (M) Security, 4–19
Logical successor, (P) Debugger, 4-8, 4-13, 4-19,	LOGIN.COM file
D-5	See Login command file, Login command
with DECwindows, (P) Debugger, 1-9	procedure
Logical unit number (LUN), (P) Modular	Login alarms, (M) Security, E-11
Procedures, 2–16; (P) Device Support (A),	Login command file, (U) VMS Intro, 5-9; (M)
17–2	Authorize, AUTH-24
allocating, (P) RTL Library, 2-17	Login command procedure, (U) Files and Devices,
RTL routine to free, (P) RTL Library, LIB-175	2-8; (U) Command Procedures, 1-9
Logical value, (P) File Def Language, FDL-2	alternate, (M) Setting Up VMS, 3-4
Logical XOR operator (\), (P) System Dump	denying remote file access, (M) Security, 8-6
Analyzer, SDA-13	executing, (U) DCL Dictionary, DCL1-392
logical_name data type, (P) Routines Intro, A-10t	execution of for batch jobs, (U) Command
LOGICAL_NAMES.EXE	Procedures, 8–2
global symbols, (P) System Dump Analyzer,	individual, (M) Setting Up VMS, 4-9
SDA-60	location of, (U) Command Procedures, 1-11
Login, (U) VMS Intro, 1-1; (M) Security, 3-1	personal, (U) Using VMS, 6-4; (U) Command
and default process protection, (M) Security,	Procedures, 1–9
4–34	defining EVE\$INIT in, (U) Using VMS,
automatic, (U) Using VMS, 1-3	8–44
batch, (M) Security, 3-3	defining keys in, (U) Using VMS, 1-25
class, (M) Security, 3-1	defining logical names in, (U) Using VMS,
restrictions, (M) Security, 3–16	4–1
controlling, (M) VAXcluster, 4-12	defining symbols in, (U) Using VMS, 1-24
detached process, (M) Security, 3–3	definition, (U) Using VMS, 1-3, 6-4
dial-in, (U) Using VMS, 1-4	executed as batch jobs, (U) Using VMS,
dialup, (M) Security, 3–2	3–9
chances to supply password, (M) Security,	location of, (U) Using VMS, 6-4
3–16	sample, (U) Using VMS, 6-4
controlling number of attempts, $(M)$	specifying alternate file specification, (U)
Security, 5–22	Using VMS, 6-6
disabled	proper protection for, (M) Security, 5–41
by break-in evasion, (M) Security, 3–16	specifying alternate, (U) DCL Dictionary,
by shift restriction, (M) Security, 3–16	DCL1–393
failure, (U) VMS Intro, 1–2	system, (U) Using VMS, 1–2
flags, (M) Security, 5–18	system-defined, (U) Command Procedures, 1–9
for expired accounts, (M) Security, 3–14	systemwide, (M) Setting Up VMS, 4-9

Login command procedure (cont'd) Logout command procedure, (M) Setting Up VMS, user account, (M) Setting Up VMS. 4-9 user-specified, (M) Setting Up VMS, 4-10 LOGOUT/FULL command, (M) Maintaining Login directory file, (U) Using VMS, 2-1, 2-6 VMS, 6-16 Login failures, (M) Security, 3-6 LOGOUT/HANGUP command, (M) Security, 3–22 accounting, (M) Maintaining VMS, 6-2 /LOG qualifier, (U) DSR Ref, 4-14, 5-4, 6-8; (M) alarms, (M) Security, E-13 Install, INS-10; (M) Backup, BCK-68; (M) and retries, (M) Security, 3-16 Bad Block, BAD-12; (M) Error Log, ERR-16; causes of, (M) Security, 3-15 (M) Accounting, ACC-17; (P) Debugger, counting for break-in detection, (M) Security, CD-50, CD-56; (P) Librarian, LIB-30 5 - 23See also /DELETE qualifier Login message, (M) Security, 3-4 See also /REPLACE qualifier controlling, (M) Security, 5-21 CREATE/FDL, (P) File Def Language, FDL-45 suppression of, (M) Security, 3-6 EXCHANGE/NETWORK command, V5.5 New LOGINOUT.EXE file Features, E-19 and detached process, (U) DCL Dictionary, for verifying NCS library operations, (P) DCL2-56 National Char Set, NCS-35 LOGINOUT image, (M) Networking, 2-40, 2-41, .LONG directive, (P) MACRO, 6-56 8-13, 8-31 Longest record length Login procedure See LRL system manager's account, (M) System Longest record length field Management Intro, 2-2; (M) Setting Up See XAB\$W\_LRL field VMS, 2-2LONG mode, (P) Patch, PAT-16 Login program authentication by secure server, (M) Security, /LONG qualifier with ALIGN command, (P) Patch, PAT-38 3-13Login sequence, (M) Setting Up VMS, 4-27 with DELETE command, (P) Patch, PAT-52 LOGIO privilege, (M) Setting Up VMS, 5-13; (M) with DEPOSIT command, (P) Patch, PAT-55 with EVALUATE command, (P) Patch, PAT-59 Security, A-4 Log manager, V5.5 New Features, B-38, B-66; with EXAMINE command, (P) Patch, PAT-62 Dependability Handbook, 8-17 with REPLACE command, (P) Patch, PAT-71 Log Manager Control Program Utility (LMCP), with SET MODE command, (P) Patch, PAT-76 V5.5 New Features, B-40, B-66 with VERIFY command, (P) Patch, PAT-90 command descriptions, V5.5 New Features, LONGWAIT parameter, (M) System Generation, B-76 to B-94 CONVERT command, V5.5 New Features, Longword, (P) System Services Intro, 2-4 definition, (U) Using VMS, 5-1 CREATE command, V5.5 New Features, B-78 to convert with FAO, (P) VAXTPU, 7-138 DUMP command, V5.5 New Features, B-80 to convert with MESSAGE, (P) VAXTPU, exiting, V5.5 New Features, B-75 7 - 268HELP command, V5.5 New Features, B-84 to convert with MESSAGE\_TEXT, (P) invoking, V5.5 New Features, B-75 VAXTPU, 7-271 privileges, V5.5 New Features, B-75 Longword access enable bit REPAIR command, V5.5 New Features, B-85 See VEC\$V\_LWAE subcommands, V5.5 New Features, B-86 to Longword-aligned random-access mode, (P) Device B - 93Support (A), 14-3, 14-11, 14-14 to 14-15; (P) SHOW command, V5.5 New Features, B-93 Device Support (B), 1–26 Logout, (U) VMS Intro, 1-9 Longword condition value, (P) System Services of remote session, (M) DECnet-VAX Guide, 3-3 Intro, 1-6 Logout alarms, (M) Security, E-14 Longword data type, (P) MACRO, 8-2 LOGOUT command, (U) VMS Intro, 1-9; (U) Longword dump, (U) DCL Dictionary, DCL1-176 Using VMS, 1-5, 3-6; (U) DCL Dictionary, /LONGWORD qualifier, (P) Debugger, CD-60, DCL1-396 to DCL1-397; (M) Security, 3-21 CD-83 message, (U) DCL Dictionary, DCL1-396 Longword storage directive (.LONG), (P) MACRO, multiple, (U) DCL Dictionary, DCL1-396 network, (U) Using VMS, 1-4 longword\_signed data type, (P) Routines Intro, vector processing support, V5.5 New Features, A-10t. B - 15

Loop node name, (M) Networking, 7-3 longword unsigned data type, (P) Routines Intro. A-10t LOOP statement, (P) VAXTPU, 3-21 to 3-22 Lookaside list Loosely coupled system kernels, Dependability See also Nonpaged pool Handbook, 4-7 displaying contents, (P) System Dump Lost file Analyzer, SDA-118 recovering, (M) Setting Up VMS, 4-24; LOOKUP\_KEY built-in procedure, (P) VAXTPU, (M) Maintaining VMS, 4-4 to 4-5; (M) 7-254 to 7-257 Analyze/Disk, ADSK-2 Loop Lost path in a command procedure, (U) Command causes, (M) DECnet-VAX Guide, 3-4 Procedures, 5-14 LOWERCASE command, (U) Using VMS, 8-30 Loopback EVE editor, (U) Text Processing, 1-46 assistance, (M) Networking, 7-12 Lowercase flag, (U) DSR Ref, 3–13 default, (U) DSR Ref, 3-13 connector, (M) Networking, 7-6 pairing, (U) DSR Ref, 3-13 Loopback mirror recognizing, (U) DSR Ref, 2-50 See MIRROR LOWERCASE WORD command, (U) Using VMS, Loopback mode, (P) Device Support (B), 1-91 8-36; (U) EVE Ref, EVE-82 Loopback test, (M) DECnet-VAX Guide, 4-7 formatting text with (EVE), (U) Text circuit, (M) Networking, 7-6 Processing, 1–40 circuit-level, (M) DECnet-VAX Guide, 4-7, 4-9; using with search string (EVE), (U) Text (M) Networking, 7–1 Processing, 1–20 controller, (M) DECnet-VAX Guide, 4-9; (M) Lowest level of index area number field Networking, 7-6, 7-8 See XAB\$B LAN field local node, (M) Networking, 7-6 Low-order unit local-to-local, (M) DECnet-VAX Guide, 4-8; definition, (U) Using VMS, 5-1 (M) Networking, 7-5 "Low\_index" string constant parameter to local-to-remote, (M) Networking, 7-4 GET\_INFO, (P) VAXTPU, 7-167 node-level, (M) DECnet-VAX Guide, 4-7; (M) LPA11-K device Networking, 7–1 AST over Ethernet circuit, (M) Networking, 7-9 address. (P) I/O User's I, 4-12, 4-14 software, (M) DECnet-VAX Guide, 4-9; (M) quota, (P) I/O User's I, 4-14 Networking, 7-6, 7-7 synchronization, (P) I/O User's I, 4-14 to a remote node, (M) Networking, 7-2 buffer management, (P) I/O User's I, 4-16 using a loop node name, (M) Networking, 7-3 buffer overrun, (P) I/O User's I, 4–12, 4–14, X.25 line-level, (M) Networking, 7-13 LOOP CIRCUIT command, (M) Networking, 7-7; buffer queue control. (P) I/O User's I, 4-16 (M) Network Control Program, NCP-63 clock rate, (P) I/O User's I, 4-10 ASSISTANT NODE parameter, (M) data buffer, (P) I/O User's I, 4-14 Networking, 7–12 data sampling, (P) I/O User's I, 4-1 ASSISTANT PHYSICAL ADDRESS parameter. data transfer command table, (P) I/O User's I, (M) Networking, 7–12 4-11HELP parameter, (M) Networking, 7-12 data transfer start command, (P) I/O User's I, NODE parameter, (M) Networking, 7–11 PHYSICAL ADDRESS parameter, (M) data transfer stop command, (P) I/O User's I, Networking, 7–10 LOOP EXECUTOR command, (M) Networking, data underrun/overrun, (P) I/O User's I, 4-12 7-6; (M) Network Control Program, NCP-66 device characteristics, (P) I/O User's I, 4-5 to LOOP LINE command, (M) Network Control Program, NCP-68 device configuration, (P) I/O User's I, 4–2, COUNT parameter, (M) Networking, 7-13 4-10, 4-34 LENGTH parameter, (M) Networking, 7–13 device initialization, (P) I/O User's I, 4-4, 4-8 WITH parameter, (M) Networking, 7-14 to 4-9, 4-32, 4-34 LOOP NODE command. (M) DECnet-VAX Guide. driver, (P) I/O User's I, 4-14-7; (M) Networking, 7-2; (M) Network errors, (P) I/O User's I, 4-2 Control Program, NCP-70 features, (P) I/O User's I, 4–3 CIRCUIT parameter, (M) Networking, 7-3 function codes, (P) I/O User's I, 4-8, A-4 function modifier

LPA11-K device LRP lookaside list (cont'd) function modifier (cont'd) displaying, (P) System Dump Analyzer, IO\$M\_SETEVF, (P) I/O User's I, 4-11, SDA-118 /LRP qualifier, (P) System Dump Analyzer, SDA-118 high-level language support routines, (P) I/OLRPSIZE parameter, (M) VAXcluster, 2-14, *User's I*, 4–15 I/O functions A-1; (M) System Generation, A-16; (M) IO\$\_INITIALIZE, (P) I/O User's I, 4-9 Networking, 5–36 IO\$\_LOADMCODE, (P) I/O User's I, 4-8 LSE/SCA IO\$\_SETCLOCK, (P) I/O User's I, 4–10 See Language-Sensitive Editor/Source Code IO\$\_STARTDATA, (P) I/O User's I, 4-11 Analyzer IO\$\_STARTMPROC, (P) I/O User's I, 4-9 .LT. I/O status block, (P) I/O User's I, 4-33 in a numeric comparison, (U) DCL Concepts, initialize command table, (P) I/O User's I, 4-9 initialize function, (P) I/O User's I, 4-9 LTA device, (M) LATCP, LAT-30 load microcode function, (P) I/O User's I, 4-8 LTDRIVER, V5.5 Release Notes, 2-33; (M) maintenance status register, (P) I/O User's I, LATCP, LAT-2 4-10, 4-33 starting, (M) LATCP, LAT-2 microcode loading, (P) I/O User's I, 4-4, 4-8, turning on and off, (M) LATCP, LAT-1 4-32, 4-34 LTM modes of operation, (P) I/O User's I, 4–1 planning network growth, Dependability operator process, (P) I/O User's I, 4-35 Handbook, 7-23 programming examples, (P) I/O User's I, 4-37, use at CSC lights out data center, 4-39, 4-44 Dependability Handbook, 11-21 RSX-11M/M-PLUS and VMS differences, (P) .LTS. I/O User's I, 4-35 in a string comparison, (U) DCL Concepts, 6-2 set clock function, (P) I/O User's I, 4-10 start data transfer request function, (P) I/O See Logical unit number User's I, 4-11 LURT (License Unit Requirement Table), License start microprocessor function, (P) I/O User's I, Management, LMF-25 setting up. License Management, LMF-99 status returns, (P) I/O User's I, 4–9, 4–10, LWAE (longword access enable) bit 4-11, 4-14, 4-33, A-5 See VEC\$V\_LWAE stop command, (P) I/O User's I, 4–14 subroutines argument usage, (P) I/O User's I, 4-16 to М 4 - 19M command list, (P) I/O User's I, 4–15 privileges required for, (P) Delta/XDelta, supported device, (P) I/O User's I, 4-1 DELTA-14 supporting software, (P) I/O User's I, 4–3 ;M command, (P) Delta/XDelta, DELTA-43 SYS\$CANCEL, (P) I/O User's I, 4-14 MA780 (multiport shared memory) SYS\$GETDVI returns, (P) I/O User's I. 4-5 configuring a dump file for, (P) System Dump timeout error, (P) I/O User's I, 4-2 Analyzer, SDA-3 LPBEGIN phase, (M) SYSMAN, SM-88 Machine check, (P) Device Support (A), 3-14, LPBETA phase, (M) SYSMAN, SM-88 13-22, 19-7; (P) MACRO, 10-43, 10-47 LPMAIN phase, (M) SYSMAN, SM-88 condition handler, (P) Device Support (A), 19-7 LRL (longest record length), (U) Sort/Merge, Machine check code SORT-37 base address, (P) System Dump Analyzer, LRP (large request packet), (P) System Dump SDA-14 Analyzer, SDA-118 Machine check protection block, (P) Device LRPCOUNT parameter, (M) System Generation, Support (A), 16-13, 16-14 A-16; (M) Networking, 5-36 Machine code, (U) VMS Intro, 4-2 use with AUTOGEN feedback, V5.5 New Macro, (P) File Def Language, FDL-41; (P) Features, B-52 MACRO, 4-1LRPCOUNTV parameter, (M) System Generation, applicable VAX MACRO syntax rules, (P) A - 16RMS, 3–5 LRP lookaside list

Macro (cont'd)	Magra call (D) MACRO 4 1
arguments for service completion routines, (P)	Macro call, (P) MACRO, 4–1 as operator, (P) MACRO, 2–3
RMS, 3-11	listing, (P) MACRO, 6–89
capabilities listed, (P) RMS, 4-1	number of arguments, (P) MACRO, 6–63
control block initialization, (P) RMS, 3-1	Macro call directive (.MCALL), (P) MACRO, 6–60
deleting, $(U)$ EDT Ref, EDT-133	MACRO command, (U) VMS Intro, 4-12; (U)
EDT, (U) Text Processing, 2-49	DCL Dictionary, DCL1–398 to DCL1–403
for defining VMS RMS symbol, (P) RMS, 3-1	MACRO DCL command
for initializing VMS RMS control blocks, (P)	/NAMES qualifier, V5.5 New Features, 19-2,
RMS, 3–1	19–6
for invoking VMS RMS at run time, (P) RMS,	Macro definition, (P) MACRO, 4-1
3–1	default value, (P) MACRO, 4-2
format, (P) Device Support (B), 2-1	end, (P) MACRO, 6-27
for VMS RMS control block store, (P) RMS,	labeling in, (P) MACRO, 4-7
3–1	listing, (P) MACRO, 6-89
library location, (P) RMS, 3-2	Macro definition directive
names and control blocks, (P) RMS, 3-2	(.MACRO), (P) MACRO, 6–57
naming conventions, (P) RMS, 3-2	Macro deletion directive (.MDELETE), (P)
nested, (P) MACRO, 4-4	MACRO, 6–61
passing numeric value to, (P) MACRO, 4-6	.MACRO directive, (P) MACRO, 6-57
rules applicable to programming, (P) RMS, 3–6	Macro exit directive (.MEXIT), (P) MACRO, 6-62
saving, (U) EDT Ref, EDT-133	Macro expansion
service, (P) RMS, 3-1	listing, (P) MACRO, 6-89
syntax applicable to VMS RMS, (P) RMS, 3–1	printing, (P) MACRO, 4-1
using, (P) RMS, 3-6	terminating, (P) MACRO, 6-62
VME bus devices, V5.5 New Features, A-19	Macro field
VMS RMS types, (P) RMS, 3-1	example of initializing, (P) RMS, 3-5
with the same name as an opcode, (P) MACRO, 6-58	setting at run time, (P) RMS, 3-5
	Macroinstruction
MACRO	See Macro
MACRO See also Instructions	See Macro Macro library, (P) Programming Resources, 1–18,
MACRO See also Instructions See also VAX MACRO	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB–1
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB–1 adding a name to, (P) MACRO, 6–51
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB–1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB–2
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO,
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2–9	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro,	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1,	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4-1	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB-31; (P)
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB-31; (P) National Char Set, NCS-36
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2-9 calling system services using, (P) System Services Intro, 2-8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2-9 expansion, (P) System Services Intro, 2-7 system services, (P) System Services Intro, 2-1, 2-5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4-1 actual, (P) MACRO, 4-1	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB-31; (P) National Char Set, NCS-36 Macro string operator
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2–9 calling system services using, (P) System Services Intro, 2–8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2–9 expansion, (P) System Services Intro, 2–7 system services, (P) System Services Intro, 2–1, 2–5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4–1 actual, (P) MACRO, 4–1 concatenated, (P) MACRO, 4–5	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB-31; (P) National Char Set, NCS-36 Macro string operator summary, (P) MACRO, C-8 Magnetic tape
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2–9 calling system services using, (P) System Services Intro, 2–8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2–9 expansion, (P) System Services Intro, 2–7 system services, (P) System Services Intro, 2–1, 2–5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4–1 actual, (P) MACRO, 4–1 concatenated, (P) MACRO, 4–5 delimited, (P) MACRO, 4–5	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB-1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB-2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT-133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB-31; (P) National Char Set, NCS-36 Macro string operator summary, (P) MACRO, C-8
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2–9 calling system services using, (P) System Services Intro, 2–8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2–9 expansion, (P) System Services Intro, 2–7 system services, (P) System Services Intro, 2–1, 2–5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4–1 actual, (P) MACRO, 4–1 concatenated, (P) MACRO, 4–5 delimited, (P) MACRO, 4–5 formal, (P) MACRO, 4–1	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB–1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB–2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT–133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB–31; (P) National Char Set, NCS–36 Macro string operator summary, (P) MACRO, C–8 Magnetic tape See also Tape volume accessing
MACRO See also Instructions See also VAX MACRO See also VAX MACRO instruction CALLG (Call Procedure with General Argument List) instruction, (P) System Services Intro, 2–9 calling system services using, (P) System Services Intro, 2–8 CALLS (Call Procedure with Stack Argument List) instruction, (P) System Services Intro, 2–9 expansion, (P) System Services Intro, 2–7 system services, (P) System Services Intro, 2–1, 2–5 MACRO-32 file format, from NCS library See /FORMAT qualifier MACRO-32 output, from NCS library See /MACRO qualifier Macro argument, (P) MACRO, 4–1 actual, (P) MACRO, 4–1 concatenated, (P) MACRO, 4–5 delimited, (P) MACRO, 4–5 formal, (P) MACRO, 4–1 keyword, (P) MACRO, 4–1 keyword, (P) MACRO, 4–3	See Macro Macro library, (P) Programming Resources, 1–18, 5–13; (P) Librarian, LIB–1 adding a name to, (P) MACRO, 6–51 character case in, (P) Librarian, LIB–2 Macro library directive (.LIBRARY), (P) MACRO, 6–51 Macro link directive (.LINK), (P) MACRO, 6–52 Macro name, (P) MACRO, 3–6 Macro name specifier with DEFINE MACRO, (U) EDT Ref, EDT–133 Macro operator %EXTRACT, (P) MACRO, 4–10 %LENGTH, (P) MACRO, 4–8 %LOCATE, (P) MACRO, 4–9 string, (P) MACRO, 4–8 MACRO programs in network application, (M) Networking, 1–22 /MACRO qualifier, (P) Librarian, LIB–31; (P) National Char Set, NCS–36 Macro string operator summary, (P) MACRO, C–8 Magnetic tape See also Tape volume

function modifiers (cont'd) ACP function, (P) I/O User's I, 1–30, 6–15 IO\$M\_REVERSE, (P) I/O User's I, 6-17 allocation of, (U) Files and Devices, 3-1, 4-15 I/O functions, (P) I/O User's I, 6–13 ancillary control process, V5.5 Release Notes, See also ACP-QIO interface 2-2ANSI-labeled arguments. (P) I/O User's I, 6-15 mounting, (U) Files and Devices, 3-12 IO\$ ACCESS, (P) I/O User's I, 6-13 automatic loading, V5.5 Release Notes, 2-2 IO\$\_ACPCONTROL, (P) I/O User's I, automatic tape loading, (M) Backup, BCK-8 1-31, 6-15IO $_AVAILABLE$ , (P) I/O User's I, 6-27 automatic tape mounting, (M) Backup, IO\$\_CREATE, (P) I/O User's I, 6-13 BCK-10 IO\$\_DEACCESS, (P) I/O User's I, 6-13 available function, (P) I/O User's I, 6-27 basic concepts of, (U) Files and Devices, 1-6 IO\$\_DSE, (P) I/O User's I, 6-13, 6-27 block, (U) Files and Devices, 1-7 IO\$\_FLUSH, (P) I/O User's I, 6-13 BOT marker, (P) I/O User's I, 6-19, 6-20 IO\$\_MODIFY, (P) I/O User's I, 6-13 IO\$\_PACKACK, (P) I/O User's I, 6-27 byte count read, (P) I/O User's I, 6–17 IO\$\_READLBLK, (P) I/O User's I, 6-17 IO\$ READPBLK, (P) I/O User's I, 6-17 write, (P) I/O User's I, 6–19 copying files from, (U) Files and Devices, 5-3 IO\$ READVBLK, (P) I/O User's I, 6-17 data check, (P) I/O User's I, 6-8, 6-17, 6-18 IO\$ REWIND, (P) I/O User's I, 6-19 data security erase function, (P) I/O User's I, IO\$\_REWINDOFF, (P) I/O User's I, 6-21 IO\$\_SENSEMODE, (P) I/O User's I, 6-22 deallocating drives, (U) Files and Devices, 3-20 IO\$ SETCHAR, (P) I/O User's I, 6-23 IO\$\_SETMODE, (P) I/O User's I, 6-23 density, (U) Files and Devices, 1-7; (P) I/O User's I, 6-26 IO\$ SKIPFILE, (P) I/O User's I, 6-19 device characteristics, (U) DCL Dictionary, IO\$\_SKIPRECORD, (P) I/O User's I, 6-20 DCL2-177; (P) I/O User's I, 6-11 to 6-12 IO\$ UNLOAD, (P) I/O User's I, 6-22 dismounting, (U) DCL Dictionary, DCL1-170 IO\$\_WRITELBLK, (P) I/O User's I, 6-18 DOS-11, (U) Files and Devices, 5-3, 5-10 IO\$\_WRITEOF, (P) I/O User's I, 6-21 IO\$\_WRITEPBLK, (P) I/O User's I, 6-18 driver, (P) I/O User's I, 6–1 IO\$\_WRITEVBLK, (P) I/O User's I, 6-18 end-of-volume detection, (P) I/O User's I, 6–20 EOF status, (P) I/O User's I, 6–17 I/O status block, (P) I/O User's I, 6-28 initializing, (U) Files and Devices, 3-5; (U) marker, (P) I/O User's I, 6-20 to 6-21 DCL Dictionary, DCL1-240; (M) Backup, status, (P) I/O User's I, 6-17, 6-19, 6-21 error recovery, (P) I/O User's I, 6-9 initializing from within a program, (P) System EXECUTE and DELETE access, (M) Security, Services Intro, 7-24; (P) System Services Ref. SYS-407 extended characteristics, (P) I/O User's I, 6-12 example, (P) System Services Intro, 7-24 features, (P) I/O User's I, 6-6 installation routine, (U) Files and Devices, 2-4 file, (U) Files and Devices, 1-7; (P) File Def interrecord gap (IRG), (U) Files and Devices, Language, FDL-21 1 - 7reading, (U) Files and Devices, 4-18 label format, (U) Files and Devices, 3-12 file attributes, (P) I/O User's I, 6-9 master adapters, (P) I/O User's I, 6-8 file expiration, (P) File Def Language, FDL-16 modifying device characteristics, (U) Files and file protection, (P) File Def Language, FDL-22 Devices, 4-10 mounting, (U) Files and Devices, 3-11; (M) See also Protection Mount, MOUNT-2 foreign access, (M) Security, 4-12 See also MOUNT command function codes, (P) I/O User's I, 6–13, A–6 function modifiers mounting ANSI-labeled, (M) Mount, IO\$M\_DATACHECK, (P) I/O User's I, 6-8, MOUNT-25 mounting multiple foreign volumes, (M) Mount, 6-17, 6-18IO\$M\_ERASE, (P) I/O User's I, 6-18 MOUNT-28 IO\$M\_INHEXTGAP, (P) I/O User's I, overriding overwrite protection on, (U) DCL Dictionary, DCL1-246 IO\$M INHRETRY, (P) I/O User's I, 6-9 overriding protection checks, (M) Mount,  $IO$M_NOWAIT$ , (P) I/O User's I, 6–19, MOUNT-29 6-21, 6-22

Magnetic tape

Magnetic tape (cont'd)

Magnetic tape Magnetic tape (cont'd) volume set (cont'd) pack acknowledge function, (P) I/O User's I, See Volume set write end-of-file function, (P) I/O User's I, 6-21 parity, (P) I/O User's I, 6–26 write function, (P) I/O User's I, 6-18 positioning, (P) I/O User's I, 1-31 write ring, (M) System Management Intro, 4-4 programming example, (P) I/O User's I, 6-28 writing files to, (U) Files and Devices, 4–15, protection, (M) Security, 4-2, 4-12 quotas, (P) I/O User's I, 6-13 Magnetic tape accessibility field read function, (P) I/O User's I, 6–17 reading from, (U) Files and Devices, 4-19 See XAB\$B MTACC field read reverse function, (P) I/O User's I, 6-17, Magnetic tape ancillary control process 6 - 18See MTAACP record blocking, (U) Files and Devices, 1-7 Magnetic tape devices record format, (U) Files and Devices, 5-3 serving within a cluster, V5.5 New Features, retensioning, V5.5 New Features, 2-5 retrieving device information, (U) Files and Magnetic tape processing Devices, 4–6 run-time options, (P) File Applications, 9-13 to rewind function, (P) I/O User's I, 6-19 rewind offline function, (P) I/O User's I, 6-21 Magnetic tape volume runaway stop, (U) DCL Dictionary, DCL1-241 See Tape volume save set, (M) Backup, BCK-8 MAIL sense mode function, (P) I/O User's I, 6-22 See Mail Utility set characteristics function, (P) I/O User's I, MAIL\$EDIT logical name, (U) EVE Ref, 1-24 6 - 23MAIL\$INIT file, (U) Mail, MAIL-16 set mode function, (P) I/O User's I, 6-23 MAIL\$MAILFILE\_BEGIN, (P) Utility Routines, characteristics, (P) I/O User's I, 6-25 MAIL-34 skip file function, (P) I/O User's I, 6–19 MAIL\$MAILFILE\_CLOSE, (P) Utility Routines, skip record function, (P) I/O User's I, 6-20 MAIL-38 slave formatter, (P) I/O User's I, 6-8 MAIL\$MAILFILE\_COMPRESS, (P) Utility specifying block size for, (U) Files and Devices, Routines, MAIL-41 3-12; (M) Mount, MOUNT-10 MAIL\$MAILFILE\_END, (P) Utility Routines, specifying density for, (M) Mount, MOUNT-19 MAIL-44 specifying record size for, (U) Files and MAIL\$MAILFILE\_INFO\_FILE, (P) Utility Devices, 3-15; (M) Mount, MOUNT-37 Routines, MAIL-46 specifying volume density, (U) DCL Dictionary, MAIL\$MAILFILE\_MODIFY, (P) Utility Routines, DCL1-242 MAIL-49 starting position, (P) File Def Language, MAIL\$MAILFILE\_OPEN, (P) Utility Routines, FDL-21 MAIL-52 status returns, (P) I/O User's I, A-7 MAIL\$MAILFILE\_PURGE\_WASTE, (P) Utility streaming tape systems, (P) I/O User's I, 6–10 Routines, MAIL-55 supported devices, (P) I/O User's I, 6-1 MAIL\$MESSAGE\_BEGIN, (P) Utility Routines, SYS\$GETDVI returns, (P) I/O User's I, 6-11 MAIL-58 tape controllers, (P) I/O User's I, 6–3 MAIL\$MESSAGE\_COPY, (P) Utility Routines, tape label processing, (M) Backup, BCK-8 MAIL-62 tape mark, (P) I/O User's I, 6-17, 6-20 MAIL\$MESSAGE\_DELETE, (P) Utility Routines, thrashing, (P) I/O User's I, 6-10 MAIL-67 TMSCP magnetic tapes, (P) I/O User's I, 6-1 MAIL\$MESSAGE\_END, (P) Utility Routines, 9-track drive, (U) Files and Devices, B-1 MAIL-69 TU58 magnetic tape MAIL\$MESSAGE\_GET, (P) Utility Routines, See Disk, TU58 MAIL-71 unload function, (P) I/O User's I, 6-22 MAIL\$MESSAGE INFO, (P) Utility Routines, volume, (U) Files and Devices, 5-2 MAIL-76 See also Volume MAIL\$MESSAGE\_MODIFY, (P) Utility Routines, protection code, (M) Security, 4-6 MAIL-80 MAIL\$MESSAGE\_SELECT, (P) Utility Routines, volume protection MAIL-83 See Protection

volume set

MAIL\$SEND\_ABORT, (P) Utility Routines, MAIL-87 MAIL\$SEND ADD ADDRESS, (P) Utility Routines, MAIL-89 MAIL\$SEND\_ADD\_ATTRIBUTE, (P) Utility Routines, MAIL-91 MAIL\$SEND\_ADD\_BODYPART, (P) Utility Routines, MAIL-98 MAIL\$SEND\_BEGIN, (P) Utility Routines, MAIL-94 MAIL\$SEND\_END, (P) Utility Routines, MAIL-101 MAIL\$SEND\_MESSAGE, (P) Utility Routines, MAIL-103 MAIL\$SYSTEM\_FLAGS logical name, (U) Mail, MAIL-14 MAIL\$USER BEGIN. (P) Utility Routines. MAIL-105 MAIL\$USER\_DELETE\_INFO, (P) Utility Routines, MAIL-110 MAIL\$USER\_END, (P) Utility Routines, MAIL-112 MAIL\$USER GET INFO, (P) Utility Routines, MAIL-114 MAIL\$USER\_SET\_INFO, (P) Utility Routines, MAIL-118 Mail (DECwindows) displaying PostScript files, V5.5 New Features, B-48MAIL.MAI file, (U) Mail, MAIL-1 Mailbox, (M) Networking, 8-9, 8-27, 8-28; (P) Programming Resources, 3-7; (P) System Services Intro, 2-1, 7-30; (P) RTL Library, 2-23, LIB-12; (P) Device Support (B), 1-75, 1-76, 1-77 See also Terminal assigning channel to, (P) System Services Ref, SYS-93 associated with device, (P) Device Support (B), buffered I/O quota for, (P) Device Support (B), controlling access through access control lists, (P) Utility Routines, ACL-1 creating, (P) Programming Resources, 3-8; (P) System Services Ref, SYS-93; (P) I/O User's I, 7-1creation of using SYS\$CREMBX, (M) Networking, 8-28 deleting, (P) I/O User's I, 7-2 permanent, (P) System Services Ref, SYS-96, SYS-142 temporary, (P) System Services Ref. **SYS-96** device characteristics, (P) I/O User's I, 7-4

disable terminal, (P) I/O User's I, 8-21

driver, V5.5 New Features, 21-1; (P) I/O

Mailbox (cont'd) for interprocess communication, (P) System Services Intro, 8-10 function codes, (P) I/O User's I, 7-5, A-7 function modifiers IO\$M\_NORSWAIT, (P) I/O User's I, 7-7 IO\$M\_NOW, (P) I/O User's I, 7-2, 7-6, 7-7, 7-9, 7-10 IO\$M\_READATTN, (P) I/O User's I, 7-9 IO\$M\_READERCHECK, V5.5 New Features, 21-2 IO\$M\_SETPROT, (P) I/O User's I, 7-11 IO\$M\_STREAM, V5.5 New Features, 21-2 IO\$M\_WRITERCHECK, V5.5 New Features, 21-2 I/O function, (P) Device Support (B), 1-40 IO\$\_READLBLK, (P) I/O User's I, 7-5  $\begin{array}{ll} \hbox{IO\$\_READPBLK,} & \textit{(P) I/O User's I, 7-5} \\ \hbox{IO\$\_READVBLK,} & \textit{(P) I/O User's I, 7-5} \end{array}$ IO\$\_WRITELBLK, (P) I/O User's I, 7-6 IO\$\_WRITEOF, (P) I/O User's I, 7-9 IO\$\_WRITEPBLK, (P) I/O User's I, 7-6 IO\$\_WRITEVBLK, (P) I/O User's I, 7-6 I/O status block, (P) I/O User's I, 7–12 input/output asynchronous, (P) Programming Resources, immediate, (P) Programming Resources, synchronous, (P) Programming Resources, using SYS\$QIO, (P) Programming Resources, 3-9 using SYS\$QIOW, (P) Programming Resources, 3-9 in shared memory, (P) Device Support (B), list of operations, (P) I/O User's I, 7-1 marked for deletion, (P) Device Support (B), message format, (M) Networking, 8-28; (P) I/O User's I, 7-3; (P) I/O User's II, 1-3 terminal, (P) I/O User's I, 8-18 message size, (P) I/O User's I, 7-2 multiport memory, (P) I/O User's I, 7-1 name, (P) System Services Intro, 7-33 of job controller, (P) Device Support (A), 9-7, E-7of OPCOM process, (P) Device Support (A), 10-7, E-7 permanent, (P) Programming Resources, 3-8; (P) I/O User's I, 7-2, 7-3, 7-4; (P) Device Support (B), 1–78 process termination, (U) DCL Dictionary, DCL2-58 programming example, (P) I/O User's I, 7-14 protection, (P) System Services Intro, 7-4; (P) I/O User's I, 7-2, 7-4, 7-11

User's I, 7-1

Mailbox (cont'd) MAIL object, (M) Networking, 2-4, 2-32, 2-33, read attention AST function, (P) I/O User's I, MAIL routines read function, (P) I/O User's I, 7-5 action routine, (P) Utility Routines, MAIL-8 reading data from, (P) Programming Resources, calling sequence, (P) Utility Routines, MAIL-9 sending a message to, (P) Device Support (B), folder, (P) Utility Routines, MAIL-11, 3-52 to 3-53, 3-61 MAIL-15 set attention AST function, (P) I/O User's I, mail file, (P) Utility Routines, MAIL-15 send, (P) Utility Routines, MAIL-18 set protection function, (P) I/O User's I, 7-11 address list, (P) Utility Routines, MAIL-17 status returns, (P) I/O User's I, A-7 creating, (P) Utility Routines, MAIL-17 synchronizing access to, (P) Device Support (A), username type, (P) Utility Routines, 3-8, 3-14 MAIL-17 SYS\$GETDVI returns, (P) I/O User's I, 7-4 bodypart system, (P) System Services Intro, 7–33 creating, (P) Utility Routines, MAIL-17 messages, (P) System Services Intro, 7–34 condition handling, (P) Utility Routines, system mailbox messages, (M) Networking, MAIL-6 8 - 29context, (P) Utility Routines, MAIL-4 temporary, (P) Programming Resources, 3-8; initiating, (P) Utility Routines, MAIL-4 (P) I/O User's I, 7–2, 7–4 mail file, (P) Utility Routines, MAIL-9 terminal/mailbox interaction, (P) I/O User's I, message, (P) Utility Routines, MAIL-12 send, (P) Utility Routines, MAIL-16 termination, (P) System Services Intro, 8-18 terminating, (P) Utility Routines, MAIL-4 volume protection, (P) I/O User's I, 7-11 user profile, (P) Utility Routines, MAIL-19 wait for writer/reader function, V5.5 New deleted bytes threshold, (P) Utility Routines, Features, 21-1 MAIL-12 write attention AST function, (P) I/O User's I, disk space reclaim, (P) Utility Routines, MAIL-12 write end-of-file message function, (P) I/Ofolder, (P) Utility Routines, MAIL-2 User's I, 7–9 creating, (P) Utility Routines, MAIL-15 write function, (P) I/O User's I, 7-6 deleting, (P) Utility Routines, MAIL-15 writing data to, (P) Programming Resources, folder names displaying, (P) Utility Routines, MAIL-11 Mailbox driver, (P) Device Support (A), 12-5 introduction, (P) Utility Routines, MAIL-1 Mailbox driver error checking, V5.5 Release Notes, item code, (P) Utility Routines, MAIL-8 3 - 43Boolean, (P) Utility Routines, MAIL-8 Mailbox driver write, V5.5 Release Notes, 3-26 input, (P) Utility Routines, MAIL-8, MAILBOX spin lock, (P) Device Support (A), 3-14; MAIL-21 (P) Device Support (B), 3-52, 3-61 output, (P) Utility Routines, MAIL-8, MAIL command, (U) Using VMS, 1-27; (U) Mail, MAIL-23 MAIL-57; (U) DCL Dictionary, DCL1-404 item descriptor See also SEND command declaring, (P) Utility Routines, MAIL-8 using over the network, (M) DECnet-VAX null, (P) Utility Routines, MAIL-8 Guide, 2-10 item list, (P) Utility Routines, MAIL-6 MAIL database declaring, (P) Utility Routines, MAIL-8 preparing common file, (M) VAXcluster, 4-14 terminating, (P) Utility Routines, MAIL-8 mail file, (P) Utility Routines, MAIL-3 recommended protection for, (M) Security, 4-43 alternate, (P) Utility Routines, MAIL-10 MAIL folder closing, (P) Utility Routines, MAIL-10 creating, (U) Using VMS, 1-33 compressing, (P) Utility Routines, deleting, (U) Using VMS, 1-34 MAIL-12 displaying list of, (U) Using VMS, 1-33 creating, (P) Utility Routines, MAIL-15 MAIL, (U) Using VMS, 1-31, 1-32 default, (P) Utility Routines, MAIL-10 NEWMAIL. (U) Using VMS, 1-30, 1-32 opening, (P) Utility Routines, MAIL-10 selecting, (U) Using VMS, 1-33 purging, (P) Utility Routines, MAIL-12 WASTEBASKET, (U) Using VMS, 1-32 specifying, (P) Utility Routines, MAIL-10 to MAIL-11

MAIL routines MAIL routines mail file (cont'd) user profile entry (cont'd) wastebasket, (P) Utility Routines, adding, (P) Utility Routines, MAIL-20 MAIL-12 deleting, (P) Utility Routines, MAIL-20 modifying, (P) Utility Routines, MAIL-20 mail file context initiating, (P) Utility Routines, MAIL-9 Mail subdirectory terminating, (P) Utility Routines, MAIL-9 creating, (U) Using VMS, 1-27 message, (P) Utility Routines, MAIL-1 Mail Utility (MAIL), (U) VMS Intro, 1–10; attribute, (P) Utility Routines, MAIL-17 (U) DCL Dictionary, DCL1-404; (P) Utility copying, (P) Utility Routines, MAIL-15 Routines, MAIL-1 creating, (P) Utility Routines, MAIL-17 and system security, (M) Security, 3-20 deleting, (P) Utility Routines, MAIL-16 commands, (U) Mail, MAIL-24 to MAIL-106 displaying, (P) Utility Routines, MAIL-14 controlling, (M) VAXcluster, 4-12 marking, (P) Utility Routines, MAIL-14 creating mail files, (U) Using VMS, 1-34 modifying, (P) Utility Routines, MAIL-14 DCL commands, (U) Mail, MAIL-1 moving, (P) Utility Routines, MAIL-15 DCL qualifiers, (U) Mail, MAIL-19 to printing, (P) Utility Routines, MAIL-14 MAIL-23 reading, (P) Utility Routines, MAIL-14 default access, V5.5 New Features, D-3 selecting, (P) Utility Routines, MAIL-13 deleting a message in, (U) Using VMS, 1-32 sending, (P) Utility Routines, MAIL-17, displaying information about, (U) Mail, MAIL-18 MAIL-99 message attribute exiting, (U) Using VMS, 1-27; (U) Mail, creating, (P) Utility Routines, MAIL-17 MAIL-18, MAIL-47, MAIL-68 message context extracting a message to a file with, (U) Using initiating, (P) Utility Routines, MAIL-13 VMS, 1-31 terminating, (P) Utility Routines, MAIL-13 folder name parameter, V5.5 Release Notes, message format invoking, (U) Using VMS, 1-27; (U) Mail, standard, (P) Utility Routines, MAIL-1 message header MAIL-1, MAIL-18 creating, (P) Utility Routines, MAIL-17 keypad message ID commands, (U) Using VMS, 1-34 external, (P) Utility Routines, MAIL-2 diagram, (U) Using VMS, 1-35 null item list, (P) Utility Routines, MAIL-8 multiple copies of message to same recipient, programming examples, (P) Utility Routines, V5.5 Release Notes, 1-21 MAIL-25 network operations, (M) DECnet-VAX Guide, send context 2-2, 2-10, 3-9, 3-30 initiating, (P) Utility Routines, MAIL-16 notification message terminating, (P) Utility Routines, MAIL-16 controlling, (M) Security, 5-21 signaling error, (P) Utility Routines, MAIL-6 notification of, (U) Mail, MAIL-1 disabling, (P) Utility Routines, MAIL-6 preparing common database, (M) VAXcluster, thread, (P) Utility Routines, MAIL-5 to 4 - 14MAIL-6 PRINT/QUEUE command changes, V5.5 user common database, (P) Utility Routines, Release Notes, 1–19 MAIL-3, MAIL-19 protecting mail files in, (U) Using VMS, 7-11 user context protection, (U) Files and Devices, 2–13 initiating, (P) Utility Routines, MAIL-19 reading a message in, (U) Using VMS, 1-30 to terminating, (P) Utility Routines, MAIL-19 sending a file from DCL level with, (U) Using user profile flags, (P) Utility Routines, MAIL-20 VMS, 1-29 sending a file in MAIL with, (U) Using VMS, form, (P) Utility Routines, MAIL-20 forward addressing, (P) Utility Routines, 1-28, 2-16MAIL-20 sending a message over network with, (U) personal name, (P) Utility Routines, Using VMS, 1-28 sending a message to a distribution list with. MAIL-20 queue name, (P) Utility Routines, (U) Using VMS, 1-29 MAIL-20 setting default editor in, (U) Using VMS, 1-35 user profile entry, (P) Utility Routines, specifying clusterwide node name, (M) MAIL-3, MAIL-19 DECnet-VAX Guide, 2-11

Mail Utility (MAIL) (cont'd) Manual switching of terminal line, (M) specifying mail files, (U) Mail, MAIL-11 DECnet-VAX Guide, 3-26 transferring text files, (M) Security, 8-18 Manual unlock option use of quotes in forwarding, V5.5 Release See RAB\$V\_ULK option Notes, 1-22 MANUAL UNLOCKING attribute, (P) File Def using EVE within, (U) EVE Ref, 1-24 Language, FDL-11 using text editor in. (U) Using VMS, 1-28 MANUAL\_UNLOCKING secondary attribute, (P) wastebasket folder, (U) Mail, MAIL-8 File Applications, 7–15 Main headings, (P) Routines Intro, 1-1 Manufacturer's Detected Bad Block File Maintenance See MDBBF for a dependable environment, Dependability Map Handbook, 5-1 See Image map network, (M) DECnet-VAX Guide, 2-27 MAP built-in procedure, (P) VAXTPU, 7-259 to preventative scheduling, Dependability Handbook, 9–12 7-260 MAP file, (P) Delta/XDelta, DELTA-10, Maintenance function, (P) Device Support (A), DELTA-11, DELTA-12 18 - 15Mapped file, (P) Programming Resources, 8-4 Maintenance operation module process closing, (P) Programming Resources, 8-9 See MOM process saving, (P) Programming Resources, 8-9 Maintenance operation protocol MAPPED\_WHEN\_MANAGED parameter to SET See MOP built-in procedure, (P) VAXTPU, 7-418 Maintenance operations over the network, (M) Networking, 4–1 controlling in relation to widget, (P) VAXTPU, Main window widget, (P) VAXTPU, 4-16 7 - 418Major ID, (P) Linker, 3-7 Mapping options for a sample company, of shareable image in map, (P) Linker, 5-6 Dependability Handbook, 2–17 MANAGE CHILDREN routine Mapping pointer allocation, (U) DCL Dictionary, See MANAGE\_WIDGET built-in procedure DCL1-248 MANAGE CHILD routine Mapping pointers See MANAGE\_WIDGET built-in procedure resetting when mounting a disk, (M) Management Maintaining VMS, 2-8 network, (M) DECnet-VAX Guide, 2-27 /MAP qualifier, (P) Linker, 1–5, 2–6, LINK-11 Management environment Map register base register centralized, (M) SYSMAN, SM-4 See MBA\$L MAP clusterwide, (M) SYSMAN, SM-4 Map registers, (P) Device Support (A), 1-22, 14-3, defining, (M) SYSMAN, SM-2 to SM-4, SM-68 14-4 to 14-7, 14-15, 14-19 to 14-22; (P) individual nodes, (M) SYSMAN, SM-3 Device Support (B), 1-8, 1-25, 1-26, 2-3 local and nonlocal environments, (M) allocating, (P) Device Support (B), 3-65 to 3-66 SYSMAN, SM-3 allocating for VME DMA, V5.5 New Features, Management file, (M) Networking, 4-3 A-12MANAGEMENT FILE parameter, (M) allocating permanent, (P) Device Support (A), Networking, 4-14 11-2, 14-20 to 14-21, E-12; (P) Device Manager, queue Support (B), 1-25 See Queue manager byte offset bit, (P) Device Support (B), 3-77 MANAGE\_WIDGET built-in procedure, (P) calculating the number needed, (P) Device VAXTPU, 7-258 Support (A), 14-19 example of use, (P) VAXTPU, B-4 to B-11 format, (P) Device Support (A), 14-6 to 14-7, Managing computing resources, Dependability 14 - 21Handbook, 9-1 for VME PIO, V5.5 New Features, A-14 Managing the LAT database size, V5.5 New invalidating, (P) Device Support (A), 14-7, Features, 9–14 14–13, 14–22 Managing widget loading, (P) Device Support (A), 14-21 to controlling mapping, (P) VAXTPU, 7-418 14-22; (P) Device Support (B), 2-46, 3-77 Manual network configuration, (M) DECnet-VAX to 3-78 Guide, 3-13 loading for VME DMA, V5.5 New Features, A-12

Map registers (cont'd) Marker (cont'd) number of active, (P) Device Support (B), 1-9, fetching display value of record containing, (P) VAXTPU, 7-186 number of disabled, (P) Device Support (B), padding effects, (P) VAXTPU, 2-10 video attributes, (P) VAXTPU, 2-9, 7-261 1-10 of MBA, (P) Device Support (A), 15-3; (P) Marking high-water, (M) Security, 4-40 Device Support (B), 2-45, 3-76 of Q22-bus, (P) Device Support (A), 14-6 MARK name of UBA, (P) Device Support (A), 14-6 EVE editor, (U) Text Processing, 1-32 /MARK\_CHANGE qualifier, (P) Debugger, CD-67 operation, (P) Device Support (A), 14-6 to 14-7 releasing, (P) Device Support (A), 10-2, 14-26; Mask (P) Device Support (B), 2-56, 3-89 to 3-90 entry, (P) MACRO, 9-63 requesting, (P) Device Support (A), 14-19 to EXAMINE/FMASK command, (P) Debugger, 14-21; (P) Device Support (B), 2-61, 3-98 11 - 13to 3-99 EXAMINE/TMASK command, (P) Debugger, 11 - 13Map register valid bit, (P) Device Support (A), 14 - 21masked vector operation, (P) Debugger, 11-5, 11-9, 11-13 Map register wait queue, (P) Device Support (A), register, (P) MACRO, 3-13 14-19, 14-26, E-14; (P) Device Support (B), register, VMR, (P) Debugger, 11-5, 11-9, 11-13 1-8, 3-90, 3-99 "Map\_count" string constant parameter to register save, (P) MACRO, 6-29, 6-59 GET\_INFO, (P) VAXTPU, 7-173 .MASK directive, (P) MACRO, 6-59 Masked vector operations, (P) MACRO, 10-12 Margin, (U) DSR Ref, 2-69 mask\_byte data type, (P) Routines Intro, A-10t default, (P) VAXTPU, 7-412, 7-419, 7-454 mask\_longword data type, (P) Routines Intro, setting records, (P) VAXTPU, 7-448 A-10t positioning right, (U) DSR Ref, 2-104 mask\_quadword data type, (P) Routines Intro, right, (U) DSR Ref, 4-21 setting, (U) DSR Ref, 2-78, A-2; (P) VAXTPU, mask\_word data type, (P) Routines Intro, A-10t **MASSBUS** 7-412, 7-419, 7-454 setting right, (U) DSR Ref, 2-105 configuration, (P) Device Support (A), 15-1, setting with EVE, (U) Text Processing, 1-40, 15 - 5I/O address space, (P) Device Support (A), 19-1 I/O database, (P) Device Support (A), 15-4, source display, (P) Debugger, 6-8, CD-144, CD-22215-7 to 15-8 Margin action servicing multiunit controller on, (P) Device default, (P) VAXTPU, 7-414, 7-456 Support (A), 15-2, 15-6, 15-8, 15-12, setting, (P) VAXTPU, 7-414, 7-456 15-14, 15-16 Margin adjustment servicing single-unit controller on, (P) Device Support (A), 15-6 to 15-8, 15-11, 15-12, DSR, (U) Using VMS, 9-5 Marginal vector consumer, V5.5 New Features, 15-13, 15-16 MASSBUS adapter detection of, V5.5 New Features, B-13 See MBA Margin size MASSBUS disk specifying in forms, (M) Maintaining VMS, dual-ported, (M) VAXcluster, 5-6 5-40MASSBUS driver MARGINS keyword, (P) VAXTPU, 7-419 DPT for, (P) Device Support (A), 15-15 MARK built-in procedure, (P) VAXTPU, 7-261 to interrupt service routine, (P) Device Support 7 - 263(A), 15–17 MARK command, (U) Using VMS, 8-19; (U) start I/O routine, (P) Device Support (A), 15-13 Mail, MAIL-59; (U) EVE Ref, EVE-83 unit initialization routine, (P) Device Support EVE editor, (U) Text Processing, 1-32 (A), 15–12 using (EVE), (U) Text Processing, 1-32 unsolicited interrupt service routine, (P) Device MARK data type, (P) VAXTPU, 2-8 to 2-10 Support (A), 15–16 Marker Mass storage device deleting, (P) VAXTPU, 2-10, 7-108 definition, (U) Using VMS, 2-8; (U) DCL determining if record containing is Concepts, 3-4 unmodifiable, (P) VAXTPU, 7-186

Mass storage device (cont'd) MAXACCTJOBS (maximum account jobs limit), DSSI device naming change, V5.5 Release (M) Setting Up VMS, 5-5 Notes, 2-23 MAXBUF system parameter, (M) System Master adapter, (P) I/O User's I, 6-8 Generation, A-17 Master character conversion library, (M) Terminal limiting size of user's ACL buffer, (P) RMS, Fallback, TFU-7 14 - 3Master file, V5.5 New Features, 5-2; (M) MAXDETACH (maximum detached process limit), Maintaining VMS, 5–3 (M) Setting Up VMS, 5-5 See also Queue database Maximize-version option, (P) File Applications, changing location, (M) Maintaining VMS, 5-65 changing location after upgrade, V5.5 New MAXIMIZE\_VERSION attribute, (P) File Def Features, 5-4 Language, FDL-20 how location is defined, (M) Maintaining VMS, MAXIMIZE\_VERSION secondary attribute, (P) File Applications, 4-27 information stored in, (M) Maintaining VMS, Maximum account jobs limit See MAXACCTJOBS QMAN\$MASTER logical name, (M) MAXIMUM ADDRESS parameter, (M) Maintaining VMS, 5-55 Networking, 3-9 saving, (M) Maintaining VMS, 5-64 MAXIMUM AREA parameter, (M) Networking, specifying location, (M) Maintaining VMS, 3-675 - 55MAXIMUM BLOCK parameter Master file directory for X.25 line, (M) Networking, 3-63 See MFD MAXIMUM BROADCAST NONROUTERS Master/slave model parameter See Boss/worker model for Ethernet circuits, (M) Networking, 3-67 Master/slave software model, (P) RTL Parallel MAXIMUM BROADCAST ROUTERS parameter Processing, 1-3 to 1-4 for Ethernet circuits, (M) Networking, 3-67 characteristics of, (P) RTL Parallel Processing, Maximum buffers 1 - 3for executor, (M) Networking, 3-22 queuing model, (P) RTL Parallel Processing, MAXIMUM BUFFERS parameter, (M) 1–3 Networking, 3-22, 3-43 self-scheduling model, (P) RTL Parallel MAXIMUM CIRCUITS parameter Processing, 1-3, 1-4 for DTE, (M) Networking, 3-30 true model, (P) RTL Parallel Processing, 1-3, for executor node, (M) Networking, 3-22 for X.25 server module, (M) Networking, 3-85 MATCH built-in procedure, (P) VAXTPU, 7-264 MAXIMUM CLEARS parameter, (M) Networking, to 7-265 3 - 32MATCHC (Match Characters) instruction, (P) MAXIMUM COST parameter, (M) Networking, MACRO, 9-131 3 - 70RTL routine to access, (P) RTL Library, MAXIMUM DATA parameter LIB-270 for PVC, (M) Networking, 3-48 Matching vendor products with requirements, for X.25 lines, (M) Networking, 3-62 Dependability Handbook, 1-6 for X.25 virtual circuit, (M) Networking, 3-30 Match operations, (P) Librarian, LIB-2 Maximum detached process limit Match size See MAXDETACH specifying with DIFFERENCES command, (U) MAXIMUM HOPS parameter, (M) Networking, DCL Dictionary, DCL1-155 Mathematical functions MAXIMUM LINKS parameter, (M) Networking, using system routines, (P) Programming 3 - 73Resources, 1-24 Maximum number of history records Mathematics routine NCS library, specifying, (P) National Char Set, additional routines, (P) RTL Math, A-1 to NCS-24, NCS-25 A-16MAXIMUM PATH SPLITS parameter, (M) Matrix Networking, 3-70 access, (M) Security, 4-15, 4-17 Maximum process jobs limit

See MAXJOBS

MAXIMUM RECALLS parameter, (M) Networking, 3-49 Maximum record number field See FAB\$L\_MRN field Maximum record number option, (P) File Applications, 4–29 Maximum record size, (U) Sort/Merge, SORT-43 default value for remote file access, (P) RMS, indexed file, (P) File Applications, 3-22 Maximum record size field See FAB\$W\_MRS field Maximum record size field in XABFHC See XAB\$W\_MRZ field Maximum-record-size option, (P) File Applications, 4-29 MAXIMUM RESETS parameter, (M) Networking, MAXIMUM RESTARTS parameter, (M) Networking, 3-33 MAXIMUM RETRANSMITS parameter, (M) Networking, 3-62 MAXIMUM ROUTERS parameter, (M) Networking, 3-45 for an Ethernet circuit, (M) Networking, 3-67 MAXIMUM TRANSMITS parameter, (M) Networking, 3-44 Maximum value, (P) RTL Math, 1-7 Maximum version option See FAB\$V MXV option Maximum visits, (M) Networking, 2-29 MAXIMUM VISITS parameter, (M) Networking, 3 - 70MAXIMUM WINDOW parameter for PVC, (M) Networking, 3-48 for SVC, (M) Networking, 3-31 for X.25 line, (M) Networking, 3-63 "Maximum\_parameters" string constant parameter to GET\_INFO, (P) VAXTPU, 7-190 MAXJOBS (maximum process jobs limit), (M) Setting Up VMS, 5-5 MAXPROCESSCNT parameter, (M) System Generation, A-17 MAXQUEPRI parameter, V5.5 Release Notes, 2-9, 2-12; (M) System Generation, A-17 MAXSYSGROUP and SYSTEM category, (M) Security, 4-4 MAXSYSGROUP parameter, (M) System Generation, A-17 MAX\_LINES keyword, (P) VAXTPU, 7-421

"Max\_lines" string constant parameter to

GET\_INFO, (P) VAXTPU, 7-173

Language, FDL-20

(P) File Applications, 4–29

MAX\_RECORD\_NUMBER attribute, (P) File Def

MAX\_RECORD\_NUMBER secondary attribute,

MBA\$INT, (P) Device Support (A), 15-15 to 15-16; (P) Device Support (B), 4-24 MBA\$L\_AS, (P) Device Support (A), 15-5, 15-9 to 15-10, 15-11 MBA\$L\_BCR, (P) Device Support (A), 15-4, 15-5, 15-14; (P) Device Support (B), 3-76 MBA\$L\_CAR, (P) Device Support (A), 15-5 MBA\$L\_CR, (P) Device Support (A), 15-5  $MBA\$L\_CSR,\ (P)\ Device\ Support\ (A),\ 15-5,\ 15-14$ MBA\$L\_DR, (P) Device Support (A), 15-5 MBA\$L\_ERB, (P) Device Support (A), 15–5, 15–12 MBA\$L\_MAP, (P) Device Support (A), 15-5; (P) Device Support (B), 3–76 MBA\$L\_SMR, (P) Device Support (A), 15-5 MBA\$L\_SR, (P) Device Support (A), 15-5, 15-11, MBA\$L\_VAR, (P) Device Support (A), 15-4, 15-5, 15-14, 15-15; (P) Device Support (B), 3-76 MBA (MASSBUS adapter), (P) Device Support (A), 1–11 address space, (P) Device Support (A), 15-4 to 15-6data path, (P) Device Support (A), 15-3 functions, (P) Device Support (A), 15-1, 15-9 to 15 - 10nexus value of, (P) Device Support (A), 12-5 obtaining ownership, (P) Device Support (A), 15-2, 15-3, 15-6 to 15-11, 15-14 registers, (P) Device Support (A), 15-1 to 15-6 device, (P) Device Support (A), 15-5, 15-12 to 15-13 external, (P) Device Support (A), 15-2 internal, (P) Device Support (A), 15-3 map, (P) Device Support (A), 15-3 to 15-6; (P) Device Support (B), 2-45, 3-76 releasing secondary data channel, (P) Device Support (B), 3-91 subunit number, (P) Device Support (A), 15-1 unit number, (P) Device Support (A), 12-6, 15-1, 15-12 to 15-13 \$MBADEF macro, (P) Device Support (A), 15-4 to MBZ field, (P) MACRO, 7-1 .MCALL directive, (P) MACRO, 6-60 MCHECK spin lock, (P) Device Support (A), 3-14 \$MCHKDEF macro, (P) Device Support (A), 16-13, 16-14 MCHK symbol, (P) System Dump Analyzer, SDA-14 MCOMB (Move Complemented Byte) instruction, (P) MACRO, 9–22 MCOML (Move Complemented Long) instruction, (P) MACRO, 9–22 MCOMW (Move Complemented Word) instruction, (P) MACRO, 9-22 MCR command, (M) SYSMAN, SM-18, SM-52

MEMBERS class (cont'd) MCS (Multinational Character Set), (M) Terminal fields belonging to, (M) Show Cluster, Fallback, TFU-1, TFU-2 SHCL-40 to SHCL-42 MDBBF (Manufacturer's Detected Bad Block File), removing, (M) Show Cluster, SHCL-70 (M) Bad Block, BAD-2 Memo .MDELETE directive. (P) MACRO, 6-61 formatting with DSR, (U) Text Processing, 3-12 MDF Memory configuring a FDDI VAXcluster See also Buffer overview of product, Dependability See also Nonpaged pool Handbook, 5-15, 6-25, 7-19 Mean-time-between-failures (MTBF) See also Shared memory defined, Dependability Handbook, Glossary-4 See also Vector memory MEAN\_DATA\_LENGTH attribute, (P) File Def See also Virtual memory zone Language, FDL-5 allocating and freeing blocks of, (P) RTL MEAN\_INDEX\_LENGTH attribute, (P) File Def Library, 5-4 Language, FDL-5 allocating and freeing pages of, (P) RTL Measurement Library, 5-4 converting units of, (P) VAXTPU, 7-50 allocating strings, (P) RTL String MEC file, (U) DSR Ref. 5-3 Manipulation, STR-46 with DSR, (U) Text Processing, 3-49 allocation algorithms, (P) RTL Library, 5-7 Mechanism argument vector, (P) RTL Library, CPUs share common, Dependability Handbook, 4-7, 4-11, 4-20 Mechanism array, (P) Programming Resources, deallocating strings, (P) RTL String 9-15; (P) System Dump Analyzer, SDA-17, Manipulation, STR-45 detecting corruption in, (P) Device Support (A), Mechanism array argument, (P) System Services 13-23 to 13-27 Intro, 11–10 detecting parity errors in, (P) Device Support Mechanism entry, (P) Routines Intro, 1-10; (P) (A), 14-25; (P) Device Support (B), 2-51 System Services Intro, 1-8 displaying Media error count for, (U) DCL Dictionary, See also Disk DCL2-279 See also Magnetic tape displaying availability and use of supported by EXCHANGE, (M) Exchange, process balance slots, (U) DCL Dictionary, EXCH-1 DCL2-292 Media errors process entry slots, (U) DCL Dictionary, analyzing, (M) Maintaining VMS, 4-5 DCL2-292 Media ID, (P) Device Support (B), 1-80 dynamic, (P) DECthreads, 3-4 Media initialization effect of debugger, (P) Debugger, 3-21 restricting with ACLs, (M) Security, 5-40 error resulting from exceeding, (P) VAXTPU, /MEDIA\_FORMAT=[NO]COMPACTION qualifier, V5.5 New Features, B-43 examining, (P) System Dump Analyzer, /MEDIA\_FORMAT qualifier, V5.5 New Features, SDA-51 B-42formatting, (P) System Dump Analyzer, for INITIALIZE command, (U) DCL Dictionary, **SDA-56** DCL1-246, DCL2-177 locking page into, (P) System Services Intro, in Backup Utility (BACKUP), V5.5 New 12-7; (P) System Services Ref, SYS-420 Features, B-42 minimum recommended for DECwindows, V5.5 with BACKUP command, V5.5 New Features, Release Notes, A-1 B-41modifying, (U) DCL Dictionary, DCL1-147 with MOUNT command, V5.5 New Features, multiport, (M) System Generation, SGN-28 nonpaged system dynamic, (P) File MEGA spin lock, (P) Device Support (A), 3-14 Applications, 9-8 Member name reasons for insufficient virtual memory error, in UIC, (M) Security, 4-3 (P) RTL Parallel Processing, PPL-11 Member number releasing with the FDL\$RELEASE routine, (P) in UIC, (U) Using VMS, 7-2; (M) System File Applications, 4–15 Management Intro, 3-2; (M) Security, 4-3 replacing virtual contents, (U) DCL Dictionary, MEMBERS class DCL1-147

adding, (M) Show Cluster, SHCL-47

Memory (cont'd)	Memory management, V5.5 New Features, A-6;
setting for a thread's stack, (P) DECthreads, 2-8	(P) Programming Resources, 10-1 advanced concepts, (M) Performance
stack, (P) DECthreads, 3-4	Management, 2–7
static, (P) DECthreads, 3-4	basic concepts, (M) Performance Management,
testing accessibility of, (P) Device Support (B),	2-1
2–39 to 2–40	exception, (P) MACRO, E-4
types of, (P) DECthreads, 3-3	fault, (P) MACRO, E-4
unlocking page from, (P) System Services Ref,	using system routines, (P) Programming
SYS-651	Resources, 1–23
virtual examination of contents, (U) DCL	vector, (P) MACRO, 10-47
Dictionary, DCL1-209	memory management disabled, (P)
Memory allocation, (P) Linker, 1-6, 2-10	MACRO, 10–47
absolute program section, (P) Linker, 6-4	TB, (P) MACRO, 10-7, 10-8, 10-20, 10-32,
algorithm for, (P) Linker, 6–15	10–34, 10–41, 10–47
based image, (P) Linker, 1-7, 3-5	virtual memory, (P) Programming Resources,
cluster, (P) Linker, 6–17	1–23
information about, in map, (P) Linker, 5-8	Memory management exceptions
relocatable program section, (P) Linker, 6-4	vector, (P) MACRO, 10–28
shareable image, (P) Linker, 6-7	asynchronous MME handling, (P) MACRO,
steps in, (P) Linker, 6-15	10-30
system image, (P) Linker, 6-2	fault parameter, (P) MACRO, 10-28
Memory allocation file	PTE bit, (P) MACRO, 10-29
brief format, (U) DCL Dictionary, DCL1-386	VAL bit, (P) MACRO, 10-29
cross-reference format, (U) DCL Dictionary,	VAS bit, (P) MACRO, 10-29
DCL1-386	VIO bit, (P) MACRO, 10-29
full format, (U) DCL Dictionary, DCL1-387	fault stack frame, (P) MACRO, 10-28
Memory availability	synchronous MME handling, (P) MACRO,
analyzing limits, (M) Performance	10–30
Management, 4-24	system control block (SCB), (P) MACRO,
competition for, (M) Performance Management,	10–28
4–21	Memory management resources
recognizing when demand exceeds, (M)	synchronizing access to, (P) Device Support (A),
Performance Management, 4–24	3–13
Memory cache, (P) File Applications, 3–12, 3–14	Memory management services, (P) System
Memory consumption	Services Intro, 1–2; (P) RTL Library, 5–3
by large compute-bound processes, (M)	Memory pool, (M) Networking, 5–36
Performance Management, 4–20 investigating, (M) Performance Management,	Memory region
investigating, ( $M$ ) i error mance management, 4–17	examining, (P) System Dump Analyzer,
paged system dynamic	SDA-54
and ACLs, (M) Security, 5-4	Memory requirements
Memory fragmentation, (P) RTL Library, 5-5	normal, (M) Networking, 5–36
Memory interconnect to VAXBI adapter, (P)	worst-case, (M) Networking, 5–38
Device Support (A), 16–1, 16–7, 16–10	Memory resource equitable sharing, (M) Performance
ADP address, (P) Device Support (A), 16–10	Management, 3–27
Memory limitation	evaluating responsiveness, (M) Performance
compensating for, (M) Performance	Management, 3–23
Management, 5–2	function, (M) Performance Management, 3-21
disguised, (M) Performance Management, 4-37	improving responsiveness, (M) Performance
isolating, (M) Performance Management, 4-4	Management, 3–27
reducing image activations, (M) Performance	load balancing, (M) Performance Management,
Management, 5-2	3–29
Memory location	offloading, (M) Performance Management, 3-29
decoding, (P) System Dump Analyzer, SDA-53	reducing consumption by the system, (M)
examining, (P) System Dump Analyzer,	Performance Management, 3–28
SDA-52	Memory sharing
	overview (M) Performance Management 9-18

Memory synchronization	Message (cont'd)
required use of, (P) MACRO, 10-42	last login, (M) Security, 3-5
Menu, (P) RTL Screen Management, 2-14	leaving a, (U) Phone, PHONE-17
creating, (P) RTL Screen Management, 2–14	logging, (P) Programming Resources, 9-24
creating with SMG\$ routines, (P) Programming	login, (M) Security, 3-4
Resources, 7–22	mailbox, (M) Networking, 8-9, 8-14
deleting, (P) RTL Screen Management, 2–14	network status, (M) Networking, 8-9
reading, (P) Programming Resources, 7–23	obtaining text of, (P) System Services Ref,
selecting, (P) RTL Screen Management, 2–15	SYS-319
Menu bar widget, (P) VAXTPU, 4–16	OPCOM
Menu entries, (U) EVE Ref, 1-2	See OPCOM message
Menu position	OPCOM messages, (M) VAXcluster, E-9
of widget	optional user data, (M) Networking, 8–8, 8–9,
fetching in VAXTPU, (P) VAXTPU, 7–210	8–12, 8–25
setting in VAXTPU, (P) VAXTPU, 7–422	routing over network, (M) DECnet-VAX Guide,
	1–2
MENU_POSITION parameter to SET built-in	sending to accounting manager, Obsolete
procedure, (P) VAXTPU, 7–422	Features, 2–22
"menu_position" string constant parameter to	sending to error logger, (P) System Services
GET_INFO, (P) VAXTPU, 7–210	Ref, SYS-556
MERGE command, (U) Using VMS, 1–37,	sending to operator, (P) System Services Ref,
1–42; (U) DCL Dictionary, DCL1–405; (P)	SYS-615
Programming Resources, 8–13	sending to terminal, $(U)$ DCL Dictionary,
See also Sort/Merge Utility	DCL2–38
file interface, (P) Programming Resources, 8–19	system, (P) System Services Intro, 2–14
record interface, (P) Programming Resources,	
8–21	user
using over the network, (M) DECnet-VAX	accounting, (M) Maintaining VMS, 6-2
Guide, 2-8	welcome, (M) Security, 3-5
/MERGE qualifier, (P) Convert, CONV-1,	writing to terminal, (P) System Services Ref,
CONV-17	SYS-39, SYS-47; Obsolete Features, 2-2
Merging	MESSAGE
of DIFFERENCES, (U) DCL Dictionary,	See Message Utility
DCL1-155	Message buffer, (P) VAXTPU, 4–18
of queues, (U) DCL Dictionary, DCL1-46	MESSAGE built-in procedure, (P) VAXTPU,
Message, (M) Networking, 8-8, 8-9, 8-14, 8-23,	7–266 to 7–269
8–24	Message code, (P) Message, MSG-2
See also Messages	MESSAGE command, (U) DCL Dictionary,
announcement, (M) Security, 3-4	DCL1-406; (P) Message, MSG-4, MSG-9,
chaining, (P) Programming Resources, 9–23	MSG-15
construction of, (P) Message, MSG-2	format of, (P) Message, MSG-8
data, (M) Networking, 8–14	parameter for, (P) Message, MSG-8
debugger, (P) Debugger, 2-7, CD-5	qualifiers, (P) Message, MSG-8 to MSG-14
with DECwindows, (P) Debugger, 1–20	Message count
definition of, (P) Message, MSG-22	correcting with READ/NEW, (U) Mail,
disabling last login, (M) Security, 5-21	MAIL-15
disconnected job, (M) Security, 3-5	Message definition
displaying, (P) Programming Resources, 9-22	in message source file, (P) Message, MSG-22
error	qualifiers for, (P) Message, MSG-22, MSG-23
during remote file operations, (M)	statements, (P) Message, MSG-3
DECnet-VAX Guide, 2–10	Message display directive
network-related (explanations), (M)	(.ERROR), (P) MACRO, 6–31
DECnet-VAX Guide, 4-10	(.PRINT), (P) MACRO, 6-76
example of, (P) Message, MSG-1	Message examples, (P) Message, MSG-29
exchanging, (M) Networking, 8–14, 8–20, 8–33	Message file
format of, (P) Message, MSG-1	See also Nonexecutable message file
formatting and outputting, (P) System Services	setting format, (U) DCL Dictionary, DCL2-179
Ref, SYS-475	The second of th
interrupt, (M) Networking, 8–8, 8–9, 8–33	
* / · · / U/ · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · / · · · · / · · · · / · · · · / · · · · · / ·	

Message format Message source file statements, (P) Message, MSG-6, MSG-15 See Mailbox base message number directive (.BASE), (P) Message object module Message, MSG-16 linking, (P) Message, MSG-4 end directive (.END), (P) Message, MSG-17 Message pointer facility directive (.FACILITY), (P) Message, creating, (P) Message, MSG-5 MSG-18 example, (P) Message, MSG-29 identification directive (.IDENT), (P) Message, use of, (P) Message, MSG-4, MSG-5 MSG-20 /MESSAGE qualifier, (M) Mount, MOUNT-26 listing directives, (P) Message, MSG-25, Message Router MSG-28 installation restriction, V5.5 Release Notes, literal directive (.LITERAL), (P) Message, MSG-21 Messages, (M) Error Log, ERR-1; (P) SUMSLP, message definition, (P) Message, MSG-22 SUM-13; (P) VAXTPU, D-1 to D-10; License page directive (.PAGE), (P) Message, MSG-25 Management, A-1 to A-15 severity directive (.SEVERITY), (P) Message, See also Message MSG-26 answering, (U) Mail, MAIL-26, MAIL-73 title directive (.TITLE), (P) Message, MSG-7, converting security message from binary to MSG-28 ASCII, (P) System Services Ref, SYS-262 /MESSAGES qualifier, (U) DSR Ref, 4-16 copying to a file, (U) Mail, MAIL-32, MAIL-48 Message symbol, (P) Message, MSG-2, MSG-6, copying to another folder. (U) Mail, MAIL-32 MSG-22; (P) System Services Ref, SYS-480 creating a subdirectory for, (U) Mail, MAIL-12 Message text deleting, (U) Mail, MAIL-39, MAIL-66 specifying variables in, (P) Programming displaying, (U) Mail, MAIL-35 Resources, 9-9 editing, (U) Mail, MAIL-44 Message Utility (MESSAGE), (P) Programming EFDRIVER OPCOM messages, V5.5 Release Resources, 1-19, 9-7; (P) RTL Library, 4-26 *Notes*, 2–58 to 4-28 facilities with new or modified system messages, accessing message object module, V5.5 New Features, 4-1 Programming Resources, 9-10 filtering sensitive information, (P) System command qualifiers, (P) Message, MSG-9 to Services Ref, SYS-262 MSG-28 moving between folders, (U) Mail, MAIL-39 compiling message file, (P) Programming moving to a folder, (U) Mail, MAIL-50, Resources, 9-9 MAIL-60 compiling the message source file, (P) Message, new system messages, V5.5 New Features, 4-2 MSG-4 online help for, V5.5 New Features, B-44 constructing messages, (P) Message, MSG-2 organizing with folders, (U) Mail, MAIL-9 controlling output, (P) Message, MSG-9 printing, (U) Mail, MAIL-63, MAIL-91 creating a message object library, (P) reading, (U) Mail, MAIL-2, MAIL-30, Programming Resources, 9-10 MAIL-69 creating messages, (P) Programming recovering, (U) Mail, MAIL-39 Resources, 1-19 reported in a vector processing system, V5.5 definition statements, (P) Programming New Features, B-17 to B-21 Resources, 1-19 searching, (U) Mail, MAIL-75 directives, (P) Programming Resources, 1-19 selecting, (U) Mail, MAIL-76 .END, (P) Programming Resources, 9-8 sending, (U) Mail, MAIL-57, MAIL-79 examples, (P) Message, MSG-28 Messages buffer creating pointer files, (P) Message, displaying contents of (EVE), (U) Text MSG-29 Processing, 1-52 image containing message data, (P) Message source file Message, MSG-29 comments in, (P) Message, MSG-7 exiting, (P) Message, MSG-8 compiling, (P) Message, MSG-4 .FACILITY, (P) Programming Resources, 9–8 elements of, (P) Message, MSG-3 facility name, (P) Programming Resources, 9-8 expressions in, (P) Message, MSG-7 facility number, (P) Programming Resources, format, (P) Message, MSG-3 sample of, (P) Message, MSG-18 FAO parameters, (P) Programming Resources, symbols in, (P) Message, MSG-7 9-12

Message Utility (MESSAGE) (cont'd)	Metaphors
/FAO_COUNT, (P) Programming Resources,	automobile (cont'd)
9–9	fault prevention strategy, Dependability
invoking, (P) Message, MSG-8	$Handbook,\ 1–13$
linking the message object module, (P)	multilevel building
Message, MSG-4	dependability building blocks,
logging messages, (P) Programming Resources,	$Dependability\ Handbook,\ 1 ext{}18$
9–24	suitcase
message object module, (P) Programming	apparently not broken condition,
Resources, 9–9	Dependability Handbook, 1–11
message source file, (P) Message, MSG-3	broken condition, Dependability Handbook
message text, (P) Programming Resources, 9-9	1–11
message text variables, (P) Programming	not broken condition, Dependability
Resources, 9–9	Handbook, 1-11 Metrics quality Dependentiality Handbook 2, 12
modifying a message source file, (P) Programming Resources, 9–10	Metrics, quality, Dependability Handbook, 3–13 MEX file, (U) DSR Ref, 6–6
program example, (P) Message, MSG-3	generating, $(U)$ DSR Ref, 6-6
SET MESSAGE command, (P) Message,	with DSR, (U) Text Processing, 3-53
MSG-5	MEXIT directive, (P) MACRO, 6-62
SEVERITY, (P) Programming Resources, 9–8	MFD (master file directory), (U) Using VMS,
source file, (P) Programming Resources, 1–19	2-1, $2-6$ ; (U) Files and Devices, $A-2$ ; (M)
source module, (P) Programming Resources,	Analyze/Disk, A-1, B-3; (M) Security, 4-13;
9–7	(P) File Applications, 6–12
.TITLE, (P) Programming Resources, 9–9	See also Directory structure
using message pointers, (P) Message, MSG-4	definition, (U) DCL Concepts, 3-7
Message warning display directive	displaying contents of, (U) Using VMS, 2-21
(.WARN), (P) MACRO, 6–99	MFPR (Move from Processor Register) instruction,
Message window	(P) MACRO, 9–196
description of (EVE), (U) Text Processing, 1-2	vector IPRs, (P) MACRO, 10-3, 10-8, 10-32
displaying contents of Messages buffer (EVE),	VPSR, (P) MACRO, 10-6, 10-31, 10-41
(U) Text Processing, 1–51	MFVP (Move from Vector Processor) instruction,
in EVE editor, (P) VAXTPU, 4–16	(P) MACRO, 10–19, 10–35
MESSAGE_ACTION_LEVEL keyword, (P)	\$MGBLSC, (P) System Services Ref, SYS-425
VAXTPU, 7-424 "Magaga action level" attring constant necessary	Microcode, (M) Networking, 1-9
"Message_action_level" string constant parameter to GET_INFO, (P) VAXTPU, 7–206	dumping KMS11, (M) Networking, 7–14
MESSAGE_ACTION_TYPE keyword, (P)	dumping KMV11, (M) Networking, 7–14
VAXTPU, 7–426	MICROCODE DUMP parameter, (M) Networking
MESSAGE_BUFFER identifier, (P) VAXTPU,	7–14 MicroVAX
7–266	See Workstation
MESSAGE_BUFFER variable, (P) VAXTPU, 4-29	MicroVAX/VAXstation 3100 computer
/MESSAGE_FILE qualifier	support for SCSI devices, (P) Device Support
in CONVERT/DOCUMENT DCL command,	(A), $1-18$
V5.5 New Features, 2–6	MicroVAX/VAXstation 3600-series computer
MESSAGE_FLAGS keyword, (P) VAXTPU, 7-427	boot procedure for XDELTA, V5.5 Release
"Message_flags" string constant parameter to	Notes, 3–49
GET_INFO, (P) VAXTPU, 7–207	requesting interrupt, V5.5 Release Notes, 3-55
MESSAGE_ROUTINES.EXE	MicroVAX 2000 computer
global symbols, (P) System Dump Analyzer,	boot procedure for XDELTA, V5.5 Release
SDA-61 MESSACE TEVE built in massalum (D)	Notes, 3-49
MESSAGE_TEXT built-in procedure, (P)	bootstrap procedure for XDELTA, (P)
VAXTPU, 7–270 to 7–272 Metaphors	Delta/XDelta, DELTA-5
automobile	inducing a crash, (P) System Dump Analyzer,
error correction strategy, Dependability	SDA-31 requesting interment V5.5 Release Notes 3, 55.
Handbook, 1–13	requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7
failure recovery strategy, Dependability	MicroVAX 3400-series computer
Handbook, 1–13	o to t

MicroVAX 3400-series computer (cont'd) boot procedure for XDELTA, V5.5 Release Notes, 3-49 requesting interrupt, V5.5 Release Notes, 3-55 MicroVAX 3500 computer bootstrap procedure for XDELTA, (P) Delta/XDelta, DELTA-5 requesting interrupt, (P) Delta/XDelta, DELTA-7 MicroVAX 3600 computer bootstrap procedure for XDELTA, (P) Delta/XDelta, DELTA-5 inducing a crash, (P) System Dump Analyzer, SDA-31 requesting interrupt, (P) Delta/XDelta, DELTA-7 MicroVAX 3900-series computer boot procedure for XDELTA, V5.5 Release

Notes, 3-49 requesting interrupt, V5.5 Release Notes, 3-55 MicroVAX I computer bootstrap procedure for XDELTA, (P) Delta/XDelta, DELTA-5 inducing a crash, (P) System Dump Analyzer, SDA-31

requesting interrupt, (P) Delta/XDelta, DELTA-7

MicroVAX II computer adapter logic, (P) Device Support (A), 14-1 boot procedure for XDELTA, V5.5 Release Notes, 3-49

bootstrap procedure for XDELTA, (P) Delta/XDelta, DELTA-5 inducing a crash, (P) System Dump Analyzer,

SDA-31 minimum DEQNA revision level requirement,

(M) System Management Intro, 6-7 minimum memory requirement, (M) System

Management Intro, 6-7 requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7

restrictions for use as boot node, (M) System Management Intro. 6-7

Microwave link, (M) DECnet-VAX Guide, 1-2, 1-7 "Middle\_of\_tab" string constant parameter to GET\_INFO, (P) VAXTPU, 7-223

Minimal interface example, (P) VAXTPU, 4-26 Minimum record length field

See also XAB\$W\_MRL field in XABKEY, (P) RMS, 13-12 Minimum value, (P) RTL Math, 1-7

"Minimum\_parameters" string constant parameter to GET INFO, (P) VAXTPU, 7-190

Minor ID, (P) Linker, 3-7 of shareable image in map, (P) Linker, 5-6 \$\$Minutes, (U) DSR Ref, 3-18

MINWSCNT parameter, (M) System Generation,

MIRA AS application switch systems, Dependability Handbook, 6-12

MIRROR (loopback mirror), (M) DECnet-VAX Guide, 4-7; (M) Networking, 1-16, 2-32, 7-2 default access for loopback testing, V5.5 New Features, D-2

Mirrored disks

See Volume shadowing

Miscellaneous data type, (P) Routines Intro, 2–18 Mixed I/O

precautions listed, (P) RMS, 4-24 Mixed-interconnect cluster, Dependability Handbook, 6-27

See also Local area VAXcluster changing allocation class values on HSC subsystems, (M) VAXcluster, 7-23

creating cluster security database, (M) System Management Intro, 6-12; (M) VAXcluster,

determining allocation class values, (M) VAXcluster, 7-4

monitoring LAN activity, (M) VAXcluster, 7-26 MSCP-served HSC disk, (M) System Management Intro, 6-10; (M) VAXcluster,

MSCP server accesses shadow sets. (M) VAXcluster, 3-8

VAXcluster configuration, (M) System Management Intro, 6-10

Mixed Phase III/Phase IV network, (M) Networking, A-11

MMG\$GL\_SBICONF, (P) Device Support (A), 16-8

MMG\$IOLOCK, (P) Device Support (B), 3-33, 3-35, 3-41, 3-46, 3-55, 3-59

MMG\$UNLOCK, (P) Device Support (B), 1-43, 3 - 109

MMG spin lock, (P) Device Support (A), 3-13; (P) Device Support (B), 3-16, 3-107, 3-108, 3-109

MNEGB (Move Negated Byte) instruction, (P) MACRO, 9-23

MNEGD (Move Negated D\_floating) instruction, (P) MACRO, 9-117

MNEGF (Move Negated F\_floating) instruction, (P) MACRO, 9-117

MNEGG (Move Negated G\_floating) instruction, (P) MACRO, 9-117

MNEGH (Move Negated H\_floating) instruction, (P) MACRO, 9-117

MNEGL (Move Negated Long) instruction, (P) MACRO, 9-23

MNEGW (Move Negated Word) instruction, (P) MACRO. 9-23

MNT (module name table), (P) Librarian, LIB-2

Mode Mode qualifier, PATCH command, (P) Patch, CANCEL MODE command, (P) Debugger, PAT-15, PAT-76 CD-23 MODES class record, (M) Monitor, A-25 interactive, (P) File Applications, 10-11 Modes of operation, (M) Analyze / Disk, ADSK-1; locate (M) Backup, BCK-16 performance, (P) File Applications, 9-9 file, (M) Backup, BCK-16 of transferring files, V5.5 New Features, E-15; image, (M) Backup, BCK-17, BCK-55 (U) DCL Dictionary, DCL1-215 incremental, (M) Backup, BCK-16 SET MODE [NO]DYNAMIC command, (P) physical, (M) Backup, BCK-17, BCK-75 Debugger, 5-7, 5-14, CD-148 selective, (M) Backup, BCK-16 SET MODE [NO]G\_FLOAT command, (P) "Mode" string constant parameter to GET\_INFO, Debugger, CD-148 (P) VAXTPU, 7-173 SET MODE [NO]INTERRUPT command. (P) Mode switching Debugger, CD-149 when permitted, (P) RMS, 4-24 SET MODE [NO]KEYPAD command, (P) Modifiability Debugger, 8-7, CD-149 setting records, (P) VAXTPU, 7-448 SET MODE [NO]LINE command, (P) MODIFIABLE keyword, (P) VAXTPU, 7-429 Debugger, CD-149 SET BUFFER command (EVE), (U) Text SET MODE [NO]OPERANDS command, (P) Processing, 1-50 Debugger, 4-19, CD-150 "Modifiable" string constant parameter to SET MODE [NO]SCREEN command, (P) GET INFO. (P) VAXTPU, 7-173 Debugger, 7–1, CD–150 MODIFICATIONS keyword SET MODE [NO]SCROLL command, (P) using in collating sequence expression, (P) Debugger, CD-150 National Char Set, NCS-14 SET MODE [NO]SEPARATE command, (P) using in conversion function expression, (P) Debugger, 9-5, CD-150 National Char Set, NCS-16 with DECwindows, (P) Debugger, 1-33 MODIFICATIONS keyword clause, (P) National SET MODE [NO]SYMBOLIC command, (P) Char Set, NCS-17 Debugger, 4-13, CD-151 Modified page list SHOW MODE, (P) Debugger, CD-224 displaying, (P) System Dump Analyzer, Mode card SDA-115 026 punch mode, (P) I/O User's I, 2-2 evaluating, (M) Performance Management, 029 punch mode, (P) I/O User's I, 2-2 3 - 25/MODIFIED qualifier, (M) Backup, BCK-69; (P) Mode field in XABITM System Dump Analyzer, SDA-115 See XAB\$L\_MODE field EXCHANGE/NETWORK command, V5.5 New Model type Features, E-19 message regarding unsupported, License "Modified" string constant parameter to GET\_ Management, LMF-47 INFO, (P) VAXTPU, 7-173 Modem, (U) Using VMS, 1-4; (M) DECnet-VAX MODIFY/IDENTIFIER command, (M) Authorize, Guide, 1-7, 1-10, 3-5, 3-19, 3-23; (M) AUTH-37 Networking, 5-9, 7-6 MODIFY/PROXY command, (M) Authorize, autodial, (M) DECnet-VAX Guide, 3-25 AUTH-39 null cable, (M) DECnet-VAX Guide, 3-18 MODIFY/SYSTEM\_PASSWORD command, (M) Modem signal control, V5.5 Release Notes, 3-27 Authorize, AUTH-41 Modem signals Modify access type, (P) MACRO, 8-17 input transitions of, (P) Device Support (A), MODIFY command, (M) Authorize, AUTH-36; (P) File Applications, 10–28; (P) File Def sending to device, (P) Device Support (A), Language, FDL-64; Obsolete Features, 4-12; 18 - 13License Management, LMF-85 to LMF-90 Mode of buffer controlling reservation list size, License See also CHANGE MODE command Management, LMF-42 commands and keys affected, (U) EVE Ref. Edit/FDL Utility, (P) File Applications, A-1 EVE-27 using the/ADD qualifier, License Management, Mode of execution, (M) SYSMAN, SM-12, SM-80 LMF-42 /MODE qualifier, (M) ACL Editor, ACL-26 using the /AUTHORIZATION qualifier, License Management, LMF-39

MODIFY command (cont'd) Module (cont'd) using the /EXCLUDE qualifier, License setting, (P) Debugger, 5-6, CD-152 Management, LMF-38 with DECwindows, (P) Debugger, 1-26 using the /INCLUDE qualifier, License terminating, (P) Librarian, LIB-5 Management, LMF-38, LMF-39 traceback information, (P) Debugger, 5-3 using the /RESERVE qualifier, License with DECwindows, (P) Debugger, 1-3 Management, LMF-41 X.25 access, (M) Networking, 1-20, 2-37, 3-86 using the/UNITS qualifier, License X.25 protocol, (M) Networking, 1-20, 3-28 X.25 server, (M) Networking, 1-20, 2-35, 3-81 Management, LMF-110 Modify-fault X.25 trace, (M) Networking, 1-20 vector, (P) MACRO, 10-47 X.29 server, (M) Networking, 1-20, 2-35, 3-81 Modify file function, (P) I/O User's I, 1–28 Module declaration Modify function syntax, (P) VAXTPU, 3-15 FDT routine for, (P) Device Support (A), 7-9 Module header, (P) Librarian, LIB-2 Modifying LAT characteristics Module header records in LAT\$SYSTARTUP.COM procedure, (M) analyzing in object file, (U) DCL Dictionary, LATCP, LAT-2 DCL1-28 Modifying print characteristics, V5.5 Release Module Management System Notes, 2-9 See VAX DEC/MMS Modifying print forms, V5.5 Release Notes, 2-9 Module name /MODIFY qualifier, (U) EVE Ref, 1–13; (P) made available to debugger, (P) MACRO, 6-23 Debugger, CD-127, CD-185; (P) VAXTPU, Module name table 5 - 12See MNT "Modify" string constant parameter to GET\_INFO, Module object (P) VAXTPU, 7-177 analyzing, (U) DCL Dictionary, DCL1-26 MODIFY/SYSTEM\_PASSWORD command, (M) end-of-file records, (U) DCL Dictionary, Security, 5-16 DCL1-27 MODIFY\_RANGE built-in procedure, (P) /MODULE qualifier, (P) Debugger, CD-28, VAXTPU, 7-273 to 7-277 CD-167, CD-172; (P) Librarian, LIB-32 MODPARAMS.DAT file using with /INSERT, (P) Librarian, LIB-32 created by CLUSTER\_CONFIG.COM, (M) MODULE statement, (P) Command Def, CDU-14, VAXcluster, 7-2 CDU-37; (P) VAXTPU, 3-14 to 3-15 specifying dump file, (M) VAXcluster, 7–37 Modules used with EVE\$BUILD, (P) VAXTPU, specifying MSCP disk-serving parameters, (M) G-2VAXcluster, 5-3 Module traceback records specifying TMSCP tape-serving parameter, (M) analyzing in object file, (U) DCL Dictionary, VAXcluster, 5-3 DCL1-29 updating, (M) VAXcluster, 7-22 MOD\_UNITS option, License Management, Modularity LMF-41 virtual displays, (P) Programming Resources, example, License Management, LMF-110 MOM (maintenance operation module) process, Modular programming, (P) Linker, 2-1 (M) Networking, 4-1, 4-2Module, (M) Networking, 1-20; (P) Debugger, 2-5 MONITOR. See also Shareable image See Monitor Utility canceling, (P) Debugger, 5-7, CD-24 MONITOR.COM procedure, (M) System creating, (P) Librarian, LIB-4 Management Intro, 5-2 database, (M) Networking, 3-1 MONITOR ALL CLASSES command, (M) device control Monitor, MON-38 See Device control module MONITOR CLUSTER command, (M) Monitor, Ethernet configurator, (M) Networking, 1-20, MON-40 2-11, 3-45MONITOR command, (U) DCL Dictionary, finding a failing, (P) System Dump Analyzer, DCL1-407 SDA-24MONITOR data formatting, (P) Librarian, LIB-5 summary of most important items, (M) information about, (P) Debugger, 5-7, CD-225 Performance Management, 3-39 key number in, (P) Librarian, LIB-5

replacing in the default NCS library, (P) National Char Set, NCS-21

MONITOR DECNET command, (M) Monitor, MON-44; (M) DECnet-VAX Guide, 4-7 MONITOR DECNET data kernel mode, (M) Performance Management, MONITOR DISK command, (M) Monitor, MON-46 MONITOR DISK data responsiveness of disk I/O subsystem, (M) Performance Management, 3-32 using to evaluate MSCP-served disk, (M) Performance Management, 3-33 MONITOR DLOCK command, (M) Monitor, MON-49 MONITOR DLOCK data interrupt stack, (M) Performance Management, MONITOR FCP command, (M) Monitor, MON-51 MONITOR FCP data file system I/O activity, (M) Performance Management, 3-36 MONITOR FILE\_SYSTEM\_CACHE command, (M) Monitor, MON-53 MONITOR FILE\_SYSTEM\_CACHE data file system I/O activity, (M) Performance Management, 3-36 relationship to ACP/XQP system parameters, (M) Performance Management, 3–36 Monitoring network operations, (M) DECnet-VAX Guide, the network, (M) DECnet-VAX Guide, 2-27, Monitoring disk and tape operations, (M) Maintaining VMS, 6-7 Monitoring procedures, (P) Modular Procedures, 4-8, A-5 in the Run-Time Library, (P) Modular Procedures, 4-9 timer, (P) Modular Procedures, 4-8 Monitoring system activity, (M) Maintaining VMS, 6-2Monitoring user requests, (M) Maintaining VMS, MONITOR IO command, (M) Monitor, MON-57 MONITOR IO data kernel mode, (M) Performance Management, 3-17swapping and swapper trimming. (M) Performance Management, 3-26 MONITOR LOCK command, (M) Monitor, MON-59 MONITOR LOCK data kernel mode, (M) Performance Management,

voluntary wait states, (M) Performance

Management, 3-12

MONITOR MODES command, (M) Monitor, MON-61 MONITOR MODES data compatibility mode, (M) Performance Management, 3-15 CPU consumption by the system, (M) Performance Management, 3-14 CPU load balancing in a VAXcluster, (M) Performance Management, 3-19 executive mode, (M) Performance Management, 3-15, 3-18 idle time, (M) Performance Management, 3-15 available CPU capacity, (M) Performance Management, 3-11 interpreting, (M) Performance Management, interrupt stack, (M) Performance Management, 3-15, 3-16kernel mode, (M) Performance Management, 3-15, 3-17MP synchronization, (M) Performance Management, 3-15, 3-16 supervisor mode, (M) Performance Management, 3-15 user mode, (M) Performance Management, 3 - 15MONITOR MSCP\_SERVER command, (M) Monitor, MON-65 MONITOR PAGE command, (M) Monitor, MON-67 MONITOR PAGE data disk I/O consumption by the system, (M) Performance Management, 3-35 kernel mode, (M) Performance Management, memory consumption by the system, (M)Performance Management, 3-28 page faulting, (M) Performance Management, MONITOR POOL command, (M) Monitor, MON-69 MONITOR POOL data memory consumption by the system, (M)Performance Management, 3-28 MONITOR PROCESSES command, (M) Monitor, MON-71 MONITOR PROCESSES data involuntary wait states, (M) Performance Management, 3-12 MONITOR RMS command, (M) Monitor, MON-74 MONITOR SCS command, (M) Monitor, MON-78 MONITOR SCS data interrupt stack, (M) Performance Management, 3-16MONITOR STATES command. (M) Monitor. MON-82

MONITOR STATES data

MONITOR STATES data (cont'd) available CPU capacity, (M) Performance Management, 3-11 compute queue, (M) Performance Management, 3 - 10involuntary wait states, (M) Performance Management, 3–12 secondary page cache, (M) Performance Management, 3-25 swapping and swapper trimming, (M) Performance Management, 3-26 voluntary wait states, (M) Performance Management, 3-12 Monitor summary report interpreting, (M) Performance Management, maintaining, (M) Performance Management, 3 - 6MONITOR SYSTEM command, (M) Monitor, MON-85 Monitor Utility (MONITOR), V5.5 Release Notes, 2-35, 4-12; V5.5 New Features, B-95; (M) System Management Intro, 5-2; (M) Monitor, MON-15; (M) Networking, 5-38 analyzing disk use with, (M) Maintaining VMS. 2-2class-name qualifiers, (M) Monitor, MON-2 cluster performance, V5.5 New Features, D-3 commands, (M) Monitor, MON-32 to MON-89 DCL qualifiers, (M) Monitor, MON-17 to MON-31 DECdtm services support, V5.5 New Features, B-95 to B-100 directing output from, (M) Monitor, MON-16 examples, (M) Monitor, MON-90 to MON-97 exiting, (M) Monitor, MON-16 invoking, (M) Monitor, MON-15 MONITOR.COM, (M) System Management Intro, 5-2 MONITOR CLUSTER command, V5.5 Release Notes, 2-34 MONITOR TRANSACTION command, V5.5 New Features, B-95 MONITOR VECTOR command, V5.5 New Features, B-100 MONSUM.COM, (M) System Management Intro, 5-2obtaining vector processing information with, (M) Maintaining VMS, 6-17 outputs, (M) Monitor, MON-4 recording file record formats, (M) Monitor, A-1 to A-13 record types, (M) Monitor, A-1 SUBMON.COM, (M) System Management Intro, 5-2

support for DECdtm services, V5.5 New

Features, B-40

Monitor Utility (MONITOR) (cont'd) TRANSACTION class, V5.5 New Features, TRANSACTION class record, V5.5 New Features, B-99 use in network analysis, (M) DECnet-VAX Guide, 4-7 VECTOR class, V5.5 New Features, B-100 VECTOR class record, V5.5 New Features, vector processing support, V5.5 New Features, B - 16MONITOR VECTOR command, V5.5 New Features, B-100 MONITOR\_SERVER process log file, (M) Monitor, MON-42 network startup, (M) Monitor, MON-41 purpose, (M) Monitor, MON-41 startup time, (M) Monitor, MON-42 MONSUM.COM procedure, (M) System Management Intro, 5-2 \$\$Month, (U) DSR Ref, 3–18 MOP (maintenance operation protocol), (M) Networking, 4-1, 4-18 error recovery, (M) Networking, 4-7 request memory dump message, (M) Networking, 4-18 MOP server enabling service, (M) VAXcluster, 7-34 functions, (M) VAXcluster, 2-2 selecting, (M) VAXcluster, 7-3 Motif Developer Kit linker incompatibility, V5.5 Release Notes, 2-57MOUNT See Mount Utility MOUNT/AUTOMATIC command, V5.5 Release Notes, 2-2MOUNT/CLUSTER command, (M) SYSMAN, SM-8MOUNT command, (U) Using VMS, 2-10, 7-11; (U) Files and Devices, 2-6, 3-6, 3-20; (U) DCL Concepts, 3-6, 8-7; (U) DCL Dictionary, DCL1-408; (M) Exchange, EXCH-35 to EXCH-37; (M) Maintaining VMS, 2-5, 2-6, 2-7; (P) I/O User's I, 6-27 See also Disk commands ACCESSED qualifier, (M) Maintaining VMS, 2-6alarms, (M) Security, E-16 and DEASSIGN command, (U) DCL Dictionary, DCL1-104 and DISMOUNT command, (U) DCL Dictionary, DCL1-170 and window size, (P) File Applications, 9-8 /ASSIST qualifier, (U) Files and Devices, 3-7; (M) Maintaining VMS, 2-7

```
MOUNT command (cont'd)
  /AUTOMATIC qualifier, (U) Files and Devices,
  /BIND qualifier, (U) Files and Devices, 3-9;
      (M) Maintaining VMS, 2-2, 2-6
  /BLOCKSIZE qualifier, (U) Files and Devices,
       3-12, 5-8, B-14
  /CACHE=TAPE_DATA qualifier, (U) Files and
      Devices, 3-14
   /CLUSTER qualifier, (M) Maintaining VMS,
       2-5, 2-6
  /COMMENT qualifier, (M) Maintaining VMS,
       example, (M) Maintaining VMS, 3-3
   displaying messages from, (M) Exchange,
      EXCH-2
   EXTENSION qualifier, (M) Maintaining VMS,
   /FOREIGN qualifier, (U) Files and Devices,
       3-13, 4-13, 5-6; (M) Bad Block, BAD-1
   foreign volume, (M) Exchange, EXCH-2
   /GROUP qualifier, (U) Files and Devices, 3-7
   /HDR3 qualifier, (U) Files and Devices, 3-15
   /INITIALIZE qualifier, (U) Files and Devices,
   magnetic tape, (U) Files and Devices, 5-2
   /MEDIA_FORMAT qualifier, V5.5 New
       Features, B-41
   /MOUNT_VERIFICATION qualifier, (M)
       Maintaining VMS, 2-7
   /NOLABEL qualifier, (U) Files and Devices,
   OVERRIDE qualifier, (U) Files and Devices,
       3-13, 4-16
   OWNER_UIC qualifier, (U) Files and Devices,
       3 - 14
   protection codes, (U) Files and Devices, 4-11
   PROTECTION qualifier, (U) Files and Devices,
   qualifiers, (U) Files and Devices, 3-12
   /RECORDSIZE qualifier, (U) Files and Devices,
       3-15, 5-8, B-15
   /SHARE qualifier, (M) Maintaining VMS, 2-8
   specifying logical names, (U) Files and Devices,
   specifying record size, (U) Files and Devices,
       3 - 15
   specifying UIC, (U) Files and Devices, 3-14
   /SYSTEM qualifier, (U) Files and Devices, 3-7;
       (M) Maintaining VMS, 2-5, 2-8
   /WINDOWS qualifier, (M) Maintaining VMS,
Mounted form, (M) Maintaining VMS, 5-41
Mount error message, (M) Backup, BCK-83
```

Mount function, (P) I/O User's I, 1-30

Mounting disks, (M) VAXcluster, 5-12

Mounting a form, (M) Maintaining VMS, 5-43

```
Mounting disks (cont'd)
  quorum disk, (M) System Management Intro,
Mounting disk volumes, (M) Maintaining VMS,
  holding queue database files, (M) Maintaining
      VMS, 5-54
  passing information to the operator, (M)
      Maintaining VMS, 2-7
Mounting of queue file disk, V5.5 Release Notes,
    2-10; V5.5 New Features, 5-4
Mounting public volumes, (M) Maintaining VMS,
Mounting tape volumes, (M) Maintaining VMS,
   volume sets, (M) Maintaining VMS, 3-5
Mounting volumes
   and security audit, (M) Security, 4-41, 6-11
   definition, (M) System Management Intro, 4-2
  if device is unavailable, (M) Maintaining VMS,
   operator assistance, (M) System Management
      Intro, 4-2; (M) Maintaining VMS, 2-7, 3-3
   substituting, (M) Maintaining VMS, 3-3
Mounting volume sets
   with automatic volume switching, (M)
      Maintaining VMS, 3-5
   without automatic volume switching, (M)
      Maintaining VMS, 3-5
MOUNTMSG parameter, (M) System Generation,
MOUNT privilege, (M) Setting Up VMS, 5-13;
    (M) Security, A-5; (P) System Services Intro,
Mount request, (U) Files and Devices, 3-7
Mount Utility (MOUNT)
   directing output from, (M) Mount, MOUNT-4
   examples, (M) Mount, MOUNT-44 to
      MOUNT-45
       allocating file window mapping pointers,
          (M) Mount, MOUNT-42
       creating a volume set, (M) Mount,
          MOUNT-9
       disabling automatic rebuild, (M) Mount,
          MOUNT-35
       making a volume public, (M) Mount,
          MOUNT-40
       mounting an ANSI-labeled magnetic tape,
          (M) Mount, MOUNT-25
       mounting a volume clusterwide, (M)
          Mount, MOUNT-14
       overriding volume protection checks, (M)
          Mount, MOUNT-30
       rebuilding a disk volume, (M) Mount,
          MOUNT-35
      requesting operator assistance, (M) Mount,
          MOUNT-7, MOUNT-44
```

Mount Utility (MOUNT) Mouse (cont'd) examples (cont'd) to select text, (U) EVE Ref, EVE-143 with status line indicators. (U) EVE Ref. specifying a protection code, (M) Mount, MOUNT-33 EVE-25, EVE-27, EVE-92, EVE-151 specifying a shareable volume, (M) Mount, Mouse button, (P) VAXTPU, 7-188 MOUNT-39 Mouse Key Combination Change, V5.5 Release specifying block size for magnetic tape, (M) Notes, 1–13 MOUSE keyword, (P) VAXTPU, 7-432 Mount, MOUNT-10 specifying default block extent, (M) Mount, with POSITION, (P) VAXTPU, 7-288, 7-289 MOUNT-20 Mouse pad specifying magnetic tape density, (M) implementing, (P) VAXTPU, B-4 "Mouse" string constant parameter to GET\_INFO, Mount, MOUNT-19 (P) VAXTPU, 7-200 specifying magnetic tape record size, (M) Mount, MOUNT-37 MOVAB (Move Address Byte) instruction, (P) specifying number of directories, (M) MACRO, 9-34 MOVAD (Move Address D\_floating) instruction, Mount, MOUNT-6 exiting, (M) Mount, MOUNT-3 (P) MACRO, 9-34 invoking, (M) Mount, MOUNT-3 MOVAF (Move Address F\_floating) instruction, multiple foreign tape volumes, (M) Mount, (P) MACRO, 9–34 MOVAG (Move Address G\_floating) instruction, MOUNT-28 overriding volume protection checks, (M) (P) MACRO, 9–34 MOVAH (Move Address H\_floating) instruction, Mount, MOUNT-29 (P) MACRO, 9-34 parameters, (M) Mount, MOUNT-2 qualifiers, (M) Mount, MOUNT-5 to MOVAL (Move Address Long) instruction, (P) MACRO, 9-34 MOUNT-43 MOVAO (Move Address Octa) instruction, (P) requesting an ancillary control process (ACP), MACRO, 9-34 (M) Mount, MOUNT-32 restrictions, (M) Mount, MOUNT-4 MOVAQ (Move Address Quad) instruction, (P) MACRO, 9-34 specifying a user identification code (UIC), (M) Mount, MOUNT-31 MOVAW (Move Address Word) instruction, (P) Mount verification, (P) Device Support (B), 1-40, MACRO, 9-34 MOVB (Move Byte) instruction, (P) MACRO, 9-24 MOVC3 (Move Character 3 Operand) instruction, abort by dismount, (M) Maintaining VMS, (P) MACRO, 9-132 3-12RTL routine to access, (P) RTL Library, aborted LIB-275 OPCOM message, (M) Maintaining VMS, MOVC5 (Move Character 5 Operand) instruction, 3 - 13(P) MACRO, 9-132 canceling, (M) Maintaining VMS, 3-12, 3-13 RTL routine to access, (P) RTL Library, description, (M) Maintaining VMS, 3-9 LIB-276 device off line, (M) Maintaining VMS, 3-10 MOVD (Move D\_floating) instruction, (P) device write-lock, (M) Maintaining VMS, 3-11 enabling and disabling on a volume, (M) MACRO, 9-118 Maintaining VMS, 2-7 "move", (U) EDT Ref, EDT-296 messages, (M) Maintaining VMS, 3-10 See also Cursor movement monitoring failed devices, Dependability MOVE BY LINE command, (U) EVE Ref, EVE-84 Handbook, 9-14 moving the cursor with (EVE), (U) Text timeout, (M) Maintaining VMS, 3-12 Processing, 1-9 OPCOM message, (M) Maintaining VMS, MOVE BY PAGE command, (U) Using VMS, 8-9; 3 - 12(U)~EVE~Ref,~EVE-85Mount verification routine, (P) Device Support moving the cursor with (EVE), (U) Text (B), 1–30, 1–31 Processing, 1-9 /MOUNT\_VERIFICATION qualifier, (M) Mount, with WPS keypad, (U) EVE Ref, EVE-186 MOUNT-27 MOVE BY WORD command, (U) Using VMS, 8-9; (U) EVE Ref, EVE-86 defining buttons, (U) EVE Ref, 1-28 moving the cursor with (EVE), (U) Text determining support for, (P) VAXTPU, 7-432 Processing, 1-9 determining where drag operation originated,

(P) VAXTPU, 7-188

Moving text (cont'd) MOVE command, (U) VMS Intro, 1-12; (U) OPEN LINE, (U) EDT Ref, EDT-80 *Using VMS*, 1–33; (*U*) *Mail*, MAIL–10, PASTE, (U) EDT Ref, EDT-20, EDT-84, MAIL-60; (U) EDT Ref, EDT-150; (M) EDT-298 Show Cluster, SHCL-57; (P) Debugger, 7-12, SEL (select), (U) EDT Ref, EDT-307 CD-104; License Management, LMF-91 to SELECT, (U) EDT Ref, EDT-95 LMF-93 string specifier See also FILE command keypad mode, (U) EDT Ref, EDT-99 EDT editor, (U) Text Processing, 2-29 TOP, (U) EDT Ref, EDT-325 MOVE DOWN command, (U) EVE Ref, EVE-87 MOVL (Move Long) instruction, (P) MACRO, Movefile subfunction calling, V5.5 New Features, 22-1; MOVO (Move Octa) instruction, (P) MACRO, 9-24 Dependability Handbook, 9-23 MOVP (Move Packed) instruction, (P) MACRO, description, V5.5 New Features, 22-1; Dependability Handbook, 9-22 MOVPSL (Move PSL) instruction, (P) MACRO, used by DEC File Optimizer for VMS, 9 - 77Dependability Handbook, 9-22 MOVQ (Move Quad) instruction, (P) MACRO, MOVE keypad function, (M) Show Cluster, SHCL-5 MOVTC (Move Translated Characters) instruction, MOVE LEFT command, (U) EVE Ref, EVE-88 (P) MACRO, 9-134 /MOVE qualifier MOVTUC (Move Translated Until Character) in SET FILE DCL command, V5.5 New instruction, (P) MACRO, 9-136 Features, 11-2MOVW (Move Word) instruction, (P) MACRO, MOVE RIGHT command, (U) EVE Ref, EVE-89 MOVE UP command, (U) EVE Ref, EVE-90 MOVZBL (Move Zero-Extended Byte to Long) MOVE\_HORIZONTAL built-in procedure, (P) instruction, (P) MACRO, 9-25 VAXTPU, 7-278 to 7-279 MOVZBW (Move Zero-Extended Byte to Word) MOVE\_TEXT built-in procedure, (P) VAXTPU, instruction, (P) MACRO, 9-25 7-280 to 7-281 MOVZWL (Move Zero-Extended Word to Long) MOVE\_VERTICAL built-in procedure, (P) instruction, (P) MACRO, 9-25 *VAXTPU*, 7–282 to 7–283 MPW\_HILIMIT parameter, (M) System MOVF (Move F\_floating) instruction, (P) MACRO, Generation, A-17 9 - 118MPW\_IOLIMIT parameter, (M) System MOVG (Move G\_floating) instruction, (P) Generation, A-18 MACRO, 9-118 MPW\_LOLIMIT parameter, (M) System MOVH (Move H\_floating) instruction, (P) Generation, A-18 MACRO, 9-118 MPW\_LOWAITLIMIT parameter, (M) System Moving jobs from one queue to another, (M) Generation, A-18 Maintaining VMS, 5-76 MPW\_THRESH parameter, (M) System Moving queue database, (M) Maintaining VMS, Generation, A-18 5 - 65MPW\_WAITLIMIT parameter, (M) System master file, (M) Maintaining VMS, 5-65 Generation, A-18 queue and journal files, (M) Maintaining VMS, MPW WRTCLUSTER parameter, (M) System 5-66 Generation, A-19 Moving queue files MSCP command, (M) System Generation, SGN-23 after queuing system upgrade, V5.5 New MSCP-served disk, (M) Bad Block, BAD-4 Features, 5-4 using MONITOR DISK data to evaluate, (M) master file, V5.5 New Features, 5-4 Performance Management, 3-33 queue and journal files, V5.5 New Features, MSCP server, (M) System Management Intro, 6-3; 5-4(M) VAXcluster, 1-4 Moving text and cluster-accessible disk, (M) VAXcluster, APPEND, (U) EDT Ref, EDT-261 5-2buffer specifier code line mode, (U) EDT Ref, EDT-120 base address, (P) System Dump Analyzer, COPY, (U) EDT Ref, EDT-125 SDA-14 CUT, (U) EDT Ref, EDT-50, EDT-275 initializing, (M) VAXcluster, 5-3 /DUPLICATE qualifier, (U) EDT Ref, EDT-137 load balancing, V5.5 New Features, B-55 INCLUDE, (U) EDT Ref, EDT-147 MOVE, (U) EDT Ref, EDT-150

MSCP server (cont'd) loading, (M) VAXcluster, 5-3; (M) System Generation, SGN-23 load sharing, (M) VAXcluster, 5-4 served HSC disk, (M) System Management Intro, 6-10 starting, (M) System Generation, SGN-23 MSCP symbol, (P) System Dump Analyzer, SDA-14 MSCP\_BUFFER parameter, (M) System Generation, A-19 MSCP\_CREDITS parameter, (M) System Generation, A-19 MSCP\_LOAD parameter, (M) VAXcluster, 5-3, A-1: (M) System Generation, A-19 function in mixed-interconnect VAXcluster configuration, (M) System Management Intro, 6-11 using to control load balancing, V5.5 New Features, B-55 MSCP\_SERVER class record, (M) Monitor, A-27 MSCP\_SERVE\_ALL parameter, (M) VAXcluster, 5-3, A-1; (M) System Generation, A-19 function in mixed-interconnect VAXcluster configuration, (M) System Management Intro, 6-11 using to control load balancing, V5.5 New Features, B-55 MS-DOS node, (M) Networking, 9-24 MSE option, (P) File Def Language, FDL-37 MSG\$\_CRUNSOLIC, (P) Device Support (A), 9-7 MSG\$\_DEVOFFLIN, (P) Device Support (A), 10-7 MSYNC (Memory Instruction Synchronization) instruction, (P) MACRO, 10-35, 10-39, 10-42, 10-44, 10-88 MTAACP (magnetic tape ancillary control process), (U) Files and Devices, B-1 correction to I/O, V5.5 Release Notes, 2-33 MTAACP process mount request, (M) Maintaining VMS, 3-5 MTH\$ACOS, (P) RTL Math, MTH-3 MTH\$ACOSD, (P) RTL Math, MTH-6 MTH\$AIMAG, (P) RTL Math, MTH-110 MTH\$ALOG, (P) RTL Math, MTH-112 MTH\$ALOG10, (P) RTL Math, MTH-116 MTH\$ALOG2, (P) RTL Math, MTH-114 MTH\$ASIN, (P) RTL Math, MTH-9 MTH\$ASIND, (P) RTL Math, MTH-11 MTH\$ATAN, (P) RTL Math, MTH-13 MTH\$ATAN2, (P) RTL Math, MTH-17 MTH\$ATAND, (P) RTL Math, MTH-15 MTH\$ATAND2, (P) RTL Math, MTH-19 MTH\$ATANH, (P) RTL Math, MTH-21 MTH\$CABS, (P) RTL Math, MTH-23 MTH\$CCOS, (P) RTL Math, MTH-26 MTH\$CDABS, (P) RTL Math, MTH-23 MTH\$CDCOS, (P) RTL Math, MTH-28

MTH\$CDEXP, (P) RTL Math, MTH-33 MTH\$CDLOG, (P) RTL Math, MTH-37 MTH\$CDSIN, (P) RTL Math, MTH-54 MTH\$CDSQRT, (P) RTL Math, MTH-59 MTH\$CEXP, (P) RTL Math, MTH-31 MTH\$CGABS, (P) RTL Math, MTH-23 MTH\$CGCOS, (P) RTL Math, MTH-28 MTH\$CGEXP, (P) RTL Math, MTH-33 MTH\$CGLOG, (P) RTL Math, MTH-37 MTH\$CGSIN, (P) RTL Math, MTH-54 MTH\$CGSQRT, (P) RTL Math, MTH-59 MTH\$CLOG, (P) RTL Math, MTH-35 MTH\$CMPLX, (P) RTL Math, MTH-40 MTH\$CONJG, (P) RTL Math, MTH-44 MTH\$COS, (P) RTL Math, MTH-47 MTH\$COSD, (P) RTL Math, MTH-49 MTH\$COSH, (P) RTL Math, MTH-51 MTH\$CSIN, (P) RTL Math, MTH-53 MTH\$CSQRT. (P) RTL Math, MTH-57 MTH\$CVT\_DA GA, (P) RTL Math, MTH-63 MTH\$CVT\_D\_G, (P) RTL Math, MTH-62 MTH\$CVT\_GA\_DA, (P) RTL Math, MTH-63 MTH\$CVT\_G\_D, (P) RTL Math, MTH-62 MTH\$DACOS, (P) RTL Math, MTH-3 MTH\$DACOSD, (P) RTL Math, MTH-6 MTH\$DASIN, (P) RTL Math, MTH-9 MTH\$DASIND, (P) RTL Math, MTH-11 MTH\$DATAN, (P) RTL Math, MTH-13 MTH\$DATAN2, (P) RTL Math, MTH-17 MTH\$DATAND, (P) RTL Math, MTH-15 MTH\$DATAND2, (P) RTL Math, MTH-19 MTH\$DATANH, (P) RTL Math, MTH-21 MTH\$DCMPLX, (P) RTL Math, MTH-42 MTH\$DCONJG, (P) RTL Math, MTH-45 MTH\$DCOS, (P) RTL Math, MTH-47 MTH\$DCOSD, (P) RTL Math, MTH-49 MTH\$DCOSH, (P) RTL Math, MTH-51 MTH\$DEXP, (P) RTL Math, MTH-65 MTH\$DIMAG, (P) RTL Math, MTH-110 MTH\$DLOG, (P) RTL Math, MTH-112 MTH\$DLOG10, (P) RTL Math, MTH-116 MTH\$DLOG2, (P) RTL Math, MTH-114 MTH\$DREAL, (P) RTL Math, MTH-120 MTH\$DSIN, (P) RTL Math, MTH-122 MTH\$DSINCOS, (P) RTL Math, MTH-124 MTH\$DSINCOSD, (P) RTL Math, MTH-127 MTH\$DSIND, (P) RTL Math, MTH-131 MTH\$DSINH, (P) RTL Math, MTH-133 MTH\$DSQRT, (P) RTL Math, MTH-136 MTH\$DTAN, (P) RTL Math, MTH-139 MTH\$DTAND, (P) RTL Math, MTH-141 MTH\$DTANH, (P) RTL Math, MTH-143 MTH\$EXP, (P) RTL Math, MTH-65 MTH\$GACOS, (P) RTL Math, MTH-3 MTH\$GACOSD, (P) RTL Math, MTH-6 MTH\$GASIN, (P) RTL Math, MTH-9 MTH\$GASIND, (P) RTL Math, MTH-11

MTH\$GATAN, (P) RTL Math, MTH-13 MTH\$GATAN2, (P) RTL Math, MTH-17 MTH\$GATAND, (P) RTL Math, MTH-15 MTH\$GATAND2, (P) RTL Math, MTH-19 MTH\$GATANH, (P) RTL Math, MTH-21 MTH\$GCMPLX, (P) RTL Math, MTH-42 MTH\$GCONJG. (P) RTL Math. MTH-45 MTH\$GCOS, (P) RTL Math, MTH-47 MTH\$GCOSD, (P) RTL Math, MTH-49 MTH\$GCOSH, (P) RTL Math, MTH-51 MTH\$GEXP, (P) RTL Math, MTH-65 MTH\$GIMAG, (P) RTL Math, MTH-110 MTH\$GLOG, (P) RTL Math, MTH-112 MTH\$GLOG10, (P) RTL Math, MTH-116 MTH\$GLOG2, (P) RTL Math, MTH-114 MTH\$GREAL, (P) RTL Math, MTH-120 MTH\$GSIN, (P) RTL Math, MTH-122 MTH\$GSINCOS, (P) RTL Math, MTH-124 MTH\$GSINCOSD, (P) RTL Math, MTH-127 MTH\$GSIND, (P) RTL Math, MTH-131 MTH\$GSINH, (P) RTL Math, MTH-133 MTH\$GSQRT, (P) RTL Math, MTH-136 MTH\$GTAN, (P) RTL Math, MTH-139 MTH\$GTAND, (P) RTL Math, MTH-141 MTH\$GTANH, (P) RTL Math, MTH-143 MTH\$HACOS, (P) RTL Math, MTH-68 MTH\$HACOSD, (P) RTL Math, MTH-70 MTH\$HASIN, (P) RTL Math, MTH-72 MTH\$HASIND, (P) RTL Math, MTH-74 MTH\$HATAN, (P) RTL Math, MTH-76 MTH\$HATAN2,~(P)~RTL~Math,~MTH-80MTH\$HATAND, (P) RTL Math, MTH-78 MTH\$HATAND2, (P) RTL Math, MTH-82 MTH\$HATANH, (P) RTL Math, MTH-84 MTH\$HCOS, (P) RTL Math, MTH-86 MTH\$HCOSD, (P) RTL Math, MTH-87 MTH\$HCOSH, (P) RTL Math, MTH-88 MTH\$HEXP, (P) RTL Math, MTH-90 MTH\$HLOG, (P) RTL Math, MTH-92 MTH\$HLOG10, (P) RTL Math, MTH-96 MTH\$HLOG2, (P) RTL Math, MTH-94 MTH\$HSIN, (P) RTL Math, MTH-98 MTH\$HSINCOS, (P) RTL Math, MTH-124 MTH\$HSINCOSD, (P) RTL Math, MTH-127MTH\$HSIND, (P) RTL Math, MTH-99 MTH\$HSINH, (P) RTL Math, MTH-100 MTH\$HSQRT, (P) RTL Math, MTH-102 MTH\$HTAN, (P) RTL Math, MTH-104 MTH\$HTAND, (P) RTL Math, MTH-106 MTH\$HTANH, (P) RTL Math, MTH-108 MTH\$RANDOM, (P) RTL Math, MTH-118 MTH\$REAL, (P) RTL Math, MTH-120 MTH\$SIN, (P) RTL Math, MTH-122 MTH\$SINCOS, (P) RTL Math, MTH-124 MTH\$SINCOSD, (P) RTL Math, MTH-127 MTH\$SIND, (P) RTL Math, MTH-131 MTH\$SINH, (P) RTL Math, MTH-133

MTH\$SIN\_R4, (P) RTL Intro, 3-5 MTH\$SQRT, (P) RTL Math, MTH-136 MTH\$TAN, (P) RTL Math, MTH-139 MTH\$TAND, (P) RTL Math, MTH-141 MTH\$TANH, (P) RTL Math, MTH-143 MTH\$UMAX, (P) RTL Math, MTH-145 MTH\$UMIN, (P) RTL Math, MTH-146 MTH\$VxFOLRLy\_MA\_V5, (P) RTL Math, MTH-201 MTH\$VxFOLRLy z V2, (P) RTL Math, MTH-205 MTH\$VxFOLRy\_MA\_V15, (P) RTL Math, MTH-192 MTH\$VxFOLRy\_z\_V8, (P) RTL Math, MTH-197 MTPR (Move to Processor Register) instruction, (P) MACRO, 9-195, 10-47 vector IPRs, (P) MACRO, 10-8, 10-47 MTVP (Move to Vector Processor) instruction, (P) MACRO, 10-90 MT\_BLOCK\_SIZE attribute, (P) File Def Language, FDL-21 MT\_BLOCK\_SIZE secondary attribute, (P) File Applications, 4–28 MT\_CLOSE\_REWIND attribute, (P) File Def Language, FDL-21 MT\_CURRENT\_POSITION attribute, (P) File Def Language, FDL-21 MT\_NOT\_EOF attribute, (P) File Def Language, FDL-21 MT\_OPEN\_REWIND attribute, (P) File Def Language, FDL-21 MT\_PROTECTION attribute, (P) File Def Language, FDL-22 MT\_PROTECTION secondary attribute, (P) File Applications, 4-28 MULB2 (Multiply Byte 2 Operand) instruction, (P) MACRO, 9-26 MULB3 (Multiply Byte 3 Operand) instruction, (P) MACRO, 9-26 MULD2 (Multiply D\_floating 2 Operand) instruction, (P) MACRO, 9-119 MULD3 (Multiply D\_floating 3 Operand) instruction, (P) MACRO, 9-119 MULF2 (Multiply F\_floating 2 Operand) instruction, (P) MACRO, 9-119 MULF3 (Multiply F\_floating 3 Operand) instruction, (P) MACRO, 9-119 MULG2 (Multiply G\_floating 2 Operand) instruction, (P) MACRO, 9-119 MULG3 (Multiply G floating 3 Operand) instruction, (P) MACRO, 9-119 MULH2 (Multiply H\_floating 2 Operand) instruction, (P) MACRO, 9-119 MULH3 (Multiply H\_floating 3 Operand) instruction, (P) MACRO, 9-119 MULL2 (Multiply Long 2 Operand) instruction,

(P) MACRO, 9-26

MULL3 (Multiply Long 3 Operand) instruction, Multilevel device interrupt dispatching, (P) Device (P) MACRO, 9-26 Support (A), 14-31, 14-33 to 14-36; (P) MULP (Multiply Packed) instruction, (P) MACRO, Device Support (B), 1-22 9 - 166Multinational characters, (U) DSR Ref, 2-14 Multiaccess Multinational character set circuit, (M) Networking, 2-6 See DEC Multinational Character Set Ethernet, (M) Networking, 1-7 Multinational Character Set Multiaccess device, (M) DECnet-VAX Guide, 1-7 See MCS Multiblock, (P) File Applications, 3-11 Multinational collating sequence, (U) Using VMS, defined, (P) File Applications, 2-1, 3-6 restriction for use, (P) File Applications, 3-6 Multinetwork configuration, (M) Networking, Multiblock count field See RAB\$B MBC field Multiple active signal, (P) Routines Intro, 2-54 MULTIBLOCK\_COUNT attribute, (P) File Def Multiple area Language, FDL-12 See Area MULTIBLOCK\_COUNT secondary attribute, (P) Multiple-area network, (M) System Management File Applications, 7–18 Intro, 7-2; (M) DECnet-VAX Guide, 1-3; (M) Multibuffer count, (P) File Applications, 3–11, Networking, 1–2 3-13, 3-26, 3-27 conversion to, (M) Networking, A-8 Multibuffer count field design of, (M) Networking, A-3 See RAB\$B\_MBF field example of configuration, (M) Networking, A-4 Multibuffer count XABITM example of design, (M) Networking, A-3 for increased local buffering, V5.5 New Multiple argument Features, B-110 delimiting in control block fields, (P) RMS, 3-5, precedence over RAB\$B\_MBF field, V5.5 New Features, B-110 specifying in control block fields, (P) RMS, B-3 MULTIBUFFER\_COUNT attribute, (P) File Def Multiple buffering, (M) DTS/DTR, DTS-1 Language, FDL-12 Multiple buffers, (P) VAXTPU, 7-59 MULTIBUFFER\_COUNT secondary attribute, (P) editing with EVE, (U) Text Processing, 1-56 File Applications, 7–17, 7–19 Multiple-cause failures and record access type, (P) File Applications, in hardware components, Dependability 7 - 20Handbook, 9-16 for sequential file, (P) File Applications, 7–18 Multiple definition modules Multicast address, (M) Networking, 1-7 specifying with /DELETE qualifier, (P) broadcast, (M) Networking, 3-15 National Char Set, NCS-27, NCS-32 dump assistance, (M) Networking, 4-18 specifying with /EXTRACT qualifier, (P) Ethernet, (M) Networking, 3-15 National Char Set, NCS-28 group, (M) Networking, 3-15 specifying with /ONLY qualifier, (P) National Multicast messages, (M) LATCP, LAT-21, Char Set, NCS-38 LAT-43, LAT-44 Multiple-environment cluster, (M) VAXcluster, timer for. (M) LATCP, LAT-31 4-1, 4-11 **Multi-Datacenter Facility** Multiple exception, (P) System Services Intro, defined, Dependability Handbook, Glossary-4 11 - 15Multi-Datacenter Facility software product Multiple file specifications in a parameter list, (U) DCL Concepts, 3-16 See MDF Multiple inbound connects, (M) Networking, 8-8, Multifile/multivolume configuration, (U) Files and 8-32, 8-41 Devices, B-7 Multiple input files, (P) Convert, CONV-5 Multifile/single-volume configuration, (U) Files specifying, (P) National Char Set, NCS-21 and Devices, B-5 Multiple-key indexed file Multifile summaries, (M) Monitor, MON-9 creating, (P) RMS, 4-5 Multihost connector node Multiple keys, (P) Convert, CONV-27 See X.25 example of use with Close service, (P) RMS, Multilanguage program 4 - 12debugging, (P) Debugger, 9-6 number allowed, (U) Sort/Merge, SORT-28 with DECwindows, (P) Debugger, 1-28 performance cost of using, (P) RMS, 13-14 recommended number, (P) RMS, 13-14

Multiple keys (cont'd) Multiprocessing device driver (cont'd) rules for specifying, (U) Sort/Merge, SORT-28 using XDELTA, (P) Device Support (A), 13-7, E - 20Multiple record stream with block I/O, (P) RMS, 4-25 writing, (P) Device Support (A), E-8 to E-20 Multiprocessing environment, (P) Programming Multiple service for retrieving records, (P) File Applications, Resources, 4-18 See also Synchronization Multiple-site data center contrasted with uniprocessing environment, (P) VAXcluster systems, Dependability Handbook, Device Support (A), 3-11, E-1 5-15, 6-24, 7-16 debugging a driver designed for, (P) Device Multiple VMS versions (Rolling Upgrade), Support (A), 13-28 to 13-30 Dependability Handbook, 9-30 initial XDELTA breakpoint, (P) Delta/XDelta, Multiplexer DELTA-8 DMB32 device, (P) I/O User's I, 8-1 scheduling, (P) Programming Resources, 4-19 DMF32 device, (P) I/O User's I, 8-1 XDELTA breakpoints, (P) Delta/XDelta, DZ11 device, (P) I/O User's I, 8-1 DELTA-13, DELTA-29, DELTA-35 DZ32 device, (P) I/O User's I, 8-1 XDELTA operation, (P) Delta/XDelta, Multiplication, (P) RTL Library, LIB-128, DELTA-13 LIB-130, LIB-132, LIB-134 MULTIPROCESSING parameter, (M) System decimal strings, (P) RTL String Manipulation, Generation, A-19; (P) Device Support (A), STR-58 13-28, E-2 to E-3, E-4 extended precision, (P) RTL Library, LIB-136 Multiprocessing software model of complex number, (P) RTL General Purpose, master/slave, (P) RTL Parallel Processing, 1-3 OTS-53to 1-4 Multiplication operator (\*), (P) System Dump pipelining, (P) RTL Parallel Processing, 1-4 to Analyzer, SDA-12 Multiplying work queue processing, (P) RTL Parallel vector, (P) RTL Math, MTH-155 Processing, 1-5 Multipoint Multiprocessor circuit, (M) Networking, 2-9 analyzing crash dumps, (P) System Dump configuration, (M) Networking, 1-5, 1-8, 5-17 Analyzer, SDA-9 control circuit, (M) Networking, 2-6 displaying synchronization structures, (P) control station, (M) Networking, 2-9 System Dump Analyzer, SDA-150 line, (M) Networking, 2-14 Multiprocessor environments, (M) System polling, (M) Networking, 2-9 Management Intro, 6-1 tributary, (M) Networking, 2-9 Multiprocessor state, (P) Device Support (B), 1-16 tributary address, (M) Networking, 2-9, 3-35 Multiprocess program tributary circuit, (M) Networking, 2-6 CALL command, (P) Debugger, CD-10 Multiport memory CONNECT command, (P) Debugger, 10-4, connecting, (M) System Generation, SGN-28 10-13, CD-36 initializing, (M) System Generation, SGN-29 controlling execution, (P) Debugger, 10-5 installing shared images, (M) Install, INS-6, DBG\$PROCESS, (P) Debugger, 10-9 INS-21 debugging, (P) Debugger, 10-1 Multiprocessing with DECwindows, (P) Debugger, 1-9, active set, (M) Setting Up VMS, 2-19 1 - 29available set, (M) Setting Up VMS, 2-19 DEFINE/PROCESS\_GROUP command, (P) displaying information, (M) Setting Up VMS, Debugger, CD-52 2-20; (M) Maintaining VMS, 6-15 DO command, (P) Debugger, 10-5, CD-72 global symbols, (P) System Dump Analyzer, EXIT command, (P) Debugger, 10-8, 10-9, SDA-61 CD-90 hardware requirements, (M) Setting Up VMS, with DECwindows, (P) Debugger, 1-20 2 - 19global section watchpoint, (P) Debugger, 10-15 load leveling, (M) Setting Up VMS, 2-19 GO command, (P) Debugger, 10-5, CD-100 Multiprocessing device driver QUIT command, (P) Debugger, 10-8, 10-9, analyzing crash dumps, (P) Device Support (A), CD-106 E-19 to E-20 with DECwindows, (P) Debugger, 1-20 incompatibility with uniprocessing driver, (P) screen mode features, (P) Debugger, 10-14 Device Support (A), 12–13, E–3

Multiprocess program (cont'd)	Mutex (cont'd)
SET MODE [NO]INTERRUPT command, (P)	for ACL, (P) Device Support (B), 1–45
Debugger, 10-6, CD-149	for I/O database, (P) Device Support (B), 4-6
SET PROCESS command, (P) Debugger, 10-6,	I/O database, (P) Device Support (A), 11–12
10-7, CD-157	locking, (P) DECthreads, cma-81, cma-83,
SHOW PROCESS command, (P) Debugger,	pthread-82, pthread-84
10–2, CD–229	locking before signaling condition variable, (P)
specifying processes, (P) Debugger, 10–11	DECthreads, 3–8
STEP command, (P) Debugger, 10-5, CD-258	nonrecursive, (P) DECthreads, 2-10,
system requirements, (P) Debugger, 10-16	pthread-76
with DECwindows, (P) Debugger, 1-9, 1-29	obtaining kind, (P) DECthreads, cma-23
Multiprogramming, (P) RTL Parallel Processing,	recursive, (P) DECthreads, 2-10, cma-35,
1–1	pthread-76
timesharing, (P) RTL Parallel Processing, 1-1	setting kind, (P) DECthreads, cma-35
Multiscreen support, V5.5 New Features, B-45	types of, (P) DECthreads, 2–10
Multistream access option	unlocking, (P) DECthreads, cma-85,
See FAB\$V_MSE option	pthread-86
MULTISTREAM attribute, (P) File Def Language,	Mutex attributes object
FDL-37	creating, (P) DECthreads, pthread-70
Multistreamed workload, (P) Programming	deleting, (P) DECthreads, pthread-72
Resources, 4–18	Mutex type attribute, (P) DECthreads, 2–8
MULTISTREAM secondary attribute, (P) File	Mutual backup processing agreements,
Applications, 7–4	Dependability Handbook, 5–14
Multithreaded programming	Mutual exclusion
introduction, (P) DECthreads, 1–1	definition of, (P) RTL Parallel Processing, 1-2
potential problems, (P) DECthreads, 1-7	semaphore, (P) RTL Parallel Processing, 4-9
complexity, $(P)$ DECthreads, 1–7	MVS node, (M) Networking, 9–30
deadlocks, (P) DECthreads, 3-7	MVTIMEOUT parameter, (M) System Generation, A-20; (M) Maintaining VMS, 3-12
nonreentrant routines, (P) DECthreads,	MXV option, (P) File Def Language, FDL-21
1–8	Mix v option, (1) The Def Banguage, PDB-21
priority inversion, (P) DECthreads, 3–6	NI .
race conditions, (P) DECthreads, 3-7	N
software models, (P) DECthreads, 1-5	"n" specifier
boss/worker, (P) DECthreads, 1-5	
	with /DUPLICATE qualifier, (U) EDT Ref,
combination, (P) DECthreads, 1–7	with /DUPLICATE qualifier, (U) EDT Ref, EDT-137
pipelining, (P) DECthreads, 1-6	
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6	EDT-137
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4
pipelining, (P) DECthreads, 1-6 work crew, (P) DECthreads, 1-6 Multithread program debugger support, V5.5 New Features, 14-1	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4
pipelining, (P) DECthreads, 1-6 work crew, (P) DECthreads, 1-6 Multithread program debugger support, V5.5 New Features, 14-1 Multivolume file, (U) Files and Devices, 1-7	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3
pipelining, (P) DECthreads, 1-6 work crew, (P) DECthreads, 1-6 Multithread program debugger support, V5.5 New Features, 14-1 Multivolume file, (U) Files and Devices, 1-7 /MULTI_VOLUME qualifier, (M) Mount,	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction,	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESS field, (P) RMS, 6-5
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESS field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction,	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-5
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-3
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-3 NAM\$B_NODE field, (P) RMS, 6-7
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ Mutex, (P) DECthreads, 2–9	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 options listed, (P) RMS, 6-7
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ Mutex, (P) DECthreads, 2–9 comparing to condition variable, (P)	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 options listed, (P) RMS, 6-8 NAM\$B_RSL field, (P) RMS, 6-8 NAM\$B_RSL field, (P) RMS, 6-9, RMS-63
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ Mutex, (P) DECthreads, 2–9 comparing to condition variable, (P) DECthreads, 3–6	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 options listed, (P) RMS, 6-8 NAM\$B_RSL field, (P) RMS, 6-9, RMS-63 NAM\$B_RSS field, (P) File Applications, 6-9; (P)
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ Mutex, (P) DECthreads, 2–9 comparing to condition variable, (P) DECthreads, 3–6 creating, (P) DECthreads, cma-77, pthread-80 definition of, (P) DECthreads, pthread-80 deleting, (P) DECthreads, cma-79, pthread-78	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE descriptor, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 options listed, (P) RMS, 6-8 NAM\$B_RSL field, (P) RMS, 6-9, RMS-63 NAM\$B_RSS field, (P) File Applications, 6-9; (P) RMS, 6-9
pipelining, (P) DECthreads, 1–6 work crew, (P) DECthreads, 1–6 Multithread program debugger support, V5.5 New Features, 14–1 Multivolume file, (U) Files and Devices, 1–7 /MULTI_VOLUME qualifier, (M) Mount, MOUNT-28 MULW2 (Multiply Word 2 Operand) instruction, (P) MACRO, 9–26 MULW3 (Multiply Word 3 Operand) instruction, (P) MACRO, 9–26 Must Be Zero See Field See MBZ Mutex, (P) DECthreads, 2–9 comparing to condition variable, (P) DECthreads, 3–6 creating, (P) DECthreads, cma-77, pthread-80 definition of, (P) DECthreads, pthread-80	EDT-137 with SET WRAP, (U) EDT Ref, EDT-204 with TAB ADJUST, (U) EDT Ref, EDT-249 NAM\$B_BID field, (P) RMS, 6-4 NAM\$B_BLN field, (P) RMS, 6-4 NAM\$B_DEV descriptor, (P) RMS, 6-3 NAM\$B_DEV field, (P) RMS, 6-4 NAM\$B_DIR descriptor, (P) RMS, 6-3 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_DIR field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_ESL field, (P) RMS, 6-5 NAM\$B_NAME descriptor, (P) RMS, 6-3 NAM\$B_NAME field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 NAM\$B_NODE field, (P) RMS, 6-7 options listed, (P) RMS, 6-8 NAM\$B_RSL field, (P) RMS, 6-9, RMS-63 NAM\$B_RSS field, (P) File Applications, 6-9; (P)

NAM\$V\_WILD\_MBR bit, (P) RMS, 6-7 NAM\$B\_VER descriptor, (P) RMS, 6-3 NAM\$B\_VER field, (P) RMS, 6-10 NAM\$V\_WILD\_NAME bit, (P) RMS, 6-7 NAM\$V\_WILD\_SFD1 bit, (P) RMS, 6-7 NAM\$L\_DEV descriptor, (P) RMS, 6-3 NAM\$V\_WILD\_TYPE bit, (P) RMS, 6-7 NAM\$L\_DEV field, (P) RMS, 6-4 NAM\$V\_WILD\_UFD bit, (P) RMS, 6-7 NAM\$L\_DIR descriptor, (P) RMS, 6-3 NAM\$V\_WILD\_VER bit, (P) RMS, 6-7 NAM\$L\_DIR field, (P) RMS, 6-5 NAM\$W\_DID field, (P) File Applications, 6-5; NAM\$L\_ESA field, (P) File Applications, 6-4; (P) RMS, 6-5 (P) RMS, 6-4NAM\$W\_FID field, (P) File Applications, 6-5; (P) NAM\$L\_FNB field, (P) RMS, 6-6, RMS-63, RMS, 6-6 RMS-87 NAM (name block), (P) Programming Resources, NAM\$L\_FNB status bit listing, (P) RMS, 6-6 1-36; (P) System Dump Analyzer, SDA-77 NAM\$L\_NAME descriptor, (P) RMS, 6-3 address field, (P) File Applications, 5-9 NAM\$L\_NAME field, (P) RMS, 6-7 and resulting file specification, (P) File NAM\$L\_NODE descriptor, (P) RMS, 6-3 Applications, 5-8 NAM\$L\_NODE field, (P) RMS, 6-7 and Search service, (P) File Applications, 5-8 NAM\$L\_RLF field, (P) File Applications, 6-4, 6-9, presence of a search list, (P) File Applications, 9-7; (P) RMS, 6-8 NAM\$L\_RSA field, (P) File Applications, 6-4, presence of a wildcard character, (P) File 6-9; (P) RMS, 6-9, RMS-63 Applications, 5–9 NAM\$L\_TYPE descriptor, (P) RMS, 6-3 summary of fields, (P) RMS, 6-1 NAM\$L\_TYPE field, (P) RMS, 6-9 support by FDL, (P) File Applications, 5-10 support by languages, (P) File Applications, NAM\$L\_VER descriptor, (P) RMS, 6-3 NAM\$L\_VER field, (P) RMS, 6-10 5 - 10NAM\$L\_WCC field, (P) RMS, 6-10 using, (P) File Applications, 5–12 to 5–14 returned by Remove service, (P) RMS, RMS-82 using from higher-level language, (P) RMS, NAM\$T\_DVI field, (P) File Applications, 6-5; (P) using from VAX MACRO, (P) RMS, 6-2 RMS, 6-5NAM\$V\_CNCL\_DEV bit, (P) RMS, 6-6 NAM (name block) option NAM\$V\_CONCEAL field, (P) RMS, RMS-26, See FAB\$V\_NAM option **RMS-63** \$NAMDEF, (P) File Applications, 5–10 NAM\$V\_DIR\_LVLS bit, (P) RMS, 6-6 Name NAM\$V\_EXP\_DEV bit, (P) RMS, 6-6 See also Handle NAM\$V\_EXP\_DIR bit, (P) RMS, 6-6 See also Logical name NAM\$V\_EXP\_NAME bit, (P) RMS, 6-6 detached process, (U) DCL Dictionary, NAM\$V\_EXP\_TYPE bit, (P) RMS, 6-6 DCL2-55 NAM\$V\_EXP\_VER bit, (P) RMS, 6-6 DNS NAM\$V\_GRP\_MBR bit, (P) RMS, 6-6 See DNS name NAM\$V\_HIGHVER bit, (P) RMS, 6-6 generic device, (U) DCL Dictionary, DCL1-15 NAM\$V LOWVER bit, (P) RMS, 6-6 logical NAM\$V\_NOCONCEAL option, (P) RMS, 6-8, canceling, (U) DCL Dictionary, DCL1-104 RMS-16, RMS-68 deassigning, (U) DCL Dictionary, DCL1-58 NAM\$V\_NODE bit, (P) RMS, 6-6 network component, (M) DECnet-VAX Guide, NAM\$V\_PPF bit, (P) RMS, 6-6 3 - 33NAM\$V\_PWD field, (P) RMS, RMS-26, RMS-63, node, (M) DECnet-VAX Guide, 3-14 subprocess, (U) DCL Dictionary, DCL2-55 NAM\$V\_PWD option, (P) RMS, 6-8, RMS-16 symbol definition, (U) DCL Dictionary, NAM\$V\_QUOTED bit, (P) RMS, 6-6 DCL1-1, DCL1-5 NAM\$V\_ROOT\_DIR bit, (P) RMS, 6-7 widget NAM\$V\_SEARCH\_LIST bit, (P) RMS, 6-7 case sensitivity of, (P) VAXTPU, 7-74 NAM\$V\_SRCHXABS option, (P) RMS, 6-8 %NAME, (P) Debugger, D-4 NAM\$V\_SYNCHK option, (P) RMS, 6-8, RMS-68 NAME attribute, (P) File Def Language, FDL-19, use with Parse service, (P) RMS, 5-7 FDL-22, FDL-29 using for Parse service without I/O, (P) RMS, Name block RMS-67 See NAM NAM\$V\_WILDCARD bit, (P) RMS, 6-7 Name block address field NAM\$V\_WILD\_GRP bit, (P) RMS, 6-7 See FAB\$L NAM field

Name block options field \$NAM\_STORE macro, (P) RMS, B-7 argument categories, (P) RMS, B-7 See NAM\$B NOP field comparing with \$NAM macro, (P) RMS, B-7 Named directory specification definition, (U) Using VMS, 2-8; (U) DCL NAM\$T\_DVI argument, (P) RMS, B-7 NAM\$W\_DID argument, (P) RMS, B-7 Concepts, 3-9 NAM\$W\_FID argument, (P) RMS, B-7 format in a file specification, (U) Using VMS, requirements, (P) RMS, B-7 2-8; (U) DCL Concepts, 3-9 .NARG directive, (P) MACRO, 6-63 rules for entering, (U) Using VMS, 2-8; (U) NARGS keyword, (P) System Services Intro, 2-8 DCL Concepts, 3-9 National Character Set (NCS) Routines Named user See NCS routines See Reserved user NAME keyword National Character Set Utility (NCS). (P) with FILE\_PARSE, (P) VAXTPU, 7-141 Programming Resources, 1-22; (P) National with FILE\_SEARCH, (P) VAXTPU, 7–144 Char Set, NCS-3 NAME parameter DCL interface identifying logging device, (M) Networking, default function, (P) National Char Set, 3 - 88NCS-3 library functions. (P) National Char Set. SET NODE command, (M) Networking, 3-9 NCS-3 Name service directing output from, (P) National Char Set, See DNS (Distributed Name Service) NCS-21 Name services, (P) System Services Intro, 6-1 exiting, (P) National Char Set, NCS-21 Names for keys, (U) EVE Ref, 1-25 functions, (P) National Char Set, NCS-3 Namespace, V5.5 New Features, C-4 implementation, (P) National Char Set, NCS-3 changing default, V5.5 New Features, C-73 clearinghouses in, V5.5 New Features, C-13 National Replacement Character Set defined, Dependability Handbook, Glossary-4 See NRC distributing, V5.5 New Features, C-13 Native language listing information, V5.5 New Features, C-20 on VMS, (P) File Def Language, FDL-41 to C-23; (P) System Services Intro, 6-30 NBI name of, V5.5 New Features, C-7, C-42 See Memory interconnect to VAXBI adapter structure of, V5.5 New Features, C-5 NBP (next block pointer) ways of using, V5.5 New Features, C-4 default for block transfer, (P) RMS, 7-2 /NAMES qualifier, (P) Librarian, LIB-33 for block I/O, (P) RMS, 4-25 for MACRO DCL command, V5.5 New functions listed, (P) RMS, 4-25 Features, 19-2 NCB (network connect block), (M) DECnet-VAX "Name" string constant parameter to GET\_INFO, Guide, 2-15; (M) Networking, 3-77, 8-12, (P) VAXTPU, 7-164, 7-173, 7-182 destination descriptor, (M) Networking, 8-31 application-wide, (P) RTL Parallel Processing, for incoming X.25 call, (M) Networking, 2-36 .NCHR directive, (P) MACRO, 6-64 Naming conventions, (P) Modular Procedures, NCP (Network Control Program), V5.5 Release 3-1, A-6Notes, 2–14; (M) Setting Up VMS, 4–22; (M) FOLR routines, (P) RTL Math, 2-7 Security, 8–16; (M) DECnet-VAX Guide, 2–26; for facilities, (P) Modular Procedures, 3–2 (M) Networking, 1–16 for files, (P) Modular Procedures, 3-4 See also DECnet-VAX network for modules, (P) Modular Procedures, 3-4 abbreviating commands, (M) Network Control for procedures, (P) Modular Procedures, 3-3 Program, NCP-2 for PSECTs, (P) Modular Procedures, 3-5 as a network monitoring tool, (M) DECnet-VAX for VAXTPU procedures, (P) VAXTPU, 3-16 Guide, 4-1macros, (P) RMS, 3-2 circuit, line, link, DTE, and server module services, (P) RMS, 3-3 states and transitions, (M) Network vector routines, (P) RTL Math, 2-9 Control Program, A-16 to A-22 Naming help modules, (P) Librarian, LIB-4 command functions, (M) Networking, 3-3 Naming PPL\$ components, (P) RTL Parallel command prompting, (M) Network Control Processing, 5-5 Program, NCP-4 \$NAM macro, (P) RMS, B-6 argument categories, (P) RMS, B-6

```
NCP (Network Control Program) (cont'd)
  commands, (M) Networking, 1-15; (M)
      Network Control Program, NCP-14 to
      NCP-185
  command syntax, (M) Networking, 3-4; (M)
      Network Control Program, NCP-1
  command words, (M) Networking, 3-3
  component syntax rules, (M) Network Control
      Program, NCP-7
  copying node databases, (M) VAXcluster, 4-8
  counters, (M) DECnet-VAX Guide, 4-4
  Data Link layer events, (M) Network Control
      Program, A-31
  DECnet circuit and line devices, (M) Network
      Control Program, A-15
  DEFINE LINE command, V5.5 Release Notes,
      4 - 12
  defining VAXcluster alias, (M) VAXcluster, 4-8
  definition, (M) Networking, 3-3
  directing output from, (M) Network Control
      Program, NCP-12
  disabling LAN adapter, (M) VAXcluster, 4-7
  display types, (M) DECnet-VAX Guide, 4-2
  enabling MOP service, (M) VAXcluster, 7-34,
      C-5
  End Communications layer events, (M)
      Network Control Program, A-26
  event class and type summary, (M) Network
      Control Program, A-22 to A-35
  exiting, (M) Network Control Program,
      NCP-12
  exiting the prompting sequence, (M) Network
      Control Program, NCP-5
  Help Facility, (M) Network Control Program,
      NCP-11
  invalid grouping error message, (M)
      Networking, 3-19
  invoking, (M) Network Control Program,
      NCP-1, NCP-12
  issuing commands, (M) Network Control
      Program, NCP-2
  line and circuit support for new Ethernet/820
      controllers, V5.5 New Features, B-105
  line and circuit support for VAXft 3000, V5.5
      New Features, B-105
  LIST command, (M) Networking, 3-98
  logging events, (M) VAXcluster, C-4
  logging line counters, (M) VAXcluster, 7-26
  network counter summary, (M) Network
      Control Program, A-1 to A-14
  Network Management layer events, (M)
      Network Control Program, A-23
  number of receive buffers, V5.5 Release Notes,
      4-12
  parameter syntax rules, (M) Network Control
      Program, NCP-7
  plural forms of component names, (M)
```

DECnet-VAX Guide, 3-33

```
NCP (Network Control Program) (cont'd)
  prompt, (M) DECnet-VAX Guide, 3-32; (M)
      Network Control Program, NCP-12
  prompting examples, (M) Network Control
      Program, NCP-6
  prompt syntax, (M) Network Control Program,
      NCP-4
  Remote Buffer Errors counter, V5.5 Release
      Notes, 4-12
  required privileges, (M) Network Control
      Program, NCP-12
  Routing layer events, (M) Network Control
      Program, A-26
  Session Control layer events, (M) Network
      Control Program, A-25
  SET LINE command, V5.5 Release Notes, 4–12
  SHOW CIRCUIT command, V5.5 Release
      Notes, 4–12
  SHOW command, (M) Networking, 3-98
  SHOW LINE command, V5.5 Release Notes,
  specifying plural components, (M) Networking,
      3-4, 3-99
  supplemental technical information, (M)
      Network Control Program, A-1 to A-35
  tailoring the configuration database, (M)
      DECnet-VAX Guide, 3-31; (M) Networking,
  TELL prefix, (M) Networking, 3-7
  usage summary, (M) Network Control Program,
      NCP-12
  users, (M) Networking, 1–15
  using commands, (M) Networking, 3-1
  using to control proxy login, (M) DECnet-VAX
      Guide, 3-35
  using to define nodes, (M) DECnet-VAX Guide,
      3 - 17
  using to display network information, (M)
      DECnet-VAX Guide, 4-1
  using to test network, (M) DECnet-VAX Guide,
  VMS system-specific events, (M) Network
      Control Program, A-35
  X.25 packet level events, (M) Network Control
      Program, A-33
NCP command
  ALL parameter with SET command, (M)
      DECnet-VAX Guide, 3-32
  CLEAR, (M) DECnet-VAX Guide, 3-13, 3-33
  DEFINE. (M) DECnet-VAX Guide, 3-13, 3-32
  DEFINE LOGGING, (M) DECnet-VAX Guide,
  DEFINE NODE, (M) DECnet-VAX Guide, 3-17
  effect of invalid parameter value, (M)
      DECnet-VAX Guide, 4-10
  HELP, (M) DECnet-VAX Guide, 3-32
  LIST, (M) DECnet-VAX Guide, 3-33, 4-1
  LIST NODE, (M) DECnet-VAX Guide, 3-33
```

NCP command (cont'd) PURGE, (M) DECnet-VAX Guide, 3-13, 3-33 PURGE LOGGING, (M) DECnet-VAX Guide, 4-6 PURGE NODE, (M) DECnet-VAX Guide, 3-33 SET, (M) DECnet-VAX Guide, 3-13, 3-32 SET EXECUTOR, (M) DECnet-VAX Guide, 3 - 36SET KNOWN NODES, (M) DECnet-VAX Guide, 3-17 SET LOGGING, (M) DECnet-VAX Guide, 4-5 SET MODULE CONFIGURATOR, (M) DECnet-VAX Guide, 4-6 SET OBJECT, (M) DECnet-VAX Guide, 3-35 SHOW, (M) DECnet-VAX Guide, 3-33, 4-1 SHOW COUNTER, (M) DECnet-VAX Guide, 4-3 SHOW LOGGING, (M) DECnet-VAX Guide, SHOW MODULE CONFIGURATOR, (M) DECnet-VAX Guide, 4-6 SHOW NODE, (M) DECnet-VAX Guide, 3-33 to enable logging, (M) DECnet-VAX Guide, 4-5 ZERO COUNTERS, (M) DECnet-VAX Guide, 4-3 NCP executor, V5.5 New Features, C-1 SET/DEFINE EXECUTOR command, V5.5 New Features, C-1 SHOW EXECUTOR CHARACTERISTICS command, V5.5 New Features, C-2 NCR 5380 controller, (P) Device Support (A), 1-18 NCR 53C94 controller programming support, V5.5 New Features, A-52NCS See National Character Set Utility NCS\$COMPARE routine, (P) Utility Routines, NCS-7 NCS\$CONVERT routine, (P) Utility Routines, NCS-9 NCS\$END\_CF routine, (P) Utility Routines, NCS-11 NCS\$END\_CS routine, (P) Utility Routines, NCS-12 NCS\$GET\_CF routine, (P) Utility Routines, NCS-13 NCS\$GET\_CS routine, (P) Utility Routines, NCS-15 NCS\$RESTORE\_CF routine, (P) Utility Routines, NCS-17 NCS\$RESTORE\_CS routine, (P) Utility Routines, NCS-19 NCS\$SAVE\_CF routine, (P) Utility Routines, NCS-21 NCS\$SAVE\_CS routine, (P) Utility Routines, NCS-23 NCS collating sequence end routine See NCS\$END\_CS routine

NCS command, (U) DCL Dictionary, DCL2-1 specifying input files for, (P) National Char Set, NCS-21 NCS compare strings routine See NCS\$COMPARE routine NCS conversion function end routine See NCS\$END\_CF routine NCS convert string routine See NCS\$CONVERT routine NCS get collating sequence routine See NCS\$GET\_CS routine NCS get conversion function routine See NCS\$GET\_CF routine NCS keyword for /FORMAT qualifier, (P) National Char Set, NCS-29 NCS library creating, (P) National Char Set, NCS-25 See also /CREATE qualifier deleting definition modules from, (P) National Char Set, NCS-27 extracting definition modules from, (P) National Char Set, NCS-28 generating MACRO-32 output from, (P) National Char Set, NCS-36 generating NCS definition files from, (P) National Char Set, NCS-39 inserting definition modules, (P) National Char Set, NCS-32 obtaining listing of, (P) National Char Set, NCS-34 replacing definition modules, (P) National  $Char\ Set,\ NCS-40$ specifying an alternate, (P) National Char Set, NCS-33 specifying history records, (P) National Char Set, NCS-24, NCS-25 specifying MACRO-32 output format, (P) National Char Set, NCS-29 specifying maximum length of definition module names, (P) National Char Set, NCS-24, NCS-25 specifying maximum number of modules, (P) National Char Set, NCS-24, NCS-25 specifying size, (P) National Char Set, NCS-24, NCS-25 verifying operations, (P) National Char Set, NCS-35 with data-expanded format, (P) National Char Set, NCS-26 with data-reduced format, (P) National Char Set, NCS-26 NCS restore collating sequence routine See NCS\$RESTORE\_CS routine

NCS restore conversion function routine See NCS\$RESTORE\_CF routine

NETCONFIG.COM (cont'd) NCS routines, (P) Utility Routines, NCS-1 using to establish default account, (M) example of use in FORTRAN program, (P) DECnet-VAX Guide, 3-9 Utility Routines, NCS-2 NETCONFIG\_UPDATE.COM, V5.5 Release Notes, example of use in MACRO-32 program, (P) 2-40; V5.5 New Features, D-4 Utility Routines, NCS-4 NETDEF.STB, (P) System Dump Analyzer, list of, (P) Utility Routines, NCS-1 SDA-60 typical application of, (P) Utility Routines, NETDRIVER, V5.5 Release Notes, 2–14; (M) NCS-2 Networking, 1-16, 5-39 NCS save collating sequence routine NETMBX privilege, (M) Setting Up VMS, 5–13; See NCS\$SAVE\_CS routine (M) Security, A-5; (M) Networking, 2-41, 5-2 NCS save conversion function routine for network operations, (M) DECnet-VAX See NCS\$SAVE\_CF routine Guide, 2-2, 3-2, 3-9 .NE. NETNODE\_LOCAL.DAT, (M) Networking, A-8 in a numeric comparison, (U) DCL Concepts, NETNODE\_REMOTE.DAT, (M) Networking, A-8 renaming to SYS\$COMMON directory, (M) NEF option, (P) File Def Language, FDL-21 VAXcluster, 4-7 **NEGATABLE** clause NETNODE\_REMOTE.DAT file for DEFINE TYPE statement, (P) Command sharing, (M) VAXcluster, 4-12 Def, CDU-28 NETNODE\_UPDATE.COM command procedure, for QUALIFIER clause, (P) Command Def, (M) VAXcluster, 7–11 CDU-25, CDU-34 NETPROXY (network proxy authorization file), Negative compression, (P) File Def Language, (M) Security, 3-18 FDL-4 creating, (M) Setting Up VMS, 4-20; (M) Negative condition code (N), (P) MACRO, 8-15 Authorize, AUTH-22 Negative operator (-), (P) System Dump displaying proxy access, (M) Authorize, Analyzer, SDA-12 AUTH-54 .NES. modifying, (M) Authorize, AUTH-1 in a string comparison, (U) DCL Concepts, 6-2 NETPROXY.DAT file, (M) Setting Up VMS, 4-20; Nested command procedure, (U) Command (M) Networking, 2-45 Procedures, 1-7 See also NETPROXY default Ctrl/Y action, (U) Command and wildcards. (M) Security, 8-19 Procedures, 7–9 creating common version, (M) VAXcluster, 4-12 \_NET:, (M) Networking, 8-27, 8-34 defining logical name for, (M) VAXcluster, 4-13 NETACP\$BUFFER\_LIMIT logical name, V5.5 normal protection, (M) Security, 5-20 Release Notes, 2–15 permanent proxy database, (M) DECnet-VAX NETACP (network ancillary control process), V5.5 Guide, 3–35 Release Notes, 2–15; (M) Networking, 1–16, proxy authorization file 4-2, 5-39automatic maintenance, (M) Security, 8-16 NETCONFIG.COM, (M) System Management setting up, (M) VAXcluster, 4-12 Intro, 7-4; (M) DECnet-VAX Guide, 2-27, sharing, (M) VAXcluster, 4-12 3-32; (M) Networking, 1-18, 3-2, 5-4 to 5-7 NETSERVER\$TIMEOUT, (M) Networking, 2-33, See also DECnet-VAX network 8-12automatic establishment of logging, (M) NETSERVER (network server process), (M) DECnet-VAX Guide, 4-5 Networking, 2-33, 8-12 creation of default nonprivileged DECnet timeouts, (M) Networking, 2-33, 8-12 account, (M) Networking, 5-1 NETSERVER.LOG, (M) DECnet-VAX Guide, 4–11; defining logging events, (M) DECnet-VAX (M) Networking, 4–23 Guide, 4–5 as troubleshooting aid, (M) DECnet-VAX Guide, dialog, (M) DECnet-VAX Guide, 3-15 4-15, 4-16 network configuration, (M) DECnet-VAX Guide, NETUAF.DAT, (M) Networking, 2–40 3-12, 3-13Network, (U) VMS Intro, 3-1; (M) DECnet-VAX security enhancements, V5.5 Release Notes, Guide, 1-1 2-40; V5.5 New Features, D-2 See also DECnet-VAX network supplying node address, (M) Networking, 5-5 access. (M) DECnet-VAX Guide, 1-1, 2-2 to establish default nonprivileged DECnet access control, (M) Networking, 2-38 account and directory, (M) DECnet-VAX access levels, (M) Networking, 1-22 Guide, 3-37

Network (cont'd) Network (cont'd) and program I/O statements, (M) DECnet-VAX gateway, (M) DECnet-VAX Guide, 1-5, 1-6, Guide, 2–12 1-10application program, (M) DECnet-VAX Guide, getting started, (M) DECnet-VAX Guide, 3-1 1-5, 2-12, 2-15identification, (M) Networking, 3-28, 3-64 bridge, (M) DECnet-VAX Guide, 1-5 INBOUND parameter, (M) DECnet-VAX Guide, bringing up, (M) Networking, 6-1 3 - 25bringing up nodes, (M) DECnet-VAX Guide, installation, (M) DECnet-VAX Guide, 3-1 installation procedure, (M) DECnet-VAX Guide, circuit devices, (M) Network Control Program, installation verification, (M) DECnet-VAX communication, (M) DECnet-VAX Guide, 1-2 Guide, 3-30 completing connection, (P) Programming integrated, (M) DECnet-VAX Guide, 1-1, 1-5, Resources, 3-27 1-7, 1-11 component, (M) DECnet-VAX Guide, 3-32 interconnect products, (M) DECnet-VAX Guide, component name, (M) DECnet-VAX Guide, 1–6 3 - 33ISO, (M) Networking, 3-33 concepts, (M) DECnet-VAX Guide, 1-1 large, (M) DECnet-VAX Guide, 1-3 conduit application, (M) Security, 8-5 limiting number of areas, (M) Networking, configuration, (M) DECnet-VAX Guide, 1-3, 2-27, 3-10, 3-12; (M) Networking, 1-5, line devices, (M) Network Control Program, 5-1A-15connection request, (P) Programming link, (U) Using VMS, 1-4 Resources, 3-26local area network, (M) DECnet-VAX Guide, connections, (M) DECnet-VAX Guide, 1-7, 3-5 1-5, 1-7connection verification, (M) DECnet-VAX logging in to node, (M) DECnet-VAX Guide, 3-2 Guide, 3-28, 3-29 login, (U) Using VMS, 1-3; (M) Security, 3-3 conversion to multiple-area network, (M) logout, (U) Using VMS, 1-4 Networking, A-8 maintaining, (M) DECnet-VAX Guide, 2-27 counters, (M) DECnet-VAX Guide, 4-1 managing, (M) DECnet-VAX Guide, 2-27 CPU time requirements, (M) Networking, 5-39 monitoring, (M) DECnet-VAX Guide, 2-27; (M) creating a new, (M) DECnet-VAX Guide, 2-27, Networking, 3–98 monitoring and testing, (M) DECnet-VAX database, (M) DECnet-VAX Guide, 3-11, 3-17, Guide, 4-1 to 4-17 3 - 25monitoring tools, (M) DECnet-VAX Guide, 4-1, data flow, (M) DECnet-VAX Guide, 1-1 debugging over, (P) Debugger, 3-1 multinetwork, (M) Networking, 5-33 decentralized, (M) Networking, 1-2 multinode, (M) Networking, 1-2 DECnet, (M) DECnet-VAX Guide, 1-4, 1-5 multiple-area, (M) System Management Intro, DECnet-VAX, (M) DECnet-VAX Guide, 1-1 7-2; (M) DECnet-VAX Guide, 1-3; (M) deleting nodes, (M) DECnet-VAX Guide, 3-33 Networking, 1-2 determining configuration changes, (M) multiple-area configuration, (M) Networking, DECnet-VAX Guide, 4-2 A-3displaying, (M) DECnet-VAX Guide, 4-1; (M) normal memory requirements, (M) Networking, Networking, 8-1 5 - 36displaying nodes, (M) DECnet-VAX Guide, 3–33 object, (M) Networking, 3-2 emulator product, (M) DECnet-VAX Guide, 1-6 MAIL and proxy access, (M) DECnet-VAX encryption, (M) Security, 8-5 Guide, 3-35 environment, (M) DECnet-VAX Guide, 1-7 packet switching, (M) DECnet-VAX Guide, 1-5, error message explanations, (M) DECnet-VAX 1-6, 1-10 Guide, 4-10 password guidelines, (M) Security, 8-6 event logging, (M) DECnet-VAX Guide, 3-13 passwords, (M) Networking, 2-42 example, (M) Networking, 1-19 problem isolation, (M) DECnet-VAX Guide, exchanging messages, (P) Programming 4-12Resources, 3-28 problems and solutions, (M) DECnet-VAX executing programs across, (U) Using VMS, Guide, 4-10 to 4-17 protected communications

security problem, (M) Security, 8-4

file operations, (M) DECnet-VAX Guide, 2-4

Network (cont'd) NETWORK attribute, (P) File Def Language, purging nodes, (M) DECnet-VAX Guide, 3-34 FDL-32 restarting, (M) DECnet-VAX Guide, 3-31 Network command terminal facility, (M) restrictions on mixed, (M) Networking, 2-23, DECnet-VAX Guide, 3-3 Network component routing. (M) DECnet-VAX Guide, 1-1 displaying information, (M) DECnet-VAX routing message, (M) DECnet-VAX Guide, 1-2 Guide, 4-3 security, (M) DECnet-VAX Guide, 3-20, 3-37; name, (M) DECnet-VAX Guide, 4-2 (M) Networking, 2-42 Network configuration procedure, (M) Networking, sending mail over, (U) Using VMS, 1-28 5-14 to 5-33 shutting down, (M) DECnet-VAX Guide, 3-31; Network connect block (M) Networking, 6-3 See NCB size, (M) DECnet-VAX Guide, 1-3 Network connection, (M) VAXcluster, D-1 small, (M) DECnet-VAX Guide, 1-3 permanent, (M) DECnet-VAX Guide, 3-4 starting, (M) DECnet-VAX Guide, 3-15 temporary, (M) DECnet-VAX Guide, 3-4 starting automatically from VMS system boot, Network Control Program (M) DECnet-VAX Guide, 3-31 See NCP starting manually, (M) DECnet-VAX Guide, Network counters resetting to zero, (M) DECnet-VAX Guide, 4-3 starting up, (M) Setting Up VMS, 2-12 Network default access startup command procedure STARTNET.COM, controlling access to your system, V5.5 Release (M) DECnet-VAX Guide, 3-31 Notes, 2–40; V5.5 New Features, D–2 startup values, (M) DECnet-VAX Guide, 4-1 for existing systems, V5.5 New Features, D-4 task-to-task applications, (M) DECnet-VAX for VAXcluster members, V5.5 New Features, Guide, 2-14 D-4terminal, (M) Networking, 3-88 Network default account terminating connection, (P) Programming and WORLD access, (M) Security, 8-4 Resources, 3-30 Network device, (P) Device Support (B), 1-74 testing, (M) DECnet-VAX Guide, 4-7; (M) Network driver Networking, 7-1 See NETDRIVER topology, (M) Networking, 1–19 Network file specification transient problems, (M) DECnet-VAX Guide, 3 - 30See also File specification troubleshooting, (M) DECnet-VAX Guide, 2-27, conventional format, (U) DCL Concepts, 3-3 foreign file format, (U) DCL Concepts, 3-3 4-1 to 4-17 turning on, (M) DECnet-VAX Guide, 3-15 task specification string, (U) DCL Concepts, 3-3 turning on automatically, (M) DECnet-VAX Network HSC node Guide, 3-31 turning on manually, (M) DECnet-VAX Guide, connecting to a remote HSC, (U) DCL 3 - 31Dictionary, DCL2-173 usage restrictions connecting to a storage controller, (U) DCL in foreign countries, (M) Security, 8-7 Dictionary, DCL2-171 user interface to, (M) Networking, 1-21 NETWORK identifier, (M) Security, 4-19, 5-4 user operations, (M) Networking, 1-21, 8-1 Network Information and Control Exchange use with, (U) Phone, PHONE-8 See NICE wide area, (M) DECnet-VAX Guide, 1-5 Networking, (U) Mail, MAIL-6; Dependability wide area network, (M) DECnet-VAX Guide, Handbook, 3-9 See also Communications worst-case memory requirements, (M) allowing for LAN bridge failover, Dependability Networking, 5–38 Handbook, 7-11 Network access control string, (M) Security, 3–13, alternate adapter booting for satellite nodes, 5 - 17Dependability Handbook, 7-12 Network accounts degrees of protection from faults, Dependability guidelines for establishment, (M) Security, 8-5 Handbook, 7–3 Network ancillary control process dependability characteristics, Dependability See NETACP Handbook, 7-1Network application example Ethernet and FDDI options, Dependability in C language, (M) DECnet-VAX Guide, 2-15 Handbook, 7-10

Networking (cont'd) large packet support on FDDI, Dependability Handbook, 7-11 local area VAXcluster failure analysis program, Dependability Handbook, 7–22 management techniques, Dependability Handbook, 9-1 node failures, Dependability Handbook, 4-15 performance consulting services from Digital, Dependability Handbook, 10-9 proactive network monitoring and analysis products, Dependability Handbook, 7-22 providing multiple paths to Ethernet and FDDI, Dependability Handbook, 7-5 providing multiple WAN connections for VAXft systems, Dependability Handbook, 7–19 recommendations for local area VAXclusters, Dependability Handbook, 7-6 redundancy, Dependability Handbook, 4-14 sample local area VAXcluster failure analysis program, Dependability Handbook, 7-12, 7-13 sample multiadapter connections to LAN segments, Dependability Handbook, 7–7 using DECalert, Dependability Handbook, 7-22 using DECelms, Dependability Handbook, 7-24 using DECmcc, Dependability Handbook, 7-25 using DECnet cluster alias, Dependability Handbook, 7-19 using DECnet Monitor, Dependability Handbook, 7-23 using DFS, Dependability Handbook, 7-22 using DNS, Dependability Handbook, 7-20 using ETHERnim, Dependability Handbook, 7-23 using FDDI as VAXcluster interconnect, Dependability Handbook, 7–16 using LAN Traffic Monitor, Dependability Handbook, 7-23 using VCS, Dependability Handbook, 7-24 VAXcluster satellite synonym, Dependability Handbook, 7-12 Network interface on VMS operating system, (M) System Management Intro, 7-2; (M) DECnet-VAX Guide, 1-4; (M) Networking, 1-2 Network job accounting, (M) Maintaining VMS, 6-2 Network logging activity displaying with NCP, (M) DECnet-VAX Guide, 4-6 Network management functions, (M) Networking, 1-3 responsibilities, (M) System Management Intro,

7-4; (M) Networking, 1-15

Control Program, A-23

Network Management layer events, (M) Network

Network management listener See NML Network manager assigning node names, (M) DECnet-VAX Guide, coordinating with other networks, (M) DECnet-VAX Guide, 3-37 maintaining the network, (M) DECnet-VAX Guide, 2-27 managing the network, (M) DECnet-VAX Guide, 2-27 monitoring the network, (M) DECnet-VAX Guide, 2-27 privilege requirements, (M) DECnet-VAX Guide, 3-9 responsibilities, (M) DECnet-VAX Guide, 2-26 to 2-27 troubleshooting the network, (M) DECnet-VAX Guide, 2-27 Network name declaring, (M) Networking, 8-31, 8-41 Network node See also Access control string See also Node name See also SET HOST command See also SET HOST/DUP command See also SET HOST/HSC command accessing a local node, (U) Using VMS, 2-11; (U) DCL Concepts, 3-2 accessing a remote node, (U) Using VMS, 2-11; (U) DCL Concepts, 3-2 accessing a remote node with an access control string, (U) DCL Concepts, 3-2 and batch jobs, (U) DCL Dictionary, DCL2-382 connecting to a remote processor, (U) DCL Dictionary, DCL2-149 Network object defining at network startup, (M) DECnet-VAX Guide, 3-31 number, (M) DECnet-VAX Guide, 2-15 Network operations bringing up a system as a new node, (M)DECnet-VAX Guide, 3-4 for the advanced user, (M) DECnet-VAX Guide, 2-12 to 2-26 for the general user, (M) DECnet-VAX Guide, 2-1 to 2-11 privilege requirements, (M) DECnet-VAX Guide, 3-9 using Mail Utility, (M) DECnet-VAX Guide, using Phone Utility, (M) DECnet-VAX Guide, 2-2Network operator designated by OPCOM, (M) DECnet-VAX Guide, 4-4

Network operator (cont'd) Next-key option, (P) File Applications, 8-9, 8-10 enabling terminal as, (M) DECnet-VAX Guide, %NEXTLOC, (P) Debugger, 4-8, 4-13, D-5 Next location Network process failures See Logical successor potential causes, (M) Networking, 2-34 Next or equal key option Network proxy authorization file See RAB\$V\_EQNXT option See NETPROXY %NEXTOUTPUT, (P) Debugger, C-6 NETWORK qualifier /NEXT qualifier, (P) Debugger, 6-6, CD-115 for X.25 access module, (M) Networking, 3-86 NEXT RECORD command, (M) Audit Analysis, Network save set, (M) Backup, BCK-12 AUD-36 Network security, (M) Security, 8-1 Next-record position, (P) File Applications, 8-16 limitations, (M) Security, 8–1 use with sequential access, (P) File user considerations for, (M) Security, 3-17 Applications, 8–16 Network server process NEXT SCREEN command, (U) EVE Ref, EVE-93 See NETSERVER moving the cursor with (EVE), (U) Text **Network Services Protocol** Processing, 1-9 See NSP Next Screen key Network statistics, (M) Monitor, MON-44 See also +Sect key Network task on LK201 keyboard, (U) EDT Ref, EDT-93 declaring, (M) Networking, 8-8, 8-14, 8-31 %NEXTSCROLL, (P) Debugger, C-6 Network troubleshooting %NEXTSOURCE, (P) Debugger, C-6 "Next" string constant parameter to GET\_INFO, See LAVC\$FAILURE\_ANALYSIS.MAR (P) VAXTPU, 7-166, 7-168, 7-169, 7-180, Network virtual terminal facility 7-181, 7-183, 7-184, 7-191, 7-218, 7-223 See Network command terminal facility **NEXT** subcommand Network work area with LMCP REPAIR command, V5.5 New See NWA Features, B-92 NETWORK\_BLOCK\_COUNT qualifier Next Volume service, (P) File Applications, 8-5; for specifying maximum record size, (P) RMS, (P) RMS, RMS-55 condition values, (P) RMS, RMS-57 NETWORK\_DATA\_CHECKING attribute, (P) File control block input and output fields, (P) RMS, Def Language, FDL-32 **RMS-56** NEW command, (U) EVE Ref, EVE-91 flush logic, (P) RMS, RMS-56 for buffer manipulation (EVE), (U) Text input logic sequence, (P) RMS, RMS-56 Processing, 1-48 output logic sequence, (P) RMS, RMS-56 writing buffer to a file using (EVE), (U) Text requirements for using, (P) RMS, RMS-56 Processing, 1-54 NEXT WINDOW command, (U) Using VMS, 8-9, /NEW\_VERSION qualifier, (M) Backup, BCK-70; 8-35; (U) EVE Ref, EVE-94 (P) Patch, PAT-30 EVE editor, (U) Text Processing, 1-56 START/QUEUE/MANAGER command, V5.5 in window environment (EVE), (U) Text Release Notes, 2–10; V5.5 New Features, Processing, 1–55 moving the cursor with (EVE), (U) Text Next block pointer Processing, 1–9 See NBP "Next\_marker" string constant parameter to NEXT BUFFER command, (U) EVE Ref, EVE-92 GET\_INFO, (P) VAXTPU, 7-173 for buffer manipulation (EVE), (U) Text %NEXT\_PROCESS, (P) Debugger, 10-11 Processing, 1–48 "Next\_range" string constant parameter to NEXT command, (U) Mail, MAIL-62; (U) EDT GET\_INFO, (P) VAXTPU, 7-173 Ref, EDT-152; (P) File Applications, 10-12, %NEXT\_SCOPE\_ENTRY, (P) Debugger, D-10 10–16; (P) Analyze/RMS\_File, ARMS-29 %NEXT\_TASK, (P) Debugger, 12-14 See also SUBSTITUTE NEXT command Nexus, (P) Device Support (A), 12-5, 12-8, 12-9, %NEXTDISP, (P) Debugger, C-6 12-10, 12-11 NEXT FILE command, (M) Audit Analysis, Nexus ID, (P) Device Support (B), 1-6 AUD-35 Nexus numbers %NEXTINST, (P) Debugger, C-6 showing, (M) System Generation, SGN-31 NFS option, (P) File Def Language, FDL-22 Next key

See RAB\$V\_NXT option

NICE (Network Information and Control Exchange), (M) Networking, 3-3 NICONFIG (Ethernet configurator), (M) Networking, 1–16 as network monitoring tool, (M) DECnet-VAX Guide, 4-1 NIL option, (P) File Def Language, FDL-37 NISCS\_CONV\_BOOT, (M) VAXcluster, 7-31, 7-33, A-1NISCS\_CONV\_BOOT parameter, (M) System Generation, A-20 NISCS\_LOAD\_PEA0, (M) VAXcluster, A-1, C-6 NISCS\_LOAD\_PEA0 parameter, (M) System Generation, A-20 NISCS\_PORT\_SERV parameter, (M) VAXcluster, A-2; (M) System Generation, A-20NJOBLIM parameter, (M) System Generation, A - 20.NLIST directive, (P) MACRO, 6-65 See also .NOSHOW directive NLK option, (P) File Def Language, FDL-12 NMCC/VAX ETHERnim See ETHERnim NMCC/Ethernet Network Integrity Monitor See ETHERnim NML (network management listener), (M) Networking, 1-16, 2-32, 4-2, 6-1 access control. (M) Networking, 3-94 check for illegal address, V5.5 Release Notes, object, V5.5 Release Notes, 2–15 nnDRIVER symbol, (P) System Dump Analyzer, SDA-13 /NOAPPEND qualifier, (P) Convert, CONV-7 .NO AUTOJUSTIFY command, (U) DSR Ref, 2-3 .NO AUTOPARAGRAPH command, (U) DSR Ref, 2-4.NO AUTOSUBTITLE command, (U) Text Processing, 3-42; (U) DSR Ref, 2-6 .NO AUTOTABLE command, (U) DSR Ref, 2-7 /NOBOLD qualifier. (U) DSR Ref. 4-6 /NOCHANGE BARS qualifier, (U) DSR Ref, 4-7 /NOCOMMSYNC qualifier in SET TERMINAL DCL command, V5.5 New Features, 18–2 NOCONCATENATE clause for VALUE clause, (P) Command Def, CDU-24, CDU-33 /NOCONFIRM qualifier EXCHANGE/NETWORK command, V5.5 New Features, E-18 .NO CONTROL CHARACTERS command, (U) DSR Ref. 2–14 /NOCREATE qualifier, (P) Convert, CONV-8 .NOCROSS directive, (P) MACRO, 6-16, 6-66 .NO DATE command, (U) DSR Ref, 2-15

Node, (U) VMS Intro, 3-1; (M) System Management Intro, 7-1: (M) DECnet-VAX Guide, 1-2; (M) Networking, 1-1, 1-20, 3-7; (P) Device Support (A), 12-5, 12-8, 12-9, 12-10, 12-11 See also Node address See also Node name See also Node number See also VAXBI node access control, (M) DECnet-VAX Guide, 3-36 accessing remote node interactively, (M) DECnet-VAX Guide, 3-3 address, (M) DECnet-VAX Guide, 3-14; (M) Networking, 2-2, 2-25, 3-8, 3-66, A-12; (M) DTS/DTR, DTS-10, DTS-12 address conversion, (M) Networking, 3-66 addressing CI, (M) Networking, 3-36 adjacent, (M) DECnet-VAX Guide, 3-28; (M) Networking, 1-1, 2-22alias node identifier See Alias node identifier area number, (M) Networking, 2-2 automatic configuration, (M) Networking, 5-4 bringing up DECnet-VAX, (M) Networking, bringing up on the network, (M) DECnet-VAX Guide, 3-1changing local address, (M) Networking, 3-11 checking type, (M) Networking, 1-10, 2-47, 3 - 96clearing or purging database before copying, (M) Networking, 3-24 commands, (M) Networking, 3-6 configuring for DECnet-VAX, (M) System Management Intro, 7-4; (M) DECnet-VAX Guide, 2-26, 3-12; (M) Networking, 1-18 conversion of Phase IV address, (M) Networking, 2-25 copying database, (M) Networking, 1-18, 2-3, using DCL COPY command, (M) Networking, 3-27 counters, (M) Networking, 3-27 database, (M) LATCP, LAT-1, LAT-31, LAT-34; (M) DECnet-VAX Guide, 3-11, 3-17; (M) Networking, 3-1 DECnet-VAX, (M) DECnet-VAX Guide, 1-5, default access account, (M) Networking, 1-26 definition, (M) Networking, 2-1 determining status, (M) DECnet-VAX Guide, displaying characteristics of, (M) LATCP, LAT-52 displaying counters, (M) LATCP, LAT-49 displaying information, (M) LATCP, LAT-49

Node (cont'd) Node (cont'd) displaying name and address of local, (M) specification access control string, (M) DECnet-VAX Guide, 3-2 Networking, 1–25 displaying network, (M) Networking, 8-1 specification string for, (M) Networking, 1–25 state, (M) LATCP, LAT-33; (M) Networking, display of type, (M) Networking, 3-66 end, (M) System Management Intro, 7-2; (M) 2-3.3-22DECnet-VAX Guide, 1-2; (M) Networking, target, (M) LATCP, LAT-57 1-1, 2-22type, (M) DECnet-VAX Guide, 3-25; (M) Ethernet address, (M) Networking, 2-2, 3-13 Networking, 2-22, 3-65 executor, (M) DECnet-VAX Guide, 3-12; (M) unreachable, (M) DECnet-VAX Guide, 4-11 Networking, 2-2, 3-6 VMS, (M) DECnet-VAX Guide, 3-1 X.25 connector, (M) Networking, 1-3 and default access rights, (M) Security, 8-6 X.25 host, (M) Networking, 1–3 HSC, (M) System Management Intro, 6-4 Node address, (M) DECnet-VAX Guide, 1-2, 3-10, identification, (M) Networking, 2-2, 2-25, 3-8 3 - 14identifier, (M) DECnet-VAX Guide, 3-32 /NODEBUG qualifier, (U) DSR Ref, 4-8 Node counters, (M) Network Control Program, initialization request, (M) Networking, 3-42 limit, (M) LATCP, LAT-31 A-11listing each accessible, (M) DECnet-VAX Guide, summary, (M) Network Control Program, A-1 3 - 3Node database local, (M) DECnet-VAX Guide, 3-1, 3-12, 3-31; copying, (M) Networking, 1-18, 2-3, 3-27 (M) Networking, 1-15, 1-21, 2-2, 3-6 guidelines, (M) Security, 8-6 lock-mastering, (P) File Applications, 3-29 permanent, (M) DECnet-VAX Guide, 3-17 lock-requesting, (P) File Applications, 3-29 volatile, (M) DECnet-VAX Guide, 3-17 logging in to, (M) DECnet-VAX Guide, 3-2 Node field default value, (U) Using VMS, 2-12; (U) DCL logical name in file specification, (M) Networking, 1-27 Concepts, 3-22 loopback test, (M) DECnet-VAX Guide, 4-7 definition, (U) DCL Concepts, 3-1 modifying characteristics of, (M) LATCP, in full file specification, (U) Using VMS, 2-11 Node ID, (P) Device Support (A), 16-9; (P) Device LAT-28 name, (M) LATCP, LAT-28; (M) Networking, Support (B), 1-6 2-2, 3-8; (M) DTS/DTR, DTS-10, DTS-12 NODE keyword with FILE\_PARSE, (P) VAXTPU, 7-140 non-Ethernet, (M) Networking, 1-8 nonrouting, (M) Networking, 2-22 with FILE\_SEARCH, (P) VAXTPU, 7-143 number, (M) Networking, 2-2, 2-25, 3-9 Node-level access control, (M) Networking, 2-43 number in Ethernet address, (M) Networking, Node-level loopback test, (M) Networking, 7-1 logical link operation, (M) Networking, 7-1 over specific circuit, (M) Networking, 7-1 parameters, (M) Networking, 2-3, 3-16 Node name, (U) Mail, MAIL-6, MAIL-7, passive, (M) System Management Intro, 6-4 MAIL-15; (M) DECnet-VAX Guide, 1-2, 3-10, phases, (M) Networking, 2-22 preparing to bring up, (M) DECnet-VAX Guide, 3-13, 3-14 3-4 See also Access control string reachable, (M) Networking, 2-28 See also Node field reconfiguration, (M) DECnet-VAX Guide, 3-12, cluster alias, (M) DECnet-VAX Guide, 2-4 3 - 13cluster alias used with Mail Utility, (M) relocation, (M) DECnet-VAX Guide, 1-5 DECnet-VAX Guide, 2-11 remote, (M) DECnet-VAX Guide, 3-17; (M) clusterwide, (M) DECnet-VAX Guide, 2-4 Networking, 1-15, 1-21, 2-2, 3-6, 3-42; converting to address, V5.5 New Features, (M) DTS/DTR, DTS-10 C - 60See also Remote node definition, (U) Using VMS, 2-11 removing remote name and address, (M) displaying, (U) DCL Dictionary, DCL2-331 Networking, 3-11 format in a file specification, (U) Using VMS, router, (M) DECnet-VAX Guide, 1-2 2-11; (U) DCL Concepts, 3-2 routing, (M) System Management Intro, 7-2; revealed at logout, (M) Security, 3-21 (M) Networking, 1-1, 2-21, 2-22 rules for entering, (U) Using VMS, 2-11; (U) security, (M) DECnet-VAX Guide, 3–34 to 3–37 DCL Concepts, 3–2 shutting down DECnet-VAX, (M) Networking, using a logical name, (U) Using VMS, 4-16; (*U*) *DCL Concepts*, 4–21 to 4–23

Node name (cont'd)

VAXcluster alias, (M) DECnet-VAX Guide, 3-10

Node name address descriptor

See NAM\$L\_NODE descriptor

Node name address field

See NAM\$L\_NODE field

Node name length field

See NAM\$B\_NODE field

Node name size descriptor

See NAM\$B\_NODE descriptor

Node number, (M) DECnet-VAX Guide, 3-14, 3-32

NODE parameter, (M) Networking, 7-9 for X.25 host node, (M) Networking, 3-85 identifying X.25 connector, (M) Networking,

Node private space, (P) Device Support (A), 16-5 /NODE qualifier, (M) Accounting, ACC-18; (M) Monitor, MON-27

Error Log Utility (ERROR LOG), V5.5 New Features, B-62 to B-64

Node space, (P) Device Support (A), 16-5 accessing BIIC registers within, (P) Device Support (A), 16-5

address, (P) Device Support (A), 16-9 mapped by VMS, (P) Device Support (A), 16-8

Node specification, (U) VMS Intro, 3-1

NODISALLOW clause

for DEFINE SYNTAX statement, (P)
Command Def. CDU-22

for DEFINE VERB statement, (P) Command Def, CDU-31

/NODISPLAY qualifier

effect on LAST\_KEY, (P) VAXTPU, 7–242 to disable screen manager, (P) VAXTPU, 6–1 with EVE\$BUILD, (P) VAXTPU, G–10

NODRIVER, (M) Networking, 2–15, 2–16, 5–3, 5–7

/NOECHO qualifier, (U) VMS Intro, 6–14 /NOEXCEPTIONS\_FILE qualifier, (P) Convert, CONV-9

/NOEXERCISE qualifier, (M) Bad Block, BAD-1 /NOEXIT qualifier, (P) Convert, CONV-10 /NOFAST\_LOAD option

compared with /FAST\_LOAD option, (P) Convert, CONV-11

/NOFAST\_LOAD qualifier, (P) Convert, CONV-11 .NO FILL command, (U) Text Processing, 3-15; (U) DSR Ref, 2-39

/NOFILL\_BUCKETS qualifier, (P) Convert, CONV-14

/NOFIXED\_CONTROL qualifier, (P) Convert, CONV-15

.NO FLAGS ACCEPT command, (U) DSR Ref, 2-41

.NO FLAGS BOLD command, (U) DSR Ref, 2-43

.NO FLAGS BREAK command, (U) DSR Ref, 2–44

.NO FLAGS CAPITALIZE command, (U) DSR Ref, 2–45

.NO FLAGS COMMENT command, (U) DSR Ref, 2–46

.NO FLAGS CONTROL command, (U) DSR Ref, 2-47

.NO FLAGS HYPHENATE command, (U) DSR Ref, 2–48

.NO FLAGS INDEX command, (U) DSR Ref, 2–49 .NO FLAGS LOWERCASE command, (U) DSR

Ref, 2–50

. NO FLAGS OVERSTRIKE command,  $\,$  (U) DSRRef, 2-51

.NO FLAGS PERIOD command, (U) DSR Ref, 2-52

.NO FLAGS SPACE command, (U) DSR Ref, 2–53 .NO FLAGS SUBINDEX command, (U) DSR Ref, 2–54

.NO FLAGS SUBSTITUTE command, (U) DSR Ref, 2–55

.NO FLAGS UNDERLINE command, (U) DSR Ref, 2–56

.NO FLAGS UPPERCASE command, (U) DSR Ref, 2–57

/NOHEADER qualifier, (U) Mail, MAIL-3 .NO HEADERS command, (U) DSR Ref, 2-63 /NOINTERACTIVE qualifier, (P) File

Applications, 10–29; (P) File Def Language, FDL–42, FDL–52

/NOINTERMEDIATE qualifier, (U) DSR Ref, 4-14

/NOJOURNAL command qualifier, (P) VAXTPU, 1-12

.NO JUSTIFY command, (U) Text Processing, 3–16; (U) DSR Ref, 2–71

.NO KEEP command, (U) DSR Ref, 2–73 Nokeypad commands

list of by function, (U) EDT Ref, EDT-257

Nokeypad command specifier with CHANGE, (U) EDT Ref, EDT-122

Nokeypad mode, (U) EDT Ref, EDT-6

See also SHOW KEYPAD command changing to line mode, (U) EDT Ref, EDT-1 EDT, (U) Text Processing, 2-2, 2-31 screen editor, (U) EDT Ref, EDT-6

NOLOCK attribute, (P) File Def Language, FDL-12

No lock option

See RAB\$V\_NLK option

NOLOCK secondary attribute, (P) File Applications, 7–11

NO logical value, (P) File Def Language, FDL-2 /NOLOGICAL\_NAMES qualifier, (P) System Dump Analyzer, SDA-162 /NOLOG qualifier, (U) DSR Ref, 4-14, 6-8 Nonpaged dynamic memory pool, (M) Terminal CREATE/FDL, (P) File Def Language, FDL-45 Fallback, TFU-6; (M) Networking, 5-36 EXCHANGE/NETWORK command, V5.5 New loading tables into, (M) Terminal Fallback, TFU-7 Features, E-19 "Nomodify" string constant parameter to Nonpaged dynamic storage pool GET INFO. (P) VAXTPU, 7-177 displaying contents, (P) System Dump /NOMOVE qualifier Analyzer, SDA-118 Nonpaged pool in SET FILE DCL command, V5.5 New allocating, (P) Device Support (B), 3-12 to Features, 11-2 Noncommand image, (U) Using VMS, 3-4 3-13, 3-14, 3-15, 3-22 to 3-23 Noncontiguous array descriptor, (P) Routines allocating in initialization routine, (P) Device Intro, 2-31 Support (A), 11–2 deallocating, (P) Device Support (B), 3-3, 3-19 Nondeductible resource. (M) System Management lookaside list, (P) Device Support (A), E-14; Intro, 2-4 Nondefinable keys, (U) EVE Ref, 1-27 (P) Device Support (B), 3-13, 3-14 synchronizing access to, (P) Device Support (A), Non-Digital-supplied SCSI class driver 3 - 14See Third-party SCSI class driver variable region, (P) Device Support (A), E-14; Non-Digital terminal (P) Device Support (B), 3-15 support for, (P) RTL Screen Management, 5-1 Nonpaged pool statistics, (M) Monitor, MON-69 Non-direct-vector interrupt, (P) Device Support /NONPAGED qualifier, (P) System Dump (A), 13–9, 14–3, 14–28, 14–29, 14–31; (P)Analyzer, SDA-118 Device Support (B), 1-7, 1-25 Nonprinting characters NONE carriage control, (P) File Def Language, inserting escape characters (EVE), (U) Text FDL-34 Processing, 1–13 NONE keyword with QUOTE command, (U) EVE Ref. with MARK, (P) VAXTPU, 7-261 **EVE-107** with SELECT, (P) VAXTPU, 7-337 Nonprivileged with SET (MESSAGE\_ACTION\_TYPE), (P) DECnet-VAX default account, (M) VAXTPU, 7-426 DECnet-VAX Guide, 3-9, 3-13, 3-14, 3-36 with SET (PROMPT\_AREA), (P) VAXTPU, DECnet-VAX default directory, (M) 7 - 446DECnet-VAX Guide, 3–13 with SET (STATUS\_LINE), (P) VAXTPU, Nonprivileged access control string, (M) 7 - 476Networking, 2-40 with SET (VIDEO), (P) VAXTPU, 7-492 Nonprivileged account, (M) DTS/DTR, DTS-10 Nonexecutable message file Nonprivileged command image creating, (P) Message, MSG-4 interrupting and canceling, (U) Using VMS, Nonexistent record option 1-20 to 1-21; (U) DCL Concepts, 2-2 See RAB\$V\_NXR option Nonrecursive mutex, (P) DECthreads, 2-10, NONEXISTENT\_RECORD attribute, (P) File Def cma-35, pthread-76 Language, FDL-12 Nonreentrant code NONEXISTENT\_RECORD secondary attribute, compilers that generate, (P) DECthreads, 3-2 (P) File Applications, 7-15, 8-9 Nonreentrant library packages Nonfile device calling, (P) DECthreads, cma-75, cma-116, protection, (U) Using VMS, 7-12 pthread-68 Non-file-structured option Nonreentrant software, (P) DECthreads, 3-2 See FAB\$V\_NFS option using global lock to avoid, (P) DECthreads, 3-3 Noninteractive login, (M) Security, 3–1 using thread-specific data to avoid, (P) Noninteractive mode DECthreads, 3-3 definition, (U) DCL Concepts, 1-1 Nonrouting node NONNEGATABLE clause See End node for DEFINE TYPE statement, (P) Command Nonstandard file processing Def, CDU-28 run-time options, (P) File Applications, 9-14 for QUALIFIER clause, (P) Command Def. Nonstatic variable, (P) Debugger, 3-17, 4-1 CDU-25, CDU-34 with DECwindows, (P) Debugger, 1-24 Nonpaged dynamic memory Nonterminating signals, (P) DECthreads, A-4

displaying availability and use of, (U) DCL

Dictionary, DCL2-292

Nonthreaded software, (P) DECthreads, 3-1 /NOSCRIPT qualifier, (P) File Def Language, Nontransparent FDL-42, FDL-57 /NOSEQUENCE qualifier, (U) DSR Ref, 4-23 communication, (M) Networking, 1-23 /NOSHARE qualifier, (P) Convert, CONV-21 user network operations, (M) Networking, 1–21 Nontransparent communication No sharing option application in C language, (M) DECnet-VAX See FAB\$V\_NIL option Guide, 2-15 .NOSHOW directive, (P) MACRO, 6-67, 6-89 Nontransparent task-to-task communication, (M) /NOSIMULATE qualifier, (U) DSR Ref, 4-24 DECnet-VAX Guide, 2-14 /NOSKIP qualifier, (P) System Dump Analyzer, .NO NUMBER command, (U) Text Processing, SDA-523-37; (U) DSR Ref, 2-91 /NOSORT qualifier, (P) Convert, CONV-22 Non-VMS system for avoiding unnecessary sort, (P) Convert, communication with VMS systems, (M) CONV-11 DECnet-VAX Guide, 1-1 .NO SPACE command, (U) DSR Ref, 2-84, A-5 specifying remote files on, (M) DECnet-VAX /NOSTATISTICS qualifier Guide, 2-3 with CONVERT, (P) Convert, CONV-24 Nonzero object, (M) Networking, 2–32 with CONVERT/RECLAIM, (P) Convert, /NOOPTIMIZE qualifier, (P) Debugger, 2-5, 5-2, CONV-5, CONV-24 .NO SUBTITLE command, (U) DSR Ref, 2-120 with DECwindows, (P) Debugger, 1-3 /NOSUPPRESS qualifier, (P) System Dump /NOOUTPUT qualifier, (U) DSR Ref, 4-17, 6-8; Analyzer, SDA-52 (P) Analyze/RMS\_File, ARMS-16 /NOSYMBOLS qualifier, (P) System Dump NOP (No Operation) instruction, (P) Debugger, Analyzer, SDA-162 4-21; (P) MACRO, 9-78 /NOPAD qualifier, (P) Convert, CONV-18 in a logical operation, (U) DCL Concepts, 6-8 /NOPAGE\_NUMBERS qualifier, (U) DSR Ref, 6-8 NOTANY built-in procedure, (P) VAXTPU, 7-284 .NO PAGING command, (U) DSR Ref, 2-97 to 7-285 NOPARAMETERS clause Not broken condition for DEFINE SYNTAX statement, (P) maintaining, Dependability Handbook, 1-12 Command Def, CDU-23 for DEFINE VERB statement, (P) Command creating with DSR, (U) Text Processing, 3-43 Def, CDU-32 inserting in text, (U) DSR Ref, A-3 /NOPAUSE qualifier, (U) DSR Ref, 4-19 .NOTE command, (U) DSR Ref, 2-86 .NO PERIOD command, (U) DSR Ref, 2-100 Not end-of-file option NOP field See FAB\$V\_NEF option specifying multiple values, (P) RMS, B-6 Not equal to operator NOQUALIFIERS clause symbol for in expressions, (U) Command for DEFINE SYNTAX statement, (P) Procedures, 2–13 Command Def, CDU-24 Notification for DEFINE VERB statement, (P) Command of abnormal exit, (P) RTL Parallel Processing, Def, CDU-33 /NOREAD\_CHECK qualifier, (P) Convert, of normal exit, (P) RTL Parallel Processing, CONV-20 /NOREQUIRE qualifier, (U) DSR Ref, 6-9 /NOTIFY qualifier, (P) System Dump Analyzer, /NORESERVE qualifier, (U) DSR Ref, 6–9 SDA-162 /NOREWIND qualifier NOT operator, (P) VAXTPU, 3-7 as output save-set qualifier, (M) Backup, NOT operator (#), (P) System Dump Analyzer, BCK-82 SDA-12/NORIGHT qualifier, (U) DSR Ref, 4-21 /NOTRUNCATE qualifier, (P) Convert, CONV-26 Norm /NOTYPE qualifier, (U) EDT Ref, EDT-153 Euclidean with SUBSTITUTE, (U) EDT Ref, EDT-243 of a vector, (P) RTL Math, MTH-170 /NOUNDERLINE qualifier, (U) DSR Ref, 4-25 Normal directory syntax, (P) File Applications, NOWAIT qualifier, (P) System Dump Analyzer, 6-12 to 6-14 SDA-162 Normal privilege, (M) Setting Up VMS, 5-9 /NOWRAP qualifier, (U) VMS Intro, 6-16

Normal termination of a thread, (P) DECthreads, cma-95, cma-101, pthread-47, pthread-54

Number (cont'd) /NOWRITE\_CHECK qualifier, (P) Convert, See also Integer, Floating-point number, and CONV-28 Packed decimal string NO\_EXACT keyword as fraction, (U) Using VMS, 5-9 with LEARN\_BEGIN, (P) VAXTPU, 7-244 assigning to a symbol, (U) Using VMS, 5-8 with SEARCH, (P) VAXTPU, 7-328 converting to a string value, (U) Using VMS, with SEARCH QUIETLY, (P) VAXTPU, 7-333 5-15; (U) DCL Concepts, 6-12 NO\_SHARE option, License Management, LMF-6, evaluation of, (U) Using VMS, 5-3 LMF-115 in an expression, (U) Using VMS, 5-13 NO\_TRANSLATE keyword, (P) VAXTPU, 7-483 in source statement, (P) MACRO, 3-2 "No\_video" string constant parameter to GET\_ integer values recognized by DCL, (U) Using INFO, (P) VAXTPU, 7-223 VMS, 5-8; (U) DCL Concepts, 5-5 "No video status" string constant parameter to internal storage of, (U) Using VMS, 5-9 GET INFO. (P) VAXTPU. 7-223 network area, (M) DECnet-VAX Guide, 3-32 "No\_write" GET\_INFO request\_string, (P) network object, (M) DECnet-VAX Guide, 2-15 *VAXTPU*, 7–174 node, (M) DECnet-VAX Guide, 3-14, 3-32 NO\_WRITE keyword, (P) VAXTPU, 7-434 .NUMBER APPENDIX command, (U) DSR Ref. NPAGEDYN parameter, (M) System Generation, 2 - 87A-20; (M) Networking, 5-36 .NUMBER CHAPTER command, (U) DSR Ref. NPAGEVIR parameter, (M) System Generation, 2 - 88A-20.NUMBER LEVEL command, (U) DSR Ref, 2-89 NPR (nonprocessor request) .NUMBER LIST command, (U) DSR Ref, 2-90 See DMA transfer Number of allocation areas field NRC (National Replacement Character Set), (M) See XAB\$B NOA field Terminal Fallback, TFU-1, TFU-2 Number of arguments directive (.NARG), (P) NSP (Network Services Protocol), (M) Networking, MACRO, 6-63 2-29, 2-31Number of characters directive (.NCHR), (P) message retransmission, (M) Networking, 2-31, MACRO, 6-64 3 - 75Number of files processed, (P) Convert, CONV-24 receive buffers, (M) Networking, 3-20 Number of key segments field .NTYPE directive, (P) MACRO, 6-68 <null>, (U) EDT Ref, EDT-154 See XAB\$B\_NSG field Null Number of keys field access control string, (M) DECnet-VAX Guide, See XAB\$B\_NOK field Number of modules key value, (P) File Def Language, FDL-29 in NCS library, specifying, (P) National Char modem cable, (M) DECnet-VAX Guide, 3-18 Set, NCS-24, NCS-25 string, (P) File Def Language, FDL-2 .NUMBER PAGE command, (U) DSR Ref, 2-91 Null arguments, (U) DSR Ref, 1-4; (P) System NUMBER parameter Services Intro, 1–5 for DECnet objects, (M) Networking, 3-77 Null character field for DLM circuit, (M) Networking, 3-49 See XAB\$B\_NUL field for GROUP, (M) Networking, 3-34 Null device, (P) System Services Intro, 7-28 .NUMBER RUNNING command, (U) DSR Ref, Null key 2 - 92for improving performance, (P) File Number sign (#) Applications, 3-19 requirement for in control store macro, (P) NULL pad character, (P) Convert, CONV-18 RMS, 3–8 Null parameters, (P) VAXTPU, 3-18 Number specifier Null value with ASC, (U) EDT Ref, EDT-262 for file name, (U) DCL Concepts, 3-16 with SET LINES, (U) EDT Ref, EDT-181 for file type, (U) DCL Concepts, 3-16 with SET TAB, (U) EDT Ref, EDT-196 null arg data type, (P) Routines Intro, A-10t NUMBER SUBPAGE command, (U) DSR Ref, NULL\_KEY attribute, (P) File Def Language, 2 - 93FDL-29 Number value, (P) File Def Language, FDL-2 NULL\_VALUE attribute, (P) File Def Language, /NUMBER\_KEYS qualifier, (P) File Def FDL-29 Language, FDL-42, FDL-53 Number Numeric constant specifying radix of, (P) VAXTPU, 3-37

Object (cont'd) Numeric control operator, (P) MACRO, 3-14 number, (M) Networking, 8-31, 8-41 Numeric data parameters, (M) Networking, 3-76 entering, (P) Patch, PAT-22 protection, (P) Device Support (B), 1-45 Numeric expression, (P) Delta/XDelta, DELTA-9, proxy login access, (M) Networking, 2-46 DELTA-42 PSI account information, (M) Networking, 2-35 comparison operators, (U) DCL Concepts, 6-7 retrieving information about, (P) RTL Parallel definition, (U) DCL Concepts, 6-6 Processing, 4-1 examples, (U) DCL Concepts, 6-1, 6-7, 6-8 role in security, (M) Security, 2-3 Numeric keyboard, (U) EDT Ref, EDT-2 TASK, (M) Networking, 2-32, 3-77 Numeric string type, (M) Networking, 2-31, 8-12 leading separate, (P) MACRO, 8-11 type number, (M) Networking, 2-32, 3-77 trailing, (P) MACRO, 8-8 user-defined, (M) Networking, 2-31 Numeric time, (P) System Services Intro, 10-7 use with alias node identifier, (M) Networking, Numeric UIC, (M) Security, 4-3 2-33, 3-78 NUMERIC\_ERROR exception (VAX Ada), V5.5 VAX PSI, (M) Networking, 2-31, 2-35, 3-80 Release Notes, 3–31 zero-numbered, (M) Networking, 2-32, 3-77 /NUMERIC\_KEYPAD qualifier, (U) VMS Intro, Object code values, (M) Network Control Program, NCP-131 NWA (network work area), (P) System Dump Object file Analyzer, SDA-77 analyzing, (U) DCL Dictionary, DCL1-26 NXR option, (P) File Def Language, FDL-12 identifying errors, (U) DCL Dictionary, DCL1-26 input to linker, (P) Linker, 1-4, 2-2 processing of, (P) Linker, 6-9, 6-12 O command, (P) Delta/XDelta, DELTA-35 used as linker input, (P) Linker, 1-4 Object, (M) Networking, 1-20 Object language, (P) Linker, 7-1 to 7-37 See also System object See also Linker Utility See DNS object Object library, (P) Programming Resources, 1-18, access control, (M) Networking, 2-33 5-1, 5-12; (P) Librarian, LIB-1 addressing, (M) Networking, 2-32 adding a module, (P) Programming Resources, command procedure for DECnet-VAX, (M) 5-2Networking, 2-32, 3-79 character case in, (P) Librarian, LIB-2 command procedure for PSI, (M) Networking, creating, (P) Programming Resources, 5-2 2 - 35deleting a module, (P) Programming Resources, commands, (M) Networking, 3-76 5 - 2database, (M) Networking, 3-2 extracting a module, (P) Programming DECnet-VAX, (M) Networking, 2-32 Resources, 5-2 definition, (M) Networking, 2–31 including message object module, (P) definition of, (P) RTL Parallel Processing, 1-2 Programming Resources, 9-9 identification. (M) Networking, 3-77, 3-80 listing modules, (P) Programming Resources, in security model, (M) Security, 2–1 modifying, (P) System Services Intro, 6-24 replacing a module, (P) Programming name, (M) Networking, 2-31, 3-77 Resources, 5-2 network, (M) DECnet-VAX Guide, 1-2; (M) Object module, (U) VMS Intro, 4-1; (P) Networking, 2-31, 3-2Debugger, 5-3, 6-1 DECnet-VAX system program, (M) See also Message object module DECnet-VAX Guide, 1-2 analyzing, (U) DCL Dictionary, DCL1-26 defining at network startup, (M) DECnet-VAX Guide, 3-31 end-of-file records, (U) DCL Dictionary, DCL1-27 MAIL, (M) DECnet-VAX Guide, 1-2, 3-35 contents of, (P) Linker, 2-2 modifying proxy access, (M) DECnet-VAX for command table, (P) Command Def, CDU-4, Guide, 3-35 CDU-16, CDU-41 number. (M) DECnet-VAX Guide, 2-15 how to create, (P) Command Def, CDU-46 PHONE, (M) DECnet-VAX Guide, 4-12 identifying, (P) MACRO, 6-39 user-written program, (M) DECnet-VAX input to linker, (P) Linker, 6-3 Guide, 1-2linking, (U) VMS Intro, 4-8 nonzero, (M) Networking, 2-32, 3-77 naming, (P) MACRO, 6-95

```
Object module (cont'd)
                                                   octaword_unsigned data type, (P) Routines Intro,
  record contents of, (P) Linker, 6-3
  statements for, (P) Command Def, CDU-14
                                                   .ODD directive, (P) MACRO, 6-71
  title, (P) MACRO, 6-95
                                                   CDS-1 directory hierarchy, (M) Analyze/Disk,
Object module library, (U) DCL Dictionary,
    DCL1-28
                                                   ODS-2 directory structure, (M) Analyze/Disk, A-1
  contents of, (P) Linker, 2-3
                                                   Office environments
  creating, (P) Modular Procedures, 5-2
                                                     See ALL-IN-1 monitoring
  input to linker, (P) Linker, 2-3
                                                   OFF keyword
  processing of, (P) Linker, 6-13
                                                     with CREATE_WINDOW, (P) VAXTPU, 7-77
  updating, (P) Modular Procedures, 6-5
                                                      with HELP_TEXT, (P) VAXTPU, 7-228
OBJECT parameter, (M) Networking, 3-85
                                                     with QUIT, (P) VAXTPU, 7-291
Object protection, (M) Security, 4-1, 4-2
                                                      with SET (AUTO_REPEAT), (P) VAXTPU,
  and system security, (M) Security, 4-1
                                                         7 - 353
  changing, (M) Security, 4-13
                                                      with SET (BELL), (P) VAXTPU, 7–355
  default ACL-based, (M) Security, 4-34
                                                      with SET (COLUMN MOVE VERTICAL), (P)
  default disk, (M) Security, 4-34
                                                         VAXTPU, 7-359
  default UIC-based, (M) Security, 4-33
                                                      with SET (CROSS_WINDOW_BOUNDS), (P)
  establishing and changing, (M) Security, 4-13
                                                          VAXTPU, 7-361
  of magnetic tape volumes, (M) Security, 4-12
                                                     with SET (DEBUG), (P) VAXTPU, 7-363,
/OBJECT qualifier, (M) ACL Editor, ACL-27;
    (P) Command Def, CDU-41; (P) Librarian,
                                                      with SET (INFORMATIONAL), (P) VAXTPU,
    LIB-34; (P) Message, MSG-12
Obsolete command, V5.5 New Features, 5-7
                                                     with SET (LINE NUMBER), (P) VAXTPU,
Obsolete qualifiers, V5.5 New Features, 5-7
                                                          7 - 416
  START/QUEUE/MANAGER command, V5.5
                                                     with SET (MODIFIABLE), (P) VAXTPU, 7-429
      Release Notes, 2–11
                                                     with SET (MOUSE), (P) VAXTPU, 7-432
Obsolete queue file, V5.5 New Features, 5-2
                                                     with SET (NO_WRITE), (P) VAXTPU, 7-434
Occlusion, (P) RTL Screen Management, 2-5
                                                      with SET (PAD), (P) VAXTPU, 7-437
%OCT, (P) Debugger, 4-11, D-5
                                                      with SET (PAD_OVERSTRUCK_TABS), (P)
.OCTA directive, (P) MACRO, 6-70
                                                          VAXTPU, 7-439
Octal dump, (U) DCL Dictionary, DCL1-176
                                                      with SET (SCREEN_UPDATE), (P) VAXTPU,
OCTAL mode, (P) Patch, PAT-17
                                                          7 - 460
Octal numbers
                                                     with SET (SCROLLING), (P) VAXTPU, 7-467
  in a numeric UIC, (U) DCL Concepts, 8-2
                                                      with SET (SELF_INSERT), (P) VAXTPU,
  in a UIC directory specification, (U) DCL
      Concepts, 3-9
                                                     with SET (SUCCESS), (P) VAXTPU, 7-479
/OCTAL qualifier
                                                     with SET (TIMER), (P) VAXTPU, 7-486
  with DELETE command, (P) Patch, PAT-52
                                                     with SET (TRACEBACK), (P) VAXTPU, 7-488
  with DEPOSIT command, (P) Patch, PAT-55
                                                     with SPAWN, (P) VAXTPU, 7-515
  with EVALUATE command, (P) Patch, PAT-59
                                                   Offloading
  with EXAMINE command. (P) Patch. PAT-62
                                                     of CPU resource, (M) Performance
  with INSERT command, (P) Patch, PAT-68
                                                         Management, 3-19
  with REPLACE command, (P) Patch, PAT-71
                                                     of disk I/O resource, (M) Performance
  with SET MODE command, (P) Patch, PAT-76
                                                         Management, 3-37
  with VERIFY command, (P) Patch, PAT-90
                                                     of memory resource, (M) Performance
OCTAL qualifier, (P) Debugger, 4-11, CD-77,
                                                         Management, 3-29
    CD-79, CD-83
                                                   Offset
Octal text
                                                     definition, (U) Using VMS, 5-16; (U) DCL
  converting to binary, (P) RTL Library, LIB-76
                                                         Concepts, 6-3
Octaword data type, (P) MACRO, 8-3
                                                   "Offset" string constant parameter to GET_INFO,
/OCTAWORD qualifier, (P) Debugger, CD-60,
                                                       (P) VAXTPU, 7-174, 7-186
    CD-83
                                                   "Offset_column" string constant parameter to
Octaword storage directive (.OCTA), (P) MACRO,
                                                       GET_INFO, (P) VAXTPU, 7-174, 7-186
                                                   OFP option, (P) File Def Language, FDL-22
octaword_signed data type, (P) Routines Intro,
                                                   /OMIT qualifier, (U) Sort/Merge, SORT-68
   A-10t
```

ON keyword (cont'd) ON command, (U) Using VMS, 6-30; (U) DCL with SET (TRACEBACK), (P) VAXTPU, 7-488 Dictionary, DCL2-2 to DCL2-4 with SPAWN, (P) VAXTPU, 7-515 and command procedure, (U) DCL Dictionary, Online backup DCL2-2 Rdb/VMS databases, Dependability Handbook, and CONTINUE command, (U) DCL 8-34 Dictionary, DCL1-63 Online bit and Ctrl/Y, (U) DCL Dictionary, DCL2-2 See UCB\$V ONLINE error in command procedure, (U) DCL Online condition Dictionary, DCL2-2 on MASSBUS, (P) Device Support (A), 15-10 for error handling, (U) Command Procedures, 7-4Online debugging interrupt of command procedure, (U) DCL See Debugging Dictionary, DCL2-2 Online help, (U) DCL Dictionary, DCL1-231; (M) specifying severity level, (U) Command Audit Analysis, AUD-8, AUD-32 Procedures, 7-4 for system messages, V5.5 New Features, B-44 with Ctrl/Y, (U) Command Procedures, 7-7 /ONLY qualifier, (P) Librarian, LIB-35; (P) with severity level, (U) Command Procedures, National Char Set, NCS-38 ON ERROR statement, (P) VAXTPU, 3-21, 3-25 ON CONTROL\_Y command, (U) Using VMS, to 3-31 6 - 31location, (P) VAXTPU, 3-25 One's complement OPA0: workstation operator console terminal, (M) of expression, (P) MACRO, 3-14 VAXcluster, 7-12; (M) Maintaining VMS, 3-1 One-time initialization routines, (P) DECthreads, changing default setup, (M) Maintaining VMS, 3-1ONE WINDOW command, (U) Using VMS, 8-35; default setup, (M) Maintaining VMS, 3-1 (U) EVE Ref, EVE-95 Opaque name EVE editor, (U) Text Processing, 1-56 concatenating, V5.5 New Features, C-50, C-54 in window environment (EVE), (U) Text converting to string, V5.5 New Features, C-30, Processing, 1-55 C-33, C-62; (P) System Services Ref. ON keyword SYS-176, SYS-180 with CREATE\_WINDOW, (P) VAXTPU, 7-77 converting user name, V5.5 New Features, with HELP\_TEXT, (P) VAXTPU, 7-228 C - 64with QUIT, (P) VAXTPU, 7-291 counting components, V5.5 New Features, C-56 with SET (AUTO\_REPEAT), (P) VAXTPU, format of, V5.5 New Features, C-5 7 - 353returning simple name, V5.5 New Features, with SET (BELL), (P) VAXTPU, 7-355 C-69, C-71 with SET (COLUMN\_MOVE\_VERTICAL), (P) OPC\$LOGFILE\_CLASSES logical name, (M) VAXTPU, 7-359 Maintaining VMS, 6-12 with SET (CROSS\_WINDOW\_BOUNDS), (P) OPC\$LOGFILE\_ENABLE logical name, (M) VAXTPU, 7-361 Maintaining VMS, 6-12 with SET (DEBUG), (P) VAXTPU, 7-363 OPC\$LOGFILE\_NAME logical name, (M) with SET (INFORMATIONAL), (P) VAXTPU, Maintaining VMS, 6-11, 6-12 7 - 397OPC\$OPA0\_CLASSES logical name, (M) with SET (LINE\_NUMBER), (P) VAXTPU, Maintaining VMS, 3-2 7 - 416OPC\$OPA0\_ENABLE logical name, (M) with SET (MODIFIABLE), (P) VAXTPU, 7-429 Maintaining VMS, 3-2 with SET (MOUSE), (P) VAXTPU, 7-432 Opcode with SET (NO\_WRITE), (P) VAXTPU, 7-434 creating, (P) MACRO, 6-72 with SET (PAD), (P) VAXTPU, 7-437 defining, (P) MACRO, 6-83 with SET (PAD OVERSTRUCK TABS), (P) format, (P) MACRO, 8-16 VAXTPU, 7-439 illegal vector, (P) MACRO, 10-17 with SET (SCREEN\_UPDATE), (P) VAXTPU, redefining, (P) MACRO, 6-58, 6-72 7 - 460summary, (P) MACRO, D-1 with SET (SCROLLING), (P) VAXTPU, 7-467 alphabetic order, (P) MACRO, D-1 with SET (SELF\_INSERT), (P) VAXTPU, numeric order, (P) MACRO, D-12 7 - 470VAX MACRO instructions with same, (P) with SET (SUCCESS), (P) VAXTPU, 7-479 Patch, PAT-21

with SET (TIMER), (P) VAXTPU, 7-486

```
Opcode (cont'd)
                                                     OPCOM message (cont'd)
  with the same name as a macro, (P) MACRO,
                                                       mount verification timeout message, (M)
      6 - 58
                                                           Maintaining VMS, 3-12
Opcode definition directive (.OPDEF), (P)
                                                       operator reply message, (M) Maintaining VMS,
   MACRO, 6-72
OPCOM (operator communication manager), (M)
                                                       operator terminal enabled message, (M)
   Security, 6-6; (M) Networking, 2-38, 3-88,
                                                           Maintaining VMS, 3-1
                                                       security alarm message, (M) Maintaining
  and security auditing, (M) Security, 6-5
                                                           VMS, 6-10
  defining network operator, (M) DECnet-VAX
                                                       system parameter change message, (M)
      Guide, 4–4
                                                           Maintaining VMS, 6-10
  EFDRIVER OPCOM messages, V5.5 Release
                                                       types of, (M) Maintaining VMS, 6-7
      Notes, 2-58
                                                       user request message, (M) Maintaining VMS,
  enabling terminal to receive messages from,
                                                           3-2, 6-9
                                                           if operator terminals are disabled, (M)
      (U) DCL Dictionary, DCL2-40
  log file, (M) Maintaining VMS, 6-1, 6-7
                                                               Maintaining VMS, 3-3
      sample, (M) Maintaining VMS, 6-7
                                                       volume mount and dismount message, (M)
      use of, (M) Maintaining VMS, 6-7
                                                           Maintaining VMS, 6-9
                                                     OPCOM messages, (M) VAXcluster, 7-12
  messages, (U) DCL Dictionary, DCL2-47; (M)
                                                     OPDEF directive, (P) MACRO, 6-72
      System Management Intro, 4–3
      continuation volume request, (U) Files and
                                                     Open
          Devices, 5-4
                                                       displaying
      format, (M) DECnet-VAX Guide, 4-6
                                                           names of open files, (U) DCL Dictionary,
  monitoring systems and devices, Dependability
                                                               DCL2-265
      Handbook, 9-14
                                                       file, (U) DCL Dictionary, DCL2-5
  mount verification, (M) Maintaining VMS, 3-9
                                                     Open account, (M) Security, 3-7
      messages, (M) Maintaining VMS, 3-10
                                                       and captive account, (M) Security, 5–45
  operator terminal, (M) System Management
                                                       captive recommendation, (M) Security, 5–20
      Intro, 4-3
                                                     Open-bus device support
                                                       SCSI controller, V5.5 New Features, A-52
  process
      sending a message to, (P) Device Support
                                                     Open-bus driver support, V5.5 New Features, A-2,
          (A), 10–7; (P) Device Support (B),
          3-53, 3-61
                                                     Open-by-name-block option, (P) File Applications,
  recovering from BACKUP errors, (M)
                                                         5-9, 6-5
                                                       and performance, (P) File Applications, 6-7
      Maintaining VMS, 3-7
  relationship with BACKUP, (M) Maintaining
                                                     OPEN command, V5.5 Release Notes, 1–17; (U)
      VMS, 3-6
                                                         Using VMS, 6-13: (U) Command Procedures,
  request display, (M) System Management Intro,
                                                         6-1; (U) DCL Dictionary, DCL2-5 to DCL2-8;
                                                         (U) EVE Ref, EVE-96
  restarting, (M) Maintaining VMS, 3-2, 6-12
                                                       See also CLOSE command
  SECURITY class messages, V5.5 Release
                                                       See also GET FILE command
      Notes, 2-42
                                                       See also READ command
  using, (M) Maintaining VMS, 3-1
                                                       See also WRITE command
OPCOM message. (M) VAXcluster, E-9
                                                       appending records to an existing file, (U)
  appearing in operator log file, (M) Maintaining
                                                           Command Procedures, 6-9
      VMS, 6-7
                                                       creating a new buffer with (EVE), (U) Text
  continuation volume request, (M) Maintaining
                                                           Processing, 1-52
      VMS, 3–5
                                                       creating a new output file, (U) Command
  device status message, (M) Maintaining VMS,
                                                           Procedures, 6-8
                                                       for buffer manipulation (EVE), (U) Text
  enabling and disabling of operator terminal,
                                                           Processing, 1-47
      (M) Maintaining VMS, 6-8
                                                       for remote file, (M) DECnet-VAX Guide, 2-13
  initialization message, (M) Maintaining VMS,
                                                       opening a file for reading, (U) Command
      6 - 7
                                                           Procedures, 6-2
  mount request message, (M) Maintaining
                                                       opening a file for writing, (U) Command
      VMS, 3–4
                                                           Procedures, 6-2
  mount verification aborted message, (M)
                                                       opening a shareable file, (U) Command
      Maintaining VMS, 3-13
                                                           Procedures, 6-3
```

Operand (cont'd) OPEN command (cont'd) reading file into buffer with (EVE), (U) Text determining addressing mode of, (P) MACRO, Processing, 1-54 example, (U) DCL Concepts, 6-1 Open file limit instruction, (P) Debugger, 4-19, CD-83, See FILLM CD-150 Open files primary, (P) MACRO, 8-26 and ACL consumption of memory, (M) Security, reserved, (P) MACRO, 9-102, 9-103, 9-145 vector instruction, (P) Debugger, 11-5, 11-9 Open image, (M) Install, INS-2 Operand generation directive OPEN LINE command, (U) Using VMS, 8-56; (.REF16), (P) MACRO, 6-83 (U) EDT Ref, EDT-80(.REF2), (P) MACRO, 6-83 See also Moving text (.REF4), (P) MACRO, 6-83 **OPENLINE** keypad function (.REF8), (P) MACRO, 6-83 EDT, (U) Text Processing, 2-18 Operand specifier, (P) MACRO, 8-17 Open Location and Display Contents command, access type notation, (P) MACRO, 9-2 (P) Delta/XDelta, DELTA-17 access types, (P) MACRO, 8-17 Open Location and Display Contents in Instruction base, (P) MACRO, 8-26 Mode command, (P) Delta/XDelta, DELTA-20 data type notation, (P) MACRO, 9-2 Open Location and Display Indirect Location data types, (P) MACRO, 8-17 command, (P) Delta/XDelta, DELTA-24 notation, (P) MACRO, 9-2 Open Location and Display Previous Location restrictions on usage for vector instructions, command, (P) Delta/XDelta, DELTA-23 (P) MACRO, 10-16 **\$OPEN** macro Operand specifier addressing mode formats, (P) expansion of, (P) RMS, 3-10 MACRO, 8-18 for invoking the Open service, (P) RMS, 4-1 autodecrement mode, (P) MACRO, 8-21 using in example, (P) RMS, 3-10, 3-11 autoincrement deferred mode, (P) MACRO, OPEN qualifier, (M) Install, INS-10 OPEN SELECTED command, (U) EVE Ref. autoincrement mode, (P) MACRO, 8-19 **EVE-97** branch mode, (P) MACRO, 8-29 creating a new buffer with (EVE), (U) Text displacement deferred mode, (P) MACRO, 8-22 Processing, 1-52 displacement mode, (P) MACRO, 8-21 for buffer manipulation (EVE), (U) Text index mode, (P) MACRO, 8-26 Processing, 1-48 literal mode, (P) MACRO, 8-23 reading file into buffer with (EVE), (U) Text register deferred mode, (P) MACRO, 8-19 Processing, 1-54 register mode, (P) MACRO, 8-19 using with search string (EVE), (U) Text OPERANDS qualifier, (P) Debugger, 4-19, 11-9, Processing, 1-20 CD-83, CD-150 Open service, (P) File Applications, 5–9; (P) Operand type directive (.NTYPE), (P) MACRO, RMS, RMS–58 6 - 68condition values, (P) RMS, RMS-64 Operating system contrasted with Parse and Search services, (P) adding to an existing system disk, (M) Setting RMS. 4-10Up VMS, 2-25 control block input fields, (P) RMS, RMS-59 building on another disk, (M) Setting Up VMS, control block output fields, (P) RMS, RMS-61 for process-permanent files, (P) File components, (M) System Management Intro, Applications, 6-21 function, (P) RMS, 4-1 coordinating files, (M) VAXcluster, 4-11 invoking, (P) RMS, 4-4 copying files to another disk, V5.5 Release NAM input fields, (P) RMS, RMS-63 Notes, B-3; (M) Setting Up VMS, 2-24 NAM output fields, (P) RMS, RMS-63 directories, (M) System Management Intro, 1-4 program example, (P) RMS, 4-2 installing, (M) VAXcluster, 4-4 requirements for using, (P) RMS, RMS-59 upgrading, (M) VAXcluster, 4-4 Operand, (P) MACRO, 2-3 using multiple versions, Dependability See also Expression Handbook, 9-30 See also Operator Operating system performance, Dependability definition, (U) DCL Concepts, 5-7, 6-1 Handbook, 4–16

Operating system routines	Operator (cont'd)
for VME drivers, V5.5 New Features, A-22	definition, (U) Using VMS, 5-11; (U) DCL
Operation, (M) Backup, BCK-17	Concepts, 5-7, 6-1
compare, (M) Backup, BCK-21, BCK-39	disabling status, (U) DCL Dictionary, DCL2-40
copy, (M) Backup, BCK-19	enabling status, (U) DCL Dictionary, DCL2-40
data center techniques, Dependability	example, (U) DCL Concepts, 6-1
$Handbook,9 ext{}1$	exclusive OR, (P) MACRO, 3–16
involving condition handler, (P) Routines Intro,	floating-point, (P) MACRO, 3-14
2–46	for addressing locations, (P) Patch, PAT-24
list, (M) Backup, BCK-20, BCK-66	for arithmetic expressions, (P) Patch, PAT-23
performed by BACKUP, (M) Backup, BCK-1	for DISALLOW clause, (P) Command Def, CDU-13
restore, (M) Backup, BCK-18	inclusive OR, (P) MACRO, 3–16
save, (M) Backup, BCK-17	in expressions, (U) Command Procedures, 2–12
Operational conditions, Dependability Handbook,	language expression, (P) Debugger, E-1
1–10	log file closing, (U) DCL Dictionary, DCL2-41
apparently not broken, Dependability Handbook, 1–11	log file opening, (U) DCL Dictionary, DCL2-41
broken, Dependability Handbook, 1–10	logical, (U) Using VMS, 5–12, 5–15; (U) DCL
not broken, Dependability Handbook, 1–10	Concepts, 6–8
Operational controls, (P) RTL Screen	macro, (P) MACRO, 4-8
Management, 2–16	macro string, (P) MACRO, C-8
Operational phase	numeric, (U) Using VMS, 5-13; (U) DCL
applying dependability strategies	Concepts, 6-7
error correction, Dependability Handbook,	numeric comparison, (U) DCL Concepts, 6-7
1–21	numeric control, (P) MACRO, 3-14
failure recovery, Dependability Handbook,	order of evaluation, $(U)$ Using VMS, 5–18; $(U)$
1–21	DCL Concepts, 6–10
fault tolerance, Dependability Handbook, 1-21	partial pattern assignment (@), (P) VAXTPU, 2–17
building dependable systems, <i>Dependability Handbook</i> , 1–16	passing information to when mounting a disk, (M) Maintaining VMS, 2–7
Operational procedures, Dependability Handbook,	pattern, (P) MACRO, 9-172
1–19	pattern alternation (   ), (P) VAXTPU, 2-16
analyzing options, Dependability Handbook,	pattern concatenation (+), (P) VAXTPU, 2-15
3–15 to 3–19	pattern linking (&), (P) VAXTPU, 2–15
applying dependability strategies,	precedence, (P) System Dump Analyzer,
Dependability Handbook, 1–21	SDA-12, SDA-13; (P) VAXTPU, 3-7
Operational state	radix control, (P) MACRO, 3-11
of circuit, (M) Networking, 3-40	reduction, (U) Using VMS, 5-12
of lines, (M) Networking, 3-57	register, (P) MACRO, 3–13
Operational zones, Dependability Handbook, 5–9	relational, (P) VAXTPU, 2–18
Operator, (P) Patch, PAT-23; (P) SUMSLP,	requesting assistance from, (M) Maintaining
SUM-3; (P) System Dump Analyzer, SDA-12;	VMS, 3–3
(P) MACRO, 2–3; (P) VAXTPU, 3–6 to 3–8	requesting reply from, (U) DCL Dictionary, DCL2-47
See also Expression	rules for data types, (U) Command Procedures,
See also Operand	2–13
See also REQUEST command	sending message, (U) DCL Dictionary,
address expression, (P) Debugger, D-6	DCL2-47; (P) System Services Ref,
AND, (P) MACRO, 3–16	SYS-615
arithmetic, (P) Delta/XDelta, DELTA-10	sending requests to, (M) Maintaining VMS,
arithmetic shift, (P) MACRO, 3-16	3–1
ASCII, (P) MACRO, 3–12	string, (U) DCL Concepts, 6-1
binary, (P) MACRO, 3–15, C–8	string comparison, (U) Using VMS, 5-11; (U)
character string, (U) Using VMS, 5-12	DCL Concepts, 6–2
complement, (P) MACRO, 3-14	string concatenation, (U) DCL Concepts, 6-2
concatenation, (U) Using VMS, 5-12	string reduction, (U) DCL Concepts, 6-2
	summary, (P) MACRO, C-7

Operator (cont'd)	Operator-initiated downline load, (M) Networking
terminal, (M) System Management Intro, 1-2	4–1, 4–7
textual, (P) MACRO, 3–12	Operator log file, (M) System Management Intro,
unary, (P) MACRO, 3-10, C-7	4-3; (M) Maintaining VMS, 6-1, 6-7
OPERATOR.LOG file, (M) Maintaining VMS, 6-7	See also OPCOM, OPCOM message
Operator assistance	closing, (M) Maintaining VMS, 6-7
requesting, (M) Maintaining VMS, 3-2	creating, (M) Maintaining VMS, 6-7, 6-11
with MOUNT, (M) Maintaining VMS, 2-7, 3-3	device status message, (M) Maintaining VMS,
Operator classes	6–7
changing default setup, (M) Maintaining VMS,	enabling and disabling classes, $(M)$
3–2	Maintaining VMS, 6-11
default setup, (M) Maintaining VMS, 3-2	example, (M) Maintaining VMS, 6-7
enabling and disabling for log file, $(M)$	information about system parameter changes,
Maintaining VMS, 6–11	(M) Maintaining VMS, 6-10
Operator commands	initialization message, (M) Maintaining VMS,
INITIALIZE, (M) Maintaining VMS, 3-4	6–7
REPLY	location, (M) Maintaining VMS, 6-11
ABORT qualifier, (M) Maintaining VMS,	maintaining, (M) Maintaining VMS, 6-12
3–3	messages appearing in, (M) Maintaining VMS,
/BLANK_TAPE qualifier, (M) Maintaining	6–7
VMS, 3–6	printing, (M) Maintaining VMS, 6-13
/DISABLE qualifier, (M) Maintaining	purging, (M) Setting Up VMS, 2–13; (M)
VMS, 3–2	Maintaining VMS, 6–12
/ENABLE qualifier, (M) Maintaining VMS,	recording messages in, (M) Maintaining VMS,
3–1, 6–8	3–1
/INITIALIZE_TAPE qualifier, (M)	sample, (M) Maintaining VMS, 6-7
Maintaining VMS, 3–6	security alarm messages, (M) Maintaining
/LOG qualifier, (M) Maintaining VMS,	VMS, 6–10
6-7, 6-11	setting up, (M) Maintaining VMS, 6–11
/PENDING qualifier, (M) Maintaining	use of, (M) Maintaining VMS, 6-7
VMS, 3–3	using to troubleshoot queue manager, $(M)$
/TO qualifier, (M) Maintaining VMS, 3-3,	Maintaining VMS, 5–86
3–5, 3–8	Operators in condition tests, (U) Sort/Merge,
REQUEST	SORT-57
REPLY qualifier, (M) Maintaining VMS,	Operator terminal
3-2	<del>-</del>
/TO qualifier, (M) Maintaining VMS, 3–2	See also OPA0:
Operator communication manager	disabling, (M) Maintaining VMS, 3-2
See OPCOM	enabled  OBCOM massage (M) Maintaining VMS
Operator Communication Manager	OPCOM message, (M) Maintaining VMS,
See OPCOM	3-1 enabling, (M) Maintaining VMS, 3-1
	enabling and disabling, (M) Maintaining VMS,
Operator console	
as OPCOM terminal, (M) DECnet-VAX Guide,	6-8
4-4 Operator device (D) Device Support (D) 1.74	setting up, (M) System Management Intro, 4-3
Operator device, (P) Device Support (B), 1–74	user request, (M) System Management Intro, 4-3
Operator function	
assisting batch-oriented backup jobs, (M)	OPER privilege, (M) Setting Up VMS, 5–14; (M)
Maintaining VMS, 3–6	Security, A-5; (M) Networking, 5-2
handling mount request, (M) System	as requirement for ZERO COUNTERS
Management Intro, 4-3	command, (M) DECnet-VAX Guide, 4-3
mounting a device, (M) Maintaining VMS, 3-4	as requirement to change volatile database,
mounting and dismounting volumes, (M)	(M) DECnet-VAX Guide, 3–32
Maintaining VMS, 3–3	for network operations, (M) DECnet-VAX
mounting volume sets, (M) Maintaining VMS,	Guide, 3–9
3–5	OPS5
user request, (M) System Management Intro, 4-2; (M) Maintaining VMS, 3-1, 3-3, 3-4	See VAX OPS5

Optimization	Options (cont'd)
Edit/FDL Utility, (P) File Applications, A-1	personnel, Dependability Handbook, 3–19 to 3–20
effect on debugging, (P) Debugger, 2–5, 5–2,	software, Dependability Handbook, 3-9 to 3-15
7-7, $9-1$ with DECwindows, (P) Debugger, $1-3$ ,	Options file, (P) Programming Resources, 5–8
1–10, 1–11	See also Linker Utility
of indexed file, (P) File Applications, 10–29	content of, (P) Linker, 2-5, 3-1
OPTIMIZE qualifier, (P) Debugger, 2–5, 5–2, 9–1	CONVERT/DOCUMENT command, (U) DCL
with DECwindows, (P) Debugger, 1–3	Dictionary, DCL1-67
Optimize script, (P) File Def Language, FDL-39,	creating, (P) Programming Resources, 5-6; (P)
FDL-47	Linker, 1–7
Optimizing batch queues for SORT, (M)	creation of, (P) Linker, 3-4
Maintaining VMS, 5–30	how used with linker, (P) Linker, 1-6
Optimizing files	identification of, (P) Linker, LINK-26
using DEC File Optimizer for VMS,	in command procedure, (P) Linker, 3-4
$Dependability\ Handbook,\ 9-6$	input to linker, (P) Linker, 1-5, 2-4
Optimizing SORT	processing of, (P) Linker, 6–9
system manager options, $(U)$ Sort/Merge,	rules for, (P) Linker, 1-7, 3-4
SORT-8	specification of clusters in, (P) Linker, 6–10
user options, (U) Sort/Merge, SORT-7	use for, (P) Linker, 2–5, 3–1
Option	OPTIONS qualifier, (P) Debugger, 5–12; (P)
BASE=, (P) Linker, 1-7, 3-5	Linker, 1–5, 2–4, LINK–26
CLUSTER=, (P) Linker, 1-7, 3-6	OR.
COLLECT=, (P) Linker, 1–8, 3–6	in a logical operation, (U) DCL Concepts, 6-9
creating with LBR\$OPEN, (P) Programming	Orange Book
Resources, 8–36	of U.S. Department of Defense
default values, (P) Linker, 3-2	C2 security, Dependability Handbook, 8-44
DZROMIN=, (P) Linker, 1–8, 3–7 GSMATCH=, (P) Linker, 1–8, 3–7	ORB (object rights block), (P) Device Support (B),
IDENTIFICATION=, (P) Linker, 1–8, 3–9	1–44 to 1–46
IOSEGMENT=, (P) Linker, 1–6, 1–8, 2–11, 3–9	address, (P) Device Support (B), 1–73
ISDMAX=, (P) Linker, 1–8, 3–10	cloned, (P) Device Support (A), 11-13; (P)
NAME=, (P) Linker, 1–8, 3–10	Device Support (B), 4–7
PROTECT=, (P) Linker, 1–8, 3–10	Order and neatness
PSECTATTR=, (P) Linker, 1–9, 3–11	environment, Dependability Handbook, 5-8
specifying by symbolic bit offset, (P) RMS, 2-3	importance of around computer equipment,
STACK=, (P) Linker, 1-6, 1-9, 2-11, 3-11	Dependability Handbook, 5–8
SYMBOL=, (P) Linker, 1–9, 3–11	Organization
UNIVERSAL=, (P) Linker, 1–9, 3–12	See File organization
Optional argument	ORGANIZATION attribute, (P) File Def
to service, (P) RMS, 3-11	Language, FDL-22
Optional keypad keys	ORGANIZATION secondary attribute, (P) File
using with search string (EVE), (U) Text	Applications, 4–28
Processing, 1–20	Organizing
Optional user data, (M) DTS/DTR, DTS-5,	files, (P) Convert, CONV-1
DTS-10	See also File organization
Options	files and modules, (P) Modular Procedures, 2-1
See also Backup Utility (BACKUP)	procedures, (P) Modular Procedures, 2-1
See also Queue options	Orientation radio box processing option, V5.5 New
buffer-level, $(M) DTS/DTR$ , DTS-1	Features, B–47
communications, Dependability Handbook, 3–6	"Original_bottom" string constant parameter to
to 3–9	GET_INFO, (P) VAXTPU, 7–223
environment, Dependability Handbook, 3–2 to 3–4	"Original_length" string constant parameter to GET_INFO, (P) VAXTPU, 7–223
hardware, Dependability Handbook, 3-4 to 3-6	"Original_top" string constant parameter to
operational procedures, <i>Dependability Handbook</i> , 3–15 to 3–19	GET_INFO, (P) VAXTPU, 7–223

- "Original\_width" string constant parameter to GET\_INFO, (P) VAXTPU, 7-200
- OR operator, (P) VAXTPU, 3-7
- OR operator ( | ), (P) System Dump Analyzer, SDA-12
- OTHER WINDOW command, (U) Using VMS, 8-35; (U) EVE Ref, EVE-98
  - See also NEXT WINDOW command
- OTS\$CNVOUT, (P) RTL General Purpose, OTS-3 OTS\$CNVOUT\_G, (P) RTL General Purpose, OTS-3
- OTS\$CNVOUT\_H, (P) RTL General Purpose, OTS-3
- OTS\$CVT\_L\_TB, (P) RTL General Purpose, OTS-5
- OTS\$CVT\_L\_TI, (P) RTL General Purpose, OTS-7 OTS\$CVT\_L\_TL, (P) RTL General Purpose, OTS-9
- OTS\$CVT\_L\_TO, (P) RTL General Purpose, OTS-11
- OTS\$CVT\_L\_TZ, (P) RTL General Purpose, OTS-15
- OTS\$CVT\_TB\_L, (P) RTL General Purpose, OTS-17
- OTS\$CVT\_TI\_L, (P) RTL General Purpose, OTS-20
- OTS\$CVT\_TL\_L, (P) RTL General Purpose, OTS-22
- OTS\$CVT\_TO\_L, (P) RTL General Purpose, OTS-24
- OTS\$CVT\_TU\_L, (P) RTL General Purpose, OTS-27
- OTS\$CVT\_TZ\_L, (P) RTL General Purpose, OTS-36
- OTS\$CVT\_T\_z, (P) RTL General Purpose, OTS-29, OTS-33
- OTS\$DIVC, (P) RTL General Purpose, OTS-39 OTS\$DIVCD\_R3, (P) RTL General Purpose, OTS-39
- OTS\$DIVCG\_R3, (P) RTL General Purpose, OTS-39
- OTS\$DIV\_PK\_LONG, (P) RTL General Purpose, OTS-42
- OTS\$DIV\_PK\_SHORT, (P) RTL General Purpose, OTS-46
- OTS\$MOVE3, (P) RTL General Purpose, OTS-49
- OTS\$MOVE5, (P) RTL General Purpose, OTS-51
- OTS\$MULCD\_R3, (P) RTL General Purpose, OTS-53
- OTS\$MULCG\_R3, (P) RTL General Purpose, OTS-53
- OTS\$POWCxCx, (P) RTL General Purpose, OTS-55
- OTS\$POWCxJ, (P) RTL General Purpose, OTS-58

- OTS\$POWDD, (P) RTL General Purpose, OTS-61 OTS\$POWDJ, (P) RTL General Purpose, OTS-65 OTS\$POWDLU, (P) RTL General Purpose, OTS-79
- OTS\$POWDR, (P) RTL General Purpose, OTS-63 OTS\$POWGG, (P) RTL General Purpose, OTS-67 OTS\$POWGJ, (P) RTL General Purpose, OTS-70 OTS\$POWGLU, (P) RTL General Purpose, OTS-79
- OTS\$POWHH\_R3, (P) RTL General Purpose, OTS-72
- OTS\$POWHJ\_R3, (P) RTL General Purpose, OTS-74
- OTS\$POWHLU\_R3, (P) RTL General Purpose, OTS-79
- OTS\$POWII, (P) RTL General Purpose, OTS-76 OTS\$POWJJ, (P) RTL General Purpose, OTS-77 OTS\$POWLULU, (P) RTL General Purpose, OTS-78
- OTS\$POWRD, (P) RTL General Purpose, OTS-81 OTS\$POWRJ, (P) RTL General Purpose, OTS-84 OTS\$POWRLU, (P) RTL General Purpose, OTS-79
- OTS\$POWRR, (P) RTL General Purpose, OTS-86 OTS\$SCOPY\_DXDX, (P) RTL General Purpose, OTS-89; (P) RTL String Manipulation, 2-7
- OTS\$SCOPY\_R\_DX, (P) RTL General Purpose, OTS-91
- OTS\$SFREE1\_DD, (P) RTL General Purpose, OTS-94
- OTS\$SFREEN\_DD, (P) RTL General Purpose, OTS-95
- OTS\$SGET1\_DD, (P) RTL General Purpose, OTS-96
- Outbound logical link connection, (M) Networking, 1-25
- Outgoing call
  - from DTE, (M) Networking, 3-29
- Outgoing LAT connections, (M) LATCP, LAT-1, LAT-28
  - enabling, V5.5 New Features, 9-5, 9-7
- Outgoing port
  - displaying, (M) LATCP, LAT-55
- OUTGOING PROXY parameter, (M) Networking, 2-45, 3-96
- OUTGOING TIMER parameter, (M) Networking, 3-74
- Out-of-band AST, (P) I/O User's I, 8-13, 8-46
- Output, (M) Analyze/Disk, ADSK-3, ADSK-4 configuration, displaying, (P) Debugger, 8-2, 8-5, CD-228
  - configuration, setting, (P) Debugger, 8–2, 8–5, CD–155
  - creating a new file, (U) Command Procedures,
  - debugger, DBG\$DECW\$DISPLAY with DECwindows, (P) Debugger, 1–32, D–1

Output (cont'd)	Output file
debugger, DBG\$OUTPUT, (P) Debugger, 9-5,	organization (cont'd)
D-1	specifying, (U) Sort/Merge, SORT-45,
with DECwindows, (P) Debugger, 1-33	SORT-47, SORT-48
default for batch job command procedures, $(U)$	preallocation
Command Procedures, 3–8	for optimization, (U) Sort/Merge, SORT-40
default for interactive command procedures,	qualifiers, (U) Sort/Merge, SORT-3
(U) Command Procedures, 3–8	/ALLOCATION, (U) Sort/Merge, SORT-40
directing, (P) Librarian, LIB-15; (P)	/BUCKET_SIZE, (U) Sort/Merge,
$Analyze / RMS\_File, { m ARMS-10}$	SORT-41
directing in a command procedure, $(U)$	/CONTIGUOUS, (U) Sort/Merge, SORT-42
$Command\ Procedures,\ 3-7$	/FORMAT, (U) Sort/Merge, SORT-43
display (OUT), (P) Debugger, 7–6, C–4	$/INDEXED\_SEQUENTIAL, (U)$
with DECwindows, (P) Debugger, 1–10	Sort/Merge, SORT-45
display kind, (P) Debugger, 7–16, C–1	/OVERLAY, (U) Sort/Merge, SORT-46
formatting character string, (P) System	/RELATIVE, (U) Sort/Merge, SORT-47
Services Ref, SYS-221	/SEQUENTIAL, (U) Sort/Merge, SORT-48
from DELTA, (P) Delta/XDelta, DELTA-14	reformatting record fields, (U) Sort/Merge,
from XDELTA, (P) Delta/XDelta, DELTA-14	SORT-61
queuing and waiting for event flag, Obsolete	VAXTPU, (U) DCL Dictionary, DCL1-197
Features, 2–20	with OUTPUT qualifier, (U) EVE Ref, 1–14
redefining for interactive command procedures,	with the SAVE FILE AS command, (U) EVE
(U) Command Procedures, 3–8	Ref, EVE-140
suppressing by redefining SYS\$OUTPUT, (U)	with the SAVE FILE command, (U) EVE Ref,
Command Procedures, 3–8	EVE-139
to a terminal, (U) Command Procedures, 3–14	with WRITE FILE command, (U) EVE Ref,
window (OUT), DECwindows, (P) Debugger,	EVE-250
1–10	Output file parse option
Output data register	See FAB\$V_OFP option
See DR11-W/DRV11-WA driver, ODR	Output file specifications for qualifiers
Output device, (P) Device Support (B), 1-75	/EXECUTABLE, (U) DCL Concepts, 1–10
setting characteristics, (M) Maintaining VMS,	file naming conventions, (U) DCL Concepts,
5–51	1–10 to 1–11
in command procedure, (M) Maintaining	/LIST, (U) DCL Concepts, 1–10
VMS, 5–54	/OBJECT, (U) DCL Concepts, 1–10
setting up, (M) Maintaining VMS, 5-50	Output formatting control routine, (P) RTL
spooled, (M) Maintaining VMS, 5-6	Library, 2–20
recommended use, (M) Maintaining VMS, 5–6	Output image file, (P) Patch, PAT-6 /OUTPUT qualifier, (P) Patch, PAT-32
sample configuration, (M) Maintaining	with UPDATE command, (P) Patch, PAT-89
VMS, 5–16	Output job
Output execution queue	accounting, (M) Maintaining VMS, 6-2
See also Execution queue	aligning forms, (M) Maintaining VMS, 5–84
description, (M) Maintaining VMS, 5-4	allowing to complete before stopping a queue,
printer, (M) Maintaining VMS, 5-4	(M) Maintaining VMS, 5-75
server, (M) Maintaining VMS, 5-4	changing scheduling priority, (M) Maintaining
terminal, (M) Maintaining VMS, 5-4	VMS, 5–80
Output file, (P) SUMSLP, SUM-3; (P) VAXTPU,	controlling, (M) Maintaining VMS, 5-76
5–12	controlling print position and alignment, (M)
creating, (P) Convert, CONV-1	Maintaining VMS, 5–83, 5–84
EVE, (U) DCL Dictionary, DCL1–197	deleting, (M) Maintaining VMS, 5-82
how effected by CONVERT, (P) Convert,	holding and releasing, (M) Maintaining VMS,
CONV-3	5–79
loading, (P) Convert, CONV-1	modifying, (M) Maintaining VMS, 5-78
on exiting, (U) EVE Ref, EVE-52	monitoring, (M) Maintaining VMS, 5-77
organization, (U) Sort/Merge, SORT-3	requeuing an executing, (M) Maintaining VMS,
defaults, (U) Sort/Merge, SORT-45,	5–80
SORT-47, SORT-48	

Output job (cont'd) Output queue options (cont'd) requeuing a pending, (M) Maintaining VMS, 5 - 81restricting access, (M) Maintaining VMS, resuming printing, (M) Maintaining VMS, 5-83, 5-84 retaining jobs. (M) Maintaining VMS, 5-24 retaining in a queue, (M) Maintaining VMS, scheduling jobs based on size, (M) Maintaining VMS, 5-30 scheduling, (M) Maintaining VMS, 5-5 using banner pages, (M) Maintaining scheduling based on job size, (M) Maintaining VMS, 5-31 using characteristics, (M) Maintaining VMS, 5-30states, (M) Maintaining VMS, 5-78 VMS, 5-25suspending, (M) Maintaining VMS, 5-83 using device control libraries, (M) Maintaining VMS, 5-45 Output operation batching of, (P) RTL Screen Management, 2-17 using forms, (M) Maintaining VMS, 5-40 OUTPUT parameter order of device control module output, (M) SET built-in procedure, (P) VAXTPU, 7-203 Maintaining VMS, 5-49 OUTPUT qualifier, (U) DSR Ref, 4-17, 5-4, pausing, (M) Maintaining VMS, 5-73, 5-83 6-8; (U) EVE Ref, 1-14; (M) Bad Block, to align position of print for preprinted BAD-13; (M) Error Log, ERR-17; (M) Audit forms. (M) Maintaining VMS, 5-83. Analysis, AUD-9, AUD-18; (M) Accounting, 5-84 ACC-5, ACC-19; (M) Monitor, MON-28; (M) to change position of print, (M) Show Cluster, SHCL-20; (P) Debugger, 7-19, Maintaining VMS, 5-83 CD-118, CD-164, CD-256; (P) Command Def, rerouting jobs in, (M) Maintaining VMS, 5-75 CDU-42; (P) Librarian, LIB-36; (P) Patch, specifying page and margin size in forms, (M) PAT-6, PAT-32; (P) SUMSLP, SUM-17; Maintaining VMS, 5-40 (P) Analyze/RMS\_File, ARMS-16; (P) File starting, (M) Maintaining VMS, 5-56 Def Language, FDL-42; (P) National Char status, (M) Maintaining VMS, 5-71 Set, NCS-39; (P) System Dump Analyzer, stopping, (M) Maintaining VMS, 5-73, 5-74 SDA-162; (P) VAXTPU, 5-12 stopping before shutting down a node, (M) EDIT/FDL, (P) File Def Language, FDL-54 Maintaining VMS, 5-75 using with /COMPRESS, (P) Librarian, LIB-15 troubleshooting a stalled, (M) Maintaining using with /CROSS\_REFERENCE, (P) VMS, 5-90 Librarian, LIB-19 Output queuing system using with /EXTRACT, (P) Librarian, LIB-22 for LAT printers, (M) Maintaining VMS, 5-13 Output queue for mixed printers, (M) Maintaining VMS, allowing jobs to complete before stopping, (M) 5 - 12Maintaining VMS, 5-75 for multiple printers of the same kind, (M) assigning a default form, (M) Maintaining Maintaining VMS, 5-14 VMS, 5-43in VAXcluster environment, (M) Maintaining canceling assigned characteristics, (M) VMS, 5-15 Maintaining VMS, 5-26 sample configurations, (M) Maintaining VMS, changing DEFAULT form, (M) Maintaining 5-11 to 5-17 VMS, 5-43single printer, (M) Maintaining VMS, 5-11 control commands, (M) Maintaining VMS, steps for setting up, (M) Maintaining VMS, 5 - 67controlling line overflow in forms, (M) using spooled printers, (M) Maintaining VMS, Maintaining VMS, 5-40 5 - 16creating, (M) Maintaining VMS, 5-56 Output record buffer address field defining a form, (M) Maintaining VMS, 5-41 See RAB\$L RBF field deleting, (M) Maintaining VMS, 5-76 Output reports, (M) Error Log, ERR-1 mounting a form on, (M) Maintaining VMS, Output specifier, (M) Backup, BCK-2 Output stream options, (M) Maintaining VMS, 5-17, 5-30 defining for created process, (U) DCL controlling page and line overflow, (M) Dictionary, DCL2-53 Maintaining VMS, 5-44 definition, (U) Using VMS, 4-6; (U) DCL qualifiers for specifying, (M) Maintaining Concepts, 4-5 VMS, 5-18 to 5-20

"Output" string constant parameter to GET\_INFO, OVERSTRIKE MODE command, (U) EVE Ref, (P) VAXTPU, 7-177 EVE-99 Output types, (M) Monitor, MON-4 EVE editor, (U) Text Processing, 1-13 OUTPUT\_FILE keyword, (P) VAXTPU, 7-435 /OVERSTRIKE qualifier, (U) VMS Intro, 6-15 "Output\_file" string constant parameter to Overstriking, (U) DSR Ref, 2-32, 3-14 GET\_INFO, (P) VAXTPU, 7-174, 7-178 See also Emphasizing text OUTPUT\_FILE\_PARSE attribute, (P) File Def example, (U) DSR Ref, 3-14 Language, FDL-22 Overwrite protection OUTRANGE case constant, (P) VAXTPU, 3-24 overriding on magnetic tape, (U) DCL Overall system considerations, Dependability Dictionary, DCL1-246 Handbook, 5-16 Overwrite tape file, (P) File Def Language, Overdraft limit, (M) SYSMAN, SM-9 FDL-16 Overflow Owner controlling of page and line, (M) Maintaining ownership category, (U) Using VMS, 7-3; (M) VMS. 5-44 System Management Intro, 3-3 line OWNER attribute, (P) File Def Language, using forms to control, (M) Maintaining FDL-22 VMS, 5-40OWNER category setting devices to control, (M) Maintaining definition, (U) DCL Concepts, 8-3 VMS, 5-51OWNER EXECUTOR parameter Overflow condition code (V), (P) MACRO, 8-15 for DLM circuit, (M) Networking, 3-48 Overflow detection, (P) RTL Math, 2-9 Owner identifier field Overlapped vector instruction execution, (P) writing characters to, (U) DCL Dictionary, MACRO, 10-21 DCL1-245 Overlay OWNER protection code, (P) File Def Language, in a string assignment, (U) DCL Concepts, 6-3 FDL-23 numeric, (U) Using VMS, 5-16, 5-17; (U) /OWNER qualifier, (M) Accounting, ACC-20 DCL Concepts, 6–9 OWNER secondary attribute, (P) File Overlaying files using the COPY command, (U) Applications, 4-28 DCL Dictionary, DCL1-79 Ownership Overlaying RSX-11S tasks, (M) Networking, 4-24 display, (U) Using VMS, 7-12; (U) Files and /OVERLAY qualifier, (U) Sort/Merge, SORT-46; Devices, 2-13 (M) Backup, BCK-71 effects on protection checks, (M) Security, 4-28 /OVER qualifier, (P) Debugger, CD-127, CD-186, establishing and changing, (M) Security, 4-28, CD-197, CD-259 4 - 32Override establishing directory, (M) Security, 4-31 default command interpreter, (U) DCL global selection Dictionary, DCL1-392 determining, (P) VAXTPU, 7-199 magnetic tape overwrite protection, (U) DCL losing, (P) VAXTPU, 7-202 Dictionary, DCL1-246 requesting, (P) VAXTPU, 7-380 owner identification field, (U) DCL Dictionary, how assigned during file creation, (M) Security, DCL1-246 5 - 8/OVERRIDE=ACCESSIBILITY qualifier. (P) File input focus Def Language, FDL-22 determining, (P) VAXTPU, 7-199 /OVERRIDE qualifier, (M) Mount, MOUNT-29; losing, (P) VAXTPU, 7–202 (P) Debugger, 4-24, CD-26, CD-33, CD-164, requesting, (P) VAXTPU, 7-398 CD-192, CD-234, CD-252 management of defaults, (M) Security, 5-8, Override type, (P) Debugger, 4–24 5-11, 5-14 Overstrike flag, (U) DSR Ref, 3-14 object, (U) Using VMS, 7-3 recognizing, (U) DSR Ref, 2-51 of an object, (M) System Management Intro, OVERSTRIKE keyword, (P) VAXTPU, 7-436 Overstrike mode specifying for volume, (U) DCL Dictionary, COPY\_TEXT, (P) VAXTPU, 7-53 DCL1-246 definition, (U) DCL Concepts, 2-4 Ownership privileges, (M) Security, 4-30 editing command line in, (U) Using VMS, 1-23 OWNER user, (M) Security, 4-4 EVE editor, (U) Text Processing, 1–12 OWNER user category MOVE TEXT, (P) VAXTPU, 7-280 accessing magnetic tape, (M) Security, 4-6 using EVE in, (U) Using VMS, 8-11

/OWNER\_UIC qualifier, (M) Mount, MOUNT-31 Packed decimal string, (P) MACRO, 9-144 as input file qualifier, (M) Backup, BCK-72 as key type, (P) RMS, 13-6 as output file qualifier, (M) Backup, BCK-73 data type, (P) MACRO, 8-13 as output save-set qualifier, (M) Backup, format, (P) MACRO, 3-4 BCK-74 in source statement, (P) MACRO, 3-4 storing, (P) MACRO, 6-74 Packed decimal string directive (.PACKED), (P) P MACRO, 6-74 :P command. (P) Delta/XDelta, DELTA-32 .PACKED directive, (P) MACRO, 6-74 P0BR register /PACKED qualifier, (P) Debugger, CD-60, CD-84 displaying, (P) System Dump Analyzer, Packet assembly/disassembly facility SDA-90 See PAD P0BR symbol, (P) System Dump Analyzer, **Packets** SDA-14 monitoring for lost, (M) DECnet-VAX Guide, P0 image creating, (U) DCL Dictionary, DCL1-388 Packet size parameters, (M) Networking, 3-30 /P0IMAGE qualifier, (P) Linker, LINK-13 Packet switching data network P0LR register See PSDN displaying, (P) System Dump Analyzer, Packet switching network, (M) DECnet-VAX SDA-90 Guide, 1-5, 1-6, 1-10 Policy Po PAD (packet assembly/disassembly facility), (M) SDA-14 *Networking*, 1–3, 3–83 P0 page table Pad character, (U) Sort/Merge, SORT-69; (P) displaying, (P) System Dump Analyzer, Convert, CONV-18 SDA-127 how to select, (P) Convert, CONV-3 /P0 qualifier, (P) System Dump Analyzer, in collating sequence, (P) National Char Set, SDA-127 NCS-10 P0 region Padding effects, (P) VAXTPU, 6-11 to 6-12 examining, (P) System Dump Analyzer, version differences, (P) VAXTPU, 7-439 SDA-52 with APPEND\_LINE, (P) VAXTPU, 7-28 used for VMS RMS buffers, (P) File with ATTACH, (P) VAXTPU, 7-35 Applications, 7-17 with COPY\_TEXT, (P) VAXTPU, 7-53 P1BR register with CURRENT\_CHARACTER, (P) VAXTPU, displaying, (P) System Dump Analyzer, SDA-90 with CURRENT\_LINE, (P) VAXTPU, 7-86 P1BR symbol, (P) System Dump Analyzer, with CURRENT\_OFFSET, (P) VAXTPU, 7-88 SDA-14 with ERASE\_CHARACTER, (P) VAXTPU, P1LR register displaying, (P) System Dump Analyzer, with ERASE\_LINE, (P) VAXTPU, 7-121 with MARK, (P) VAXTPU, 7-262 P1LR symbol, (P) System Dump Analyzer, with MOVE\_HORIZONTAL, (P) VAXTPU, SDA-14 7 - 278P1 page table with MOVE\_TEXT, (P) VAXTPU, 7-281 displaying, (P) System Dump Analyzer, with MOVE\_VERTICAL, (P) VAXTPU, 7-282 SDA-127 with READ\_FILE, (P) VAXTPU, 7-297 /P1 qualifier, (P) System Dump Analyzer, SDA-52, with SELECT, (P) VAXTPU, 7-338 SDA-127 with SELECT\_RANGE, (P) VAXTPU, 7-341 P1 region with SET (PAD), (P) VAXTPU, 7-437 examining, (P) System Dump Analyzer, with SPAWN, (P) VAXTPU, 7-516 SDA-52 with SPLIT\_LINE, (P) VAXTPU, 7-518 P1 through P8, (U) Using VMS, 5-3; (U) DCL Padding records, (P) Convert, CONV-3 Concepts, 5-1PAD keyword, (P) VAXTPU, 7-437 PAAM (Product Authorization Amendment), PAD option License Management, LMF-15, LMF-52 specifying pad character, (M) Exchange, Packed decimal byte

EXCH-9

structure for key type, (P) RMS, 13-6 Packed decimal instructions, (P) MACRO, 9-144 /PAD qualifier, (U) Sort/Merge, SORT-69; (P) Convert, CONV-3, CONV-18 "Pad" string constant parameter to GET\_INFO, (P) VAXTPU, 7-223 SDA-118 PAD\_OVERSTRUCK\_TABS keyword, (P) VAXTPU, 7-439 "Pad\_overstruck tabs" string constant parameter to GET\_INFO, (P) VAXTPU, 7-207 Page, (P) System Services Intro, 12-3 copy-on-reference, (P) System Services Intro, CONV-24 12 - 10demand-zero, (P) System Services Intro, 12-10 locking into memory, (P) System Services Intro, (A), 3-512-7; (P) System Services Ref, SYS-420 locking into working set, (P) System Services Ref, SYS-422 owner, (P) System Services Intro, 12-5 ownership and protection, (P) System Services Intro, 12-5 removing from working set, (P) System Services Ref. SYS-473 setting protection, (P) System Services Ref, SYS-529 unlocking from memory, (P) System Services Ref, SYS-651 unlocking from working set, (P) System Page file Services Ref, SYS-653 %PAGE, (P) Debugger, C-6 Page boundary, (P) Linker, 3-5 Page break, (U) DSR Ref, 2-124 with INSERT PAGE BREAK command, (U) EVE Ref, EVE-78 with MOVE BY PAGE, (U) EVE Ref, EVE-85 SGN-14 with PAGINATE command, (U) EVE Ref. EVE-100 with WPS keypad, (U) EVE Ref, EVE-186 Page cache size adjusting related SYSGEN parameters, (M) Performance Management, 5-3 decreasing, (M) Performance Management, 5-3, increasing, (M) Performance Management, 5-3 PAGE class record, (M) Monitor, A-29 PAGE command, (U) Using VMS, 8-57; (U) EDT Ref, EDT-82 See also Cursor movement .PAGE command, (U) DSR Ref, 2-94 Page count in accounting record, V5.5 Release Notes, 1-3 Paged dynamic memory displaying availability and use of, (U) DCL Dictionary, DCL2-292 12 - 18Paged dynamic storage pool displaying contents, (P) System Dump Analyzer, SDA-118 Page directive (.PAGE) in message source file, (P) Message, MSG-25 MON-67

Paged pool byte count limit See PBYTLM PAGED qualifier, (P) System Dump Analyzer, PAGEDYN parameter, (M) System Generation, Page ejection directive (.PAGE), (P) MACRO, 6-75 Page fault, (M) Error Log, ERR-22; (P) Programming Resources, 3-20; (P) Convert, illegal, (P) System Dump Analyzer, SDA-19 taken within driver code, (P) Device Support Page fault cluster, (P) Linker, 3-6, 5-5 Page faulting, (M) Performance Management, acceptable hard fault rate, (M) Performance Management, 3-24 acceptable soft fault rate, (M) Performance Management, 3–24 analyzing, (M) Performance Management, 4-4 function of secondary page cache, (M) Performance Management, 3-35 hard and soft, (M) Performance Management, 3-24, 3-35 activating secondary, (M) System Generation, adding, (M) Performance Management, 5-12 controlling size in AUTOGEN, V5.5 New Features, B-51 creating or extending, (M) System Generation, deinstalling, V5.5 New Features, D-1 Page file (PAGEFILE.SYS) created by CLUSTER\_CONFIG.COM, (M) VAXcluster, 7-2, 7-3 PAGEFILE.SYS file, (M) Maintaining VMS, 6-14 Page formatting, (U) DSR Ref, 2-94, 2-97 commands, (U) DSR Ref, A-1 controlling lines per page, (U) DSR Ref, 4-13 controlling numbering, (U) DSR Ref, A-1 controlling size, (U) DSR Ref, A-1 controlling subpaging, (U) DSR Ref, A-1 header, (U) DSR Ref, 5-5 inserting blank lines, (U) DSR Ref, 4-12 list of options, (U) DSR Ref, 6-8 number references, (U) DSR Ref, 6-8 running header, (U) DSR Ref, A-1 size of page, (U) DSR Ref, 2-95 starting new page, (U) DSR Ref, 2-119 Page frame section, (P) System Services Intro, PAGE keypad function EDT, (U) Text Processing, 2–12 Page management statistics, (M) Monitor,

PAGFILCNT parameter, (M) System Generation, Page number adjusting with DSR, (U) Using VMS, 9-13 PAGINATE command, (U) EVE Ref, EVE-100 letter (DSR), (U) Text Processing, 3-34 Roman numeral (DSR), (U) Text Processing, formatting text with (EVE), (U) Text Processing, 1-40 3 - 34with WPS keypad, (U) EVE Ref, EVE-186 suspending with DSR, (U) Using VMS, 9-17 Page numbering, (U) DSR Ref, 2-24, 2-91, 2-119 Pagination displaying, (U) DSR Ref, 5-4 keypad mode, (U) EDT Ref, EDT-40 merging in index, (U) DSR Ref, 6-3 .PAGING command, (U) DSR Ref, 2-97 range of, (U) DSR Ref, 6-3 Paging file, (M) Setting Up VMS, 6-16, 6-17 running page numbers, (U) DSR Ref, 2-92 See also SYS\$SYSTEM:PAGEFILE.SYS subpage, (U) DSR Ref, 2-93, 2-119 as system dump file, (P) System Dump subpage characters, (U) DSR Ref, 2-25 Analyzer, SDA-5 Page overflow Paging file limit controlling, (M) Maintaining VMS, 5-44 See PGFLQUO /PAGE qualifier, (P) Debugger, 7-22, CD-181 Paging file section, (P) System Services Intro, ALIGN command, (P) Patch, PAT-38 Page setup module, (M) Maintaining VMS, 5-46 global, (P) System Services Intro, 12-14 specifying forms, (M) Maintaining VMS, 5-40 Paging I/O function, (P) Device Support (B), 1-40 Page size Paging symptom specifying in link operation, V5.5 New for disks, (M) Performance Management, 4-30 Features, B-108 PAK (Product Authorization Key), License Page size (DSR), (U) Text Processing, 3-17 Management, LMF-5 .PAGE SIZE command, (U) Text Processing, 3–17; getting, License Management, LMF-15 (U) DSR Ref. 2-95 registering, License Management, LMF-102 /PAGES qualifier, (U) DSR Ref, 4-18 replica, License Management, LMF-72 Page table transfer methods, License Management, displaying, (P) System Dump Analyzer, LMF-16 SDA-111, SDA-127 PAK issuer, License Management, LMF-15 physical address of, (P) Device Support (A), PAMAXPORT parameter, (M) System Generation, 16 - 21A - 21Page table entry PAN command, (M) Show Cluster, SHCL-10, allocating, (P) Device Support (B), 3-107 SHCL-59 deallocating, (P) Device Support (B), 3-108 PAN keypad function, (M) Show Cluster, SHCL-5 evaluating, (P) System Dump Analyzer, PANOPOLL parameter, (M) System Generation, SDA-48 examining, (P) System Dump Analyzer, PANUMPOLL parameter, (M) System Generation, SDA-52A - 21format, (P) Device Support (A), 16-20 Paper size modifying, (P) Device Support (A), E-15; (P) A4, (U) DSR Ref, 4-9 Device Support (B), 2-41 default Page width and length LN01, (U) DSR Ref, 4-9 specifying in forms, (M) Maintaining VMS, LN01E, (U) DSR Ref, 4-9 5 - 40LN03, (U) DSR Ref, 4-9 PAGE BREAK keyword, (P) VAXTPU, 7–286 European, (U) DSR Ref, 4-9 with SEARCH, (P) VAXTPU, 7-327 standard, (U) DSR Ref, 4-9 with SEARCH\_QUIETLY, (P) VAXTPU, 7-332 Paper stock PAGE\_MANAGEMENT.EXE See Stock global symbols, (P) System Dump Analyzer, PAPOLLINTERVAL parameter, (M) System Generation, A-22 /PAGE NUMBERS=option qualifier, (U) DSR Ref. PAPOOLINTERVAL parameter, (M) System Generation, A-22 /PAGE\_NUMBERS qualifier, (U) DSR Ref, 5-4 Paragraph page\_protection data type, (P) Routines Intro, formatting, (U) DSR Ref, 2-4, 2-7, 2-98, 2-114, A-3 /PAGE\_TABLES qualifier, (P) System Dump formatting with DSR, (U) Using VMS, 9-6 Analyzer, SDA-127

Paragraph (cont'd) Parameter (cont'd) with FILL commands, (U) EVE Ref, EVE-59, using a file specification as a value, (U) DCL EVE-61 Concepts, 1-6 Paragraph boundaries, (U) EVE Ref, 1-3 PARAMETER clause for DEFINE SYNTAX statement, (P) .PARAGRAPH command, (U) DSR Ref, 2–98 Command Def, CDU-23 Paragraph indent setting, (U) EVE Ref, EVE-203 for DEFINE VERB statement, (P) Command with filling a range, (U) EVE Ref, EVE-59, Def, CDU-32 EVE-62 Parameter file with WPS Ruler key, (U) EVE Ref, EVE-186 creating, (M) Setting Up VMS, 6-15 Parallel processing, (P) Programming Resources, writing, (M) SYSMAN, SM-67; (M) System 4-15; (P) RTL Parallel Processing, 1-1 Generation, SGN-44 considerations when developing an application, Parameter list (P) RTL Parallel Processing, 5–1 defaults for multiple file specifications, (U) initializing, (P) Programming Resources, 4–16 DCL Concepts, 3–16 subprocess multiple file specifications, (U) DCL Concepts, creating, (P) Programming Resources, 4-16 3-16 to 3-17 deleting, (P) Programming Resources, 4-16 syntax, (U) Using VMS, 1-12; (U) DCL terminating, (P) Programming Resources, 4-16 Concepts, 1–6 Parameter qualifier using semaphores, (P) Programming Resources, definition, (U) Using VMS, 1-13; (U) DCL using spin locks, (P) Programming Resources, Concepts, 1-7 4 - 16PARAMETERS commands, (M) SYSMAN, SM-1, Parallel programming, (P) Programming SM-11*Resources*, 4–18 to 4–19 See also System parameters Parameter, (M) Mount, MOUNT-2; (P) /PARAMETERS qualifier, (U) VMS Intro, 5-11 Librarian, LIB-11 "Parameter" string constant parameter to GET\_INFO, (P) VAXTPU, 7–180 See also System parameters Parameter value case value of strings, (U) Command delimiting a, (P) Patch, PAT-23 Procedures, 3–2 %PARCNT, (P) Debugger, 8-2, D-4 DCL syntax line, (U) DCL Concepts, 1-3 Parent debugger command procedure, (P) Debugger, of widget 8-2, CD-44 fetching in VAXTPU, (P) VAXTPU, 7-215 definition, (U) VMS Intro, 1-4; (U) Using ""parent"" string constant parameter to GET\_ VMS, 1-9; (U) DCL Concepts, 1-3 INFO, (P) VAXTPU, 7-215 for procedures, (P) VAXTPU, 3-16 to 3-19 Parentheses for VMS RMS, (P) File Def Language, FDL-2 as precedence operator, (P) System Dump how to define, (P) Command Def, CDU-23, Analyzer, SDA-13 CDU-32 in expressions, (P) VAXTPU, 3-7 in DCL command line, (U) Using VMS, 1-8 Parent lock, (P) System Services Intro, 13-11 in file specification, (U) Using VMS, 2-13 Parent process logical names in file specification values, (U)definition, (U) Using VMS, 3-1 DCL Concepts, 1-6 /PARENT qualifier, (P) System Dump Analyzer, null, (U) Command Procedures, 3-2 SDA-41passing to batch job, (U) DCL Dictionary, Parity bit, (P) File Applications, 1–8 DCL2-381 Parity flag, (P) I/O User's I, 8-41 passing to command procedure, (U) Using \$PARSE macro VMS, 5-3, 6-7; (U) DCL Concepts, 5-1; for processing wildcard characters, (P) RMS, (U) Command Procedures, 3-1; (U) DCL 4-10Dictionary, DCL1-9, DCL1-52 Parser rules for entering, (U) Using VMS, 1-11 maximum stack depth of, (P) VAXTPU, 4-2 setting in AUTOGEN, V5.5 Release Notes, 2-4 Parsers with EVE\$BUILD, (P) VAXTPU, G-3 to specifying for command procedures, (U) DCL G-4Dictionary, DCL1-9 Parse service, (P) File Applications, 5–8 to 5–12; syntax, (U) Using VMS, 1-11; (U) DCL (P) RMS, RMS-66, RMS-67 Concepts, 1-6 condition values, (P) RMS, RMS-69 use of, (U) VMS Intro, 1-4 control block input fields, (P) RMS, RMS-67

Parse service (cont'd) Password (cont'd) control block output fields, (P) RMS, RMS-68 avoiding use in file specification, (M) preparing for file search, (P) RMS, 4-9 DECnet-VAX Guide, 2-3 preparing for wildcard character processing, chances to supply during dialups, (M) Security, (P) RMS, RMS-67 3 - 16changing, (U) Using VMS, 1-2; (U) DCL program example, (P) RMS, 4-9 Dictionary, DCL2-184; (M) Security, 3-8, requirements for using, (P) RMS, RMS-67 3-10, 5-18Parsing frequency guidelines, (M) Security, 3–14 See File specification parsing choosing, (M) Security, 3-8, 3-9, 3-12 Parsing file specification conditions requiring, (M) SYSMAN, SM-3 See File specification parsing creating, (U) Using VMS, 1-2 Partial pattern assignment (@), (P) VAXTPU, dual, (M) Security, 3-12, 5-14 elimination for networks, (M) Security, 8–18 Participant, (P) System Services Ref, SYS-198 encoding, (M) Security, 2–3 definition of, (P) RTL Parallel Processing, 1-2 encryption, (M) Security, 3-6 Participant in a transaction, V5.5 New Features, expiration, (M) Security, 3-10 B-36, B-39, B-74; (P) System Services Intro, how to pre-expire, (M) Security, 5–14 14-2; (P) System Services Ref, SYS-5; setting, (M) Security, 5-17 Dependability Handbook, 8-15 forced change, (M) Security, 3-11, 5-18 /PARTICPANTS qualifier for dynamic connection, (M) Networking, 2-39, in SHOW PROCESS SDA command, V5.5 New Features, 20–3 for local area cluster, (M) SYSMAN, SM-29 Partitioned area problem, (M) Networking, A-11 grabber, (M) Security, 3-13 example of, (M) Networking, A-11 and logouts, (M) Security, 3-21 Partitioning of cluster, (M) System Management secure server Intro, 6-13; (M) VAXcluster, 3-1, C-8 as antidote, (M) Security, 5-26 PASANITY parameter, (M) System Generation, in access control string, (U) Using VMS, 2-11 in command procedure, (U) Using VMS, 1-4 Pascal in file, (U) Using VMS, 1-4 See VAX Pascal initial. (M) Security, 5-14 PASCAL compiler keeping former, (M) Security, 3–11 generating reentrant code, (P) DECthreads, length, minimum, (M) Security, 5-19 lifetime, (M) Security, 3-10 Passall mode, (P) I/O User's I, 5-4 locked, (M) Security, 3-7 Passing arguments, (P) System Services Intro, 1-7 advantage, (M) Security, 5-19 Passing mechanism, (P) Routines Intro, 1–10; for captive accounts, (M) Security, 5-45 (P) System Services Intro, 1–8; (P) RTL Intro, management, (M) Security, 5-14, 5-20 minimum length, (M) Security, 3-8, 3-11 by descriptor, (P) RTL Intro, 3-7 and automatic generation, (M) Security, by reference, (P) RTL Intro, 3-7 3 - 9by value, (P) RTL Intro, 3-6 modifying system, (M) Setting Up VMS, 4-5 descriptor modifying user, (M) Setting Up VMS, 4-6 code, (P) Routines Intro, 1-11 network guidelines, (M) Security, 8-6 definition of, (P) Routines Intro, 2-3 new, (M) Security, 3-8 for arrays, (P) RTL Intro, 3–9 null for scalars, (P) RTL Intro, 3-9 as choice for captive account, (M) Security, for strings, (P) RTL Intro, 3-10 language extensions, (P) Routines Intro, 2-6 primary, (M) Security, 3-12, 5-14 reference receive, (M) DECnet-VAX Guide, 3-20, 3-24, definition of, (P) Routines Intro, 2-3 3-34; (M) Networking, 2-39, 3-93 value retries, (M) Security, 3-16 definition of. (P) Routines Intro. 2-3 return hash value, (P) System Services Ref, Password, (U) VMS Intro, 1-1; (M) SYSMAN, SYS-399 SM-5, SM-68 role in security, (M) Security, 2-3 See also Security management routing initialization, (M) Networking, 1–10, See also System password 2-23, 2-39, 3-93, A-15 automatic generation of, (M) Security, 3-9 screening, V5.5 New Features, B-64

Password	Pasthru mode, (P) I/O User's I, 8-9, 8-11, 8-24,
screening (cont'd)	8–27
password history list, V5.5 New Features,	PASTIMOUT parameter, (M) System Generation,
B-64	A-22
site-specific filter, V5.5 New Features,	
B-65	PAT\$A_NONPAGED, (P) Device Support (A),
secondary, (M) Setting Up VMS, 4-7; (M)	13–20
Security, $3-12$ , $5-16$	PAT\$A_NONPGD
	replaced by PAT\$A_NONPAGED, (P) Device
service, V5.5 Release Notes, 2–14	Support (A), $13-20$
setting at login, (U) DCL Dictionary,	Patch
DCL1-392	applying a, (P) Patch, PAT-2
sharing, (M) Security, 3-14, 8-18	sample session, (P) Patch, PAT-92
specifying an encryption algorithm, V5.5 New	PATCH
Features, B-65	See Patch Utility
stealing programs, (M) Security, 3–13	Patch area, (P) Patch, PAT-17
storing, (M) Security, 3–6	allocate space, (P) Patch, PAT–38
system, (M) Security, 3-7	commands that affect, (P) Patch, PAT-20
transmit, $(M)$ DECnet-VAX Guide, 3-20, 3-24;	creating and accessing, (P) Patch, PAT-19
(M) Networking, 2–39, 3–93	default, (P) Patch, PAT-18
user	
defined, (M) Security, 3–6	depositing new data or instructions, (P) Patch,
uniqueness on each account, (M) Security,	PAT-55, PAT-57
3–14	descriptor, (P) Patch, PAT-18, PAT-79
using on multiple systems, (M) Security, 3-14	displaying size and starting address, (P) Patch,
PASSWORD card, (M) Maintaining VMS, 5–94	PAT-87
PASSWORD command, (U) DCL Dictionary,	/INITIALIZE qualifier, (P) Patch, PAT-79
DCL2-9 to DCL2-10	inserting new instructions, (P) Patch, PAT-68
in card reader batch job, (P) I/O User's I, 2–2	patch area symbols, (P) Patch, PAT-18, PAT-38
Password dictionary, V5.5 Release Notes, 2–39	resetting, (P) Patch, PAT-19, PAT-43
	SET PATCH_AREA, (P) Patch, PAT-79
Password generator	setting user-defined patch area, (P) Patch,
obtaining initial password, (M) Security, 5–14	PAT-79
when to require, (M) Security, 5–19	starting address, (P) Patch, PAT-38
Password protection, (M) Security, 3–13, 5–20	terminating, (P) Patch, PAT-19
avoiding detection, (M) Security, 3-9, 3-11,	used with device driver images, (P) Patch,
5–24, 7–5	PAT19
dialup retries, (M) Security, 3–16	used with shareable images, (P) Patch, PAT-19
/PASSWORD qualifier, (M) Security, 5-17	user-defined, (P) Patch, PAT-19, PAT-80
PASTDGBUF parameter, (M) System Generation,	Patch area symbol, (P) Patch, PAT-18
A-22	created with ALIGN, (P) Patch, PAT-18
Pasteboard, (P) Programming Resources, 7–8; (P)	reserved by Digital, (P) Patch, PAT-18
Debugger, 7-3; (P) RTL Screen Management,	PATCH command, (U) DCL Dictionary, DCL2–11;
1–4	(P) Patch, PAT-25, PAT-38
creating, (P) Programming Resources, 7–9	for expressing symbols and path names, <i>(P)</i>
deleting, (P) Programming Resources, 7-9	Patch, PAT-14
ID, (P) Programming Resources, 7–31	
sharing, (P) Programming Resources, 7-31	qualifiers, (P) Patch, PAT-26
PASTE buffer, (M) ACL Editor, ACL-11	rules of syntax for, (P) Patch, PAT-20
PASTE command, (U) Using VMS, 8-65; (U)	Patch space, (P) Device Support (A), 13–20
EVE Ref, EVE-101	Patch text records
See also INSERT HERE command	analyzing, (U) DCL Dictionary, DCL1–24
See also Moving text	Patch Utility (PATCH), (P) Programming
keypad mode, (U) EDT Ref, EDT-84	Resources, 1–20
	applying patches, (P) Patch, PAT-95
moving text with (EVE), (U) Text Processing,	changing code in, (U) DCL Dictionary,
1–18 notroymod mode. (II) FDT Ref. FDT 200	DCL2-11
nokeypad mode, (U) EDT Ref, EDT-298	commands, (P) Patch, PAT-38
PASTE key	DCL qualifiers, (P) Patch, PAT-26
EDT, (U) Text Processing, 2–18	directing output from, (P) Patch, PAT-25
	examples

Patch Utility (PATCH)	PATTERN data type, (P) VAXTPU, 2-11 to 2-20
examples (cont'd)	Pattern matching
interactive patch session, (P) Patch,	built-in procedures
PAT-92	ANCHOR, (P) VAXTPU, 7–24
exiting, (P) Patch, PAT-25	ANY, (P) VAXTPU, 7–26
input, (P) Programming Resources, 1-20	ARB, (P) VAXTPU, 7–30
invoking, (U) DCL Dictionary, DCL2-11; (P)	LINE_BEGIN, (P) VAXTPU, 7–249
Patch, PAT-25	LINE_END, (P) VAXTPU, 7–251
rules of syntax, (P) Patch, PAT-20	MATCH, (P) VAXTPU, 7–264
support for vectorized programs, V5.5 New	NOTANY, (P) VAXTPU, 7–284
Features, B–28	PAGE_BREAK, (P) VAXTPU, 7–286
using entry and display modes, (P) Patch,	REMAIN, (P) VAXTPU, 7–312
PAT-14	SCAN, (P) VAXTPU, 7–319
using PATCH, (P) Patch, PAT-1	SCANL, (P) VAXTPU, 7–322
using patch area, (P) Patch, PAT-17	SPAN, (P) VAXTPU, 7–510
using symbols, (P) Patch, PAT-7	SPANL, (P) VAXTPU, 7–512
/PATCH_AREA qualifier, (P) Patch, PAT-18	UNANCHOR, (P) VAXTPU, 7–530
See also DEPOSIT command	Pattern operator, (P) MACRO, 9–170, 9–172
with DEPOSIT command, (P) Patch, PAT-56,	Pattern test, (M) DTS/DTR, DTS-9, DTS-13
PAT-57	Paused queue status, (M) Maintaining VMS, 5-71
Path, (M) Networking, 2–28	/PAUSE qualifier, (U) DSR Ref, 4–19; (M) Audit
lost connection, (M) DECnet-VAX Guide, 3-4,	Analysis, AUD–19
4–12	Pausing an output queue, (M) Maintaining VMS,
low-cost, (M) DECnet-VAX Guide, 1–3	5–83
routing, (M) DECnet-VAX Guide, 1–2	to align position of print for preprinted form,
Path block	(M) Maintaining VMS, 5-83, 5-84
See PB	to change position of print, (M) Maintaining
Path control parameters, (M) Networking, 3–69	VMS, 5–83
for areas, (M) Networking, 3–71	Pausing queue status, (M) Maintaining VMS,
Path name, (P) Patch, PAT-12	5–71
abbreviating, (P) Debugger, 5–9	PB (path block), (P) System Dump Analyzer,
commands that affect, (P) Patch, PAT-14	SDA-99
determining value of, (P) Patch, PAT-60	PBI
numeric, (P) Debugger, 5–10	See Memory interconnect to VAXBI adapter
relation to symbol, (P) Debugger, 5–9	PBYTLM (paged pool byte count limit), (M)
with DECwindows, (P) Debugger, 1–10	Setting Up VMS, 5–5
syntax, (P) Debugger, 5–9	%PC
to specify scope, (P) Debugger, 3–11, 5–8, 5–9	See PC
with DECwindows, (P) Debugger, 1–26	PC (program counter), (P) System Dump Analyzer,
PATH SPLIT POLICY parameter, (M)	SDA-14
Networking, 3–71	built-in symbol (%PC), (P) Debugger, 4–22, D–3
Path to file	content of, (P) Debugger, 2–11, 4–19
file specification string address, (P) RMS, 4–9	EXAMINE/INSTRUCTION command, (P)
file specification string size, (P) RMS, 4–9	Debugger, 7–9, 7–16
Pattern	EXAMINE/OPERANDS command, (P)
alternation (   ), (P) VAXTPU, 2–16	Debugger, 4–19, 11–9
anchoring, (P) VAXTPU, 7–24	EXAMINE/SOURCE command, (P) Debugger,
built-in procedures, (P) VAXTPU, 2–13	6-4, 7-6, 7-18, 7-20
compilation, (P) VAXTPU, 2–18	examining, (P) Debugger, 4–19, 11–9
concatenation (+), (P) VAXTPU, 2-15	with DECwindows, (P) Debugger, 1–24
execution, (P) VAXTPU, 2–18	in a crash dump, (P) System Dump Analyzer,
expression, (P) VAXTPU, 3-11	SDA-15
linking (&), (P) VAXTPU, 2–15	scope, (P) Debugger, 5–8
operators, (P) VAXTPU, 2–15	SHOW CALLS display, (P) Debugger, 2–13,
searching, (P) VAXTPU, 2–11	CD-209
Pattern assignment	
partial (@), (P) VAXTPU, 2-17	

Pending delete (cont'd) PCA (Performance and Test Coverage Analyzer), to enable, (U) EVE Ref, EVE-205 (P) Modular Procedures, 1–12 performance testing, Dependability Handbook, to restore text erased with, (U) EVE Ref. EVE-129 with DELETE command, (U) EVE Ref. PCB\$L\_ASTQFL, (P) Device Support (A), E-14 EVE-38 PCB\$L\_JIB, (P) Device Support (A), 7-6 Pending I/O queue, (P) Device Support (A), 3-23, PCB\$L\_PID, (P) Device Support (A), 11-8; (P) 4-13, 8-1, 11-7, E-14; (P) Device Support Device Support (B), 3-68, 4-5 (B), 1–38, 1–76, 3–27, 3–28, 3–37, 3–38, 3–73, PCB\$V\_SSRWAIT, (P) Device Support (A), 4-9; (P) Device Support (B), 3–12, 3–20, 3–22 bypassing, (P) Device Support (A), 7-5; (P) PCB\$W\_ASTCNT, (P) Device Support (B), 3-4, Device Support (B), 3-17 3-6, 3-10length, (P) Device Support (B), 1-79, 3-28 modifying with ADAWI instruction, (P) Device synchronizing with driver internal queue, (P) Support (A), E-13 Device Support (A), 7–5 PCB\$W\_BIOCNT, (P) Device Support (A), 2-7 Pending jobs PCB (process control block), (P) System Dump requeuing, (M) Maintaining VMS, 5-81 Analyzer, SDA-160; (P) Device Support (A), troubleshooting, (M) Maintaining VMS, 5-88 3-4, 3-5, 13-13 Pending job state, (M) Maintaining VMS, 5-69, displaying, (P) System Dump Analyzer, 5-78, 5-80, 5-81, 5-82, 5-88 SDA-127 Penetration hardware, (P) System Dump Analyzer, as security problem, (M) Security, 1-2 SDA-129 People-proof covers, Dependability Handbook, 5-9 referring to current, (P) Device Support (A), Percent sign (%)  $E_{-6}$ wildcard, (U) Files and Devices, 4-17 synchronizing access to, (P) Device Support (A), in input file specifications, (U) DCL 3 - 14Concepts, 3-19 PCB address location, (P) Delta/XDelta, rules for using, (U) Using VMS, 2-15; (U) DELTA-9 DCL Concepts, 3-19 PCBB register with range specifier, (U) EDT Ref, EDT-154 displaying, (P) System Dump Analyzer, SDA-90 Per-CPU database See CPU /PCB qualifier, (P) System Dump Analyzer, SDA-127 PERFMON spin lock, (P) Device Support (A), 3-14 PCB vector start symbolic address, (P) Performance, (P) Linker, 3-7, 4-4, 4-5, 6-8; (P) Delta/XDelta, DELTA-9 File Applications, 3-1, 9-7 to 9-10and ACL length, (M) Security, 5-4 **PCs** and asynchronous processing, (P) File See Personal computers Applications, 9-9 PC symbol, (P) System Dump Analyzer, SDA-14 and automatic password generator, (M) PDT (port descriptor table), (P) System Dump Security, 5–19 Analyzer, SDA-123; (P) Device Support (B), and extension size, (P) File Applications, 9–8 1-80 and fast-delete option, (P) File Applications, **PEDRIVER** preferred channel, (M) VAXcluster, G-1 and global buffer count, (P) File Applications, transmit channel selection, (M) VAXcluster, G-1PEDRIVER data structures, V5.5 New Features, and high-water marking, (M) Security, 5-44 and locate mode, (P) File Applications, 9-9 A - 63and window size, (P) File Applications, 9-8 BUS, V5.5 New Features, A-63 application software, Dependability Handbook, channel (CH), V5.5 New Features, A-63 PORT, V5.5 New Features, A-63 buffers, (P) File Applications, 9-9 port descriptor table (PDT), V5.5 New Features, deferred-write option, (P) File Applications, 3-28, 9-9virtual circuit (VC), V5.5 New Features, A-63 disk, (M) Maintaining VMS, 2-6 Pending bad block log file, (U) Files and Devices, effect of compression, (P) File Applications, A-3Pending delete extension size, (P) File Applications, 9-9 EVE editor, (U) Text Processing, 1–25 I/O in VAXcluster, (P) File Applications, 3-29 to disable, (U) EVE Ref, EVE-200

Performance (cont'd) Performance improvements (cont'd) improving with null keys, (P) File Applications, decompressing system libraries, (M) System 3 - 19Management Intro, 5–7 improving with SHR argument, (P) RMS, 4-14 disabling high-water marking, (M) System in a VAXcluster, (P) File Applications, 3–28 Management Intro, 5-7 load balancing on public volumes. (M) installing frequently used images, (M) System Maintaining VMS, 2-2 Management Intro, 5-8 multiblock count, (P) File Applications, 9-9 LIBDECOMP.COM procedure, (M) System network consulting services from Digital, Management Intro, 5-7 reducing system disk I/O, (M) System Dependability Handbook, 10-9 of system and personnel, Dependability Management Intro, 5-8 Handbook, 4-17 relinking images. (M) System Management feasibility constraints, Dependability Intro. 5-7 Handbook, 4-18 setting RMS file extend parameters, (M) implementation tradeoffs, Dependability System Management Intro, 5-7 Handbook, 4-18 Performance management approaching as management of resources, (M) learning curve considerations, Dependability Handbook, 4–19 Performance Management, 3-1 timing considerations, Dependability definition. (M) System Management Intro, 5-1; Handbook, 4-18 (M) Performance Management, 1-1 operating system, Dependability Handbook, Performance measurement, (P) RTL Parallel Processing, 5-10 read-ahead option, (P) File Applications, 9-9 geometric model, (P) RTL Parallel Processing, recommendations for a VAXcluster, (P) File 5-10 to 5-13 Applications, 3–30 Performance measurement routine, (P) RTL sequential access, (P) File Applications, 9-10 Library, 2-18 stack time, (P) Device Support (B), 1-17 Performance rating, License Management, testing for disks, (M) Maintaining VMS, 2-2 LMF-25tradeoffs, Dependability Handbook, 4-4 Period(.) circuit level redundancy, Dependability contents-of operator, (P) Debugger, 4-6, 4-19, Handbook, 4-4 loosely coupled system kernels, current entity, (P) Debugger, 4-8, 4-13, D-5 Dependability Handbook, 4-7 current location counter, (P) MACRO, 3-17 network level, Dependability Handbook, .PERIOD command, (U) DSR Ref, 2-100 Period flag, (U) DSR Ref, 3-15 with redundant hardware, Dependability default, (U) DSR Ref, 3-15 Handbook, 4-5 recognizing, (U) DSR Ref, 2-52 with redundant system kernels, Permanent buffers, (U) EVE Ref, EVE-40 Dependability Handbook, 4-6 Permanent connection on network, (M) DECnet-VAX Guide. 3-4 using Prolog 3, (P) File Applications, 3-16 window size, (P) File Applications, 9-10 Permanent database, (M) Networking, 1-16, 3-2, write-behind option, (P) File Applications, 9-10 5 - 42Performance analysis, (P) Modular Procedures, considerations, (M) Networking, 5-42 copying node entries, (M) Networking, 3-24 Performance and Test Coverage Analyzer copying using DCL COPY command, (M) Networking, 3-27 See PCA network, (M) DECnet-VAX Guide, 3-12, 3-13, Performance complaints 3-17, 3-32 evaluating, (M) Performance Management, 1-5 proxy, (M) DECnet-VAX Guide, 3-35 traced to hardware problems, (M) Performance PERMANENT keyword, (P) VAXTPU, 7-441 Management, 1-5 traced to MWAIT state, (M) Performance Permanent mailbox Management, 1-5 See Mailbox traced to unrealistic expectations, (M)Permanent quota, (M) SYSMAN, SM-9 Performance Management, 1-7 "Permanent" string constant parameter to Performance diagnostic strategy GET INFO, (P) VAXTPU, 7-174 overview, (M) Performance Management, 4-1 Permanent symbol, (P) MACRO, 3-5, 3-6 Performance improvements Permanent symbol table, (P) MACRO, D-1

Permanent virtual circuit See PVC Per-process common blocks, (P) Programming Resources, 3-6 Per-process page locking in memory, (P) Device Support (A), E - 16Personal computer connection to network, (M) DECnet-VAX Guide, 1-6, 3-26 serving corporate data to PCs, Dependability Handbook, 3-7 /PERSONAL\_NAME qualifier, (U) Mail, MAIL-21 Personnel analyzing options, Dependability Handbook, 3-19 to 3-20 building block, Dependability Handbook, 1-19 applying dependability strategies, Dependability Handbook, 1–21 cross training, Dependability Handbook, 1-5 at CSC data center, Dependability Handbook, 11-7 cross-training, Dependability Handbook, 5-9 Digital services support packages. Dependability Handbook, 10-1 environment, Dependability Handbook, 5-7 role boundaries, Dependability Handbook, 5-9 sensitive treatment of, Dependability Handbook, 3-20, 11-8, 11-12 staffing tradeoffs, Dependability Handbook, training and testing, Dependability Handbook, 3-16training programmers, Dependability Handbook, 3-13Personnel productivity, Dependability Handbook, feasibility constraints, Dependability Handbook, 4-18 implementation tradeoffs, Dependability Handbook, 4-18 learning curve considerations, Dependability Handbook, 4-19 timing considerations, Dependability Handbook, 4-18 Per-thread context, (P) DECthreads, 2-18 generating key value for, (P) DECthreads, cma-69, pthread-65 obtaining, (P) DECthreads, cma-71, pthread-61 setting, (P) DECthreads, cma-73, pthread-101 uses for, (P) DECthreads, cma-69, pthread-65 using to avoid nonreentrant software, (P)

DECthreads, 3-3

on VT100-series terminals, (U) Using VMS,

PF1 key

PFCDEFAULT parameter, (M) System Generation, A-22 PFN (page frame number) database, (P) System Dump Analyzer, SDA-111 displaying, (P) System Dump Analyzer, SDA-115 PFN (physical page number), (P) Delta/XDelta, DELTA-38 PFN database examining with XDELTA, (P) Device Support (A), 13–13 to 13–14 PFN mapping, (P) Device Support (A), 19-5 to 19 - 7deleting a page designated for, (P) Device Support (A), 19–7 modifying a page designated for, (P) Device Support (A), 19-5 PFNMAP privilege, (M) Setting Up VMS, 5–14; (M) Security, A-6 PFRATH parameter, (M) System Generation, A - 23page faulting, (M) Performance Management, PFRATL parameter, (M) System Generation, A-23 page faulting, (M) Performance Management, PGFIPLHI bugcheck, (P) System Dump Analyzer, SDA-19 PGFIPLHI crash, V5.5 Release Notes, 2-52 PGFLQUO (paging file limit), (M) Setting Up VMS, 5-5 Phase III node, (M) Networking, 2–22 in Phase IV network, (M) Networking, A-11 restrictions, (M) Networking, A-11 Phase II node, (M) Networking, 2-22 Phase IV end node, (M) Networking, 2-23 node, (M) Networking, 2-22 node address, (M) Networking, 2-25 router, (M) Networking, 2-23 PHD\$L\_BIOCNT, (P) Device Support (A), 2-7 PHD (process header), (P) System Dump Analyzer, SDA-160 displaying, (P) System Dump Analyzer, SDA-127 PHD qualifier, (P) System Dump Analyzer, SDA-127 **PHONE** See Phone Utility PHONE command, (U) DCL Dictionary, DCL2-12 using over the network, (M) DECnet-VAX Guide, 2-10, 2-11 Phonemic text defined, (P) RTL DECtalk, 1-1 speaking, (P) RTL DECtalk, DTK-35 PHONE object, (M) DECnet-VAX Guide, 4–12; (M) Networking, 2-4, 2-32, 2-33, 3-78

Phone Utility (PHONE), (U) VMS Intro, 1-15; PID (process identification) number, (P) System (U) Using VMS, 1-36; (U) Phone, PHONE-3 Services Intro, 8-7, 9-2; (P) Device Support commands, (U) Phone, PHONE-8 to (B), 1-74and process context, (U) Using VMS, 3-2 PHONE-20 conference call, (U) Phone, PHONE-2 defined, (P) System Services Intro, 9-1, 9-2 control characters. (U) Phone, PHONE-2 using to reference remote processes. (P) System default access, V5.5 New Features, D-2 Services Intro. 9-1 invoking, (U) Phone, PHONE-3 "Pid" string constant parameter to GET\_INFO, network operations, (M) DECnet-VAX Guide, (P) VAXTPU, 7-192 2-2, 2-10, 2-11, 3-9, 4-12 PIO (programmed I/O) qualifiers, (U) Phone, PHONE-4 to PHONE-7 VMEbus device, V5.5 New Features, A-13 terminating, (U) Phone, PHONE-12 PIO map registers for VME, V5.5 New Features, A-29, A-30. Physical address Ethernet, (M) Networking, 1-7, 3-13, 3-15 format, (P) Device Support (A), 19-4 PIOPAGES parameter, V5.5 Release Notes, 3-43 PHYSICAL ADDRESS parameter PIO transfer, (P) Device Support (A), 1–21 for LOOP CIRCUIT command, (M) Networking, example, (P) Device Support (A), 2-1 to 2-7 7 - 9using buffered I/O in, (P) Device Support (A), for TRIGGER command, (M) Networking, 4-8 Physical device name, (P) Routines Intro, A-5t using I/O adapter resources in, (P) Device controller designation field, (U) Using VMS, Support (A), 14-2 2-9; (U) DCL Concepts, 3-4 Pipeline quota, (M) Networking, 2-30, 3-76 PIPELINE QUOTA parameter, (M) Networking, device code field, (U) Using VMS, 2-9; (U) 3-76; (M) Network Control Program, NCP-86 DCL Concepts, 3-4 format in a file specification, (U) Using VMS, Pipelining model, (P) DECthreads, 1-6 2-9; (U) DCL Concepts, 3-4 Pipelining software model, (P) RTL Parallel unit number field, (U) Using VMS, 2-9; (U) Processing, 1-4 to 1-5 DCL Concepts, 3-4 **Pixmap** Physical I/O use of to implent icon in DECwindows VAXTPU, (P) VAXTPU, 7-393, 7-395 access checks, (P) System Services Intro, 7-7 operations, (P) System Services Intro, 7-6 privilege, (P) System Services Intro, 7-4, 7-6, See VAX PL/I PLACEMENT clause Physical I/O function, (P) Device Support (B), for QUALIFIER clause, (P) Command Def, 1-40, 3-72 CDU-25, CDU-34 Physical memory Placing a call displaying availability and use of, (U) DCL See Dialing Dictionary, DCL2-292 Plane rotation Physical mode, (M) Backup, BCK-17, BCK-75 applying Givens plane rotation to a vector, (P) Physical name, (P) System Services Intro, 7-26 RTL Math, MTH-173 Physical page number generating the elements for a Givens plane See PFN rotation, (P) RTL Math, MTH-178 PHYSICAL qualifier, (M) Backup, BCK-75 Planning Physical security, (M) Security, 1–3 system requirements for dependability, of networks, (M) Security, 8-5 Dependability Handbook, 2–1 PHY\_IO privilege, (M) Setting Up VMS, 5-14; Planning ahead, Dependability Handbook, 1-5 (M) Security, A-6 PMT option, (P) File Def Language, FDL-14 for shadowed disks, V5.5 Release Notes, 2-76 Pn symbol, (P) Delta/XDelta, DELTA-9 PID (process identification), (P) System Dump Pointer Analyzer, SDA-126 See also Message pointer using -1 wildcard as pidadr with \$GETJPI, retrieval, (P) File Applications, 9-8 (P) System Services Ref, SYS-286 structure, (P) Analyze/RMS\_File, ARMS-21 using with \$GETJPI to return information Pointer position, (P) VAXTPU, 7-252 about a process, (P) System Services Ref, Pointer type, (P) Debugger, 4-18 SYS-286 Point-to-point circuit, (M) Networking, 2-6 configuration, (M) Networking, 1-5, 1-8, 5-15

Point-to-point (cont'd) Port (cont'd) DDCMP addressing, (M) Networking, 3-35 logical name of, (M) LATCP, LAT-10 line, (M) Networking, 2-14 making connections from lines, (M) DECnet-VAX Guide, 3-4 security for connection, (M) Networking, 2-47, 3 - 93modifying characteristics of, (M) LATCP, LAT-37 Policies regarding system privileges, name, (M) LATCP, LAT-37 Dependability Handbook, 3–18 Polling, (M) Networking, 1-8, 2-9 outgoing connection, (M) LATCP, LAT-55 POLLING STATE parameter, (M) Networking, publicly accessible, (M) Security, 5-16 resetting, (P) Device Support (B), 2-82 POLYD (Polynomial Evaluation D\_floating) select button, (M) VAXcluster, 5-4 instruction, (P) MACRO, 9-120 setting type of, (M) LATCP, LAT-10 setting up LAT, (M) Maintaining VMS, 5-51 POLYF (Polynomial Evaluation F\_floating) instruction, (P) MACRO, 9-120 software controllable selection, (M) VAXcluster, POLYG (Polynomial Evaluation G\_floating) target, (M) LATCP, LAT-57 instruction, (P) MACRO, 9-120 POLYH (Polynomial Evaluation H\_floating) terminal, (M) DECnet-VAX Guide, 3-25 Port access mode, (P) I/O User's I, 3-12 instruction, (P) MACRO, 9-120 Polynomial Port capabilities longword, (P) Device Support (A), evaluating, (P) RTL Library, LIB-300, 17 - 13Port command buffer LIB-302, LIB-305, LIB-307 allocating, (P) Device Support (A), 17-11, Pool checking mechanism, (P) Device Support (A), 13-23 to 13-27 17-27; (P) Device Support (B), 2-69 POOLCHECK parameter, (P) Device Support (A), deallocating, (P) Device Support (A), 17-11, 17-28; (P) Device Support (B), 2-72 13 - 23POOL class record, (M) Monitor, A-31 Port database Pooled resource, (M) System Management Intro, See LOCAL\_PORTS window Port driver, (P) Device Support (A), 17-3 POOL spin lock, (P) Device Support (A), 3-14; (P) See also Terminal port driver Device Support (B), 3-14, 3-15, 3-19 displaying SDA information, (P) System Dump Poor man's lockdown, (P) Device Support (A), Analyzer, SDA-82 E-16 to E-17; (P) Device Support (B), 2-49 to Port driver entry vector table, (P) Device Support 2-50, 2-97 (B), 1–34 POPL instruction, (P) MACRO, 9-27 Port driver vector table, (P) Device Support (A), /POP qualifier, (P) Debugger, CD-67, CD-162 18-4 to 18-5; (P) Device Support (B), 1-89 POPR (Pop Registers) instruction, (P) MACRO, address, (P) Device Support (A), 18-9; (P) 9 - 79Device Support (B), 2-8 Pop-up menu creating, (P) Device Support (A), 18-6; (P) with DECwindows, (P) Debugger, 1-12 Device Support (B), 2–99, 2–100 Port, (P) Device Support (A), 17-1 defining entry in, (P) Device Support (B), 2–98 application, (M) LATCP, LAT-10, LAT-37, relocating, (P) Device Support (B), 2-7 LAT-38, LAT-39, LAT-55 characteristics, (M) LATCP, LAT-55 VME device drivers, V5.5 New Features, A-16 creating, (M) LATCP, LAT-10 PORTRAIT option, (U) DSR Ref. 4-10 dedicated, (M) LATCP, LAT-10, LAT-37, Port selection, (P) I/O User's I, 3–12 LAT-55 PORT\_ABORT service routine, (P) Device Support deleting, (M) LATCP, LAT-20 (A), 18–16 displaying characteristics of, (M) LATCP, PORT CANCEL service routine. (P) Device LAT-55 Support (A), 18–17 displaying information, (U) DCL Dictionary, PORT\_DISCONNECT initiate routine, (P) Device DCL2-331; (M) LATCP, LAT-55 Support (A), 18-13 displaying SDA information, (P) System Dump PORT\_DS\_SET initiate routine, (P) Device Analyzer, SDA-123 Support (A), 18–13 DMA buffer, (P) Device Support (A), 17-2, PORT FDT initiate routine, (P) Device Support 17–16, 17–27; (P) Device Support (B), 2–77 (A). 18-14 PORT\_FORKRET initiate routine, (P) Device examining status of, (P) Device Support (A), Support (A), 18–14, 18–20

17-17 to 17-18

PORT MAINT initiate routine, (P) Device Support (A), 18–15; (P) Device Support (B), 1–90 PORT\_RESUME service routine, (P) Device Support (A), 18-17 PORT\_SET\_LINE initiate routine, (P) Device Support (A), 18-15 PORT\_SET\_MODEM initiate routine, (P) Device Support (A), 18-15 PORT\_STARTIO initiate routine, (P) Device Support (A), 18-16 PORT\_STOP service routine, (P) Device Support (A), 18–17 PORT\_XOFF service routine, (P) Device Support (A), 18–17 PORT\_XON service routine, (P) Device Support (A), 18–18 Positional argument, (P) MACRO, 4-3 POSITIONAL clause for PLACEMENT clause, (P) Command Def, CDU-25, CDU-34 Positional qualifier definition, (U) Using VMS, 1-12; (U) DCL Concepts, 1-7 /INCLUDE, (P) Linker, 2-4, 2-10, LINK-24 incompatibility among, (P) Linker, LINK-23 /LIBRARY, (P) Linker, 2-4, LINK-25 OPTIONS, (P) Linker, 2-4, LINK-26 rules for entering, (U) Using VMS, 1-13 /SELECTIVE\_SEARCH, (P) Linker, LINK-27 /SHAREABLE, (P) Linker, LINK-28 POSITION attribute, (P) File Applications, 4–31; (P) File Def Language, FDL-7, FDL-28, FDL-29 POSITION/BUCKET command, (P) Analyze/RMS\_File, ARMS-30 POSITION built-in procedure, (P) VAXTPU, 7-287 to 7-290 example of use, (P) VAXTPU, B-25 to B-27 POSITION command, (M) Audit Analysis, AUD-37 Position independence, (P) Modular Procedures, 3-1. A-3 coding guidelines for, (P) Linker, 4-5 desirability of, (P) Linker, 4-4 in shareable image, (P) Linker, 1-10, 4-4 Position-independent code, (P) Device Support (A), 5-1Position of print aligning for preprinted forms, (M) Maintaining VMS, 5-83, 5-84 changing, (M) Maintaining VMS, 5-83 POSITION/RECORD command, (P) Analyze/RMS\_File, ARMS-32 Positive operator (+), (P) System Dump Analyzer, SDA-12

sigwait service, (P) DECthreads, A-5

P/OS node, (M) Networking, 9-5 POS option, (P) File Def Language, FDL-21 Postprocessing See I/O postprocessing PostScript back-end converter processing options in, (U) DCL Dictionary, DCL1-68 PostScript files CDA Viewer support, V5.5 New Features, B-46 VIEW command support, V5.5 New Features. PostScript printing. (M) Maintaining VMS, 5-6 POST\_KEY\_PROCEDURE keyword, (P) VAXTPU, "Post\_key\_procedure" string constant parameter to GET\_INFO, (P) VAXTPU, 7-204 electrical, Dependability Handbook, 5-2 sources of, Dependability Handbook, 5-2 Power bit See UCB\$V\_POWER Power failure, (P) MACRO, 10-43 blocking, (P) Device Support (A), 3-7 determining the occurrence of, (P) Device Support (A), 8–5 occurring when device is busy, (P) Device Support (B), 1-78 on I/O bus, (P) Device Support (A), 19-7 servicing in an initialization routine, (P) Device Support (A), 11-1, 11-5 servicing in port driver unit initialization routine, (P) Device Support (A), 18–13, 18 - 22Power failure recovery procedure, (P) Device Support (B), 1-25, 1-26, 1-74 device timeout forced by, (P) Device Support (A), 10-5 initialization performed by, (P) Device Support (A), 11–5 Power recovery setting AST for, (P) System Services Ref, SYS-522 PPL\$ADJUST\_QUORUM, (P) RTL Parallel Processing, 4-4, PPL-3 PPL\$ADJUST SEMAPHORE\_MAXIMUM, (P) RTL Parallel Processing, 4–13, PPL–5 PPL\$AWAIT EVENT, (P) RTL Parallel Processing, 4-7, PPL-7 PPL\$CREATE\_APPLICATION, (P) RTL Parallel Processing, 2-1, PPL-9 PPL\$CREATE\_BARRIER, (P) RTL Parallel Processing, 4–2, PPL–14 PPL\$CREATE EVENT, (P) RTL Parallel Processing, 4-5, PPL-16 PPL\$CREATE PROCESS, (P) Programming Resources, 4–16

POSIX

- PPL\$CREATE\_SEMAPHORE, (P) RTL Parallel Processing, 4–11, PPL–20
- PPL\$CREATE\_SHARED\_MEMORY, (P) RTL Parallel Processing, 3-1, PPL-23
- PPL\$CREATE\_SPIN\_LOCK, (P) RTL Parallel Processing, 4–14, PPL–27
- PPL\$CREATE\_VM\_ZONE, (P) RTL Parallel Processing, 3-4, PPL-29
- PPL\$CREATE\_WORK\_QUEUE, (P) RTL Parallel Processing, 4–16, PPL–34
- PPL\$DECREMENT\_SEMAPHORE, (P) RTL Parallel Processing, 4–12, PPL–36
- PPL\$DELETE\_APPLICATION, (P) RTL Parallel Processing, 2–2, PPL–38
- PPL\$DELETE\_BARRIER, (P) RTL Parallel Processing, 4–3, PPL–39
- PPL\$DELETE\_EVENT, (P) RTL Parallel Processing, 4–6, PPL–41
- PPL\$DELETE\_SEMAPHORE, (P) RTL Parallel Processing, 4–12, PPL–43
- PPL\$DELETE\_SHARED\_MEMORY, (P) RTL Parallel Processing, 3–3, PPL-45
- PPL\$DELETE\_SPIN\_LOCK, (P) RTL Parallel Processing, 4–15, PPL–47
- PPL\$DELETE\_VM\_ZONE, (P) RTL Parallel Processing, 3-4, PPL-49
- PPL\$DELETE\_WORK\_ITEM, (P) RTL Parallel Processing, 4–18, PPL–51
- PPL\$DELETE\_WORK\_QUEUE, (P) RTL Parallel Processing, 4–17, PPL–53
- PPL\$DISABLE\_EVENT, (P) RTL Parallel Processing, 4–7, PPL–55
- PPL\$ENABLE\_EVENT\_AST, (P) RTL Parallel Processing, 4–6, PPL–56
- PPL\$ENABLE\_EVENT\_SIGNAL, (P) RTL Parallel Processing, 4–7, PPL–59
- PPL\$FIND\_OBJECT\_ID, (P) RTL Parallel Processing, 4–1, PPL–63
- PPL\$FLUSH\_SHARED\_MEMORY, (P) RTL Parallel Processing, 3–3, PPL–65
- PPL\$GET\_INDEX, (P) RTL Parallel Processing, 2-4, PPL-67
- PPL\$INCREMENT\_SEMAPHORE, (P) RTL Parallel Processing, 4–13, PPL–68
- PPL\$INDEX\_TO\_PID, (P) RTL Parallel Processing, 2-4, PPL-69
- PPL\$INSERT\_WORK\_ITEM, (P) RTL Parallel Processing, 4–17, PPL–71
- PPL\$PID\_TO\_INDEX, (P) RTL Parallel Processing, 2-4, PPL-73
- PPL\$READ\_BARRIER, (P) RTL Parallel Processing, 4–3, PPL–75
- PPL\$READ\_EVENT, (P) RTL Parallel Processing, 4-8, PPL-77
- PPL\$READ\_SEMAPHORE, (P) RTL Parallel Processing, 4–13, PPL–79

- PPL\$READ\_SPIN\_LOCK, (P) RTL Parallel Processing, 4–16, PPL–81
- PPL\$READ\_WORK\_QUEUE, (P) RTL Parallel Processing, 4–17, PPL–83
- PPL\$RELEASE\_SPIN\_LOCK, (P) RTL Parallel Processing, 4–15, PPL–85
- PPL\$REMOVE\_WORK\_ITEM, (P) RTL Parallel Processing, 4–18, PPL–86
- PPL\$RESET\_EVENT, (P) RTL Parallel Processing, 4–8, PPL–88
- PPL\$ routines, (P) Programming Resources, 4–15 PPL\$SEIZE\_SPIN\_LOCK, (P) RTL Parallel Processing, 4–15, PPL–89
- PPL\$SET\_QUORUM, (P) RTL Parallel Processing, 4–4, PPL–91
- PPL\$SET\_SEMAPHORE\_MAXIMUM, (P) RTL Parallel Processing, 4–14, PPL–93
- PPL\$SPAWN, (P) RTL Parallel Processing, 2–3, PPL–95
- PPL\$STOP, (P) RTL Parallel Processing, 2–3, PPL–99
- PPL\$TERMINATE, (P) RTL Parallel Processing, 2-2, PPL-100
- PPL\$TRIGGER\_EVENT, (P) RTL Parallel Processing, 4–8, PPL–101
- memory correction, V5.5 Release Notes, 3-29
- PPL\$UNIQUE\_NAME, (P) RTL Parallel Processing, 2-4, PPL-103
- PPL\$WAIT\_AT\_BARRIER, (P) RTL Parallel Processing, 4–3, PPL–105
- PPL\$ INSVIRMEM
  - reasons for error, (P) RTL Parallel Processing, PPL-11
- PQL system parameters
  - See System parameters
- PR\$\_ASTLVL processor register, (P) Device Support (A), 3-4
- PR\$\_SID processor register, (P) Device Support (B), 1-17
- PR\$\_SIRR processor register, (P) Device Support (A), 3-9; (P) Device Support (B), 2-67
- PR\$\_TBIA processor register, (P) Device Support (A), E-15
- PR\$\_TBIS processor register, (P) Device Support (A), E-15
- PRCLM (subprocess creation limit), (M) Setting Up VMS, 5-6
- /PRCLM qualifier, (M) Security, 5-48
- Precedence of operators, (P) System Dump Analyzer, SDA-12
- Precedence operator, (P) System Dump Analyzer, SDA-13
- Predecessor
  - See Logical predecessor
- Predefined constants
  - names, (P) VAXTPU, 3-13

Predefined logical name LNM\$FILE\_DEV, (P) System Services Intro, 6 - 11/PREDEFINED qualifier, (P) Debugger, CD-15, CD-18, CD-31, CD-207, CD-250 Predicate, (P) DECthreads, pthread-37 definition of, (P) DECthreads, pthread-37 Predictive sizing services from Digital, Dependability Handbook, 10 - 1Preferred access path programming examples for, V5.5 New Features, Preferred channel, (M) VAXcluster, G-1 Preferred path specification, (M) VAXcluster, 5-5 Preferred path support for DSA devices, V5.5 Release Notes, 3-21 Prefetch function of UNIBUS adapter, (P) Device Support (A), 14-3, 14-12, 14-13 /PREFIX qualifier in .FACILITY directive, (P) Message, MSG-18 Preprinted forms See also Forms aligning, (M) Maintaining VMS, 5-83, 5-84 Preprocessing See I/O preprocessing Preprocessing routine See FDT routine Preventative maintenance scheduling, Dependability Handbook, 9-12 Preventing autostart queues from starting. V5.5 New Features, 5-9; (M) Maintaining VMS, 5 - 74PREVIOUS BUFFER command, (U) EVE Ref, EVE-102 Previous location See Logical predecessor PREVIOUS SCREEN command, (U) EVE Ref. EVE-103 moving the cursor with (EVE), (U) Text Processing, 1–9 "Previous" string constant parameter to GET\_ INFO, (P) VAXTPU, 7-166, 7-168, 7-169, 7-180, 7-181, 7-183, 7-184, 7-191, 7-218, 7 - 223PREVIOUS WINDOW command, (U) Using VMS, 8-9, 8-35; (U) EVE Ref, EVE-104 in window environment (EVE), (U) Text Processing, 1-55 moving the cursor with (EVE), (U) Text Processing, 1-9 %PREVIOUS\_PROCESS, (P) Debugger, 10-11 %PREVIOUS\_SCOPE\_ENTRY, (P) Debugger, %PREVIOUS\_TASK, (P) Debugger, 12-14

%PREVLOC, (P) Debugger, 4-8, 4-13, D-5 Prev Screen key See also -Sect key on LK201 keyboard, (U) EDT Ref, EDT-93 PRE\_KEY\_PROCEDURE keyword, (P) VAXTPU, "Pre\_key\_procedure" string constant parameter to GET\_INFO, (P) VAXTPU, 7-204 Primary attribute, (P) File Applications, 4-9; (P) File Def Language, FDL-1 Primary data record, (P) Analyze/RMS\_File, ARMS-6 PRIMARY day defining, (M) Setting Up VMS, 4-25 Primary dependability strategies concepts, Dependability Handbook, 1-13 enhancing, Dependability Handbook, 1-16 Primary exception vector, (P) Programming Resources, 9-13 Primary handler, (P) Debugger, 3-20, 9-13 Primary index structure, (P) Analyze/RMS\_File, ARMS-6 Primary key, (P) Convert, CONV-16 Primary loader, (M) Networking, 4-2 Primary operand, (P) MACRO, 8-26 Primary processor, (P) Device Support (A), E-2 Primary record structure, (P) File Applications, 10 - 20/PRIMEDAYS qualifier example, (M) Security, 5-30 Prime number search example, (P) DECthreads, 5-1PRIMITIVE\_IO.EXE global symbols, (P) System Dump Analyzer, SDA-61 Principles of dependable systems, Dependability Handbook, 2-1 See also Rules to remember analyzing communications options, Dependability Handbook, 3-6 analyzing environmental options, Dependability Handbook, 3-2 analyzing hardware options, Dependability Handbook, 3-4 analyzing operational procedures options, Dependability Handbook, 3-15 analyzing personnel options, Dependability Handbook, 3-19 analyzing software options, Dependability Handbook, 3-9 continuous improvement process, Dependability Handbook, 2-1 determining requirements, Dependability Handbook, 2-5 Print command procedure in batch job log, (U) DCL Dictionary, DCL2-237

Print (cont'd)	Printer queue, (M) VAXcluster, 6-3
file, (U) DCL Dictionary, DCL2-13 PRINT carriage control, (P) Convert, CONV-2;	assigning unique name to, (M) VAXcluster, 6-4
(P) File Def Language, FDL-34	initializing, (M) VAXcluster, 6-4
Print characteristics	sample configuration, (M) VAXcluster, 6–3
changing, V5.5 Release Notes, 2–9	setting up, (M) VAXcluster, 6–3 starting, (M) VAXcluster, 6–4
PRINT command, (U) VMS Intro, 1–14, 2–7, 6–1;	Printers
(U) Using VMS, 2-19; (U) Mail, MAIL-63;	LJ250, V5.5 Release Notes, 1–12
(U) DCL Dictionary, DCL2-13 to DCL2-22;	LN01
(U) EDT Ref, EDT-157	default values, (U) DSR Ref, 4-21
accounting record page count, V5.5 Release	font kit, (U) DSR Ref, B-1
Notes, 1–3	fonts, $(U)$ DSR Ref, 4–10
/BURST qualifier, (M) Maintaining VMS, 5–32 /CHARACTERISTIC qualifer, (M) Maintaining	LANDSCAPE option, (U) DSR Ref, 4-9
VMS, 5-25	paper size, (U) DSR Ref, 4–9
/FEED qualifier, (M) Maintaining VMS, 5-45	PORTRAIT option, (U) DSR Ref, 4–10
/FLAG qualifier, (M) Maintaining VMS, 5-32	printing files, (U) DSR Ref, 4-9 requirements, (U) DSR Ref, B-1
/FORM qualifier, (M) Maintaining VMS, 5-40	specifying page size, (U) DSR Ref, 4–13
for specifying setup and page setup	underlining, (U) DSR Ref, 4-11
modules, (M) Maintaining VMS, 5-48	LN01E, (U) DSR Ref, 4-9
/NOPASSALL qualifier, (M) Maintaining VMS,	default values, (U) DSR Ref, 4-21
5-45	paper size, (U) DSR Ref, 4-9
preventing users from executing, $(M)$ Maintaining VMS, 5–73	printing files, (U) DSR Ref, 4-9
PRIORITY qualifier, (M) Maintaining VMS,	requirements, (U) DSR Ref, B-1
5–6	specifying page size, (U) DSR Ref, 4-13 LN03, (U) DSR Ref, 4-9
processing of, (M) Maintaining VMS, 5-1	default values, $(U)$ DSR Ref, 4–9
/RETAIN qualifier, (M) Maintaining VMS,	fonts, (U) $DSR$ $Ref$ , $4-10$
5–24, 5–81	LANDSCAPE option, (U) DSR Ref, 4–9
/SETUP qualifier, (M) Maintaining VMS, 5–48	paper size, (U) DSR Ref, 4-9
/TRAILER qualifier, (M) Maintaining VMS,	PORTRAIT option, (U) DSR Ref, 4-10
5–32 PRINT/DELETE command, V5.5 Release Notes,	printing files, (U) DSR Ref, 4-9
1-4	specifying page size, (U) DSR Ref, 4–13
.PRINT directive, (P) MACRO, 6-76	underlining, (U) DSR Ref, 4–11
Printer	Print format option
configuring on a LAT, (M) LATCP, LAT-10,	See FAB\$V_PRN option
LAT-37	Print format options for VFC records with 2-byte control area, (P) RMS, 5-25
controlling functions, (M) Maintaining VMS,	Print forms
5–45	See also Forms
LAT, (M) Maintaining VMS, 5–51 setting characteristics, (M) Setting Up VMS,	changing, V5.5 Release Notes, 2-9
2–9; (M) Maintaining VMS, 5–51	deleting the default, V5.5 Release Notes, 2-8
setting up, (M) Maintaining VMS, 5-50	Printing, (M) Maintaining VMS, 5-6
spooled, (M) Maintaining VMS, 5-6	remotely, (M) Maintaining VMS, 5-7
recommended use, (M) Maintaining VMS,	resuming at a specified position, (M)
5–6	Maintaining VMS, 5–83, 5–84 Printing files, (U) DSR Ref, 4–19, 4–20, 6–6
system	accounting record page count, V5.5 Release
displaying default characteristics of, (U)	Notes, 1–3
DCL Dictionary, DCL2–300 troubleshooting, (M) Maintaining VMS, 5–87	DSR output file, (U) DSR Ref, 1–5
Printer device width, (P) Programming Resources,	form feed, (U) DSR Ref, 4-24
7–6	on LN01 device, (U) DSR Ref, 1–5
Printer driver	on LN01E laser printer, (U) DSR Ref, 4-9, B-1
description, (P) Device Support (A), 2-1 to 2-7	on LN01 laser printer, (U) DSR Ref, 4-9, B-1
Printer fonts	on LN03 laser printer, (U) DSR Ref, 4-9
European, (U) DSR Ref, B-3	over the network, (M) DECnet-VAX Guide, 2-6 specifying output device, (U) DSR Ref, 4-9
standard, (U) DSR Ref, B–3	Specialing carban action, (C) Doing 100, 1-0

Printing files (cont'd) PRINT\_ON\_CLOSE attribute, (P) File Def with the /DELETE qualifier, V5.5 Release Language, FDL-23 Notes, 1-4 Priority, (M) System Management Intro, 2-3 Printing job state, (M) Maintaining VMS, 5-78 base, (M) System Management Intro, 2-3; (M) Printing log files Setting Up VMS, 5-7 the error log file, (M) Maintaining VMS, 6-6 job scheduling, (M) Maintaining VMS, 5-6 the operator log file, (M) Maintaining VMS, modifying process, (U) DCL Dictionary, 6 - 13DCL2-191 Printing messages obtaining for thread, (P) DECthreads, default print form, (U) Mail, MAIL-91 cma-102, pthread-57 setting default queue, (U) Mail, MAIL-97 of task or thread, (P) Debugger, 12-15, 12-19 Printing test results, (M) DTS/DTR, DTS-5, of work queue, (P) RTL Parallel Processing, DTS-7, DTS-10, DTS-12 4 - 16Print job, (U) Using VMS, 2-18; (M) System scheduling, V5.5 Release Notes, 2-9 Management Intro, 4-5 changing for a batch or print job, (M)See also Output job Maintaining VMS, 5-80 delaying, (U) Using VMS, 2-19 setting, (P) System Services Ref, SYS-524 deleting, V5.5 Release Notes, 1-2, 1-4 setting for thread, (P) DECthreads, cma-109, list of DCL commands to use with, (U) Using cma-111, pthread-95, pthread-98 VMS, 2-19 specifying for batch job, (U) DCL Dictionary, obtaining multiple copies of, (U) Using VMS, DCL2-382 2 - 19specifying for detached process, (U) DCL priorities, (U) Using VMS, 2-18 Dictionary, DCL2-59 PRINT/PRIORITY command, V5.5 Release Notes, specifying for subprocess, (U) DCL Dictionary, DCL2-59 Print queue, (P) File Def Language, FDL-23 Priority attribute, (P) DECthreads, cma-25, cma-37, pthread-9, pthread-17 See also Output queue Priority inversion and print job execution, (U) Using VMS, 2-18 avoiding, (P) DECthreads, 3-6, cma-81 changing entry, (U) DCL Dictionary, PRIORITY parameter, (M) Networking, 3-84 DCL2-136; Obsolete Features, 1-20 /PRIORITY qualifier, (M) Accounting, ACC-21; controlling, (U) Using VMS, 2-19 (P) Debugger, CD-179, CD-247 creating, (U) DCL Dictionary, DCL1-249 definition, (U) Using VMS, 2-18 PRIORITY\_OFFSET parameter (SYSGEN), V5.5 deleting, (U) DCL Dictionary, DCL1-143 Release Notes, 2-51 deleting entries, (U) DCL Dictionary, Private section defining, (P) System Services Intro, 12-7 DCL1-136 displaying entries, (U) DCL Dictionary, Private volume DCL2-275, DCL2-309 See Volume establishing as spooled, (U) DCL Dictionary, Privilege, (M) Mount, MOUNT-4; (P) System DCL2-123 Services Intro, 6-6 generic, (U) Using VMS, 2-18 ACNT, (M) Networking, 5–2 initializing, (U) DCL Dictionary, DCL1-249 all, (M) Setting Up VMS, 5-9; (M) Security, modifying characteristics of, (U) DCL Dictionary, DCL2-187, DCL2-345 allocate terminal, (P) Debugger, 9-6 starting, (U) DCL Dictionary, DCL2-345 assigned to installed images, (M) Install, terminal, (U) Using VMS, 2-18 INS-11 PRINT/REMOTE command BYPASS, (U) Files and Devices, 2-3; (M) using for remote files, (M) DECnet-VAX Guide, Security, 4-6; (M) DECnet-VAX Guide, 3-9; (M) Networking, 5-2; (P) System Services Print Screen function (DECwindows), V5.5 Intro, 7-6 Release Notes, 1–12 changing current, (M) SYSMAN, SM-6 CMKRNL, (M) DECnet-VAX Guide, 3-10; (M) Print stock changing, V5.5 Release Notes, 2-9 Networking, 5-2 defined by access mode, (P) System Services Print symbiont Intro, 2-2 See Symbiont DELTA, (P) Delta/XDelta, DELTA-14 **Print Symbiont Modification routines** DETACH, (M) DECnet-VAX Guide, 3-10; (M) See PSM routines Networking, 5-2

## Privilege (cont'd)

determining own, (M) DECnet-VAX Guide, 3-2 devour, (M) Setting Up VMS, 5-9; (M) Security, 5–32

DIAGNOSE, (M) Networking, 5-2 displaying current, (M) SYSMAN, SM-74 displaying process, (U) DCL Dictionary,

DCL2-304 displaying subprocess, (U) DCL Dictionary,

DCL2-304 enhancement for installed files, (M) Install,

file, (M) Setting Up VMS, 5-9; (M) Security, 5 - 33

for access control, (M) Networking, 2-40 for captive account, (M) Security, 5–35

for DECnet-VAX system management, (M) DECnet-VAX Guide, 3-9

for LMCP commands, V5.5 New Features, B-75 for network operations, (M) DECnet-VAX Guide, 2-2; (M) Networking, 5-2

for TFU commands, (M) Terminal Fallback, TFU-10

group, (M) Security, 5-32

group-related, (M) Security, 5-2

GRPPRV, (U) Files and Devices, 2-1

I/O operations, (P) System Services Intro, 7-2 listed, (M) Security, A-1

logical I/O, (P) System Services Intro, 7-4, 7-6, 7 - 7

minimum for network login, (M) DECnet-VAX Guide, 3-2

modifying for environment, (M) SYSMAN, SM - 70

modifying process, (U) DCL Dictionary, DCL2-191

MOUNT, (P) System Services Intro, 7-4 needed to perform BACKUP operations, (M) Backup, BCK-27

NETMBX, (M) DECnet-VAX Guide, 2-2, 3-2, 3-9; (M) Networking, 2-41, 5-2

normal, (M) Security, 5-32

OPER, (M) DECnet-VAX Guide, 3-9, 3-32; (M) Networking, 5–2

physical I/O, (P) System Services Intro, 7-4, 7-6, 7-7

PRMGBL, (P) RTL Parallel Processing, 1-6 process, (M) Setting Up VMS, 5-8

recommendations for minimum, (M) Security,

required by SYSMAN, (M) SYSMAN, SM-18 required for DELETE/QUEUE command, V5.5 Release Notes, 4-3

required for NCP commands, (M) Networking, 2-42; (M) Network Control Program, NCP-12

required for SJC\$\_DELETE\_QUEUE, V5.5 Release Notes, 4-18

Privilege (cont'd)

required to analyze VAX RMS Journaling files, (P) Analyze/RMS\_File, ARMS-11

required to run AUTOGEN, V5.5 Release Notes, 2-4

requirements for DECnet-VAX operations, (M) DECnet-VAX Guide, 3-9

requirements for security administrator, (M) Security, 5–1

SECURITY, (M) Networking, 5-2

setting for process, (P) System Services Ref, SYS-533

specifying for detached process, (U) DCL Dictionary, DCL2-59

specifying for subprocess, (U) DCL Dictionary, DCL2-59

SS\$\_NOPRIV, (P) Programming Resources, 9-3 summary, (M) Setting Up VMS, 5-8; (M) Security, 5-32

SYSGBL, (P) RTL Parallel Processing, 1-6

SYSLCK, (P) RTL Parallel Processing, 1-6

SYSNAM, (U) Files and Devices, 2–6; (M) DECnet-VAX Guide, 3-10; (M) Networking,

SYSPRV, (*U*) Files and Devices, 2–1, 2–6, 3–9; (M) DECnet-VAX Guide, 3-9, 3-32; (M) Networking, 5-2

system, (M) Setting Up VMS, 5-9; (M) Security, 5-32

policies regarding, Dependability Handbook, 3–18

SYSTEM, (P) System Services Intro, 7-6 TMPMBX, (M) DECnet-VAX Guide, 2-2, 3-2, 3-9; (M) Networking, 2-41, 5-2

to configure network, (M) Networking, 5-2 to issue CLEAR ALL or PURGE command, (M) Networking, 2-42

to issue SET ALL or DEFINE command, (M) Networking, 2-42

to modify permanent database, (M) Networking, 2-42

to modify volatile database, (M) Networking,

to start the network, (M) Networking, 2-42 user, (M) Security, 5-30; (P) System Services Intro, 2-2

using for file sharing, (M) Security, 8-18 using to gain access

> and security audit, (M) Security, 4-41, 6 - 11

vector, (M) Security, 5-32

VOLPRO (volume protection override), (U) Files and Devices, 2-3, 3-4, 3-8

XDELTA, (P) Delta/XDelta, DELTA-14 Privileged account, (M) Security, 5-35

Privileged command image, (U) Using VMS, 1-20

interrupting and executing, (U) DCL Concepts, 2 - 3

Procedure (cont'd) Privileged image, (M) Install, INS-2, INS-3 entry point names, (P) Modular Procedures, installing, (P) Programming Resources, 6-2 /PRIVILEGED qualifier, (M) Install, INS-11 executing, (P) VAXTPU, 4-21 Privileged shareable image, (P) System Services grouping, (P) Modular Procedures, 5-1 Intro, A-1 interface, (P) Modular Procedures, 2-3, A-2 creation of, (P) Linker, 1-11, 4-11 language support definition of, (P) Linker, 1-11, 4-11 definition of, (P) Routines Intro, 2-4 /PRIVILEGES qualifier, (M) Security, 5-30 use of, (P) Routines Intro, 2-4 PRMCEB privilege, (M) Setting Up VMS, 5-15; library, (P) Modular Procedures, 5-1 (M) Security, A-6 definition of, (P) Routines Intro, 2-4 PRMGBL privilege, (M) Setting Up VMS, 5-15; use of, (P) Routines Intro, 2-4 (M) Security, A-7 name, (P) VAXTPU, 3-16 PRMMBX privilege, (M) Setting Up VMS, 5-15; operation, (P) Routines Intro, A-7t (M) Security, A-7 parameter, (P) VAXTPU, 3-16 to 3-19 Proactive memory reclamation, V5.5 New recommended naming conventions, (P) Features, A-1, A-6 VAXTPU, 4-31 Proactive network monitoring and analysis recommended size for, (P) VAXTPU, 4-2 products, Dependability Handbook, 7-22 recursive, (P) VAXTPU, 3-19 DECalert, Dependability Handbook, 7-22 returning result, (P) VAXTPU, 2-8, 3-19, DECelms, Dependability Handbook, 7-24 7 - 101DECmcc, Dependability Handbook, 7-25 samples using EVE, (P) VAXTPU, B-1 to B-33 DECnet Monitor, Dependability Handbook, using LEARN ABORT in, (P) VAXTPU, 7-243 7 - 23Procedure call format, (P) Routines Intro, 1-3 ETHERnim, Dependability Handbook, 7-23 Procedure call instructions, (P) MACRO, 9-63 LAN Traffic Monitor, Dependability Handbook, procedure data type, (P) Routines Intro, A-11t Procedure descriptor, (P) Routines Intro, 2-29 local area VAXcluster failure analysis program, PROCEDURES keyword Dependability Handbook, 7–22 with EXPAND\_NAME, (P) VAXTPU, 7-135 VCS, Dependability Handbook, 7-24 PROCEDURE statement, (P) VAXTPU, 3-15 to Prober how to catch, (M) Security, 5-23, 7-3 "Procedure" string constant parameter to PROBER (Probe Read) instruction, (P) MACRO, GET\_INFO, (P) VAXTPU, 7-180 Proceed from Breakpoint command, (P) PROBEW (Probe Write) instruction, (P) MACRO, Delta/XDelta, DELTA-32 9 - 188Process, (U) Using VMS, 3-1 Probing See also Process quota as security problem, (M) Security, 1-1 Problems See also Subprocess See also Troubleshooting See also SYS\$GETJPI data link, (M) DECnet-VAX Guide, 4-13 See also SYS\$PROCESS SCAN detecting in error log file, (M) Maintaining ACMS, Dependability Handbook, 8-50 VMS, 6-4 activation tracepoint, predefined, (P) Debugger, detecting in operator log file, (M) Maintaining 10-12VMS, 6-7, 6-10 adjusting priorities, (M) Performance detecting in security audit log file, (M) Management, 5-17 Maintaining VMS, 6–13 and job tree, (U) Using VMS, 3-3, 3-5 detecting in system dump file. (M) Maintaining attaching to another, (U) Mail, MAIL-28 VMS, 6-1blocked by higher priority process, (M) routing, (M) DECnet-VAX Guide, 4-14 Performance Management, 4-35 transient network, (M) DECnet-VAX Guide, channel, (P) System Dump Analyzer, SDA-126 3 - 30checking status with Ctrl/T, (U) VMS Intro, troubleshooting for network, (M) DECnet-VAX Guide, 4-10 to 4-17 communicating between, (P) Programming Procedural error handler, (P) VAXTPU, 3-26 to Resources, 3-7 3 - 28communicating within, (P) Programming Procedure Resources, 3-1 definition of, (P) Routines Intro, 2-3

entry mask, (P) Modular Procedures, 3-11

Process	Process
communicating within (cont'd)	displaying (cont'd)
using logical names, (P) Programming Resources, 3-2	CPU time used, (U) DCL Dictionary, DCL2-319
using symbols, (P) Programming Resources, 3–5	current physical memory occupied, (U)  DCL Dictionary, DCL2-319
communication with, (M) DECnet-VAX Guide,	current working set size, (U) DCL
1-2	Dictionary, DCL2–319
compute-bound, (M) Performance Management, 5-9	information on, (U) DCL Dictionary, DCL2-246
connecting debugger to, (P) Debugger, 10-4, 10-13, CD-36	names, (U) DCL Dictionary, DCL2-331 open file count, (U) DCL Dictionary,
creating, (U) Using VMS, $3-1$ ; (P)	DCL2-319
Programming Resources, 2–1; (P) System Services Intro, 8–2; (P) System Services	page faults, (U) DCL Dictionary, DCL2-319
Ref, SYS $-100$	status, (U) DCL Dictionary, DCL2-319
creation restriction, (P) System Services Intro, 8-7	updated information about, (U) DCL Dictionary, DCL2–303
current, (P) Device Support (B), 1–15	displaying SDA information, (P) System Dump
curtailing, (M) Performance Management, 5-9	Analyzer, SDA-126, SDA-159
deadlock, (P) RTL Parallel Processing, 5-4 definition of, (U) Using VMS, 3-1; (P) RTL	examining a hung, (P) System Dump Analyzer, SDA-8
Parallel Processing, 1–2	execution, (P) Programming Resources, 2–14
deleting, (P) Programming Resources, 2–15;	for achieving dependability, Dependability
(P) System Services Intro, 8–16; (P) System	Handbook,2–1
Services Ref, SYS-144; (P) VAXTPU, 7-108	for continuous improvement in system
detached, (U) Using VMS, 7-3; (M) Security,	dependability, Dependability Handbook,
3-3; (P) Programming Resources, 2-7; (P)	2–1
System Services Intro, 8–2, 8–6	analysis phase, Dependability Handbook,
accounting, (U) DCL Dictionary, DCL2-55	2–4
assigning resource quota to, (U) DCL	integration phase, Dependability
Dictionary, DCL2-54	Handbook, 2-4
creating with RUN command, (U) DCL Dictionary, DCL2-53, DCL2-61	operational phase, $Dependability$ $Handbook, 2-3$
defining attributes, (U) DCL Dictionary,	planning phase, Dependability Handbook,
DCL2-54	2–2
defining equivalence names for process-	getting information about
permanent logical names, (U) DCL Dictionary, DCL2-53	asynchronously, (P) System Services Ref, SYS-286
image hibernation, (U) DCL Dictionary, DCL2-55	synchronously, (P) System Services Ref, SYS-305
naming, (U) DCL Dictionary, DCL2-55	hibernating, (P) System Services Intro, 8-10;
scheduling wakeup, (U) DCL Dictionary,	(P) System Services Ref, SYS-402
DCL2-57	hibernation
specifying quotas, (U) DCL Dictionary, DCL2-57	with ATTACH command, (U) DCL Dictionary, DCL1-49; (M) SYSMAN,
specifying working set, $(U)$ $DCL$	SM-27
$Dictionary,\mathrm{DCL}2 ext{-}61$	how to set writable, (P) Delta/XDelta,
disabling swap mode, (P) System Services	DELTA-43
Intro, 12–7	identification, (P) System Services Intro, 8-7
disallowing swapping, (P) System Services	displaying, (U) DCL Dictionary, DCL2-303
Intro, 12–7	image, (P) System Dump Analyzer, SDA-159
displaying	image wakeup, (U) DCL Dictionary, DCL2-55
buffered I/O count, (U) DCL Dictionary,	listening, (P) System Dump Analyzer, SDA-83
DCL2–319	locating a subset of, (P) System Services Ref,
characteristics of, (U) DCL Dictionary,	SYS-460
$\mathrm{DCL}2 ext{}302$	lock, (P) System Dump Analyzer, SDA-127

Process (cont'd)	Process
mapping actions to dependability requirements,	priority (cont'd)
$Dependability\ Handbook,\ 214$	for detached process, (U) DCL Dictionary,
modes of execution, (P) Programming	DCL2-59
Resources, 2–1	for subprocess, (U) DCL Dictionary,
modifying characteristics of, (U) DCL	DCL2-59
Dictionary, DCL2–191	modifying, (P) Programming Resources,
modifying name, (P) Programming Resources,	2–12
2-13 modifying working set default size, (U) DCL	privilege, (M) Security, 5–32, 5–35 displaying, (U) DCL Dictionary, DCL2–304
Dictionary, DCL2-244	specifying for detached process, (U) DCL
multiple	Dictionary, DCL2-59
built-in procedures	specifying for subprocess, (U) DCL
ATTACH, (P) VAXTPU, 7–35	Dictionary, DCL2-59
CREATE_PROCESS, (P) VAXTPU,	privilege mask, (P) Device Support (B), 1-42
7–67	privileges
RECOVER_BUFFER, (P) VAXTPU,	setting, (P) Programming Resources, 2–12
7–307	protection, (M) Security, 4-34
SEND, $(P)$ VAXTPU, 7–342	quantum end event, (P) Device Support (A),
SEND_EOF, (P) VAXTPU, 7–346	3–8
SPAWN, (P) VAXTPU, 7-515	quotas
multiprocess debugging, (P) Debugger, 10-1	displaying, (U) DCL Dictionary, DCL2-304
with DECwindows, (P) Debugger, 1–9,	reconnection, (M) Security, 3-5
1–29 name, (P) System Services Intro, 8–7	reducing delay waiting for CPU, (M)  Performance Management, 5–18
for detached process, (U) DCL Dictionary,	remote, (M) DECnet-VAX Guide, 2-3
DCL2–59	resource limits, (P) File Applications, 1–16
for subprocess, (U) DCL Dictionary,	resuming after suspension, (P) System Services
DCL2-59	Ref, SYS-500
name within group, (P) System Services Intro,	returning control from driver to, (P) Device
8–9	Support (A), 4–16
obtaining information about, (P) Programming	scanning across the cluster, (P) System
Resources, 2–9; (P) System Services Intro,	Services Ref, SYS-460
9–1	scheduling, (P) Programming Resources, 2–12
example, (P) System Services Intro, 9-2	scheduling state, (P) System Dump Analyzer,
synchronously, (P) System Services Intro,	SDA-129, SDA-159
9–13 using LIB\$GETJPI, (P) Programming	scheduling wakeup for, (P) System Services Ref, SYS-509
Resources, 2–9	setting default device and/or directory, $(U)$
using SYS\$GETJPI, (P) Programming	DCL Dictionary, DCL2-121
Resources, 2–9	setting name of, (P) System Services Ref,
using SYS\$GETJPIW, (P) Programming	SYS-527
Resources, 2-9	setting priority of, (P) System Services Ref,
obtaining information about one process, (P)	SYS-524
System Services Intro, 9–2	setting privilege, (P) System Services Ref,
obtaining information about processes on	SYS-533
specific nodes, (P) System Services Intro,	setting swap mode for, (P) System Services Ref
9-11, 9-12	SYS-542
obtaining information about the calling process, (P) System Services Intro, 9–2	spawning a subprocess, (P) System Dump Analyzer, SDA-162
obtaining information about using PID, (P)	status
System Services Intro, 9–1	displaying current, (U) DCL Dictionary,
obtaining information about using process	DCL2–319
name, (P) System Services Intro, 9-1, 9-2	subprocess, (P) System Services Intro, 8-2
placing in wait state, (U) DCL Dictionary,	suspending, (P) System Services Intro, 8-10,
DCL2-397	8-13; (P) System Services Ref, SYS-634
priority, (M) Performance Management, 4-35	swap mode

Process characteristics (cont'd) swap mode (cont'd) obtained from UAF, (U) Using VMS, 1-3 enabling or disabling, (U) DCL Dictionary, Process command table, (P) Command Def, DCL2-193CDU-2 swapping, (P) System Services Intro, 12-6 adding commands to, (P) Command Def. for created process, (U) DCL Dictionary, CDU-3, CDU-45 DCL2-60 deleting commands from, (P) Command Def. swapping by suspension, (P) System Services CDU-39 Process context, (U) Using VMS, 3-1; (P) Device Intro, 8-13 switching control of input stream to, (U) DCL Support (A), 1-8, 2-4, 4-13, 7-1 Dictionary, DCL1-49; (M) SYSMAN, changing, (P) System Dump Analyzer, SDA-68, SDA-73, SDA-93, SDA-126 SM-27synchronizing with batch job, (U) DCL list of characteristics, (U) Using VMS, 3-2 Dictionary, DCL2-387 returning to, (P) Device Support (A), 4-20 system using with \$GETJPI, (P) System Services Intro, displaying list of processes, (U) DCL 9 - 1Dictionary, DCL2-322 Process control block termination mailbox, (P) System Services Intro, See PCB 7–34, 8–18 Process control region, (P) System Dump termination tracepoint, predefined, (P) Analyzer, SDA-14 Process control region operator (H), (P) System Debugger, 10-12 time-slicing, (M) Performance Management, Dump Analyzer, SDA-12 Process control services, (P) System Services Intro, transferring control from, (M) LATCP, LAT-6 1 - 2types of, (U) Using VMS, 3-1 PROCESS data type, (P) VAXTPU, 2-20 to 2-21 types of resources, (P) File Applications, 1–15 Process default, (P) File Applications, 4–14; (P) asynchronous system trap limit (ASTLM), File Def Language, FDL-30 (P) File Applications, 1-17 batch queue, (P) File Def Language, FDL-24 buffered I/O limit (BIOLM), (P) File print queue, (P) File Def Language, FDL-23 Applications, 1-17 Process directory logical name table direct I/O limit (DIOLM), (P) File default contents, (U) Using VMS, 4-9; (U) Applications, 1–17 DCL Concepts, 4–8 using \$PROCESS\_SCAN item list to specify Process directory table, (P) System Services Intro, selection criteria about processes, (P) 6 - 3System Services Intro, 9-6, 9-9, 9-10 Process dump using \$PROCESS\_SCAN item list with remote analysis of, (U) DCL Dictionary, DCL1-30 procedures, (P) System Services Intro, 9-13 PROCESSES class record, (M) Monitor, A-33 using \$PROCESS\_SCAN item-specific flags to Process exclusion list, (M) Security, 6-19 control selection information, (P) System adding to list, (M) Security, 6-19 Services Intro, 9-6 Process header using \$PROCESS\_SCAN search for, (P) System See PHD Services Intro, 9-6 Process I/O channel, (P) Device Support (A), 11-6: using wildcard search for, (P) System Services (P) Device Support (B), 1-11, 1-40 Intro, 9-4 assigning, (P) Device Support (A), 4-5 waiting for entire set of event flags, (P) System assigning to template device, (P) Device Services Ref, SYS-668 Support (A), 11–12 waiting for event flag to be set, (P) System deassigning, (P) Device Support (A), 11-7, Services Ref. SYS-663 11-8, 18-13; (P) Device Support (B), 4-4 waiting for one of set of event flags, (P) System reference count, (P) Device Support (B), 1-77, Services Ref, SYS-670 1 - 78waking, (P) System Services Ref, SYS-665 validating, (P) Device Support (A), 2-3, 4-5; working set (P) Device Support (B), 3–103 displaying quota and limit, (U) DCL Process I/O segment, (P) File Applications, 1–16 Dictionary, DCL2-335 Process identification Process activity statistics, (M) Monitor, MON-71 See PID Process characteristics Process identification number lexical functions used to save and restore, (U)See PID number

Process

Using VMS, 6-34

Process index, (P) System Dump Analyzer, Process logical name table, (P) System Services SDA-126 Intro, 6-4 Process index number, (P) System Services Ref, canceling entries, (U) DCL Dictionary, SYS-298 DCL1-106 default contents, (U) Using VMS, 4-6; (U) Process information services, (P) System Services DCL Concepts, 4-5 Intro, 1-2Processing definition, (U) Using VMS, 4-5; (U) DCL deferred-write option, (P) File Applications, Concepts, 4-5 3-15, 3-27including logical name, (U) DCL Dictionary, distribution of, (M) System Management Intro, DCL1-41, DCL1-116 6-15logical name for, (U) Using VMS, 4-5; (U) options for improving file performance, (P) File DCL Concepts, 4–5 Applications, 3–7 Process management, (P) Programming read-ahead option, (P) File Applications, 3–11, Resources, 2-8 3-12Process name, (P) System Dump Analyzer, write-behind option, (P) File Applications, SDA-126 3-11, 3-12length of for remote processes, (P) System Processing commands Services Intro, 9-2 SET VERIFY, (U) EDT Ref, EDT-202 specifying for local processes, (P) System SHOW SUMMARY, (U) EDT Ref, EDT-229 Services Intro, 9–2 SHOW VERIFY, (U) EDT Ref, EDT-235 specifying for remote processes, (P) System Processing files, (U) DSR Ref, 6-6 Services Intro, 9-2 creating binary files, (U) DSR Ref, 4-14 specifying processes by, (P) System Services Ref. SYS-466 debugging, (U) DSR Ref, 4-8, 4-23 error messages, (U) DSR Ref, 4-16 specifying processes with node name, (P) merging, (U) DSR Ref, 2-103 System Services Ref, SYS-465 using to obtain information about remote preserving format items, (U) DSR Ref, 2-106 report, (U) DSR Ref, 5-4 processes, (P) System Services Intro, 9-1, resuming, (U) DSR Ref. 4-19 9-2, 9-10example, (P) System Services Intro, 9-4 specifying output file, (U) DSR Ref, 4-17 specifying pages for output, (U) DSR Ref, 4-18 Processor termination message, (U) DSR Ref, 4-15 causing thread to release control of, (P) Processing job state, (M) Maintaining VMS, 5-78 DECthreads, cma-118, pthread-106 Processing options synchronization, (P) Programming Resources, CDA Viewer 4-18orientation radio box, V5.5 New Features, Processor context changing, (P) System Dump Analyzer, SDA-68, Scale Factor, V5.5 New Features, B-47 SDA-74, SDA-89, SDA-93, SDA-126 Processor modes statistics, (M) Monitor, MON-61 Use Bitmap Widths toggle button, V5.5 /PROCESSOR qualifier, (M) Mount, MOUNT-32 New Features, B-47 Use Comments toggle button, V5.5 New Processor register symbol, (P) Delta/XDelta, Features, B-47 DELTA-9 Processor-specific loadable code Use Fake Trays toggle button, V5.5 New Features, B-48 base address, (P) System Dump Analyzer, Watch Progress toggle button, V5.5 New SDA-14Features, B-48 Processor state in PostScript back-end converter, (U) DCL See Multiprocessor state Dictionary, DCL1-68 Processor status longword in text back-end converter, (U) DCL Dictionary, See PSL DCL1-67 Processor status longword symbol, (P) Processing text Delta/XDelta, DELTA-9, DELTA-13 RNO file, (U) DSR Ref, 5-2 See also PSL Processing time, (M) Accounting, ACC-4 Processor status word Process logical name See PSW function in a job tree, (U) Using VMS, 4-5; Processor subtype, (P) Device Support (B), 2-9 (U) DCL Concepts, 4-5 Processor type, (P) Device Support (B), 2-9

Processor type (cont'd) Process search (cont'd) displaying, (P) System Dump Analyzer, using \$PROCESS\_SCAN item list to specify selection criteria, (P) System Services SDA-90 Process-permanent files, (P) File Applications, 1-16, 6-20using \$PROCESS\_SCAN item list to specify access to, (P) File Applications, 6-20 selection criteria about processes, (P) changing the default value of, (U) Command System Services Intro, 9-7, 9-10 Procedures, 2-7 using item list with remote procedures, (P) default logical names, (U) DCL Concepts, 4-23 System Services Intro, 9–13 definition, (U) Command Procedures, 2-5 using item-specific flags to control selection implications for indirect access, (P) File information, (P) System Services Intro, 9-6 using wildcard on local system, (P) System Applications, 6-21 SYS\$COMMAND, (U) Command Procedures, Services Intro, 9-4 Process section table SYS\$ERROR, (U) Command Procedures, 2-6 See PST SYS\$INPUT, (U) Command Procedures, 2-6 Process states statistics, (M) Monitor, MON-82 SYS\$OUTPUT, (U) Command Procedures, 2-6 Process termination VMS RMS asynchronous support, V5.5 Release accounting, (M) Maintaining VMS, 6-2 Notes, 4-14; V5.5 New Features, B-110 Process types, (M) Accounting, ACC-22 Process-permanent I/O structures, (P) System /PROCESS\_GROUP qualifier, (P) Debugger, Dump Analyzer, SDA-77 10-12, CD-52 Process-permanent logical names process\_id data type, (P) Routines Intro, A-11t list of, (U) Using VMS, 4-17 PROCESS\_MANAGEMENT.EXE Process priority, (M) Setting Up VMS, 5-7 global symbols, (P) System Dump Analyzer, Process privilege, (M) Setting Up VMS, 5-8 and file access, (U) Using VMS, 2-1 %PROCESS\_NAME, (P) Debugger, 10-11 and process context, (U) Using VMS, 3-3 process\_name data type, (P) Routines Intro, A-11t /PROCESS qualifier, (U) Sort/Merge, SORT-29, %PROCESS\_NUMBER, (P) Debugger, 10–11 SORT-70; (M) Accounting, ACC-22; (P) %PROCESS\_PID, (P) Debugger, 10-11 Debugger, 10-5, 10-14, CD-68, CD-72; (P) PROCESS\_SCAN, V5.5 Release Notes, 3-28 System Dump Analyzer, SDA-163 \$PROCESS\_SCAN, (P) System Services Ref, Process quota SYS-460 adjusting, (P) Device Support (A), 4-20 controlling selection information for \$GETJPI, buffered I/O, (P) Device Support (A), 2-3, 2-7, (P) System Services Ref, SYS-462 item descriptor byte count, (P) Device Support (A), 7-8 buffer length, (P) System Services Ref, charging, (P) Device Support (A), 4-9, 4-12; SYS-460 (P) Device Support (B), 1-41, 4-17 format, (P) System Services Ref, SYS-460 direct I/O, (P) Device Support (A), 4-9 using item-specific flags, (P) System Services symbolic names for (PQL\$\_xxxx), (P) System Ref, SYS-462 Services Ref, SYS-103 /PROCESS\_SECTION\_TABLE qualifier, (P) Process rights identifier System Dump Analyzer, SDA-127 and process context, (U) Using VMS, 3-3 PROCSECTCNT parameter, (M) System Process rights list, (M) Security, 4-20; (P) Generation, A-26 Programming Resources, 6-1; (P) System PRO/DECnet software, (M) DECnet-VAX Guide, Services Intro, 3–2 1-6Process search, (P) System Services Ref, SYS-460 Producer obtaining information about one process, (P) difference between PAK issuer and, License System Services Intro, 9–2 Management, LMF-15 obtaining information about the calling process, Product (P) System Services Intro, 9-2 installing, License Management, LMF-6, searching on all nodes, (P) System Services LMF-20Intro, 9-11 matching release and license, License searching on specific nodes, (P) System Services Management, LMF-6 Intro, 9-11, 9-12 of a vector, (P) RTL Math, MTH-165 using \$PROCESS\_SCAN item list to specify **Product Authorization Amendment** 

See PAAM

example, (P) System Services Intro. 9-9

Program (cont'd) Productivity of personnel, Dependability syntax, (P) VAXTPU, 4-3 Handbook, 4-17 example, (P) VAXTPU, 4-4 feasibility constraints, Dependability using logical names in, (U) VMS Intro, 4-14 Handbook, 4-18 using wildcard characters, (P) RMS, 4-12 implementation tradeoffs, Dependability writing, (P) VAXTPU, 4-1 to 4-14 Handbook, 4-18 learning curve considerations, Dependability Program counter Handbook, 4-19 See PC timing considerations, Dependability Program counter mode, (P) MACRO, 5-12 Handbook, 4-18 summary, (P) MACRO, 8-29 Professional 300-series system PROGRAM data type, (P) VAXTPU, 2-21 in network operations, (M) DECnet-VAX Guide, Program decomposition, (P) Programming Resources, 4-18 Profile, (U) Mail, MAIL-72; (M) SYSMAN, Program execution SM-54, SM-68 See also Synchronization adjusting, (M) SYSMAN, SM-5, SM-70 built-in procedures changing default directory, (M) SYSMAN, COMPILE, (P) VAXTPU, 7-47 SM-6SAVE, (P) VAXTPU, 7-316 current privileges, (M) SYSMAN, SM-5 continuing, (P) Delta/XDelta, DELTA-33 displaying, (M) SYSMAN, SM-74 proceeding from breakpoint, (P) Delta/XDelta, Program, (U) VMS Intro, 2-1; (U) Using VMS, DELTA-32 specifying a time, (P) Programming Resources, add to section file, (P) VAXTPU, 4-25 4-8, 4-9 as batch job, (U) Using VMS, 3-8 step execution, (P) Delta/XDelta, DELTA-34 assembling, (U) VMS Intro, 4-1 step over subroutine execution, (P) calling VAXTPU from, (P) VAXTPU, 4-1, 7-41 Delta/XDelta, DELTA-35 command image, (U) Using VMS, 3-4 timed intervals, (P) Programming Resources, compiling, (U) VMS Intro, 4-1; (P) VAXTPU, 4 - 104-18 to 4-19 Program execution mode complex, (P) VAXTPU, 4-2 using to call services, (P) RMS, 2-7 continuing execution of, (U) DCL Dictionary, Program execution time DCL1-63 delaying, (P) MACRO, 9-78 creating, (U) VMS Intro, 4-1; (P) Message, Program interface, (P) RMS, 2-1 MSG-4 to VMS RMS, (P) RMS, 2-1 debugging, (U) VMS Intro, 4-10, 4-14; (P) PROGRAM keyword, (P) VAXTPU, 7-362 VAXTPU, 4-33 to 4-37 with LOOK\_UP\_KEY, (P) VAXTPU, 7-254 definition, (U) Using VMS, 3-3 Program load request, (M) Networking, 4-2 deleting, (P) VAXTPU, 7-108 over Ethernet, (M) Networking, 4-3 developing, (U) VMS Intro, 4-3 Programmed I/O developing a BASIC, (U) VMS Intro, 4-5 See PIO developing a FORTRAN, (U) VMS Intro, 4-6 See PIO transfer developing a MACRO, (U) VMS Intro, 4-10 Programming display kind, (P) Debugger, 7-18, C-1 custom applications, Dependability Handbook, executing, (U) VMS Intro, 4-3; (U) Using 3 - 10VMS, 3-3; (P) Message, MSG-4; (P) Digital methodology VAXTPU, 4-19 to 4-21 services from Digital, Dependability across network, (U) Using VMS, 3-4 Handbook, 10-6 interrupting, (P) VAXTPU, 4-20 NCR 53C94 controller, V5.5 New Features, marking beginning of input stream, (U) DCL Dictionary, DCL1-111 prototyping applications, Dependability marking end of input stream, (U) DCL Handbook, 8-23 to 8-24 Dictionary, DCL1-206 technologies noncommand image, (U) Using VMS, 3-4 DECdecision, Dependability Handbook, order, (P) VAXTPU, 4-3 resuming execution of, (U) DCL Dictionary, VAX ACMS, Dependability Handbook, DCL1-63 running, (U) VMS Intro, 4-9, 4-13 VAX LISP, Dependability Handbook, 3-12 simple, (P) VAXTPU, 4-2

Programming technologies (cont'd)	Prolog, (P) File Applications, 3–12, 3–15, 3–16, 3–19
VAX OPS5, Dependability Handbook, 3–12 VAX RALLY, Dependability Handbook,	Prolog 1, (P) File Applications, 3–16
3–11	Prolog 2, (P) File Applications, 3–16 Prolog 3, (P) File Applications, 3–16, 10–30
testing applications, Dependability Handbook, 8-25 to 8-27	Prolog 3 file, (P) Convert, CONV-1; (P) File Def
VMEbus device driver, V5.5 New Features, A-9	Language, FDL-27 compression, (P) File Def Language, FDL-27,
writing predictable code, Dependability Handbook, 8-19 to 8-23	FDL-28
Programming examples	creating with CONV routines, (P) Utility
interpreting, (P) System Services Intro, 2–17	Routines, CONV-15
Programming language	key segment length, (P) File Def Language, FDL-30
accessing remote files, (M) DECnet-VAX Guide,	key segment position, (P) File Def Language,
2–12	FDL-30
in network application, (M) Networking, 1–22	Prolog 3 indexed files
selecting for network operation, (M)	reclaiming, (P) Utility Routines, CONV-18
$Networking,1 ext{}23$	with Convert/Reclaim Utility, (P) Utility
using control blocks with, (P) RMS, 2-1	Routines, CONV-1
Programming rules, (P) RMS, 3-6	PROLOG attribute, (P) Convert, CONV-19; (P)
/PROGRAM qualifier, (P) Debugger, 7-19, CD-118	File Def Language, FDL-27, FDL-28, FDL-29
Program region, (P) System Services Intro, 12-2,	Prolog field
12–3	See XAB\$B_PROLOG field
adding page to, (P) System Services Ref, SYS-218	Prolog files
base register, (P) System Dump Analyzer,	with CONV routines, (P) Utility Routines, CONV-15
SDA-14 deleting page from, (P) System Services Ref,	Prolog level, (P) RMS, RMS-18
SYS-147; Obsolete Features, 2-6	/PROLOG qualifier, (P) Convert, CONV-19
examining, (P) System Dump Analyzer, SDA-52	PROLOG structure, (P) File Applications, 10–16, 10–19
length register, (P) System Dump Analyzer,	Prolog version number field
SDA-14	See XAB\$W_PVN field
Program region page table	Prompt, (U) VMS Intro, 1-3
displaying, (P) System Dump Analyzer,	COMMAND box, DECwindows, (P) Debugger,
SDA-127	1–27
Program section	debugger (DBG>), (P) Debugger, 2-6, 10-2,
See also PSECT	CD-161
absolute, (P) MACRO, 6–80	with DECwindows, (P) Debugger, 1–27, 1–33
alignment, (P) MACRO, 6–80	display (PROMPT), (P) Debugger, 7–7, C–4
attributes, (P) MACRO, 6-77, 6-80	displaying in command procedure, (U) DCL
defining, (P) MACRO, 6–77	Dictionary, DCL1-262
directive	ECO level, (P) Patch, PAT-45, PAT-47
(.PSECT), (P) MACRO, 6-77	ending repetitive, (P) Patch, PAT-65
(.RESTORE_PSECT), (P) MACRO, 6–86	in a command line, (U) Using VMS, 1-11; (U)
(.SAVE_PSECT), (P) MACRO, 6–87 name, (P) MACRO, 6–77, 6–80	DCL Concepts, 1–4
restoring context of, (P) MACRO, 6-86	multiprocess program, (P) Debugger, 10-2
saving context of, (P) MACRO, 6-87	Prompt buffer address field
saving local label, (P) MACRO, 6–87	See RAB\$L_PBF field
unnamed, (P) MACRO, 6-80	Prompt buffer size field
PROHIBIT attribute, (P) File Def Language,	See RAB\$B_PSZ field
FDL-37	PROMPT clause
PROHIBIT secondary attribute, (P) File	for PARAMETER clause, (P) Command Def,
Applications, 7–4	CDU-23, CDU-32
Project account, (M) Security, 5-13	Prompt for input
	with LIB\$GET_INPUT, (P) Programming
	Resources, 7-4

PROMPTING qualifier, (P) File Def Language, FDL-42, FDL-55 Prompting sequence examples, (M) Network Control Program, NCP-6 exiting, (M) Network Control Program, NCP-5 Prompt option See RAB\$V PMT option /PROMPT qualifier, (P) Debugger, 7-20, CD-118 Prompt string setting with CLI\$DCL\_PARSE, (P) Utility Routines, CLI-8 Prompt syntax, (M) Network Control Program, NCP-4 Prompt type specifier with SET PROMPT, (U) EDT Ref, EDT-186 with SHOW PROMPT, (U) EDT Ref, EDT-223 PROMPT AREA video attributes, (P) VAXTPU, 7-446 PROMPT\_AREA keyword, (P) VAXTPU, 7-446 "Prompt length" string constant parameter to GET\_INFO, (P) VAXTPU, 7-200 "Prompt\_row" string constant parameter to GET\_INFO, (P) VAXTPU, 7-201 Propagation protection, (M) Security, 4-33, 4-35 example, (M) Security, 8-21 in directories, (M) Security, 4-21 Properties of condition handler, (P) Routines Intro, 2–49 Protected image, (M) Install, INS-2, INS-4 /PROTECTED qualifier, (M) Install, INS-11 Protected shareable image, (P) System Services Intro, A-1 Protecting against environmental factors, Dependability Handbook, 1-6 Protecting files, (U) Mail, MAIL-12 Protection, (U) Using VMS, 7-1; (M) Security, See also ACL-based protection See also Mailbox See also Object protection See also Password protection See also UIC-based protection access category, (M) Security, 4-4; (P) File Applications, 4-21 summary of, (U) Files and Devices, 2-1 ACL-based, (U) Using VMS, 7-6; (U) Files and Devices, 2-3; (M) Setting Up VMS, 4-9, 4-19; (P) File Applications, 1-10, 4 - 21and MOUNT command, (M) Mount,

by access mode, (P) System Services Intro, 2-2 bypassing checks, (M) Security, 4-6 categories of, (U) Files and Devices, 2-1 changing, (U) Files and Devices, 2-6; (M) Security, 4-13, 4-34 cluster, (P) Linker, 1-8, 3-10, LINK-14 debugging with two terminals, (P) Debugger, 9-6default, (U) Using VMS, 7-5, 7-10; (U) Files and Devices, 2-8; (M) Security, 4-33, 4-34, changing, (U) Files and Devices, 2-10 for foreign volumes, (M) Mount, MOUNT-21 management, (M) Security, 5-8, 5-11 role of MFD for directories, (M) Security, 4 - 13default at disk initialization, (U) DCL Dictionary, DCL1-244 defining at directory creation, (U) DCL Dictionary, DCL1-90defining at file creation, (U) DCL Dictionary, DCL1-85 device, (U) Using VMS, 7-12; (U) Files and Devices, 2-13; (P) System Services Intro, directory, (U) Using VMS, 7-11; (U) Files and Devices, 2-12 directory entry, (P) I/O User's I, 1-9 disk and tape volumes, (P) File Applications, 1 - 10disk volume, (U) Using VMS, 7-11; (U) Files and Devices, 2-6; (U) DCL Dictionary, DCL1-247 display, (U) Files and Devices, 2-13 displaying default, (U) DCL Dictionary, DCL2-308 displaying file, (U) Using VMS, 7-12 effect of privileges, (U) DCL Concepts, 8-6 establishing default, (U) DCL Dictionary, DCL2-199 file, (U) Using VMS, 7-5, 7-9; (U) Files and Devices, 2-1, 2-8 default, (U) Files and Devices, 2-10 directory, (U) Files and Devices, 2-8, 2-11 disk, (U) Files and Devices, 2-8, 2-9 magnetic tape, (U) Files and Devices, 2-3, 2-8, 2-12for interchange environments, (U) Files and Devices, 2-7 format for object, (U) Using VMS, 7-4; (M) System Management Intro, 3-4 I/O operations, (P) System Services Intro, 7–2 image section, (P) Linker, 5-6 magnetic tape volumes, (U) DCL Dictionary, DCL1-247 mailbox, (P) System Services Intro, 7-4

Protection (cont'd)

MOUNT-33

5-21 to 5-23

applying to public disk volumes, (M)

applying to queues, (M) Maintaining VMS,

Maintaining VMS, 2-2

Protection (cont'd) Protection extended address block mail file, (U) Files and Devices, 2-13 See XABPRO block mask, (U) Files and Devices, 2-6 Protection mask, (U) Using VMS, 7-4; (M) modifying, (U) DCL Dictionary, DCL2-196 System Management Intro, 3-4; (P) System directory, (U) DCL Dictionary, DCL2-196 Services Intro, 7-4 file, (U) DCL Dictionary, DCL2-196 /PROTECTION qualifier, (M) Backup, BCK-77; modifying for device, (U) DCL Dictionary, (M) Mount, MOUNT-33 DCL2-200 PROTECTION secondary attribute, (P) File nonfile device, (U) Using VMS, 7-12; (U) Files Applications, 4-28 and Devices, 2-14 PROTECT qualifier, (P) Linker, LINK-14 of command procedures, (M) Security, 5-41 Protocol, (M) Networking, 1-4 of copied files, (U) Using VMS, 7-5 autodial, (M) DECnet-VAX Guide, 3-25 of directories, (M) Security, 4-9 communications, (M) DECnet-VAX Guide, 1-4 of magnetic tape volumes, (M) Security, 4-12 DDCMP, (M) DECnet-VAX Guide, 1-10 of mail file, (U) Using VMS, 7-11 DECnet data link, (M) DECnet-VAX Guide, 1-4 of remote files, (M) DECnet-VAX Guide, 2-3, DMC11/DMR11 driver, (P) I/O User's II, 1-1, 3 - 34of shareable images, (U) DCL Dictionary, DMP11/DMF32 driver, (P) I/O User's II, 2-1 DCL1-388 DNA, (M) DECnet-VAX Guide, 1-4 of terminal, (P) Debugger, 9-6 LAT, (M) DECnet-VAX Guide, 1–7 of volume, (M) Security, 4-2 Protocol bit mask page, (P) System Services Intro, 12-5 error definitions, (M) LATCP, LAT-52 propagation of, (M) Security, 4-33, 4-35 Protocol module queues, (P) System Services Ref, SYS-607 See X.25 setting for page, (P) System Services Ref, Protocol module counters, (M) Network Control SYS-529 Program, A-13 shareable image, (P) Linker, LINK-14 PROTOCOL parameter, (M) Networking, 3-53 specification of, (M) Security, 4-6 Prototyping system objects, (M) System Management Intro, applications, Dependability Handbook, 8-23 to UIC-based, (U) Using VMS, 7-2; (U) Files using DATATRIEVE, Dependability and Devices, 2-1; (M) System Management Handbook, 8-24 Intro, 3-2; (M) Setting Up VMS, 4-9; (M) using DBQ, Dependability Handbook, 8-24 Security, 4-2, 4-6; (P) File Applications, using DECforms, Dependability Handbook, 1-10, 4-218 - 23user data and devices, (U) Using VMS, 7-5 using DEC Visual User Interface Tool, volume, (U) Files and Devices, 2-1; (P) System Dependability Handbook, 8-23 Services Intro. 7-4 using RALLY, Dependability Handbook, ANSI-labeled, (U) Files and Devices, 2-4 8-24 disk, (U) Files and Devices, 2-5 using RDO, Dependability Handbook, 8-24 magnetic tape, (U) Files and Devices, 2-5, using SQL, Dependability Handbook, 8-24 2 - 6Providing multiple paths to Ethernet and FDDI, PROTECTION attribute, (P) File Def Language, Dependability Handbook, 7–5 FDL-23 Providing multiple WAN connections for VAXft Protection checking systems, Dependability Handbook, 7-19 influenced by ownership, (M) Security, 5-8 Proxy UIC-based, (M) Security, 4-4 access, (M) Networking, 2-44 Protection code, (M) Security, C-1; (P) File Def See also Proxy access Language, FDL-23 access display for executor, (M) Networking, assigning during file creation, (M) Security, 3 - 97access display for object, (M) Networking, 3-98 changing, (U) Files and Devices, 2-10 access file specification, (M) Networking, 3-97 definition, (U) DCL Concepts, 8-5 account, (M) Networking, 2-44 for magnetic tapes, (U) Files and Devices, 3-14 See also Proxy account for volumes, (U) Files and Devices, 3-14 adding accounts, (M) Setting Up VMS, 4-21 rules for entering, (U) DCL Concepts, 8-5 controlling system use, (M) Setting Up VMS, specifying, (U) Files and Devices, 2-9 4 - 22syntax, (U) DCL Concepts, 8-5

Proxy (cont'd)	PSECT (program section), (P) Modular
login, (M) Networking, 2-44	Procedures, 2–13, 3–5, A–3
See also Proxy login	absolute, (P) Linker, 1–12, 6–4
Proxy access, (M) Security, 8-17	alignment, (P) Linker, 1–12, 6–4
Proxy account, (M) Security, 3–18; (M)	in map, (P) Linker, 5-6
DECnet-VAX Guide, 2–3, 3–9, 3–34, 4–11	attributes, (P) Linker, 1–9, 3–11, 4–3, 6–3, 6–4,
and VAXclusters, (M) Security, 9–3	6-5, 6-6
as captive account, (M) Security, 8-14	base address of, in map, (P) Linker, 5-6
as restricted account, (M) Security, 5-51	Digital-written, (P) Modular Procedures, 3-5
changes, V5.5 Release Notes, 2-3	executable, (P) Linker, 6–5
deleting, (M) Authorize, AUTH-44	global, (P) Linker, 6-5, 6-12
example, (M) Security, 8-15, 8-21	in image section generation, (P) Linker, 6–3
for multiple users, (M) Security, 3–19	length of, in map, (P) Linker, 5-6
for single user, (M) Security, 3-19	LIB\$INITIALIZE, (P) Modular Procedures,
how to add, (M) Authorize, AUTH-18	3–17
modifying, (M) Authorize, AUTH-39	local, (P) Linker, 6-5, 6-12
recommended restrictions, (M) Security, 8-14	location controls, (P) Linker, 1–13
Proxy login, (M) Security, 3-3; (M) Authorize,	modification of attributes, (P) Linker, 1-12, 6-3
AUTH-18, AUTH-39	module contribution to, (P) Linker, 6-4
access control, (M) Networking, 1-26, 2-44	module contribution to, in map, (P) Linker, 5-6
access control commands, (M) Networking,	name, (P) Linker, 1-12, 6-4
3–96	name of, in map, (P) Linker, 5–6
account, (M) Networking, 2-44	nonexecutable, (P) Linker, 6-5
and circuit verification, (M) Security, 8-6	nonposition-independent, (P) Linker, 6-6
and the user, (M) Security, 3-18	nonshareable, (P) Linker, 6-6
controlling, (M) VAXcluster, 4-12; (M)	nonwritable, (P) Linker, 6-6
Networking, 2–45	ordering of, in image section, (P) Linker, 6-16
enabling access, (M) Networking, 2-45	position-independent, (P) Linker, 6-6
establishment and management, (M) Security,	relocatable, (P) Linker, 1–12, 6–4
8–13, 8–18	shareable, (P) Linker, 6-6
INCOMING PROXY parameter, (M)	significant attributes of, (P) Linker, 6-15, 6-16
Networking, 2–45	size, (P) Linker, 1–12, 6–4
key characteristic, (M) Security, 3-19	summary, (P) Linker, 1–12
NETPROXY.DAT, (M) Networking, 2-45	user-written, (P) Modular Procedures, 3-5
OUTGOING PROXY parameter, (M)	writable, (P) Linker, 6-6
Networking, 2–45	.PSECT directive, (P) MACRO, 6-77
PROXY parameter, (M) Networking, 2-46	Pseudoterminal
records, (M) VAXcluster, 4-12	canceling request, $(P) I/O User's I, 9-2$
Proxy login account	control connection routines, $(P) I/O User's I$ ,
definition, (U) Using VMS, 2-12	C-1
PROXY parameter	creating, $(P) I/O User's I, 9-1$
for SET OBJECT command, (M) Networking,	deleting, (P) I/O User's I, 9-2
2-46, 3-97	device characteristics, (P) I/O User's I, 9–3
Proxy parameters	driver, $(P) I/O User's I$ , 9–1
for NCP commands, (M) DECnet-VAX Guide,	event notification, (P) $I/O$ User's $I$ , 9–6
3–35	features, $(P) I/O User's I$ , 9–3
\$PRTCTEND macro, (P) Device Support (A),	flow control, (P) $I/O$ User's $I$ , 9–6
16–13, 16–14	I/O buffers, $(P) I/O User$ 's $I$ , 9–4
\$PRTCTINI macro, (P) Device Support (A), 16-13,	programming example, (P) $I/O$ User's $I$ , 9–8
16–14	reading data, (P) $I/O$ User's $I$ , 9–5
\$PRTDEF macro, (P) Routines Intro, A-10t	using write with echo, (P) $I/O$ User's $I$ , 9–5
PRTSMB symbiont, (M) Maintaining VMS, 5-4,	writing data, (P) $I/O$ User's $I$ , 9–5
5–87	PSIKDA (KMS/KMV Dump Analyzer), (M)
PSDN (packet switching data network), (M)	Networking, 7–14
Networking, 1-1, 1-3, 1-5, 1-13, 2-5	%PSL, (P) Debugger, 4–22, D–3
identification, (M) Networking, 3-86	
installation, (M) Networking, 6–2	

```
PSL (processor status longword), (P) Debugger,
                                                    PTD$READ control connection routine, (P) I/O
    4-22; (P) System Dump Analyzer, SDA-14;
                                                        User's I, C-7
    (P) MACRO, 8-14
                                                    PTD$SET_EVENT_NOTIFICATION control
  evaluating, (P) System Dump Analyzer,
                                                        connection routine, (P) I/O User's I, C-9
      SDA-22, SDA-48
                                                    PTD$WRITE control connection routine, (P) I/O
  examining, (P) System Dump Analyzer,
                                                        User's I, C-12
      SDA-52
                                                    /PTE qualifier, (P) System Dump Analyzer,
  examining with XDELTA, (P) Device Support
                                                        SDA-48, SDA-52
                                                    pthread.h, (P) DECthreads, B-2
      (A), 13–10
  symbol, (P) System Dump Analyzer, SDA-14
                                                    pthread_exc.h, (P) DECthreads, B-2
  Z condition code, (P) Device Support (B), 3-27
                                                    pthread_once_t data structure, (P) DECthreads,
/PSL qualifier, (P) Debugger, CD-84; (P) System
                                                        pthread-88
    Dump Analyzer, SDA-52
                                                    Publications
PSM$PRINT routine, (P) Utility Routines,
                                                       about system dependability
    PSM-23
                                                          See Bibliography
PSM$READ_ITEM_DX routine, (P) Utility
                                                    Public databases
   Routines, PSM-25
                                                       accessing, (M) DECnet-VAX Guide, 2-5
PSM$REPLACE routine, (P) Utility Routines,
                                                    Public directories
   PSM-27
                                                       accessing, (M) DECnet-VAX Guide, 2-5
PSM$REPORT routine, (P) Utility Routines,
                                                    Public files and volumes, (M) Maintaining VMS,
   PSM-32
PSM$_FUNNOTSUP, (P) Utility Routines,
                                                    Public volume, (M) System Management Intro,
   PSM-36
                                                        4-1
PSM routines
                                                       access to, (M) Maintaining VMS, 2-1
  examples, (P) Utility Routines, PSM-18 to
                                                       creating, (M) Maintaining VMS, 2-8
      PSM-22
                                                       creating Files-11 structure, (M) Maintaining
  introduction, (P) Utility Routines, PSM-1
                                                           VMS. 2-4
  user-written
                                                       initializing, (M) Maintaining VMS, 2-4
      USER-FORMAT-ROUTINE, (P) Utility
                                                          guidelines, (M) Maintaining VMS, 2-4
          Routines, PSM-35
                                                      load balancing, (M) Maintaining VMS, 2-2
      USER-INPUT-ROUTINE, (P) Utility
                                                       mounting, (M) Setting Up VMS, 2-8; (M)
          Routines, PSM-40
                                                          Maintaining VMS, 2-5
      USER-OUTPUT-ROUTINE, (P) Utility
                                                       on large configurations, (M) Maintaining VMS,
          Routines, PSM-46
                                                          2-2
PST (process section table)
                                                       on small configurations, (M) Maintaining VMS,
  displaying, (P) System Dump Analyzer,
      SDA-127
                                                       planning, (M) Maintaining VMS, 2-1
PSW (processor status word), (P) MACRO, 8-14
                                                       testing disk performance, (M) Maintaining
  condition codes, (P) MACRO, 8-14
                                                          VMS, 2-2
  decimal overflow enable (DV), (P) MACRO,
                                                      using volume sets, (M) Maintaining VMS, 2-2
                                                    Punctuation
  floating underflow enable (FU), (P) MACRO,
                                                      Indexing Utility, (U) DSR Ref, 6-1
                                                       period, (U) DSR Ref, 2-52, 3-15
  integer overflow enable (IV), (P) MACRO, 8-15
                                                          space after, (U) DSR Ref, 2-100
  trace trap enable (T), (P) MACRO, 8-15
                                                    PURDPR macro, (P) Device Support (A), 14–24;
PSWAPM privilege, (M) Setting Up VMS, 5-16;
                                                        (P) Device Support (B), 2-51, 3-82
   (M) Security, A-7
                                                       detecting memory errors using, (P) Device
/PSW qualifier, (P) Debugger, CD-84
                                                          Support (A), 14-25
PSWRAP command, V5.5 New Features, B-41;
                                                    PURGE CIRCUIT command, (M) Network Control
   (U) DCL Dictionary, DCL2-23
                                                        Program, NCP-15
PTA option, (P) File Def Language, FDL-14
                                                    PURGE command, (U) VMS Intro, 2-5; (U)
PTD$CANCEL control connection routine, (P)
                                                        Using VMS, 2-17; (U) Mail, MAIL-66; (U)
   I/O User's I, C-2
                                                        DCL Dictionary, DCL2-24 to DCL2-27; (M)
PTD$CREATE control connection routine, (P) I/O
                                                        Install, INS-23; (M) DECnet-VAX Guide,
    User's I, C-3
PTD$DELETE control connection routine, (P) I/O
                                                       to delete configuration database entries, (M)
   User's I, C-6
```

DECnet-VAX Guide, 3-33

PURGE command (cont'd) using over the network, (M) DECnet-VAX Guide, 2-7 PURGE/ERASE command, (M) Security, 4-40 PURGE EXECUTOR command, (M) Networking, 3-19; (M) Network Control Program, NCP-18 PURGE LINE command. (M) Network Control Program, NCP-23 PURGE LOGGING command, (M) DECnet-VAX Guide, 4-6; (M) Network Control Program, NCP-26 PURGE LOGGING EVENTS command, (M) Network Control Program, NCP-28 PURGE LOGGING NAME command, (M) Network Control Program, NCP-30 PURGE MODULE CONFIGURATOR command. (M) Network Control Program, NCP-72 PURGE MODULE X25-ACCESS command, (M) Network Control Program, NCP-31 PURGE MODULE X25-PROTOCOL command, (M) Network Control Program, NCP-33 PURGE MODULE X25-SERVER command, (M) Network Control Program, NCP-36 PURGE MODULE X29-SERVER command, (M) Network Control Program, NCP-36 PURGE NODE CIRCUIT command, (M) Network Control Program, NCP-43 PURGE NODE command, (M) DECnet-VAX Guide, 3-33; (M) Network Control Program, NCP-39 PURGE OBJECT command, (M) Network Control Program, NCP-44 /PURGE qualifier, (M) Install, INS-11 Purge type-ahead option See RAB\$V\_PTA option Purging See also Deleting files, (U) DCL Dictionary, DCL2-24 Purging the accounting log file, (M) Maintaining VMS, 6-3Purging the operator log file, (M) Maintaining VMS, 6-12\$PURGWS, (P) System Services Ref, SYS-473 See also \$ADJWSL PUSHAB (Push Address Byte) instruction, (P) MACRO, 9-35PUSHAD (Push Address D\_floating) instruction, (P) MACRO, 9-35 PUSHAF (Push Address F\_floating) instruction, (P) MACRO, 9-35

PUSHAG (Push Address G\_floating) instruction,

PUSHAH (Push Address H\_floating) instruction,

PUSHAL (Push Address Long) instruction, (P)

(P) MACRO, 9-35

(P) MACRO, 9-35

MACRO, 9-35

PUSHAQ (Push Address Quad) instruction, (P) MACRO, 9-35 PUSHAW (Push Address Word) instruction, (P) MACRO, 9-35 PUSHL (Push Long) instruction, (P) MACRO, 9 - 27/PUSH qualifier, (P) Debugger, CD-69 PUSHR (Push Registers) instruction, (P) MACRO, 9-80 PUT attribute, (P) File Def Language, FDL-3, FDL-37 \$PUT macro program example, (P) RMS, 4-16 \$PUTMSG, (P) Message, MSG-2 PUT option, (P) File Def Language, FDL-3, FDL-37 PUT secondary attribute, (P) File Applications, 7-3, 7-4 Put service, (P) File Applications, 8-1, 8-3 to 8-4; (P) RMS, RMS-70 and next record, (P) File Applications, 8-16 condition values, (P) RMS, RMS-74 See also Completion status code control block input fields, (P) RMS, RMS-73 control block output fields, (P) RMS, RMS-74 effect on next-record position, (P) File Applications, 8-16 high-level language equivalents, (P) File Applications, 8-1 inserting records by sort order, (P) RMS, RMS-72inserting records into indexed files, (P) RMS, RMS-71 inserting records into relative files, (P) RMS, RMS-71 inserting records into sequential files, (P) RMS, RMS-71 inserting records with duplicate keys, (P) RMS, RMS-72record-locking caution, (P) RMS, RMS-72 record-processing options, (P) RMS, 7-16 requirements for using, (P) RMS, RMS-72 run-time options, (P) File Applications, 9-17 to 9 - 19update-if logic, (P) RMS, RMS-72 using RAB\$V\_TPT option, (P) RMS, RMS-71 using RAB\$V\_UIF option, (P) RMS, RMS-71 using with mailboxes, (P) RMS, RMS-71 using with stream format files, (P) RMS, RMS-71Put service option See FAB\$V\_PUT option Put sharing option See FAB\$V\_PUT option Putting constraints into perspective, Dependability Handbook, 4–3

PVC (permanent virtual circuit), (M) Networking, QNA 1--13, 2-7, 2-12 Ethernet line device, (M) DECnet-VAX Guide, 3-33; (M) Networking, 2-20 parameters, (M) Networking, 3-47 /PWDLIFETIME qualifier, (M) Security, 5-17 Q symbol, (P) Delta/XDelta, DELTA-9 /PWDMINIMUM qualifier, (M) Security, 5-19 .QUAD directive, (P) MACRO, 6-82 /QUAD qualifier ALIGN command, (P) Patch, PAT-38 Q Quadword, (P) MACRO, 8-2 Q22-bus, (P) Device Support (A), 1–16; (P) Device /QUADWORD qualifier, (P) Debugger, 11-6, 11-7, Support (B), 2–3 CD-60, CD-84 accomplishing a DMA transfer on, (P) Device Quadword storage directive (.QUAD), (P) Support (A), 14-15 to 14-16, 14-19 to MACRO, 6-82 quadword\_signed data type, (P) Routines Intro, address size, (P) Device Support (A), 14-6 A-11t device interrupt dispatching, (P) Device quadword\_unsigned data type, (P) Routines Intro, Support (A), 14-33 to 14-36; (P) Device A-11t Support (B), 1–22 Qualifier, (U) EVE Ref, 1-7; (M) Error Log, example of driver designed for, (P) Device ERR-4 to ERR-24; (P) Librarian, LIB-13 to Support (A), C-1 to C-29, D-1 to D-26 LIB-45; (P) Message, MSG-9; (P) SUMSLP, I/O address space, (P) Device Support (A), SUM-15 to SUM-20; (P) Convert, CONV-5 to 19-1, 19-4, 19-7 CONV-28 I/O space, (P) Device Support (A), 14-4 See also DCL qualifiers power failure, (P) Device Support (A), 19-7 See also Mount Utility rules for configuring, (P) Device Support (A), abbreviating, (U) Using VMS, 1-12; (U) DCL 1-16, 14-34 to 14-35 Concepts, 1-12 scatter-gather map, (P) Device Support (A), /BRIEF 14-4 to 14-7 with SUBSTITUTE, (U) EDT Ref. Q22-bus interface EDT-243 functions, (P) Device Support (A), 14-1 to with TYPE, (U) EDT Ref, EDT-251 command, (U) Using VMS, 1-12 obtaining resources of, (P) Device Support (A), commonly used, (U) DCL Concepts, 1-12 to 14 - 16DCL syntax line, (U) DCL Concepts, 1-3 DEQTA Ethernet/802 controller support for, default values, (U) Using VMS, 1-13 V5.5 Release Notes, 2-26 definition, (U) VMS Intro, 1-4; (U) Using QBUS network adapter VMS, 1–9; (U) DCL Concepts, 1–3 /DUPLICATE, (U) EDT Ref, EDT-137 See DEQNA with COPY, (U) EDT Ref, EDT-125 QBUS\_MULT\_INTR parameter, (P) Device for DCL command, (P) Patch, PAT-26 Support (A), 14-34 QDSKINTERVAL parameter, (M) VAXcluster, format, (U) Using VMS, 1-13 for SET COMMAND command, (P) Command A-2; (M) System Generation, A-26 Def, CDU-38 to CDU-44 QDSKVOTES parameter, (M) VAXcluster, 3-2, how to define, (P) Command Def, CDU-24, A-2; (M) System Generation, A-26 \$QIO call requirements CDU-33 setting multiscreen cursor pattern, V5.5 in DCL command line, (U) Using VMS, 1-8 input file-selection, (M) Backup, BCK-2 Release Notes, 3–12 QMAN\$MASTER.DAT, V5.5 New Features, 5-2; input save-set, (M) Backup, BCK-2 invalid, V5.5 Release Notes, 1-3 (M) VAXcluster, 4–12, 6–2 mode, PATCH command, (P) Patch, PAT-15 See also Master file /NOTYPE, (U) EDT Ref, EDT-153 changing location after upgrade, V5.5 New with SUBSTITUTE, (U) EDT Ref, Features, 5-4EDT-243 QMAN\$MASTER logical name, V5.5 New obsolete, V5.5 Release Notes, 2-11; V5.5 New Features, 5-4; (M) Maintaining VMS, 5-55. Features, 5–7 output file, (M) Backup, BCK-2 defining in a VAXcluster environment. V5.5 output save-set, (M) Backup, BCK-2 New Features, 5-4; (M) Maintaining VMS, parameter, (U) Using VMS, 1-13 5 - 65positional, (U) Using VMS, 1-13

Qualifier (cont'd)	Qualifier values (cont'd)
position-dependent, (M) Backup, BCK-2	types, (U) DCL Concepts, 1–9
/QUERY, $(U)$ EDT Ref, EDT-159	Quality metrics and mindsets, Dependability
with COPY, (U) EDT Ref, EDT-125	Handbook,3–13
with DELETE, (U) EDT Ref, EDT-135	Quantum
with MOVE, (U) EDT Ref, EDT-150	allocating to process by the system, (M)
with SUBSTITUTE, (U) EDT Ref,	Performance Management, 3-10
EDT-243	Quantum end event, (P) Device Support (A), 3-8
requiring special privileges, (M) Mount, MOUNT-4	QUANTUM parameter, (M) System Generation, A-26
rules for entering, (U) Using VMS, 1-12; (U)  DCL Concepts, 1-7	increasing, (M) Performance Management, 5–18
/SAVE, (U) EDT Ref, EDT-169	/QUERY qualifier, (U) EDT Ref, EDT-159
with EXIT, (U) EDT Ref, EDT-138	with COPY, (U) EDT Ref, EDT-125
with QUIT, (U) EDT Ref, EDT-161	with DELETE, (U) EDT Ref, EDT-135
SEQUENCE, (U) EDT Ref, EDT-170	with MOVE, (U) EDT Ref, EDT-150
with EXIT, (U) EDT Ref, EDT-138	with SUBSTITUTE, (U) EDT Ref, EDT-243
with RESEQUENCE, (U) EDT Ref,	Queue, (U) VMS Intro, 6-1; (M) System
EDT-167	Management Intro, 4-5; (P) RTL Library,
with WRITE, (U) EDT Ref, EDT-253	2–12, LIB–251; (P) MACRO, 9–82; (P)
/STAY, (U) EDT Ref, EDT-240	DECthreads, 2–16
with TYPE, (U) EDT Ref, EDT-251	See also Batch queue
to LINK command, (P) Linker, 1–2	_ <del>-</del>
types of, (U) Using VMS, 1-12, 1-13	See also Print queue
use of, (U) VMS Intro, 1-4	See also Work queue
values	absolute, (P) MACRO, 9–82
date and time formats, (U) Using VMS,	activating an autostart, (M) Maintaining VMS,
1–14	5–56, 5–68
rules for entering, (U) Using VMS, 1-14	activating and starting an autostart, (M)
types of, (U) Using VMS, 1-14	Maintaining VMS, 5-5 allowing jobs to complete before shutdown, (M)
QUALIFIER clause	Maintaining VMS, 5-75
for DEFINE SYNTAX statement, (P)	assigning a default form, (M) Maintaining
$Command\ Def,\ \mathrm{CDU-24}$	VMS, 5–43
for DEFINE VERB statement, (P) Command	assigning device control libraries, $(M)$
Def, CDU–33	Maintaining VMS, 5-47
Qualifier format	assigning logical name to, (U) DCL Dictionary,
for position/negative qualifiers, (U) DCL	DCL1-47
Concepts, 1–7	assigning to devices, (U) DCL Dictionary,
for qualifiers that override other qualifiers, (U)	DCL1-47
DCL Concepts, 1–8	automatic failover, Dependability Handbook,
for qualifiers that require values, (U) DCL	9–24
Concepts, 1–8	autostart
Qualifier lines	recommended use, (M) Maintaining VMS,
help files, (P) Librarian, LIB-6	5-11, 5-13, 5-17
Qualifier summary, (M) Authorize, AUTH-3 Qualifier types	availability of, <i>V5.5 New Features</i> , 5–7, 5–8;
• • • • • • • • • • • • • • • • • • • •	(M) Maintaining VMS, 5-5, 5-56
modifying a command, (U) DCL Concepts, 1–7 modifying a parameter, (U) DCL Concepts, 1–7	batch, (U) VMS Intro, 6-3; (U) Using VMS,
positional, (U) DCL Concepts, 1–7	3–8
Qualifier values	See Batch queue
·	modifying characteristics of, (U) DCL
See also Output file specifications for qualifiers abbreviating, (U) DCL Concepts, 1–10, 1–12	Dictionary, DCL2-345
	batch and print, Dependability Handbook, 9-23
date and time formats, (U) DCL Concepts, 1–13 default values, (U) DCL Concepts, 1–7	batch execution
output file specifications, (U) DCL Concepts,	See Batch queue
1–10	batch job
rules for entering, (U) DCL Concepts, 1–9	displaying entries, (U) DCL Dictionary,
syntax. (U) DCL Concepts, 1–9	DCL2-275, DCL2-309

Queue Queue (cont'd) batch job (cont'd) device entering command procedure in, (U) DCL displaying entries, (U) DCL Dictionary, Dictionary, DCL2-376 DCL2-275, DCL2-309 starting, (U) DCL Dictionary, DCL2-345 displaying information about, (M) Maintaining VMS, 5-69 canceling characteristics assigned to a queue, (M) Maintaining entry insertion, (P) RTL Library, LIB-248 VMS, 5-26execution, V5.5 Release Notes, 2-9; (P) Utility changing DEFAULT form, (M) Maintaining Routines, PSM-4 VMS, 5-43See also Execution queue changing entry execution (type), (U) DCL Dictionary, for batch, (U) DCL Dictionary, DCL2-136; DCL1-251 Obsolete Features, 1–20 failover of, V5.5 New Features, 5-8; (M) for printer, (U) DCL Dictionary, Maintaining VMS, 5-56 DCL2-136; Obsolete Features, 1-20 generic, V5.5 Release Notes, 2-9; (U) changing options on, (M) Maintaining VMS, Using VMS, 2-18; (U) DCL Dictionary, DCL1-251; (M) System Management Intro, closing, (M) Maintaining VMS, 5-73 6-3, 6-15; (P) Utility Routines, PSM-4 command generic batch, (M) Maintaining VMS, 5-9 See Queue command See Generic queue command procedures, (M) VAXcluster, 4-11 generic output, (M) Maintaining VMS, 5-14 common command procedure, (M) VAXcluster, See Generic queue getting information about controlling, (M) System Management Intro, asynchronously, (P) System Services Ref, 6-15; (M) VAXcluster, 1-2, 6-2 SYS-323 controlling print, Obsolete Features, 2-26 synchronously, (P) System Services Ref, coordination, (M) System Management Intro, SYS-365 header, (P) MACRO, 9-82, 9-85 creating, (M) Maintaining VMS, 5-56, 5-68; holding and releasing jobs, (M) Maintaining (P) DECthreads, cmalib-11 VMS, 5-79 autostart execution, (M) Maintaining initializing, (U) DCL Dictionary, DCL1-249; VMS, 5-56 (M) Setting Up VMS, 2-9; (M) Maintaining generic, (M) Maintaining VMS, 5-57 VMS, 5-68nonautostart execution, (M) Maintaining inserting an element at the end of, (P) VMS, 5-57DECthreads, cmalib-17, cmalib-23, creating an attributes object for, (P) cmalib-27 DECthreads, cmalib-3 inserting an element at the front of. (P) creating and activating an autostart, (M) DECthreads, cmalib-19, cmalib-25 Maintaining VMS, 5-56 inserting entries, (P) MACRO, 9-82, 9-85 creating and managing job controller asynchronously, (P) System Services Ref, queue file, (M) System Management Intro, SYS-558 6 - 15synchronously, (P) System Services Ref, lock management, (P) System Services Intro. SYS-614 deassigning, (U) DCL Dictionary, DCL1-109 logical, (U) DCL Dictionary, DCL1-252 defining a characteristic, (M) Maintaining looking at jobs in, (U) VMS Intro, 6-2, 6-3 VMS, 5-26merging, (M) Maintaining VMS, 5-75 defining a form, (M) Maintaining VMS, 5-41 merging jobs, (U) DCL Dictionary, DCL1-46 deleting, (M) Maintaining VMS, 5-76; (P) modifying, (M) Maintaining VMS, 5-72 DECthreads, cmalib-13 monitoring, (M) Maintaining VMS, 5-69 deleting a job in, (M) Maintaining VMS, 5-82 mounted form, (M) Maintaining VMS, 5-41 deleting an attributes object for, (P) mounting a form on, (M) Maintaining VMS, DECthreads, cmalib-5 5 - 43deleting jobs on queues set /RETAIN, V5.5 moving jobs from one queue to another, (M) Release Notes, 1–2 Maintaining VMS, 5–76 deletion of print and batch files, V5.5 Release obtaining size of, (P) DECthreads, cmalib-7 Notes, 1-4output execution designating autostart, V5.5 New Features, 5-8

Queue Queue output execution (cont'd) stopping (cont'd) See Output execution queue abruptly, (M) Maintaining VMS, 5-73 pausing, (M) Maintaining VMS, 5-73 before shutdown, (M) Maintaining VMS, print, (U) VMS Intro, 6-1; (U) Using VMS, smoothly, (M) Maintaining VMS, 5-73 printer stopping all, (M) Maintaining VMS, 5-74 stopping jobs in, (U) VMS Intro, 6-2, 6-4 See Printer queue stopping on a node, V5.5 New Features, 5-7 print job accounting records, V5.5 Release symbiont, (U) DCL Dictionary, DCL1-251 Notes, 1-3 terminal, (U) Using VMS, 2-18 problems deleting, (M) Maintaining VMS, 5-91 types of, (U) DCL Dictionary, DCL1-251; protection, (M) Maintaining VMS, 5-21 to (M) Maintaining VMS, 5-3; (P) System 5-23; (P) System Services Ref, SYS-607 Services Ref, SYS-604 reinitializing an existing, (M) Maintaining types of output execution, (M) Maintaining VMS, 5-72VMS, 5-4removing an element from, (P) DECthreads, using characteristics, (M) Maintaining VMS, cmalib-15, cmalib-21 removing entries, (P) MACRO, 9-84, 9-87 removing jobs from, (U) VMS Intro, 6-2, 6-4; using F\$GETQUI, (M) Maintaining VMS, 5-72 using forms, (M) Maintaining VMS, 5-40 (U) DCL Dictionary, DCL1-46 validating, (P) System Dump Analyzer, requeuing an executing job, (M) Maintaining SDA-164 VMS, 5-80Queue access routine, (P) RTL Library, 2-13 requeuing a pending job, (M) Maintaining QUEUEAST spin lock, (P) Device Support (A), VMS, 5-81 3-13; (P) Device Support (B), 3-7 restarting batch, Dependability Handbook, Queue characteristics 9 - 24assigning to a queue, (M) Maintaining VMS, retrieving status of, V5.5 Release Notes, 3-44 self-relative, (P) RTL Library, 2–13; (P) canceling assigned, (M) Maintaining VMS, MACRO, 9-85 5 - 26server, (U) DCL Dictionary, DCL1-251 commands used with, (M) Maintaining VMS, setting default, (U) Mail, MAIL-97 setting size of, (P) DECthreads, cmalib-9 defining, (M) Maintaining VMS, 5-26, 5-55 setting up, (M) System Management Intro, deleting. (M) Maintaining VMS, 5-27 6-15; (M) VAXcluster, 4-11 description, (M) Maintaining VMS, 5-25 showing default, (U) Mail, MAIL-97 displaying, (M) Maintaining VMS, 5-26 single-computer and cluster, (M) VAXcluster, displaying assigned, (M) Maintaining VMS, 6-15 - 26single-node versus cluster, (M) System mismatch problems Management Intro, 6-15 troubleshooting, (M) Maintaining VMS, spooling output devices, (M) Maintaining VMS, 5-52problems deleting, (M) Maintaining VMS, 5-91 starting, (U) DCL Dictionary, DCL2-345; (M) sample use of, (M) Maintaining VMS, 5-25 Maintaining VMS, 5-56 Queue commands autostart, (M) Maintaining VMS, 5-68, ASSIGN/MERGE, (M) Maintaining VMS, 5-76 5 - 69DEFINE/CHARACTERISTIC, (M) Maintaining starting an autostart in startup command VMS, 5-26procedure, (M) Maintaining VMS, 5-61 DEFINE/FORM, (M) Maintaining VMS, 5-41 starting a nonautostart, (M) Maintaining VMS, for controlling line overflow, (M) 5-57, 5-68 Maintaining VMS, 5-45 starting a nonautostart in startup command DELETE/CHARACTERISTIC, (M) procedure, (M) Maintaining VMS, 5-61 Maintaining VMS, 5-27 starting autostart, V5.5 New Features, 5-9 DELETE/ENTRY, (M) Maintaining VMS, 5-90 startup command procedure DELETE/FORM, (M) Maintaining VMS, 5-44 sample, (M) Maintaining VMS, 5-61 DELETE/QUEUE, (M) Maintaining VMS, 5-76 stepping through, (P) System Dump Analyzer, DISABLE AUTOSTART/QUEUES SDA-64 entering before shutting down a system, stopping, (U) DCL Dictionary, DCL2-345; (M)

(M) Maintaining VMS, 5-75

Maintaining VMS, 5-73

Queue commands	Queue commands
DISABLE AUTOSTART/QUEUES (cont'd)	PRINT (cont'd)
relationship to STOP/QUEUES/ON_NODE, (M) Maintaining VMS, 5-75	preventing users from executing, (M)  Maintaining VMS, 5–73
ENABLE AUTOSTART/QUEUES, (M)	/PRIORITY qualifier, (M) Maintaining
Maintaining VMS, 5–58, 5–61, 5–68, 5–69	VMS, 5-6
in startup command procedure, (M)	RETAIN qualifier, (M) Maintaining VMS,
Maintaining VMS, 5-58	5-24, 5-81
INITIALIZE/QUEUE, (M) Maintaining VMS,	SETUP qualifier, (M) Maintaining VMS,
5–68	5–48
/BLOCK_LIMIT qualifier, (M) Maintaining VMS, 5–30	TRAILER qualifier, (M) Maintaining VMS, 5–32
/CHARACTERISTICS qualifier, (M)	sample setup, (M) Maintaining VMS, 5-58
Maintaining VMS, 5–26	SET ENTRY, (M) Maintaining VMS, 5–78
/DEFAULT qualifier	AFTER qualifier, (M) Maintaining VMS,
for banner pages, (M) Maintaining VMS, 5-32	5–80 /FORM qualifier, <i>(M) Maintaining VMS</i> ,
for controlling page overflow, $(M)$	5–89
Maintaining VMS, 5–45 for forms, (M) Maintaining VMS, 5–43	/HOLD qualifier, (M) Maintaining VMS, 5–79
/FORM_MOUNTED qualifier, (M) Maintaining VMS, 5–43	/PRIORITY qualifier, (M) Maintaining VMS, 5–80
/NOCHARACTERISTICS qualifier, (M) Maintaining VMS, 5-26	/RELEASE qualifier, (M) Maintaining VMS, 5-79
/NORETAIN qualifier, (M) Maintaining VMS, 5-25	/REQUEUE qualifier, (M) Maintaining VMS, 5–81, 5–90
/RETAIN qualifier, (M) Maintaining VMS, 5–24	/RETAIN qualifier, (M) Maintaining VMS,
5-24 /SCHEDULE qualifier, <i>(M) Maintaining</i>	5–81 SET QUEUE, (M) Maintaining VMS, 5–72
<i>VMS</i> , 5–30	BLOCK_LIMIT qualifier, (M) Maintaining
/SEPARATE qualifier	VMS, 5-30 /CHARACTERISTIC qualifier, (M)
for banner pages, (M) Maintaining VMS, 5–32	Maintaining VMS, 5–90
for reset modules, (M) Maintaining	/CHARACTERISTICS qualifier, $(M)$
VMS, 5-46	Maintaining VMS, 5-26
specifying queue options with, (M)	/DEFAULT qualifier
Maintaining VMS, 5–18	for banner pages, (M) Maintaining
/START qualifier	VMS, 5–32
for activating an autostart queue, (M)	for controlling page overflow, (M)
Maintaining VMS, 5–56, 5–68 for starting a nonautostart queue, $(M)$	Maintaining VMS, 5-45 for forms, (M) Maintaining VMS, 5-43
Maintaining VMS, 5–57	/FORM_MOUNTED qualifier, (M)
/WSEXTENT qualifier, (M) Maintaining	Maintaining VMS, 5-43
VMS, 5–30	/NOCHARACTERISTICS qualifier, (M)
PRINT	Maintaining VMS, 5–26
/BURST qualifier, (M) Maintaining VMS,	NORETAIN qualifier, (M) Maintaining
5–32	VMS, 5–25
/CHARACTERISTIC qualifier, (M)	/PROTECTION qualifier, (M) Maintaining
Maintaining VMS, 5–25 /FEED qualifier, (M) Maintaining VMS,	VMS, 5–23 /RETAIN qualifier, (M) Maintaining VMS,
5-45	5–24
/FLAG qualifier, (M) Maintaining VMS, 5–32	/SCHEDULE qualifier, (M) Maintaining VMS, 5–30
/FORM qualifier, (M) Maintaining VMS,	/SEPARATE qualifier
5–40	for banner pages, (M) Maintaining
for specifying setup and page setup	VMS, 5-32
modules, (M) Maintaining VMS, 5-48	for reset modules, (M) Maintaining $VMS$ , 5–46

Queue commands SET QUEUE (cont'd)	Queue commands START/QUEUE (cont'd)
specifying queue options with, (M)	/TOP_OF_FILE qualifier, (M) Maintaining
Maintaining VMS, 5–18 /WSEXTENT qualifier, (M) Maintaining	VMS, 5–84 using to resume printing of a suspended
VMS, 5–30	job, (M) Maintaining VMS, 5–83
SHOW ENTRY, (M) Maintaining VMS, 5–77	/WSEXTENT qualifier, (M) Maintaining
SHOW QUEUE, (M) Maintaining VMS, 5–69	VMS, 5–30
/CHARACTERISTIC qualifier, (M)	START/QUEUE/MANAGER, (M) Maintaining
Maintaining VMS, 5-26	VMS, 5–54, 5–62
/FORM qualifier, (M) Maintaining VMS,	STOP/QUEUE, (M) Maintaining VMS, 5-73,
5-42	5–83
for showing defined forms, (M)	STOP/QUEUE/MANAGER/CLUSTER, (M)
Maintaining VMS, 5–42	Maintaining VMS, 5–63
/FULL qualifier	STOP/QUEUE/NEXT, (M) Maintaining VMS,
for showing assigned form, (M)	5–68, 5–73
Maintaining VMS, 5–44	STOP/QUEUE/RESET, (M) Maintaining VMS,
for showing characteristics, (M)	5–68, 5–73
Maintaining VMS, $5-26$ for showing protection, $(M)$	STOP/QUEUES/ON_NODE, (M) Maintaining
Maintaining VMS, 5–22, 5–23	VMS, 5–74 entering before shutting down a system,
START/QUEUE, (M) Maintaining VMS, 5–68	(M) Maintaining VMS, 5–75
/BACKWARD qualifier, (M) Maintaining	relationship with DISABLE AUTOSTART
VMS, 5–83	QUEUES, (M) Maintaining VMS,
/BLOCK_LIMIT qualifier, (M) Maintaining	5–75
<i>VMS</i> , 5–30	SUBMIT
/CHARACTERISTICS qualifier, (M)	/CHARACTERISTIC qualifier, (M)
Maintaining VMS, 5-26	Maintaining VMS, 5–25
/DEFAULT qualifier	preventing users from executing, (M)
for banner pages, (M) Maintaining	Maintaining VMS, 5–73
VMS, 5–32	PRIORITY qualifier, (M) Maintaining
for controlling page overflow, $(M)$	VMS, 5–6
Maintaining VMS, 5-45	/RETAIN qualifier, (M) Maintaining VMS,
for forms, (M) Maintaining VMS, 5–43	5-24, 5-81
for activating an autostart queue, (M)  Maintaining VMS, 5–68	used for device control libraries, (M)  Maintaining VMS, 5–46
FORM_MOUNTED qualifier, (M)	used to manage queues, (M) Maintaining VMS,
Maintaining VMS, 5-43	5–67
FORWARD qualifier, (M) Maintaining	used to modify batch and print jobs, $(M)$
VMS, 5-84	Maintaining VMS, 5-78
/NOCHARACTERISTICS qualifier, (M)	used to specify queue options, (M) Maintaining
Maintaining VMS, 5–26	VMS, 5–18
/NORETAIN qualifier, (M) Maintaining	used with banner pages, (M) Maintaining
VMS, $5-25$	VMS, 5–32
/RETAIN qualifier, (M) Maintaining VMS,	used with characteristics, (M) Maintaining
5–24	VMS, 5–25
/SCHEDULE qualifier, (M) Maintaining VMS, 5–30	used with forms and stock, (M) Maintaining VMS, 5-40
/SEARCH qualifier, (M) Maintaining VMS,	Queue configuration
5–84	sample batch queuing system, (M) Maintaining
/SEPARATE qualifier	VMS, 5–7 to 5–11
for banner pages, (M) Maintaining VMS, 5–32	sample commands for setting up, $(M)$
for reset modules, (M) Maintaining	Maintaining VMS, $5-58$ sample output queuing system, $(M)$
VMS, 5–46	Maintaining VMS, 5-11 to 5-17
specifying queue options with, $(M)$	Queue database
Maintaining VMS, 5–18	See also Journal file
	See also Master file

Queue database (cont'd) Queue manager (cont'd) See also Queue file availability, V5.5 New Features, 5-1; (M) VAXcluster, 6-1; (M) Maintaining VMS, See also Queue files 5-55, 5-86 closing, (M) Maintaining VMS, 5-63 creating, (M) Maintaining VMS, 5-54 clusterwide, V5.5 New Features, 5-1; (M) creating a new version, V5.5 Release Notes, *VAXcluster*, 6–1; *Dependability Handbook*, 2-10creating a new queue database, V5.5 Release default location, (M) Maintaining VMS, 5-3 Notes, 2-10 description, (M) Maintaining VMS, 5-3 description, (M) Maintaining VMS, 5-1 determining location of master file, (M) dump file, (M) Maintaining VMS, 5-66 Maintaining VMS, 5-54 failover, V5.5 New Features, 5-1; (M) determining location of queue and journal file, VAXcluster, 6-1; (M) Maintaining VMS, (M) Maintaining VMS, 5-54 5-2, 5-3; Dependability Handbook, 9-23 function of, (M) Maintaining VMS, 5-3 forcing, (M) Maintaining VMS, 5-63 moving, (M) Maintaining VMS, 5-65 list, (M) Maintaining VMS, 5-55, 5-86 moving master file, (M) Maintaining VMS, failover of, V5.5 New Features, 5-1 5 - 65function, V5.5 New Features, 5-1; (M) moving queue and journal files, (M) VAXcluster, 6-1; (M) Maintaining VMS, Maintaining VMS, 5-66 new design, V5.5 New Features, 5-2 moving to another node in a VAXcluster, (M) restoring a damaged, (M) Maintaining VMS, Maintaining VMS, 5–63 5 - 64nodes eligible to run, (M) VAXcluster, 6-1, 6-2 saving, (M) Maintaining VMS, 5-64 restarting, (M) Maintaining VMS, 5-63, 5-65, Queue failover, V5.5 New Features, 5-7; (M) 5-66 Maintaining VMS, 5-5 restarting after moving queue files, V5.5 New Queue file, V5.5 New Features, 5-2; (M) Features, 5-4, 5-5 Maintaining VMS, 5-3 role in processing print jobs, (M) Maintaining See also Queue database VMS. 5-4See also Queue file role in queuing process, (M) Maintaining VMS, changing location, (M) Maintaining VMS, 5-66 changing location after upgrade, V5.5 New role in starting active autostart queues, (M) Features, 5-4 Maintaining VMS, 5-5 location, V5.5 New Features, 5-4; (M) separation from job controller, V5.5 New Maintaining VMS, 5-54, 5-66 Features, 5–1; (M) VAXcluster, 6–1 mounting of disk holding, V5.5 Release Notes, starting, V5.5 New Features, 5-1; (M) 2-10; V5.5 New Features, 5-4 VAXcluster, 6-1 moving after upgrade, V5.5 New Features, 5-4 starting initially, (M) Maintaining VMS, 5-54 new, V5.5 New Features, 5-2 starting new, V5.5 New Features, 5-5 obsolete, V5.5 New Features, 5-2 stopping, V5.5 New Features, 5-7; (M) saving, (M) Maintaining VMS, 5-64 Maintaining VMS, 5–63 where location is stored, (M) Maintaining stopping before moving queue files, V5.5 New. VMS, 5–3 Features, 5-4 Queue forms submitting a Software Performance Report See Forms (SPR), (M) Maintaining VMS, 5-66 Queue I/O Request system service, (P) File troubleshooting, (M) Maintaining VMS, 5-85 Applications, 7-4, 9-14 use of IPC (interprocess communication), (M) Queue I/O services Maintaining VMS, 5-1 \$QIO call, (U) Files and Devices, B-1 Queue name Queue information, obtaining, (P) Programming default for batch queue, (M) Maintaining VMS, Resources, 3-22 Queueing remote file default for print queue, (M) Maintaining VMS, for printing, (M) DECnet-VAX Guide, 2-6 5-12Queue instructions, (P) MACRO, 9-82 defining, (M) Maintaining VMS, 5-56 Queue manager Queue operations automatic restart, (M) Maintaining VMS, 5-2, in multiprocessing environment, (P) Device 5-3, 5-55 Support (A), E-13 to E-14 autostart, V5.5 New Features, 5-6

Queue options, (M) Maintaining VMS, 5-17 Quorum, (M) System Management Intro, 6–13; controlling job performance and resources, (M) (P) System Dump Analyzer, SDA-82 Maintaining VMS, 5-27 adjusting, (P) RTL Parallel Processing, 4-4 controlling page and line overflow, (M) adjusting EXPECTED\_VOTES, (M) Maintaining VMS, 5-44 VAXcluster, 7–22 qualifiers for specifying, (M) Maintaining VMS, equation, (M) System Management Intro, 6-13; 5-18 to 5-21 (M) VAXcluster, 3-1 restricting access, (M) Maintaining VMS, 5-21 EXPECTED VOTES parameter, (M) retaining jobs, (M) Maintaining VMS, 5-24 VAXcluster, 3-1, 7-22, 7-27 scheduling jobs based on size, (M) Maintaining loss causes cluster hang condition, (M)VMS, 5-30VAXcluster, C-7 using banner pages, (M) Maintaining VMS, lowering value, (M) VAXcluster, 7-27 reasons for loss, (M) VAXcluster, C-7 using characteristics, (M) Maintaining VMS, restoring after unexpected computer failure, (M) VAXcluster, 7-26 using device control libraries, (M) Maintaining setting, (P) RTL Parallel Processing, 4-4 VMS, 5-45votes, (M) System Management Intro, 6-13 using forms, (M) Maintaining VMS, 5-40 VOTES parameter, (M) VAXcluster, 3-1 Queue protection voting member, (M) VAXcluster, 3-1 access types, (U) DCL Concepts, 8-7 adding, (M) VAXcluster, 7-2, 7-7, 7-22 commands for setting, (U) DCL Concepts, 8-7 removing, (M) VAXcluster, 7-2, 7-12, 7-22 /QUEUE qualifier, (M) Accounting, ACC-23 QUORUM.DAT file, (M) System Management Intro, 6-14; (M) VAXcluster, 3-3 Queue startup simplifying, (M) Maintaining VMS, 5-5 Quorum disk, (M) System Management Intro, Queue status, (M) Maintaining VMS, 5-71 6-14; (M) VAXcluster, 3-2, 3-9 change in behavior, V5.5 Release Notes, 3-44 See VAXcluster quorum disk. determining, (M) Maintaining VMS, 5-87 adding, (M) VAXcluster, 7-22 Queuing adjusting EXPECTED\_VOTES, (M) ACMS, Dependability Handbook, 8-55 VAXcluster, 7-22 Queuing process, (M) Maintaining VMS, 5-1 disabling, (M) VAXcluster, 7-2 Queuing system enabling, (M) VAXcluster, 7-2 components, (M) Maintaining VMS, 5-1 mounting, (M) VAXcluster, 3-3 required files, V5.5 Release Notes, 2-8 removing, (M) VAXcluster, 7-22 sample configurations, (M) Maintaining VMS, Quorum disk watcher, (M) VAXcluster, 3–2 5-7 to 5-17 Quorum file (QUORUM.DAT), (M) VAXcluster, steps for setting up, (M) Maintaining VMS, QUORUM parameter, (M) System Generation, supported versions, V5.5 Release Notes, 2-7 A - 26QUI\$\_QUEUE\_STATUS longword, V5.5 Release Quorum scheme, (M) VAXcluster, 3-1 Notes, 3-44 Quota, (P) Routines Intro, A-9t Quick copy, (U) EVE Ref, 1-3 See also Process quota, Job quota QUIT built-in procedure, (P) VAXTPU, 7-291 to assigning to created process, (U) DCL 7 - 292Dictionary, DCL2-54 QUIT command, (U) Using VMS, 8-3, 8-48; (U) AST, (P) System Services Intro, 7–3; (P) I/OMail, MAIL-68; (U) EVE Ref, EVE-105 to User's I, 3-24, 4-14, 6-13, 7-5, 7-9, 8-43 EVE-106; (M) Terminal Fallback, TFU-19; AST limit, (U) DCL Dictionary, DCL2-55; (P) (P) Debugger, 3-4, CD-106; (P) File Def RTL Parallel Processing, 1–6 Language, FDL-65 batch job EDT, (U) Text Processing, 2-3 working set, (U) DCL Dictionary, EVE editor, (U) Text Processing, 1-3 DCL2-383 line mode, (U) EDT Ref, EDT-161 buffered I/O, (P) System Services Intro, 7–3; multiprocess program, (P) Debugger, 10-8, (P) I/O User's I, 3–24, 6–13, 7–5; (P) I/O10 - 9User's II, 1-3, 2-3, 5-1 nokeypad mode, (U) EDT Ref, EDT-301 buffered I/O byte count, (P) System Services with DECwindows, (P) Debugger, 1-20 Intro, 7-3; (P) I/O User's II, 1-3, 1-9, 2-3, QUIT option, (M) Maintaining VMS, 3-8 BYTELIM, (P) I/O User's I, 1–11 **CPU** 

Quota Quotation mark (") (cont'd) CPU (cont'd) in remote file specifications, (M) DECnet-VAX for created process, (U) DCL Dictionary, Guide, 2-3DCL2-60 instruction delimiter, (P) Debugger, 4-21 direct I/O, (P) System Services Intro, 7-3; (P) in task specification string, (M) DECnet-VAX I/O User's I, 3-24, 6-13; (P) I/O User's II, Guide, 2-141-3, 2-3Quote characters, (P) VAXTPU, 7-112, 7-113 disk, (P) I/O User's I, 1-33 to 1-34 QUOTE command, (U) EVE Ref, EVE-107 to EVE-108 See also Disk quota enqueue, (P) RTL Parallel Processing, 1-6 EVE editor, (U) Text Processing, 1-13 establishing, (P) System Services Intro, 6-8 global section, (P) RTL Parallel Processing, 1-7 R I/O operations, (P) System Services Intro, 7-2 R (replace) command, (U) EDT Ref, EDT-302 jobwide logical name table, (M) Setting Up VMS, 5–4 See also Replacing text R0mailbox buffer, (P) I/O User's I, 7-2, 7-3, 7-5 use by control block store macros, (P) RMS, of subprocesses process can create, (U) DCL Dictionary, DCL2-60 pipeline, (M) Networking, 2-30, 3-76; (M) use in asynchronous operations, (P) RMS, 2-5 RA60 disk, (P) I/O User's I, 3-5 Network Control Program, NCP-86 RA70 disk, (P) I/O User's I, 3-5 resource, (P) System Services Intro, 2-2 RA90 disk, (P) I/O User's I, 3-5 specifying for detached process, (U) DCL Dictionary, DCL2-58, DCL2-59 RAB\$B\_BID field, (P) RMS, 7-2 specifying for subprocess, (U) DCL Dictionary, RAB\$B\_BLN field, (P) RMS, 7-3 RAB\$B\_KRF field, (P) File Applications, 9-13, DCL2-58, DCL2-59  $SS\$\_EXQUOTA, \ \ \textit{(P) Programming Resources},$ 9-15; (P) File Def Language, FDL-11; (P) RMS, 7-4subprocess, (P) RTL Parallel Processing, 1-6 for selecting key path, (P) RMS, 4-12 RAB\$B\_KSZ field, (P) File Applications, 8-8, 8-9, working set for batch job, (U) DCL Dictionary, 8-12, 9-13, 9-15, 9-18; (P) RMS, 7-4 use with limit option, (P) RMS, 7-13 DCL2-383 modifying, (U) DCL Dictionary, DCL2-244 use with search key, (P) RMS, 7-12, 7-14 RAB\$B\_MBC field, (P) File Applications, 3-11, QUOTA.SYS, (M) SYSMAN, SM-9; (M) 7-18, 9-9; (P) File Def Language, FDL-12; Analyze / Disk, B-3 QUOTA.SYS file, (M) Maintaining VMS, 4-3 (P) RMS, 7-5Quota checking default logic, (P) RMS, 7-5 controlling, (M) Mount, MOUNT-34 performance benefit, (P) RMS, 7-6 use restriction, (P) RMS, 7-5, 7-6 Quota file, (M) SYSMAN, SM-8 adding an entry, (M) SYSMAN, SM-38 RAB\$B\_MBF field, (P) File Applications, 3-11, altering, Obsolete Features, 4-12 3-26, 7-17, 7-19, 7-20, 9-9; (P) File Def Language, FDL-12; (P) RMS, 7-6 creating, (M) SYSMAN, SM-40 limitation, V5.5 New Features, B-110 deleting an entry from, Obsolete Features, 4-14 disabling, (M) SYSMAN, SM-10, SM-43 use with read-ahead option, (P) RMS, 7-16 use with write-behind option, (P) RMS, 7-16 displaying, (M) SYSMAN, SM-50 RAB\$B\_PSZ field, (P) RMS, 7-7 displaying an entry for, Obsolete Features, 4 - 15RAB\$B\_RAC field, (P) RMS, 7-7 enabling, (M) SYSMAN, SM-44 RAB\$C\_KEY option, (P) File Applications, 8-6, 9-10, 9-16, 9-18 modifying, (M) SYSMAN, SM-45 removing an entry, (M) SYSMAN, SM-42, RAB\$C\_RFA option, (P) File Applications, 8-6, 9-10, 9-16, 9-18 RAB\$C\_SEQ option, (P) File Applications, 8-6, updating, (M) SYSMAN, SM-10, SM-47 valid entries, (M) SYSMAN, SM-38 9-10, 9-16, 9-18 RAB\$B\_TMO field, (P) File Applications, 7-12, Quota file transfer block, (P) I/O User's I, 1-33 7-13, 9-17; (P) File Def Language, FDL-13; /QUOTA qualifier, (M) Mount, MOUNT-34 (P) RMS, 7-21Quotation mark ( ASCII string delimiter, (P) Debugger, 4-15 use with RAB\$V\_TMO option for mailbox for access control string in equivalence name, service, (P) RMS, 7-14

(M) DECnet-VAX Guide, 2-4

RAB\$B TMO field (cont'd) RAB\$L\_ROP field (cont'd) use with timeout option for terminal operation, RAB\$V\_RLK option, (P) File Applications, (P) RMS, 7-197-12, 9-16, 9-18 RAB\$C\_KEY option, (P) RMS, 7-8 RAB\$V\_RRL option, (P) File Applications, RAB\$C\_RFA option, (P) RMS, 7-8 7-12, 9-16 RAB\$V\_TMO option, (P) File Applications, RAB\$C\_SEQ option, (P) RMS, 7-7 RAB\$L\_BKT field 7-12, 7-13, 9-17, 9-19 as output, (P) RMS, 7-2 RAB\$V\_TPT option, (P) File Applications, use with block I/O, (P) RMS, 7-2 9-11, 9-19 RAB\$L\_CKT field, (P) File Def Language, FDL-9 RAB\$V\_UIF option, (P) File Applications, 8-4, RAB\$L\_CTX field, (P) File Def Language, 8-8, 9-11, 9-19 FDL-10; (P) RMS, 7-3 RAB\$V\_ULK option, (P) File Applications, RAB\$L\_FAB field, (P) RMS, 7-3 7-15, 9-16 RAB\$L\_FOP field, (P) File Def Language, FDL-14 RAB\$V\_WAT option, (P) File Applications, RAB\$L\_KBF field, (P) File Applications, 8-8, 8-9, 7-12, 9-17 8-12, 9-13, 9-15, 9-18; (P) RMS, 7-3 RAB\$V\_WBH option, (P) File Applications, use with limit option, (P) RMS, 7-13 3-12, 9-10, 9-19 use with RAB\$B\_KSZ field, (P) RMS, 7-4 specifying key match method, (P) RMS, 7-5 use with search key, (P) RMS, 7-12, 7-14 RAB\$L\_STS field, (P) RMS, 7-20 RAB\$L\_PBF field, (P) RMS, 7-7 RAB\$L\_STV0 field RAB\$L\_RBF field, (P) File Applications, 9-18, for returning terminating character, (P) RMS, 9-20; (P) RMS, 4-4, 7-8 RMS-49 RAB\$L\_RBZ field, (P) File Applications, 9–18 RAB\$L\_STV field, (P) RMS, 7-20 RAB\$L\_RHB field, (P) File Applications, 9-17, for returning I/O status block, (P) RMS, 9-18, 9-20; (P) RMS, 7-9 RMS-49 RAB\$L\_ROP field, (P) File Applications, 9-7; (P) for returning I/O status block from Put service, File Def Language, FDL-9, FDL-10, FDL-11, (P) RMS, RMS-74 FDL-12, FDL-13, FDL-14, FDL-15; (P) for returning PID from Put service, (P) RMS, RMS, 7-10RMS-71 RAB\$V\_ASY option, (P) File Applications, for returning process identification (PID), (P) 8-17, 8-18, 9-9, 9-15, 9-18, 9-19, 9-20 RMS, RMS-50 RAB\$V\_EOF option, (P) File Applications, for returning record length, (P) RMS, RMS-53 8-14, 8-16, 9-10 using with Get service, (P) RMS, RMS-50 RAB\$V\_EQNXT option, (P) File Applications, RAB\$L\_UBF field, (P) File Applications, 9–17; 9-12, 9-15 (P) RMS, 7-21 RAB\$V\_FDL option, (P) File Applications, 9-9, RAB\$L\_USZ field, (P) File Applications, 9-17 RAB\$L\_XAB field, (P) RMS, 7-22 9-12, 9-20RAB\$V\_KGE option, (P) File Applications, 8-9, requirement for using XABTRM, (P) RMS, 8-10 RAB\$V\_KGT option, (P) File Applications, 8-9, RAB\$V\_ASY option, (P) RMS, 7-11, 7-14 process-permanent file support, V5.5 Release 8–10 RAB\$V\_LIM option, (P) File Applications, Notes, 3-40 9-13, 9-16 use restriction, (P) RMS, 7-15 RAB\$V\_LOA option, (P) File Applications, RAB\$V\_BIO option, (P) RMS, 7-11 9-13, 9-18 RAB\$V\_CCO option, (P) RMS, 7-18 RAB\$V\_LOC option, (P) File Applications, 9-9, RAB\$V\_CVT option, (P) RMS, 7-19 RAB\$V\_EOF option, (P) RMS, 7-12 9-16 RAB\$V\_NLK option, (P) File Applications, RAB\$V\_EQNXT option, (P) RMS, 7-12 7-12, 9-15examples. (P) RMS, 7–13 RAB\$V\_NXR option, (P) File Applications, specifying key match method, (P) RMS, 7-5 RAB\$V\_ETO option 7-15, 8-9, 9-16 RAB\$V\_NXT option, (P) File Applications, requirement for using XABTRM, (P) RMS, 9-13, 9-15 18-1RAB\$V\_RAH option, (P) File Applications, RAB\$V\_FDL option, (P) RMS, 7-15 3-12, 9-9, 9-16 RAB\$V\_KGE option RAB\$V\_REA option, (P) File Applications, See RAB\$V\_EQNXT option 7-12, 9-16

See RAB\$V\_NXT option

RAB (record access block) (cont'd) RAB\$V\_LIM option, (P) RMS, 7-13 described in context of example, (P) RMS, 4-4 RAB\$V\_LOA option, (P) RMS, 7-13 description, (P) RMS, 1-4 determining fill size, (P) RMS, 13-10 general description, (P) RMS, 7-1 example of use, (P) RMS, 4-8 summary of fields, (P) RMS, 7-1 use restriction, (P) RMS, 13-4, 13-11 rab data type. (P) Routines Intro, A-12t RAB\$V\_LOC option, (P) RMS, 7-15 \$RABDEF, (P) File Applications, 5–10 RAB\$V\_NLK option, (P) RMS, 7-17 \$RAB macro, (P) RMS, B-9 RAB\$V\_NXR option, (P) RMS, 7-17 argument categories, (P) RMS, B-10 RAB\$V\_NXT option, (P) RMS, 7-14 \$RAB\_STORE macro, (P) RMS, B-11 specifying key match method, (P) RMS, 7-5 argument categories, (P) RMS, B-12 RAB\$V\_PMT option, (P) RMS, 7-19 requirements, (P) RMS, B-12 RAB\$V\_PTA option, (P) RMS, 7-19 RFA argument, (P) RMS, B-12 RAB\$V\_RAH option, (P) RMS, 7-12, 7-15 Race condition default logic, (P) RMS, 7-16 avoiding at AST level, (P) Modular Procedures, use restriction, (P) RMS, 7-16 3-21RAB\$V\_REA option, (P) RMS, 7-17 elimination of, (P) Modular Procedures, 3-21 use restriction, (P) RMS, 7-17 how to avoid, (P) DECthreads, 3-7 RAB\$V\_RLK option, (P) RMS, 7-18 Radix, (P) Message, MSG-7 RAB\$V\_RNE option, (P) RMS, 7–19 canceling, (P) Debugger, CD-26 RAB\$V\_RNF option, (P) RMS, 7-19 conversion, (P) Debugger, 4-10, D-5 RAB\$V\_RRL option, (P) RMS, 7-18 current, (P) Debugger, 4-10, CD-164 RAB\$V\_SYNCSTS option, (P) RMS, 7-16 default, (P) System Dump Analyzer, SDA-12 RAB\$V TMO displaying, (P) Debugger, CD-234 for immediate mailbox service, (P) RMS, 7-14 multilanguage program, (P) Debugger, 9-8 RAB\$V\_TMO option, (P) RMS, 7-14, 7-18, 7-19 of numeric constant RAB\$V\_TPT option, (P) RMS, 7-16 specifying, (P) VAXTPU, 3-37 using with Put service, (P) RMS, RMS-71 specifying, (P) Debugger, 4-10, CD-164 RAB\$V\_UIF option, (P) RMS, 7-17 specifying in symbol assignment, (U) Using using with Put service, (P) RMS, RMS-71 VMS, 5–8 RAB\$V\_ULK option, (P) RMS, 7-18 Radix control operator, (P) MACRO, 3-11 RAB\$V\_WAT option, (P) RMS, 7-18, 7-19 Radix modes, (P) Patch, PAT-17 RAB\$V\_WBH option, (P) RMS, 7-12, 7-16 See also Entry and display modes RAB\$W\_ISI field, (P) RMS, 7-3 RAB\$W\_RBF, (P) File Applications, 8-3 Radix operator, (P) Linker, 1-7, 3-5; (P)Message, MSG-7; (P) Patch, PAT-17; (P) RAB\$W\_RFA field, (P) File Applications, 8-12, System Dump Analyzer, SDA-12 8-15, 9-17; (P) RMS, 7-9 RAH option, (P) File Def Language, FDL-13 as argument to \$RAB\_STORE macro, (P) RMS, Rainbow B-12Digital personal computer in network, (M) RAB\$W\_RSZ field, (P) File Applications, 8-3, DECnet-VAX Guide, 3-27 9-20; (P) RMS, 4-4, 7-20 RAISE exception, (P) DECthreads, 4-4 RAB\$W\_STV0 offset alternate access to RAB\$L\_STV, (P) RMS, RALLY 7 - 20See VAX RALLY RAB\$W\_STV2 field Random access for returning length of escape sequence, (P) by key value, (P) File Applications, 2-5 to 2-7, RMS, RMS-49 8-6, 8-11 to 8-12 RAB\$W\_STV2 offset by relative record number, (P) File alternate access to RAB\$L\_STV, (P) RMS, Applications, 2-5 to 2-7, 8-6, 8-8, 8-9 7 - 20by RFA (record file address), (P) File RAB\$W\_USZ field, (P) RMS, 7-21 Applications, 2-7, 8-6, 8-12 to 8-13 use with block I/O, (P) RMS, 7-22 to indexed files, (P) File Applications, 2-6, 8-11 RAB\$\_V\_WAT option to 8-13 use with timeout option for record locking, (P) to relative files, (P) File Applications, 2-6, 8-9, RMS, 7-188-12 to 8-13 RAB (record access block), (P) Programming to sequential files, (P) File Applications, 2-6, Resources, 1–36, 8–58; (P) File Applications, 8-8, 8-12 to 8-13 1–11; (P) System Dump Analyzer, SDA-77 with multibuffer count, (P) File Applications, arguments, (P) RMS, 1-4 3 - 26

Random access device, (P) Device Support (B), RCK option, (P) File Def Language, FDL-23 RCW (record control word), (U) Files and Devices, Random access mode, (P) File Applications, 1-2 B - 14RD53 disk, (P) I/O User's I, 3-6 Random number generator, (P) RTL Math, RD54 disk, (P) I/O User's I, 3-6 MTH-118 used as system disk for MicroVAX II or Range VAX station II boot node, (M) System colon (:), (P) Debugger, 4-16, 11-4, 11-6, 11-7, CD-81 Management Intro, 6–7 commands and keys for found range, (U) EVE Rdb/VMS Ref. EVE-64 See VAX Rdb/VMS commands and keys for select range, (U) EVE RDO prototyping tool, Dependability Handbook, Ref, EVE-18, EVE-142 converting contents of to string format using RD-series disk STR, (P) VAXTPU, 7-520 See Satellite node deleting, (P) VAXTPU, 2-22, 7-70, 7-108 RDT (response descriptor table), (P) System Dump determining if unmodifiable records are present Analyzer, SDA-148 in, (P) VAXTPU, 7-193 RDT (revision-date-time) argument, (P) RMS, erasing, (P) VAXTPU, 2-22, 7-70, 7-117 B - 16moving delimiters of, (P) VAXTPU, 7-273 Reachable node, (M) Networking, 2-28 syntax, (P) MACRO, 7-1 READ access, (M) Security, 4-5; (P) File Def video attributes, (P) VAXTPU, 2-22 Language, FDL-23 Range-1 specifier See also Access with MOVE, (U) EDT Ref, EDT-150 and directory file, (M) Security, 4-8 Range-2 specifier and disk file, (M) Security, 4-8 with MOVE, (U) EDT Ref, EDT-150 and READALL privilege, (M) Security, 4-7 Range check and volume, (M) Security, 4-10 disabling, (M) SYSMAN, SM-58; (M) System for a device, (U) DCL Concepts, 8-6 Generation, SGN-16 for a directory, (U) DCL Concepts, 8-8 enabling, (M) SYSMAN, SM-59; (M) System for a file, (U) DCL Concepts, 8-9 Generation, SGN-17 for a global section, (U) DCL Concepts, 8-10 RANGE data type, (P) VAXTPU, 2-21 to 2-22 for a logical name table, (U) DCL Concepts, Range specifier line mode, (U) EDT Ref, EDT-162 for a queue, (U) DCL Concepts, 8-7 with <null>, (U) EDT Ref, EDT-154 for a volume, (U) DCL Concepts, 8-7 with CHANGE, (U) EDT Ref, EDT-122 Read access category, (M) System Management with DELETE, (U) EDT Ref, EDT-135 Intro, 3-3 with FILL, (U) EDT Ref, EDT-141 definition, (U) Using VMS, 7-4 with FIND, (U) EDT Ref, EDT-143 Read access type, (P) MACRO, 8-17 with INCLUDE, (U) EDT Ref, EDT-147 Read ahead option with INSERT, (U) EDT Ref, EDT-148 See RAB\$V\_RAH option with PRINT, (U) EDT Ref, EDT-157 READALL privilege, (U) DCL Concepts, 8-6; (M) with REPLACE, (U) EDT Ref, EDT-165 Setting Up VMS, 5-16; (M) Security, 4-6, A-8 with RESEQUENCE, (U) EDT Ref, EDT-167 Read As Zero with SUBSTITUTE, (U) EDT Ref, EDT-243 with TAB ADJUST, (U) EDT Ref, EDT-249 See RAZ field Read attention AST function, (P) I/O User's I. with TYPE, (U) EDT Ref, EDT-251 7 - 9with WRITE, (U) EDT Ref, EDT-253 Read check of spin lock, (P) Device Support (A), 3-15 enabling, (P) Device Support (B), 1-75 with APPEND command, (U) DCL Dictionary, RA-series disk used as system disk for MicroVAX II boot node, DCL1-37 with COPY command, (U) DCL Dictionary, (M) System Management Intro, 6-7 RAZ field, (P) MACRO, 7-2 DCL1-79 with INITIALIZE command, (U) DCL RB02 disk, (P) I/O User's I, 3-6 Dictionary, DCL1-242 RC25 disk, (P) I/O User's I, 3-6 RCF (remote console facility) Read check option error messages, (M) Networking, 4-25 See FAB\$V\_RCK option invoking, (M) Networking, 4-25

READ command, (U) VMS Intro, 1-11; (U) Using VMS, 1-30 to 1-31, 5-5, 6-9, 6-15; (U) Mail, MAIL-69; (U) DCL Concepts, 5-1, 5-4; (U) Command Procedures, 6-3; (U) DCL Dictionary, DCL2-28 to DCL2-31; (P) System Dump Analyzer, SDA-59 See also OPEN command See also WRITE command case value of data obtained, (U) Command Procedures, 3-4 for remote file, (M) DECnet-VAX Guide, 2-13 SYS\$DISK, (P) System Dump Analyzer, SDA-60 using to obtain data, (U) Command Procedures, READ/EXECUTIVE command, (P) System Dump Analyzer, SDA-16 Read function, (P) Device Support (B), 1-40, 1-41 FDT routine for, (P) Device Support (A), 7-9 postprocessing for, (P) Device Support (B), 3-72 Reading a record, (U) Command Procedures, 6-3 new messages, (U) Mail, MAIL-2 old messages, (U) Mail, MAIL-2 READ/NEW command, (U) Mail, MAIL-15, MAIL-69 Read-no-echo option See RAB\$V\_RNE option Read no filter option See RAB\$V\_RNF option Read-only memory See ROM Read operation, (U) Files and Devices, 4–14 continuation volumes, (U) Files and Devices, 5-5; (M) Maintaining VMS, 3-6 disk, (U) Files and Devices, 4–14 magnetic tape, (U) Files and Devices, 4–16, 4 - 19ANSI-labeled, (U) Files and Devices, 4–17 READ/PROMPT command preferable in captive command procedures, (M) Setting Up VMS, 4-13 /READ qualifier with OPEN command, (U) Command Procedures, 6-2 Read regardless of lock option See RAB\$V\_RRL option Read request fetching, (P) VAXTPU, 7-199 Read routine fetching, (P) VAXTPU, 7-174, 7-201 specifying, (P) VAXTPU, 7-385 Read service, (P) RMS, RMS-76 condition values, (P) RMS, RMS-78 control block input fields, (P) RMS, RMS-77 control block output fields, (P) RMS, RMS-77

Read service (cont'd) requirements for using, (P) RMS, RMS-77 Read/write attributes ACP-QIO interface, (P) I/O User's I, 1-14 Read/write attributes subfunction, (P) I/O User's I, 1-14Ready access for directories on disk, (U) DCL Dictionary, DCL1-241 READ\_AHEAD attribute, (P) File Def Language, FDL-12 READ\_CHAR built-in procedure, (P) VAXTPU, 7-293 to 7-294 READ\_CHECK attribute, (P) File Def Language, FDL-23 /READ\_CHECK qualifier, (M) Analyze/Disk, ADSK-8; (P) Convert, CONV-20 READ\_CLIPBOARD built-in procedure, (P) VAXTPU, 7-295 READ\_FILE built-in procedure, (P) VAXTPU, 7-297 to 7-298 READ\_GLOBAL\_SELECT built-in procedure, (P) VAXTPU, 7-299 example of use, (P) VAXTPU, B-28 to B-31 READ\_KEY built-in procedure, (P) VAXTPU, 7-301 to 7-302 READ\_LINE built-in procedure, (P) VAXTPU, 7-303 to 7-305 /READ\_ONLY qualifier, (U) EVE Ref, 1-14; (P) VAXTPU, 5-13 "Read\_only" string constant parameter to GET\_INFO, (P) VAXTPU, 7-178 READ\_REGARDLESS attribute, (P) File Def Language, FDL-13 READ\_REGARDLESS secondary attribute, (P) File Applications, 7–12 READ\_SYSTIME macro, (P) Device Support (A), E-15; (P) Device Support (B), 2-52 example, (P) Device Support (B), 2-52 REALIZE\_WIDGET built-in procedure, (P) VAXTPU, 7-306 Realizing widgets in VAXTPU, (P) VAXTPU, 7-306 Real-time device, (P) Device Support (B), 1-75, 1 - 76Real-time priority, (M) Setting Up VMS, 5-7 REALTIME\_SPTS parameter, (M) System Generation, A-26; (P) Device Support (A), 19-9 Real type, (P) Debugger, 4-14 REA option, (P) File Def Language, FDL-11 Rebooting a satellite with operating system installed on local disk, (M) VAXcluster, 7-29 REBUILD command, Obsolete Features, 4-13 Rebuilding a disk volume, (M) Maintaining VMS, /REBUILD qualifier, (M) Mount, MOUNT-35

Record (cont'd) Recall buffer, (U) DCL Concepts, 2-6 comparing, (U) DCL Dictionary, DCL1-151 RECALL command, (U) VMS Intro, 6-12; (U) compressing, (P) Programming Resources, 8-26 Using VMS, 1-21; (U) DCL Concepts, 2-6; contents, (P) File Applications, 2–1 (U) DCL Dictionary, DCL2-32 to DCL2-33; deleting, (P) File Applications, 8-5, 9-20 (U) EVE Ref, EVE-109; (M) LATCP, LAT-24 deleting in command procedure, (U) Using /ALL qualifier, (U) VMS Intro, 6-13 VMS, 6-17 Recalling commands, (U) Using VMS, 1-21 to determining if unmodifiable is present, (P) 1-22; (U) DCL Concepts, 2-6 to 2-7; (M) VAXTPU, 7–175, 7–186, 7–193 Network Control Program, NCP-2 displaying holder, (M) Security, 5-7 RECALL TIMER parameter, (M) Networking, duplicating, (M) Authorize, AUTH-20 erasing unmodifiable Receive buffers, (M) Networking, 3-20 preventing or allowing, (P) VAXTPU. RECEIVE BUFFERS parameter 7 - 375for DDCMP line, (M) Networking, 3-58 examining remote, (M) DECnet-VAX Guide, for X.25 line, (M) Networking, 3-64 2 - 9Receive password, (M) DECnet-VAX Guide, 3-25, expanding, (P) Programming Resources, 8-32 3-34; (M) Networking, 2-39 fetching display value of, (P) VAXTPU, 7-186 in network operations, (M) DECnet-VAX Guide, fixed-length format, (P) File Applications, 1-2. 3 - 202-8, 2-9, 3-9, 3-12; (P) Convert, CONV-18 Receiving mail format, (P) File Applications, 2-7; (P) Convert, over the network, (U) Mail, MAIL-1 CONV-1; (P) RMS, 1-1 RECLAIMED\_SPACE attribute, (P) File Def I/O, (P) Programming Resources, 8–10 Language, FDL-3 inserting, (P) File Applications, 8-3 to 8-4, Reclaiming buckets, (P) Convert, CONV-1 9-17 to 9-19 Reclamation statistics, (P) Convert, CONV-24 VMS RMS program example, (P) RMS, RECNXINTERVAL parameter, (M) VAXcluster, 2-13, A-2; (M) System Generation, A-27 locating, (P) File Applications, 8-2 to 8-3 Recommendations for local area VAXclusters, maximum length, (P) Convert, CONV-26; (P) Dependability Handbook, 7–6 File Def Language, FDL-35 Reconfiguration maximum number, (P) File Def Language, of node, (M) DECnet-VAX Guide, 3-12, 3-13 FDL-20 Reconfigure maximum size, (P) File Def Language, FDL-35 defined, Dependability Handbook, Glossary-4 merging, (P) Programming Resources, 8-21 Reconfiguring the cluster, (M) VAXcluster, 7-22 modifying in command procedure, (U) Using Reconnection VMS, 6-16 process, (M) Security, 3-5, 5-22 number of bytes in, (U) Files and Devices, 3-15 Record, (P) File Applications, 1-1; (P) reading, (U) DCL Dictionary, DCL2-28 Analyze/RMS\_File, ARMS-6 reading from a file, (U) Command Procedures, See also Data record See also Security audit log file record requirements for reading or writing in a file, adding, (P) File Applications, 9-10 to 9-11 (P) RMS, 4-12analyzing retrieving, (P) File Applications, 8-2 to 8-3, debugger information, (U) DCL Dictionary, 9-14 to 9-17 DCL1-27 VMS RMS program example, (P) RMS, end-of-file, (U) DCL Dictionary, DCL1-27 global symbol directory, (U) DCL sensing unmodifiable erasable state, (P) Dictionary, DCL1-27 VAXTPU, 7-169 link option specification, (U) DCL setting attribute, (P) VAXTPU, 7-448 Dictionary, DCL1-28 sorting, (P) Programming Resources, 8-16 module header, (U) DCL Dictionary, source line correlation, (P) Debugger, 6-1 DCL1-28 stream format, (P) File Applications, 1-2, 3-9 module traceback, (U) DCL Dictionary, undefined format, (P) File Applications, 3-9, DCL1-28 patch text, (U) DCL Dictionary, DCL1-24 updating, (U) Command Procedures, 6-7; (P) relocation, (U) DCL Dictionary, DCL1-29 File Applications, 8-4, 9-19 to 9-20 appending to a file, (U) Command Procedures, variable format, (P) File Applications, 1-2 blocking, (P) File Applications, 1-8

Record (cont'd) Record format, (U) Using VMS, 2-4; (P) File variable-length format, (P) File Applications, Applications, 1-1, 1-2, 3-12; (P) VAXTPU, 2-9, 3-9, 3-10, 3-12 F-1 variable-length with fixed-length control field BINARY option, (M) Exchange, EXCH-7 (VFC) format, (P) File Applications, 1-2, changing, (U) Sort/Merge, SORT-44 3-12default for, (U) Sort/Merge, SORT-44 writing from command procedure, (U) Using fixed-length, (U) Files and Devices, B-13; (P) VMS, 6-17 File Applications, 3–19 writing to file, (U) Command Procedures, 6-2; FIXED option, (M) Exchange, EXCH-8 (U) DCL Dictionary, DCL2-399 PAD option, (M) Exchange, EXCH-9 Record access, (P) File Applications, 9-6, 9-10 reformatting, (U) Sort/Merge, SORT-61 in stream context, (P) File Applications, 8-14 selecting, (P) File Applications, 2-1 options, (P) File Applications, 7–3 specifying, (M) Exchange, EXCH-6 Record access block, (P) Routines Intro, A-12t STREAM option, (M) Exchange, EXCH-8 See RAB variable-length, (U) Files and Devices, B-13; Record access field (P) File Applications, 3–19 See RAB\$B RAC field VARIABLE option, (M) Exchange, EXCH-8 Record access mode, (P) File Applications, 1-2, Record format defaults, (M) Exchange, EXCH-9 to EXCH-10 for indexed files, (P) File Applications, 8-9 to Record format field See FAB\$B\_RFM field for relative files, (P) File Applications, 8-8 to Record format option, (M) Exchange, EXCH-7; (P) File Applications, 4–30 for sequential files, (P) File Applications, 8-7 Record header buffer, (P) File Applications, 9–17, to 8-8 9-18, 9-20 sequential, (P) File Applications, 2-2, 8-6, 8-9, Record header buffer field 8 - 10See RAB\$L\_RHB field specifying, (P) File Applications, 8-6 to 8-7, Record I/O 9-10, 9-16, 9-18 how to execute, (P) RMS, 4-24 Record attribute, (P) VAXTPU, F-1 Recording file RECORD attribute, (P) File Def Language, class header, (M) Monitor, A-10 FDL-2, FDL-33 class prefix for component classes, (M) Monitor, Record attribute field A-10See FAB\$B\_RAT field class records, (M) Monitor, A-8 Record attributes field in XABFHC class types, (M) Monitor, A-9 data block, (M) Monitor, A-11 See XAB\$B\_ATR field Record attributes option, (P) File Applications, description, (M) Monitor, A-1 4-29 Digital control records, (M) Monitor, A-3 Record attributes value, (P) I/O User's I, 1-20 file header record, (M) Monitor, A-3 function in MONITOR, (M) Monitor, MON-8 Record blocking volume mount, V5.5 New Features, B-43 I/O class record, (M) Monitor, A-22 Record buffer, (P) File Applications, 9-18, 9-20 node transition record, (M) Monitor, A-7 size, (P) File Applications, 9-18, 9-20 RMS class record, (M) Monitor, A-35 RMS file record, (M) Monitor, A-7 Record buffer field SCS class record, (M) Monitor, A-41 See RAB\$L\_RBF field system information record, (M) Monitor, A-5 Record buffering version compatibility, (M) Monitor, MON-9 See Buffering technique Record insertion, (P) VAXTPU, 6-5 Record control word Record length field, (U) Files and Devices, B-15 See RCW Record lock block RECORD CONTROL\_FIELD\_SIZE attribute, (P) See RLB File Def Language, FDL-35 Record locking, (P) File Applications, 9-6 Record deleting, (P) VAXTPU, 6-5 deadlock, (P) File Applications, 7-16 Record file address use with update operation, (P) File See RFA Applications, 8–3 Record file address field

See RAB\$W\_RFA field

Record stream (cont'd) Record locking record-processing options, (P) defined, (P) File Applications, 7-2 RMS, 7-17 in the context of a RAB, (P) RMS, 7-1 Record management, (P) Programming Resources, Record stream connection option 1 - 23Record Management Services See File opening option Record structure, (P) Analyze/RMS\_File, See VMS RMS ARMS-6 Record operation, (P) File Applications, 8-1 to 8-6 Record transfer mode Record-oriented device, (P) Device Support (B), locate, (P) File Applications, 7-16 1 - 74move, (P) File Applications, 7–16 definition, (U) Using VMS, 2-8; (U) DCL Record type, (M) Monitor, A-1; (P) Debugger, Concepts, 3-4 4 - 17used as an output file specification, (U) DCL RECORD\_ATTRIBUTE parameter to SET built-in Concepts, 3-5 procedure, (P) VAXTPU, 7-448 RECORD primary attribute "Record\_count" string constant parameter to BLOCK\_SPAN secondary attribute, (P) File GET\_INFO, (P) VAXTPU, 7-175 Applications, 3-10, 4-29 RECORD\_IO attribute, (P) File Def Language, CARRIAGE\_CONTROL secondary attribute, FDL-3 (P) File Applications, 4-29 RECORD\_IO secondary attribute, (P) File FORMAT secondary attribute, (P) File Applications, 7–3 Applications, 4-30 "Record\_number" string constant parameter to SIZE secondary attribute, (P) File Applications, GET INFO, (P) VAXTPU, 7-175 4 - 29"Record\_size" string constant parameter to Record processing GET\_INFO, (P) VAXTPU, 7-175 VMS RMS services listed, (P) RMS, 3-3 Recover Record-processing macro for EDT, (U) DCL Dictionary, DCL1-182 format example, (P) RMS, 3-12 Record-processing option Recoverability defined, Dependability Handbook, Glossary-4 for Connect service, (P) RMS, 7-10 RECOVER BUFFER ALL command, (U) EVE Record-processing options field Ref. 1-22, EVE-112 See RAB\$L ROP field EVE editor, (U) Text Processing, 1-37 Record processing run-time option RECOVER BUFFER command, (U) EVE Ref, deleting, (P) File Applications, 9-20 1-21, EVE-110 to EVE-111 inserting, (P) File Applications, 9–17 to 9–19 EVE editor, (U) Text Processing, 1-37 retrieving, (P) File Applications, 9–14 to 9–17 /RECOVER command qualifier, (P) VAXTPU, updating, (P) File Applications, 9-19 to 9-20 1-11, 7-307 Record-processing services "Recover" GET\_INFO request\_string, (P) list of, (P) File Applications, 8-5 VAXTPU, 7-178 /RECORD qualifier, (M) Backup, BCK-79; (M) Recovering files Monitor, MON-29 EVE editor, (U) Text Processing, 1–37 Record reference vector with RECOVER BUFFER commands (EVE). See RRV (U) Text Processing, 1–38 Record selection with /RECOVER qualifier (EVE), (U) Text including records, (U) Sort/Merge, SORT-64 Processing, 1-38 omitting records, (U) Sort/Merge, SORT-68 Recovering lost files, (M) Analyze/Disk, ADSK-2 order of clauses, (U) Sort/Merge, SORT-64, /RECOVER qualifier, (U) Using VMS, 8-23; SORT-68 (U) EDT Ref, EDT-7; (U) EVE Ref, 1-15; Record size (M) ACL Editor, ACL-28; (P) VAXTPU, 5-11, See Magnetic tape Record size field controlling errors related to, (P) VAXTPU, See RAB\$W\_RSZ field 7 - 408/RECORDSIZE qualifier, (M) Mount, MOUNT-37 EDT editor, (U) Text Processing, 2-37 Record sort, (U) Using VMS, 1-37 Recovery reasons for selecting, (U) Sort/Merge, of buffer contents, (P) VAXTPU, 1-11, 7-307 SORT-29 repairing data, (M) VAXcluster, 3-6 specifying, (U) Sort/Merge, SORT-70 role of source file, (P) VAXTPU, 7-308 Record stream using buffer change journaling, (P) VAXTPU, connecting to a file, (P) File Applications, 7–2 7-307

Recovery (cont'd)	Redundancy (cont'd)
using keystroke journal file	n, Dependability Handbook, 4-7
enabling and disabling, (P) VAXTPU,	2*n, Dependability Handbook, 4-5, 4-6, 4-7
7–408	3*n, Dependability Handbook, 4–5
Recovery from system failure, (U) EVE Ref, 1-12	n+1, Dependability Handbook, 4-5, 4-7, 4-16
EVE, (U) DCL Dictionary, DCL1-198	network level, Dependability Handbook, 4-14
VAXTPU, (U) DCL Dictionary, DCL1–198	system kernel level, Dependability Handbook,
with buffer-change journaling, (U) EVE Ref,	4–6
1–15	Redundant
with keystroke journaling, (U) EVE Ref, 1–15	defined, Dependability Handbook, Glossary-5
Recovery unit block	Reentrancy, (P) Linker, 4–3
See RUB	AST, (P) Modular Procedures, 3–19
Recovery unit extended address block	full, (P) Modular Procedures, 3–19 Reentrant code, (P) Device Support (A), 5–1
See XABRU block	
Recovery unit file block	See also Thread-reentrant code compilers that generate, (P) DECthreads, 3–2
See RUFB	necessary for multithreaded program, (P)
Recovery unit stream block	DECthreads, 1–5
See RUSB	nonreentrant routines (avoiding), (P)
Recovery unit system services	DECthreads, 1–8
global symbols, (P) System Dump Analyzer,	%REF, (P) Debugger, CD-10
SDA-61	REF (refresh) command, (U) EDT Ref, EDT-303
Recovery unit XAB	Reference monitor
See XABRU block	applying to network, $(M)$ Security, $8-1$ , $8-3$
RECOVERY_UNIT_SERVICES.EXE	concept in security, (M) Security, 2-1, 2-5
global symbols, (P) System Dump Analyzer,	Reference sites and support groups, Dependability
SDA-61 RECOVER_BUFFER built-in procedure, (P)	Handbook, 3–14
VAXTPU, 7–307 to 7–309	REFn directive, (P) MACRO, 6–83
Recurrence	Reformatting libraries with /COMPRESS qualifier, (P) Librarian,
linear	LIB-15
definition of, (P) RTL Math, 2-7	with /DATA qualifier, (P) Librarian, LIB-20
Recursive mutex, (P) DECthreads, 2-10, cma-35,	Reformatting the output record, (U) Sort/Merge,
pthread-76	SORT-61
Recursive procedure, (P) VAXTPU, 3-19	REFRESH built-in procedure, (P) VAXTPU, 6-10,
Redefining keys, (U) EDT Ref, EDT-8	7–310 to 7–311
with DEFINE KEY, (U) EDT Ref, EDT-10	compared with UPDATE (ALL), (P) VAXTPU,
Redirecting output, (U) DCL Concepts, 3–5	7–538
DELTA, (P) Delta/XDelta, DELTA-14	REFRESH command, (U) EVE Ref, EVE-113;
XDELTA, (P) Delta/XDelta, DELTA-14 REDUCE keyword	(M) LATCP, LAT-25; (M) Show Cluster,
for /DATA qualifier, (P) National Char Set,	SHCL–60 Refreshing screen
NCS-26	keypad mode, (U) EDT Ref, EDT-44, EDT-48
Reduction	line mode, (U) EDT Ref, EDT-128
See String	nokeypad mode, (U) EDT Ref, EDT-303
Redundancy	/REFRESH qualifier, (P) Debugger, CD-69
circuit level, Dependability Handbook, 4-4	Register
functional units, Dependability Handbook,	See also BIIC registers
1–16	See also Device registers
automatic, Dependability Handbook, 1–17	See also General-purpose registers
capacity related, Dependability Handbook,	See also Map registers
1–17	
in computing systems, Dependability Handbook, 1–18	See also Vector register built-in symbol, (P) Debugger, 4–22, D–3
manual, Dependability Handbook, 1–17	data, (P) Routines Intro, 1-6
VMS support of, Dependability Handbook,	depositing into, (P) Debugger, 4–22
8–2	with DECwindows, (P) Debugger, 1–25
hardware. Dependability Handbook 4-5	display (REG). (P) Debugger, 7-9, C-5

Register REGISTER command (cont'd) display (REG) (cont'd) /PRODUCER qualifier, License Management, LMF-96 with DECwindows, (P) Debugger, 1-12 display contents, (P) Delta/XDelta, DELTA-17 qualifiers, License Management, LMF-94 to displaying, (P) System Dump Analyzer, LMF-97 SDA-89, SDA-127 /TERMINATION\_DATE qualifier, License display kind, (P) Debugger, 7-17, C-1 Management, LMF-88, LMF-96 examining, (P) Debugger, 4-22 /TOKEN qualifier, License Management, with DECwindows, (P) Debugger, 1-25 LMF-96 for returns, (P) Routines Intro, 1-5, 1-15, 2-12 /UNITS qualifier, License Management, general, (P) System Dump Analyzer, SDA-14 LMF-97 loading base, (P) Delta/XDelta, DELTA-40 /VERSION qualifier, License Management, LMF-97 Register conflict See PC vector, (P) MACRO, 10-23 PSL, (P) Debugger, 4-22 Register deferred mode, (P) MACRO, 5-5 saving when making call, (P) RMS, 2-4 operand specifier format, (P) MACRO, 8-19 symbol, (P) Debugger, D-3 Register dumping routine, (P) Device Support (A), symbol for base, (P) Delta/XDelta, DELTA-9 1-4, 11-10, 11-11; (P) Device Support (B), symbol for general, (P) Delta/XDelta, 1-30, 1-83, 2-51, 3-9, 3-69, 3-82 DELTA-13 address, (P) Device Support (A), 6-4; (P) symbol for processor, (P) Delta/XDelta, Device Support (B), 4-15 DELTA-9 context, (P) Device Support (B), 4-15 symbolizing, (P) Debugger, 4-13, CD-263 entry point, (P) Device Support (B), 4-15 with DECwindows, (P) Debugger, 1-25 exit method, (P) Device Support (B), 4-15 usage, (P) Routines Intro, 2-12 for generic VAXBI device, (P) Device Support variable, (P) Debugger, 3-17, 4-1 (A), 16–22 with DECwindows, (P) Debugger, 1-24 functions, (P) Device Support (B), 4-16 vector, (P) Routines Intro, 2-12; (P) MACRO, input, (P) Device Support (B), 4-15 of SCSI third-party class driver, (P) Device control registers, (P) MACRO, 10-2 Support (A), 17-21, 17-28 internal processor registers, (P) MACRO, register usage, (P) Device Support (B), 4-15 10 - 3synchronization requirements, (P) Device watchpoint, (P) Debugger, 3-17 Support (B), 4-15 window (REG), DECwindows, (P) Debugger, Register mask operator, (P) MACRO, 3-13, 6-29 1-12Register mode, (P) MACRO, 5-4 Register 0 operand specifier format, (P) MACRO, 8-19 See R0 Register name, (P) MACRO, 3-5, 3-6 REGISTER command, License Management, Register save mask. (P) MACRO, 6-29, 6-59 LMF-6, LMF-94 to LMF-98 Register save mask directive (.MASK), (P) ACTIVITY qualifier, License Management, MACRO, 6-59 LMF-94 /REGISTERS qualifier, (P) System Dump AUTHORIZATION qualifier. License Analyzer, SDA-127 Management, LMF-94 /REGISTER\_DUMP qualifier, (M) Error Log, /AVAILABILITY qualifier, License ERR-18 Management, LMF-95 Regression testing, (P) Modular Procedures, 6-1 /CHECKSUM qualifier, License Management, REI (Return from Exception or Interrupt) LMF-95 instruction, (P) MACRO, 9-192 /DATABASE qualifier, License Management, role in AST delivery, (P) Device Support (A), LMF-95 /DATE qualifier, License Management, LMF-96 Reinitialization table, (P) Device Support (A), 6-2, example, License Management, LMF-12 12-8; (P) Device Support (B), 1-34, 2-25 /HARDWARE\_ID qualifier, License Reinitializing Management, LMF-95 volumes, (U) Files and Devices, 3-19 /ISSUER qualifier, License Management, Reinstalling languages, V5.5 Release Notes, 3-28 LMF-95 REJECT command (PHONE), (U) VMS Intro, OPTIONS qualifier, License Management, 1 - 17LMF-95

Rejected qualifier, (M) Accounting, ACC-4 /REJECTED qualifier, (M) Error Log, ERR-19; (M) Accounting, ACC-24 Rejecting a call, (U) Phone, PHONE-19 RELALT macro, (P) Device Support (A), 14-26; (P) Device Support (B), 2-53, 3-84 Related file identification field See XAB\$W\_RFI field Related file identification field in XABALL See XAB\$W\_RFI field Related file NAM block address field See NAM\$L\_RLF field Related-file-position option, (P) File Applications, /RELATED qualifier, (P) Debugger, CD-24, CD-152, CD-225 Relational expression, (P) VAXTPU, 3-10 Relational operators, (P) VAXTPU, 2-18 RELATIVE attribute, (P) File Def Language, FDL-22 Relative deferred mode, (P) MACRO, 5-13 setting default displacement length, (P) MACRO, 6-19 Relative file, (U) Using VMS, 2-4; (P) File Applications, 2-16, 3-12advantages and disadvantages of using, (P) File Applications, 2–18 allocating, (P) File Applications, A-1 bucket size, (P) File Applications, 3-6, 3-13, 7-19, A-1 buffering, (P) File Applications, 7-19 buffer requirement, (P) RMS, 7-6 deferred-write option with, (P) File Applications, 3–8 defining cell size, (P) RMS, 5–21 description of relative record number, (P) RMS, 7-5designing, (P) File Applications, 3–12 to 3–15 determining record length, (P) RMS, 5-21 establishing highest record number, (P) RMS, examining, (P) File Applications, 10-16 maximum record size, (P) File Applications, 3 - 12nonexistent record processing, (P) RMS, 7-17 omitting initial prezeroing, (P) RMS, 4-23 optimizing performance, (P) File Applications, 3-12 to 3-15 random access, (P) RMS, 7-3 record access, (P) File Applications, 8-8 to 8-9, 8-12 to 8-13 record size limit, (P) RMS, 5-21 RFA value, (P) RMS, 7-9 specifying bucket size, (P) RMS, 8-5 specifying cell size, (P) RMS, 10-5 structure, (P) Analyze/RMS\_File, ARMS-1, ARMS-2

Relative file (cont'd) tuning, (P) File Applications, 3-12 to 3-15 with global buffers, (P) File Applications, 3-14 Relative file field record access, (P) RMS, 7-2 Relative file organization, (P) File Applications, Relative file record limit, (P) File Def Language, FDL-20 Relative mode, (P) MACRO, 5-12 assembled as absolute mode, (P) MACRO, 6-22 setting default displacement length, (P) MACRO, 6-19 /RELATIVE qualifier, (U) Sort/Merge, SORT-47; (P) File Applications, 7-19 Relative record number, (P) File Applications, 1-2, 3-12Relative volume number field See XAB\$W\_VOL field RELCHAN macro, (P) Device Support (A), 10-2, 15-15; (P) Device Support (B), 2-54, 3-86 RELDPR macro, (P) Device Support (A), 14-25; (P) Device Support (B), 2–55, 3–87 RELEASE qualifier, (P) System Dump Analyzer, Release service, (P) File Applications, 8-5; (P) RMS, RMS-79, RMS-80 condition values, (P) RMS, RMS-80 control block input and output fields, (P) RMS, **RMS-80** Releasing a job, (M) Maintaining VMS, 5-79 Reliability defined, Dependability Handbook, 1-8, Glossary-5 using error reports to analyze, (M) Maintaining VMS, 6–5 RELMPR macro, (P) Device Support (A), 14-26; (P) Device Support (B), 2-56, 3-89 RELOAD command, (M) System Generation, SGN-24Relocatable expression, (P) MACRO, 3-9 /RELOCATE qualifier, (P) System Dump Analyzer, SDA-59Relocation records analyzing in object file, (U) DCL Dictionary, DCL1-29 RELSCHAN macro, (P) Device Support (B), 2-57, 3 - 91Remainder, (P) RTL Math, 1-7 REMAIN keyword, (P) VAXTPU, 7-312 with SEARCH, (P) VAXTPU, 7-327 with SEARCH\_QUIETLY, (P) VAXTPU, 7-332 REMEMBER command, (U) EVE Ref, EVE-114 Remote, (M) DECnet-VAX Guide, 3-1 Remote batch execution, (M) DECnet-VAX Guide,

2-12, 2-13

Remote file operations (cont'd) Remote Bridge Management Software, (M) VMS to RSX (using RMS-based FAL), (M) VAXcluster, 7-26 Networking, 9-10 Remote buffer errors, V5.5 Release Notes, 4-12 VMS to TOPS-10, (M) Networking, 9-18 Remote command execution, (M) Networking, 3-7 VMS to TOPS-20, (M) Networking, 9-21 Remote console connection, (M) Networking, 4–24 VMS to ULTRIX, (M) Networking, 9-27 Remote console facility VMS to VMS See RCF Version 5.0 to previous version, (M) Remote file Networking, 9-33 See also Remote file access REMOTE identifier, (M) Security, 4-19, 5-4 backing up, (M) DECnet-VAX Guide, 2-9 Remote login, (M) Security, 3-2 comparing, (M) DECnet-VAX Guide, 2-8 and system password, (M) Security, 5-15 copying, (M) DECnet-VAX Guide, 2-5 Remote network command terminal facility, (M) creating with VMS editor, (M) DECnet-VAX DECnet-VAX Guide, 3-3 Guide, 2-7 See also Network command terminal facility deleting, (M) DECnet-VAX Guide, 2-7 Remote network node data displaying contents, (M) DECnet-VAX Guide, controlling, (M) VAXcluster, 4-12 Remote node, (M) SYSMAN, SM-2; (M) editing, (M) DECnet-VAX Guide, 2-7 Networking, 1-15, 1-21, 2-2, 3-6 examining, (M) DECnet-VAX Guide, 2-9 accessing interactively, (M) DECnet-VAX lexical functions, (M) DECnet-VAX Guide, Guide, 3-3 2-12, 2-13 address, (M) DECnet-VAX Guide, 3-11 merging, (M) DECnet-VAX Guide, 2-8 copying database, (M) DECnet-VAX Guide, printing, (M) DECnet-VAX Guide, 2-6 3-17; (M) Networking, 2-3, 3-23 purging, (M) DECnet-VAX Guide, 2-7 copying files to local node from, (U) Using restoring to local node, (M) DECnet-VAX VMS, 2-14 Guide, 2-9 definition, (U) Using VMS, 1-3 searching, (M) DECnet-VAX Guide, 2-8 displaying counter information with NCP, (M) sorting, (M) DECnet-VAX Guide, 2-8 DECnet-VAX Guide, 4-1 specifications and logical names, (M) displaying files on, (U) Using VMS, 2-11 DECnet-VAX Guide, 2-4 establishing logical link with, (P) System specifying, (M) DECnet-VAX Guide, 2-2, 2-3 Services Ref, SYS-31 specifying on non-VMS systems, (M) loopback test, (M) Networking, 7-2 DECnet-VAX Guide, 2-3 losing connection, (M) DECnet-VAX Guide, 3-3 Remote file access, (M) DECnet-VAX Guide, 2-2; name, (M) DECnet-VAX Guide, 3-11 (M) Networking, 1-21, 8-1 printing file on, (U) Using VMS, 2-19 See also File specification setting name and address, (M) Networking, 3-9 controls, (M) DECnet-VAX Guide, 2-3 terminating connection, (M) DECnet-VAX FORTRAN program example, (P) File Guide, 3-3 Applications, 5-6 Remote node databases how to deny, (M) Security, 8-6 copying, (M) VAXcluster, 4-8 through command procedures, (M) Remote printing, (M) Maintaining VMS, 5-7 DECnet-VAX Guide, 2-12 Remote process, (M) DECnet-VAX Guide, 2-3 through high-level language programs, (M) Remote queue status, (M) Maintaining VMS, DECnet-VAX Guide, 2-12 5-71 Remote file operations Remote record error messages, (M) DECnet-VAX Guide, 2-10 examining, (M) DECnet-VAX Guide, 2-9 general DECnet-VAX restrictions, (M) Remote security archive file, (M) Security, 6-9 Networking, 9-1 Remote session heterogeneous network, (M) Networking, 9-1 terminating, (M) DECnet-VAX Guide, 3-3 VMS to RT-11, (M) Networking, 9-14 Remote sites VMS to IAS, (M) Networking, 9-2 duplicate computing facilities, Dependability VMS to MS-DOS, (M) Networking, 9-24 Handbook, 5-14 VMS to MVS, (M) Networking, 9-30 multiple-site data center VAXcluster system, VMS to P/OS, (M) Networking, 9-5 Dependability Handbook, 5-15, 6-24, 7-16 VMS to RSTS/E, (M) Networking, 9-7 mutual backup processing agreements, VMS to RSX (using FCS-based FAL), (M) Dependability Handbook, 5-14 Networking, 9-12

Remote sites (cont'd) vendor-supplied backup sites, Dependability Handbook, 5-15 Remote task, (M) DECnet-VAX Guide, 2-14 execution, (M) DECnet-VAX Guide, 2-12, 2-14 specification, (M) DECnet-VAX Guide, 2-14 Remote terminal UCB extension, (P) Device Support (B), 1-75 /REMOTE\_ID qualifier, (M) Accounting, ACC-25 Removal of key map built-in procedures REMOVE\_KEY\_MAP, (P) VAXTPU, 7-313 Removal of window, (P) VAXTPU, 2-28 REMOVE (Field) command, (M) Show Cluster, SHCL-68 REMOVE/IDENTIFIER command, (M) Authorize, AUTH-43 REMOVE/PROXY command, (M) Authorize, AUTH-44 REMOVE CIRCUITS command, (M) Show Cluster, SHCL-61 REMOVE CLUSTER command, (M) Show Cluster, SHCL-62 REMOVE command, (U) Using VMS, 8-15; (U) Mail, MAIL-72; (U) EVE Ref, EVE-115 to EVE-116; (M) Install, INS-24; (M) Authorize, AUTH-42; Obsolete Features, 4-14 for buffer manipulation (EVE), (U) Text Processing, 1-48 moving text with (EVE), (U) Text Processing, using with search string (EVE), (U) Text Processing, 1-20 REMOVE CONNECTIONS command, (M) Show Cluster, SHCL-63 REMOVE COUNTERS command, (M) Show Cluster, SHCL-65 REMOVE CREDITS command, (M) Show Cluster, SHCL-66 REMOVE ERRORS command. (M) Show Cluster. SHCL-67 REMOVE/IDENTIFIER command, (M) Security, 5-6Remove key See also CUT command moving text with (EVE), (U) Text Processing, 1 - 18on LK201 Keyboard, (U) EDT Ref, EDT-50 REMOVE LOCAL\_PORTS command, (M) Show Cluster, SHCL-69 REMOVE MEMBERS command, (M) Show Cluster, SHCL-70 REMOVE/PROXY command, (M) Security, 8-19 /REMOVE qualifier, (P) Debugger, CD-69; (P) Librarian, LIB-38 Remove service, (P) RMS, RMS-81, RMS-82 caution against mixing with Search service, (P)

RMS, RMS-82

Remove service (cont'd) comparing with Erase service, (P) RMS, RMS-82 condition values, (P) RMS, RMS-84 control block input fields, (P) RMS, RMS-82 control block output fields, (P) RMS, RMS-83 improving performance, (P) RMS, RMS-82 requirements for using, (P) RMS, RMS-82 use with wildcard characters and search lists, (P) RMS, RMS-82 REMOVE SYSTEMS command, (M) Show Cluster, SHCL-71 REMOVE\_KEY\_MAP built-in procedure, (P) VAXTPU, 7-313 to 7-314 Removing a computer, (M) VAXcluster, 7-12, 7-22 adjusting EXPECTED\_VOTES, (M) VAXcluster, 7-22 shutting down before removing from cluster, (M) VAXcluster, 7-12 Removing a satellite, (M) VAXcluster, 7-12 Removing records, (U) Mail, MAIL-72 REMQHI (Remove Entry from Queue at Head, Interlocked) instruction, (P) MACRO, 9-95 REMQTI (Remove Entry from Queue at Tail, Interlocked) instruction, (P) MACRO, 9-97 REMQUE (Remove Entry from Queue) instruction, (P) MACRO, 9-99 RENAME/IDENTIFIER command, (M) Authorize, AUTH-47 RENAME command, (U) VMS Intro, 2-7; (U) Using VMS, 2-17; (U) DCL Dictionary, DCL2-34 to DCL2-37; (M) Exchange, EXCH-38 to EXCH-39; (M) Authorize, AUTH-45 Rename service, (P) File Applications, 5-9; (P) RMS, RMS-85, RMS-86 alternative to specifying arguments to \$RENAME macro, (P) RMS, RMS-86 condition values, (P) RMS, RMS-88 control block input fields, (P) RMS, RMS-86 control block output fields, (P) RMS, RMS-87 exception in argument list, (P) RMS, 2-5 format, (P) RMS, 3-11 indicating successful completion, (P) RMS, 4-16program example, (P) RMS, 4-14 requirements for using, (P) RMS, RMS-86 Renaming files with the COPY command and the asterisk (\*) wildcard, (U) DCL Concepts, 3-19 Reorganizing a file, (P) Convert, CONV-4 REPAIR command in LMCP Utility, V5.5 New Features, B-85 ABORT subcommand, V5.5 New Features, B - 87COMMIT subcommand, V5.5 New

Features, B-88

REPAIR command Replacing text (cont'd) in LMCP Utility (cont'd) REPLACE, (U) EDT Ref, EDT-87, EDT-165 EXIT subcommand, V5.5 New Features, S (substitute), (U) EDT Ref, EDT-305 B - 89SEL (select), (U) EDT Ref, EDT-307 SN (substitute next), (U) EDT Ref, EDT-311 FORGET subcommand, V5.5 New Features, B-90 string specifier HELP subcommand. V5.5 New Features. nokeypad mode, (U) EDT Ref, EDT-313 SUBS, (U) EDT Ref, EDT-100 SUBSTITUTE, (U) EDT Ref, EDT-243 NEXT subcommand, V5.5 New Features, SUBSTITUTE NEXT, (U) EDT Ref, EDT-247 B - 92REPLY command, V5.5 Release Notes, 4-4; (U) Repairing errors, (M) Analyze/Disk, ADSK-1 /REPAIR qualifier, (M) Analyze/Disk, ADSK-9 VMS Intro, 1–12; (U) Mail, MAIL–73; (U) DCL Dictionary, DCL2-38 to DCL2-46; (M) Repeat block argument substitution, (P) MACRO, 6-47 SYSMAN, SM-19 character substitution, (P) MACRO, 6-49 See also ANSWER command end, (P) MACRO, 6-28 See also INITIALIZE command listing range definitions of, (P) MACRO, 6-89 See also MOUNT command listing range expansions of, (P) MACRO, 6-89 See also REQUEST command listing specifiers, (P) MACRO, 6-89 /ABORT qualifier, (M) Maintaining VMS, 3-3 terminating repetition, (P) MACRO, 6-62 /BLANK\_TAPE qualifier, (U) Files and Devices, Repeat block directive (.REPEAT), (P) MACRO, 5-5; (M) Maintaining VMS, 3-6 6 - 84/DISABLE qualifier, (M) System Management REPEAT command, (U) Using VMS, 8-7; Intro, 4-3; (M) Maintaining VMS, 3-2 (U) EVE Ref, EVE-117 to EVE-118; (P) disabling operator status, (U) DCL Dictionary, Debugger, 8-10, CD-109; (P) System Dump DCL2-40 Analyzer, SDA-64 ENABLE qualifier, (M) System Management EVE editor, (U) Text Processing, 1-7 Intro, 4-3; (M) Maintaining VMS, 3-1, 6-8 .REPEAT command, (U) DSR Ref, 2-102, A-5 enabling operator status, (U) DCL Dictionary, .REPEAT directive, (P) MACRO, 6-84 DCL2-40 Repeating characters, (P) File Def Language, /INITIALIZE\_TAPE qualifier, (U) Files and FDL-27, FDL-28 Devices, 5-5; (M) Maintaining VMS, 3-6 in compression, (P) File Applications, 3-16 /LOG qualifier, (M) Maintaining VMS, 6-7 Repeat range end directive (.ENDR), (P) MACRO, using to create a log file, (M) Maintaining VMS, 6-11 Repetitive statements, (P) VAXTPU, 3-21 to 3-22 PENDING qualifier, (M) Maintaining VMS, Repetitive substitution definition, (U) DCL Concepts, 7-5 qualifiers, (U) Mail, MAIL-19 REPLACE command, (U) Using VMS, 8-20; (U) responding to file system requests, (U) DCL EDT Ref, EDT-87, EDT-165; (U) EVE Ref, Dictionary, DCL2-39 EVE-119 to EVE-121; (M) Install, INS-25; responding to user requests, (U) DCL (P) Patch, PAT-71 Dictionary, DCL2-39 See also Replacing text restarting BACKUP operations with, (M) case sensitivity of (EVE), (U) Text Processing, Backup, BCK-8 /TO qualifier, (U) Files and Devices, 5-4, 5-5; EDT editor, (U) Text Processing, 2-30 (M) Maintaining VMS, 3-3, 3-5, 3-6, 3-8 EVE editor, (U) Text Processing, 1-33 REPLY/ENABLE=NETWORK command with /INSTRUCTION qualifier, (P) Patch, to enable network operator terminal, (M) PAT-72, PAT-73 DECnet-VAX Guide, 4-4 REPLACE keypad function REPLY/ENABLE=SECURITY command, (M) EDT, (U) Text Processing, 2-21 Security, 4-42 /REPLACE qualifier, (M) Backup, BCK-80; Report from SHOW CLUSTER, (M) Show Cluster, (P) Command Def, CDU-43; (P) Librarian, SHCL-1 to SHCL-3 LIB-12, LIB-39; (P) National Char Set, adding data, (M) Show Cluster, SHCL-7 NCS-40 changing default at startup, (M) Show Cluster, LIBRARY command, (P) Programming SHCL-12 Resources, 5-2 command to modify, (M) Show Cluster, Replacing text SHCL-5 to SHCL-6

R (replace), (U) EDT Ref, EDT-302

```
Report from SHOW CLUSTER (cont'd)
                                                    Requeuing
  compressing the display, (M) Show Cluster,
                                                       an executing job, (M) Maintaining VMS, 5-80
      SHCL-9
                                                       a pending job, (M) Maintaining VMS, 5-81
  controlling the display, (M) Show Cluster,
                                                    REQUIRE command, (U) DSR Ref, 2-103, 4-8,
      SHCL-4 to SHCL-11
                                                        A-5
  controlling with command procedures, (M)
                                                    REQUIRED clause
      Show Cluster, SHCL-13
                                                       specifying keyword in a VALUE clause, (P)
  default display, (M) Show Cluster, SHCL-7,
                                                           Command Def, CDU-29
      SHCL-56
                                                       specifying parameter in a VALUE clause, (P)
  formatting, (M) Show Cluster, SHCL-78
                                                           Command Def, CDU-24
  organization of, (M) Show Cluster, SHCL-2
                                                       specifying qualifier in a VALUE clause, (P)
  panning, (M) Show Cluster, SHCL-10
                                                           Command Def, CDU-26
  printing, (M) Show Cluster, SHCL-82
                                                    Required privileges, (M) Network Control
  scrolling, (M) Show Cluster, SHCL-10
                                                        Program, NCP-12
   time period for, (M) Show Cluster, SHCL-16,
                                                    Required values
      SHCL-18
                                                       for /DATA qualifier, (P) National Char Set,
  update interval, (M) Show Cluster, SHCL-7,
                                                           NCS-26
      SHCL-19, SHCL-80
                                                    Requirements
   window placement, (M) Show Cluster, SHCL-8
                                                       business, Dependability Handbook, 2-6
Reporting errors, (M) Analyze/Disk, ADSK-1
                                                       defining logical name in a VAXcluster
Reporting problem, (M) Setting Up VMS, 3-5
                                                           environment, V5.5 New Features, 5-5; (M)
/REPORT qualifier, (M) Accounting, ACC-26
                                                           Maintaining VMS, 5-66
Report system event
                                                       location of queue and journal file, V5.5 New
  global symbols, (P) System Dump Analyzer,
                                                           Features, 5-4; (M) Maintaining VMS, 5-66
      SDA-61
                                                       user, Dependability Handbook, 2-5
REQALT macro, (P) Device Support (A), 14-10,
                                                    /REQUIRE qualifier, (U) DSR Ref, 5-5, 6-9
    14–19; (P) Device Support (B), 3–92
                                                    RERAISE exception, (P) DECthreads, 4-6, 4-9,
REQCOM macro, (P) Device Support (A), 10-3,
    17–28; (P) Device Support (B), 2–59, 3–94
                                                    RESEQUENCE command, (U) EDT Ref, EDT-167
   required for error logging, (P) Device Support
                                                       EDT editor, (U) Text Processing, 2–23
      (A), 11–10
                                                    Reservation list, License Management, LMF-88
REQDPR macro, (P) Device Support (A), 14-11,
                                                       access denied to users on, License Management,
    14–17; (P) Device Support (B), 2–60, 3–96
                                                           LMF-42
REQMPR macro, (P) Device Support (A), 14–10,
                                                       matching user number to combined units,
    14-11, 14-19; (P) Device Support (B), 2-61,
                                                           License Management, LMF-43
                                                       replacing many with one, License Management,
REQPCHAN macro, (P) Device Support (A), 3-27,
                                                           LMF-43
    8-2 to 8-4, 15-6, 15-14; (P) Device Support
                                                       used with LICENSE MODIFY command,
    (B), 2–62, 3–100
                                                           License Management, LMF-41
REQSCHAN macro, (P) Device Support (A), 15-6,
                                                    /RESERVE=n qualifier, (U) DSR Ref, 6-9
    15-14; (P) Device Support (B), 2-63, 3-100
                                                    Reserved data type code, (P) Routines Intro, 2-20
                                                    Reserved descriptor class code, (P) Routines Intro,
  for mounting volumes, (M) Maintaining VMS,
                                                        2 - 44
                                                    Reserved event flag
  OPCOM message, (M) Maintaining VMS, 3-2
                                                       use of, (P) RMS, 2-7
      if operator terminals are disabled, (M)
                                                    Reserved files, (M) Analyze/Disk, B-1
          Maintaining VMS, 3-3
                                                       BITMAP.SYS, (M) Analyze/Disk, B-3
REQUEST command, (U) DCL Dictionary,
                                                       INDEXF.SYS, (M) Analyze/Disk, B-1
    DCL2-47 to DCL2-48; (M) Maintaining
                                                       master file directory, (M) Analyze/Disk, B-3
    VMS, 6-9
                                                       QUOTA.SYS, (M) Analyze/Disk, B-3
  /REPLY qualifier, (M) System Management
                                                       VOLSET.SYS, (M) Analyze/Disk, B-3
      Intro, 4-3; (M) Maintaining VMS, 3-2
                                                    Reserved identifier
  TO qualifier, (M) System Management Intro,
                                                       See System-defined identifier
      4-3; (M) Maintaining VMS, 3-2
                                                    Reserved operand, (P) MACRO, 9-102, 9-103,
Request sense key, (P) Device Support (A), 17-18
                                                        9 - 145
Request to unwind, (P) Routines Intro, 2-52
                                                       fix floating-point fault, (P) RTL Library,
Requeue, (P) DECthreads, 2–16
```

LIB-165

Resource management (cont'd) Reserved user license, License Management, review of VMS mechanisms, (M) Performance LMF-34, LMF-88 Management, 2-1 Reserved word Resource manager, V5.5 New Features, B-36; (P) built-in procedures, (P) VAXTPU, 3-12 System Services Intro, 14-2; Dependability keywords, (P) VAXTPU, 3-12 Handbook, 8–14 language elements, (P) VAXTPU, 3-13 to 3-14 Resource monitoring, (M) Security, 6-1, 6-14 predefined constants, (P) VAXTPU, 3-13 action threshold, (M) Security, 6-17 RESERVE\_UNITS option, License Management, and disk space problems, (M) Security, 6-16 LMF-34, LMF-88 by disk space, (M) Security, 6-18 RESET command, (U) Using VMS, 8-65; (U) by message count, (M) Security, 6-18 EDT Ref, EDT-88; (U) EVE Ref, EVE-122 to by percentage, (M) Security, 6-18 EVE-123 by time, (M) Security, 6–18 See also Entering commands changing mode, (M) Security, 6–18 moving text with (EVE), (U) Text Processing, changing threshold values, (M) Security, 6-18 1 - 19disabling, (M) Security, 6-19 RESET keypad function overflowing the OPCOM mailbox, (M) Security, EDT, (U) Text Processing, 2-18, 2-21 6 - 15Reset modules, (M) Maintaining VMS, 5-46 resume threshold, (M) Security, 6-17 RESET TIMER parameter, (M) Networking, 3-32 returning to normal conditions, (M) Security, RESHASHTBL parameter, (M) System Generation, A-27 running out of virtual memory, (M) Security, Resizing 6 - 20of screen in VAXTPU, (P) VAXTPU, 7-391, thresholds, (M) Security, 6-16 7-501 warning threshold, (M) Security, 6-16 Resource Resources See also Resources See also Resource controlling, (P) System Services Intro, 8-6 managing complex environments, displaying SDA information, (P) System Dump Dependability Handbook, 9-1 Analyzer, SDA-143 system limit, (M) Setting Up VMS, 5-1 tracking, (M) Maintaining VMS, 6-2 lock management concept, (P) System Services Resource sharing, (M) VAXcluster, 3-1; (M) Intro, 13-1 DECnet-VAX Guide, 1-1 name, (P) System Services Intro, 13-2 "resources" string constant parameter to of widget GET\_INFO, (P) VAXTPU, 7-215 fetching class and data type of, (P) Resource wait flag VAXTPU, 7-215 quota, (P) System Services Intro, 2-2 See PCB\$V\_SSRWAIT sharing in cluster, (M) System Management Resource wait mode, (P) System Services Intro, Intro, 6-12 2-2; (P) Device Support (A), 4-9; (P) Device supported data types for, (P) VAXTPU, 4-12 Support (B), 3-12, 3-20, 3-22 Resource attribute, (M) Security, 4-29, 4-32, 5-13 setting, (P) System Services Ref, SYS-538 RESOURCE attribute, (P) System Services Intro, Resource wait queue, (P) Device Support (A), 3-25 3 - 4to 3-27, E-14 Resource block See also Alternate map register wait queue See RSB See also Data path wait queue Resource contention considerations, Dependability See also Device controller data channel wait Handbook, 8-6 Resource evaluation strategy, (M) Performance See also Map register wait queue Management, 3-1 See also Secondary data channel wait queue Resource limitation buffered data path, (P) Device Support (B), compensating for, (M) Performance 3 - 88Management, 5-1Response descriptor table diagnosing, (M) Performance Management, 4-1 See RDT Resource management definition, (M) Performance Management, 3-1 Response ID ground rules, (M) Performance Management, See RSPID 3-2

Restoring deleted text (cont'd) /RESPONSES qualifier, (P) File Def Language, UND C, (U) EDT Ref, EDT-52, EDT-56, FDL-42, FDL-56 EDT-106 Responsibilities UNDC (undelete character), (U) EDT Ref, of network manager, (M) DECnet-VAX Guide, EDT-326 UND L, (U) EDT Ref, EDT-54, EDT-57, of system manager, (M) System Management EDT-107 Intro, 7-4; (M) Networking, 1-15 UNDL (undelete line), (U) EDT Ref, EDT-327 of system manager of a network node, (M)UND W, (U) EDT Ref, EDT-59, EDT-109 DECnet-VAX Guide, 2-26 UNDW (undelete word), (U) EDT Ref. \$RESTART, (U) Using VMS, 5-4; (U) DCL EDT-329 Concepts, 5-2 Restoring quorum, (M) VAXcluster, 7-26 Restarting Restoring satellite configuration data, (M) batch job, (U) Command Procedures, 8-9 VAXcluster, 7–11 DECnet-VAX, (M) DECnet-VAX Guide, 3-31, Restoring terminal width example, (P) VAXTPU, A-5 Restarting OPCOM, (M) Maintaining VMS, 6-12 Restoring the queue database, (M) Maintaining Restarting the ERRFMT process, (M) Maintaining VMS, 5-64 VMS, 6-5Restricted access disk, (M) VAXcluster, 5-1 Restarting the queue manager, (M) Maintaining Restricted account VMS, 5-63, 5-65 danger of process spawning, (M) Security, 5-48 after moving queue files, V5.5 New Features, for network environment, (M) Security, 8-5 5-4, 5-5RESTRICTED flag (UAF) RESTART option, (M) Maintaining VMS, 3-8 new flag, V5.5 Release Notes, 2-44 RESTART TIMER parameter, (M) Networking, Restriction, (M) Mount, MOUNT-4; (P) Librarian, LIB-11; (P) Analyze/RMS\_File, REST command, (P) File Applications, 10-12, ARMS-11; (P) Convert, CONV-5; (P) File Def 10-16; (P) Analyze/RMS\_File, ARMS-33 Language, FDL-43 RESTORE BOX SELECTION command, (U) EVE for subprocess, (P) VAXTPU, 2-20 Ref, EVE-125 to EVE-126 in help file keys, (P) Librarian, LIB-4 EVE editor, (U) Text Processing, 1-22 login class, (M) Security, 3-16 RESTORE CHARACTER command, (U) Using of SYSMAN, (M) SYSMAN, SM-18 VMS, 8-13; (U) EVE Ref, EVE-127 on command usage, (M) Security, 5-31 EVE editor, (U) Text Processing, 1-16 on mode of operation, (M) Security, 5-31 RESTORE command, (U) Using VMS, 8-13; (U) shift, (M) Security, 3-16 EVE Ref, EVE-124 to calling services. (P) RMS, 2-7 EVE editor, (U) Text Processing, 1-16 VAXTPU .RESTORE command, (U) DSR Ref, 2-106 virtual address space, (P) VAXTPU, 5-1 RESTORE LINE command, (U) Using VMS, work time, (M) Security, 5-30 8-13; (U) EVE Ref, EVE-128 Resultant string EVE editor, (U) Text Processing, 1-16 requesting, (P) RMS, 6–2 Restore operation (BACKUP), (M) Backup, Resultant string area address field BCK-18 /RESTORE qualifier, (P) Debugger, CD-179 See NAM\$L\_RSA field RESTORE SELECTION command, (U) EVE Ref, Resultant string area size field EVE-129 See NAM\$B\_RSS field EVE editor, (U) Text Processing, 1-16 Resultant string length field moving text with (EVE), (U) Text Processing, See NAM\$B\_RSL field 1 - 19Resume execution RESTORE SENTENCE command, (U) EVE Ref. of command procedure, (U) DCL Dictionary, EVE-130 DCL1-63 RESTORE WORD command, (U) Using VMS, of DCL commands, (U) DCL Dictionary, 8-13; (U) EVE Ref, EVE-131 DCL1-63 EVE editor, (U) Text Processing, 1-16 of program, (U) DCL Dictionary, DCL1-63 .RESTORE\_PSECT directive, (P) MACRO, 6-86 Resuming printing of an output job, (M) Restoring deleted text Maintaining VMS, 5-83, 5-84 Ctrl/U, (U) EDT Ref, EDT-47

LINEFEED, (U) EDT Ref, EDT-59

Resuming queue status, (M) Maintaining VMS, RET (Return from Procedure) instruction, (P) MACRO, 9-69 Retained jobs deleting, V5.5 Release Notes, 1-2 Retained job states, (M) Maintaining VMS, 5-24, 5-69, 5-78, 5-80, 5-81 Retaining jobs in a queue changing retention of a job, (M) Maintaining VMS, 5-81 Retention job, (M) Maintaining VMS, 5-24 Retransmission timeout period determination of, V5.5 Release Notes, 2-15 Retransmit limit, (M) LATCP, LAT-32 Retransmit timer, (M) Networking, 3-59 formula for, (M) Networking, 3-59 Retries controlling number for dialups, (M) Security, 5-22Retrieval pointer, (P) File Applications, 9-8 Retrieval window size field See FAB\$B\_RTV field Retrieving record program example, (P) RMS, 4-16 Retry count, (P) Device Support (A), 10-6 /RETRY qualifier, (M) Bad Block, BAD-14 Return address array, (P) System Services Intro, 12-4RETURN command, (U) Using VMS, 6-25; (U) DCL Dictionary, DCL2-49 to DCL2-50; (U) EDT Ref, EDT-42, EDT-90; (U) EVE Ref. EVE-132 Return condition special, (P) System Services Intro, 2-12 Return condition value, (P) System Services Intro, high-level language, (P) System Services Intro, 2 - 17Returning condition values, (P) Modular Procedures, 2-23 Returning from condition handler, (P) Routines Intro, 2-52 Return key, (U) Using VMS, 1-17, 1-19; (U)

DCL Concepts, 2-1, 2-8; (P) I/O User's I, 8-6

interactive mode, (P) File Applications, 10-12

pressing to log in, (U) DCL Dictionary,

using with EVE to format text, (U) Text

Return key command, (P) Delta/XDelta,

/RETURN qualifier, (P) Debugger, CD-127,

DCL1-392

CD-186, CD-259

DELTA-27

Processing, 1-39

logical successor, (P) Debugger, 4-8, 4-13, D-5

Returns, (P) Routines Intro, 1-14 condition value, (P) Routines Intro, 2-8 function value, (P) Routines Intro, 2-7 I/O status, (P) Routines Intro, A-7t in I/O status block, (P) Routines Intro, 1-14 in mailbox, (P) Routines Intro, 1-14 object, (P) Routines Intro, A-7t signaled in register, (P) Routines Intro, 1-15 Returns heading, (P) Routines Intro, 1-5 RETURN statement, (P) VAXTPU, 3-26, 3-31 to 3-33, 7-315 Return status, (P) Programming Resources, 9-3 from signal, (P) Programming Resources, 9-6 REVERSE command, (U) EVE Ref, EVE-133 moving the cursor with (EVE), (U) Text Processing, 1-9 REVERSE keyword, (P) VAXTPU, 7-85, 7-453 with MARK, (P) VAXTPU, 7-261 with SEARCH, (P) VAXTPU, 7-328 with SEARCH\_QUIETLY, (P) VAXTPU, 7-333 with SELECT, (P) VAXTPU, 7-337 with SET (MESSAGE\_ACTION\_TYPE), (P) VAXTPU, 7-426 with SET (PROMPT\_AREA), (P) VAXTPU, 7 - 446with SET (STATUS\_LINE), (P) VAXTPU, with SET (VIDEO), (P) VAXTPU, 7-492 Reverse path caching, (M) Networking, 2-27 /REVERSE\_EMPHASIS qualifier, (U) DSR Ref. "Reverse\_status" string constant parameter to GET\_INFO, (P) VAXTPU, 7-224 "Reverse\_video" string constant parameter to GET\_INFO, (P) VAXTPU, 7-224 Revert to the caller's handling, (P) Routines Intro, 2-47REVISION attribute, (P) File Def Language, FDL-16, FDL-24 Revision data, (P) File Applications, 9-10 Revision date and time extended address block See XABRDT block Revision date and time field See XAB\$Q\_RDT field Revision number, (P) File Def Language, FDL-24 Revision number field See XAB\$W\_RVN field REVISION secondary attribute, (P) File Applications, 4-28 REVOKE/IDENTIFIER command, (M) Authorize, AUTH-48 Rewind offline function, (P) I/O User's I, 6–21 Rewind on close option See FAB\$V\_RWC option Rewind on open option See FAB\$V\_RWO option

Rights database (cont'd) /REWIND qualifier, (M) Backup, BCK-12 keys, (P) System Services Intro, 3-5 as input save-set qualifier, (M) Backup, modifying, (M) Authorize, AUTH-1; (P) BCK-81 System Services Intro, 3-12, 3-14 as output save-set qualifier, (M) Backup, renaming identifiers, (M) Authorize, AUTH-47 **BCK-82** Rights identifier, (M) SYSMAN, SM-6, SM-38, Rewind service, (P) File Applications, 8-5; (P) SM-45; (P) Routines Intro, A-12t RMS, RMS-89, RMS-90 Rights list, (M) System Management Intro, 3-7; condition values, (P) RMS, RMS-90 (M) Security, 4-20; (P) System Services Intro, control block input fields, (P) RMS, RMS-90 control block output fields, (P) RMS, RMS-90 modifying, (U) DCL Dictionary, DCL2-212 effect on next-record position, (P) File RIGHTSLIST.DAT file Applications, 8-16 defining logical name for, (M) VAXcluster, 4-13 use restriction, (P) RMS, RMS-90 merging, (M) VAXcluster, B-2 RF30 disk, (P) I/O User's I, 3-7 preparing common version of, (M) VAXcluster, RF71 disk, (P) I/O User's I, 3-7 4-13RFA (record file address), (P) File Applications, sharing, (M) VAXcluster, 4-12 1-2, 8-12 to 8-13, 9-17, 10-31; (P) Convert, Rights of user CONV-1, CONV-4 displaying, (M) Security, 5-7 access, (P) File Applications, 10-30; (P) rights\_holder data type, (P) Routines Intro, A-11t Convert, CONV-4 rights\_id data type, (P) Routines Intro, A-12t created by CONVERT, (P) File Applications, RIGHT\_MARGIN keyword, (P) VAXTPU, 7-454 3 - 16"Right\_margin" string constant parameter to use of table for rapid access, (P) File GET INFO, (P) VAXTPU, 7-175, 7-186 Applications, 8-3 RIGHT MARGIN ACTION keyword. (P) Right arrow key, (U) DCL Concepts, 2-5 VAXTPU, 7-456 See also Cursor movement "Right\_margin\_action" string constant parameter keypad mode, (U) EDT Ref, EDT-92 to GET\_INFO, (P) VAXTPU, 7-175 moving cursor with, (U) Using VMS, 1-18 RJOBLIM parameter, (M) System Generation, moving the cursor with, (U) Text Processing, A-271-8 RK06 cartridge disk, (P) I/O User's I, 3-7 nokeypad mode, (U) EDT Ref, EDT-304 RK07 cartridge disk, (P) I/O User's I, 3-7 .RIGHT command, (U) DSR Ref, 2-104 RL01 driver, (P) Device Support (A), C-1 to C-29 .RIGHT MARGIN command, (U) DSR Ref, 2-105 RL02 driver, (P) Device Support (A), C-1 to C-29 /RIGHT qualifier, (U) DSR Ref, 4-21; (P) RL11 driver, (P) Device Support (A), C-1 to C-29 Debugger, CD-94, CD-104, CD-112 RLB (record lock block), (P) System Dump Rights database, V5.5 Release Notes, 2-3; (M) Analyzer, SDA–77 System Management Intro, 3-4; (M) Security, RLK option, (P) File Def Language, FDL-11 4-4, 4-15; (P) Programming Resources, 6-1; RM03 device, (P) File Def Language, FDL-38 (P) System Services Intro, 3-2, 3-5, 3-14 RM03 disk, (P) I/O User's I, 3-7 adding identifiers to, (M) Authorize, AUTH-16 RM05 disk, (P) I/O User's I, 3-7 adding to, (P) System Services Intro, 3-8 RMS\$\_OK\_LIM success status code, (P) RMS, alarms, (M) Security, E-4 7-13 altering identifiers in, (M) Authorize, AUTH-37 RMS\$\_XAB error, V5.5 New Features, B-112 creating, (M) Authorize, AUTH-1, AUTH-23 RMS (Record Management Services) creating and maintaining, (M) Security, 5-5, See VMS RMS RMS.EXE, (P) System Dump Analyzer, SDA-61 default protection, (P) System Services Intro, RMS-11 block identifier field limitation, (P) RMS, 5-3 deleting identifiers from, (M) Authorize, AUTH-43 stream files, (P) File Def Language, FDL-35 display, (M) Security, 5-7 Version 1.8, (P) File Def Language, FDL-30 displaying identifiers in, (M) Authorize, RMS calls, (M) Networking, 1-22 AUTH-52 RMS control blocks with FDL routines, (P) Utility Routines, displaying records in, (M) Authorize, AUTH-55 elements of, (P) System Services Intro, 3-6 FDL-14, FDL-17 RMSDEF.STB, (P) System Dump Analyzer, holder record, (P) System Services Intro, 3-5 SDA-60 identifier record, (P) System Services Intro, 3-5

initializing, (P) System Services Intro, 3-6

Roman numeral (cont'd) \$RMSDEF macro chapter number (DSR), (U) Text Processing, See also VMS RMS access to symbolic offset names, (P) RMS, 2-2 page number (DSR), (U) Text Processing, 3-34 RMS image Root directory base address, (P) System Dump Analyzer, adding to an existing system disk, V5.5 Release SDA-14 Notes, B-4 RMS Journaling, V5.5 Release Notes, 3-42 Rooted-device logical name, (P) File Applications, as data integrity tool, Dependability Handbook, 6 - 15Rooted-directory logical name as resource manager with DECdtm services, for additional nesting, (P) File Applications, Dependability Handbook, 8-15 6-18 support for DECdtm services, V5.5 New Rooted-directory specification Features, B-114 to B-119 concatenated, (P) File Applications, 6-17 to synchronous recovery, V5.5 Release Notes, 3-42 /RMS qualifier, (P) System Dump Analyzer, syntax, (P) File Applications, 6–15 to 6–20 SDA-127 Root index bucket virtual block field RMS services See XAB\$L\_RVB field using XAB\$\_NORECORD XABITM, V5.5 New Root level, (P) File Applications, 3–17 Features, B-112 Root volume, (U) Files and Devices, 3-8 RMS statistics, (M) Monitor, MON-74 RMS structures, (P) Programming Resources, applying to a vector, (P) RTL Math, MTH-173 8 - 58Rotational latency, (P) File Applications, 1-5 RMS symbol, (P) System Dump Analyzer, SDA-14 ROTL (Rotate Long) instruction, (P) MACRO, RMS system parameters, (M) System Generation, A-27 to A-28 Router, (M) System Management Intro, 7-2; RMS utilities (M) DECnet-VAX Guide, 1-2, 3-11, 3-14; (M) See VMS RMS Networking, 1-1, 1-16, 3-44, 6-1 RMS\_DEFAULT command, (P) File Def Language, area, (M) System Management Intro, 7-2; (M) FDL\_30 DECnet-VAX Guide, 1-3; (M) Networking, RMS\_DFMBC parameter, (M) System Generation, 1-2, 2-23A-27definition, (M) Networking, 2-21 RMS\_DFNBC parameter, (M) System Generation, designated, (M) Networking, 1-8, 2-22, 2-26 A-27Ethernet, (M) Networking, 1-8, 2-26 RMS DFNBC system parameter level 1, (M) System Management Intro, for specifying default network block count, (P) 7-2; (M) DECnet-VAX Guide, 1-3; (M) RMS, 5-22 Networking, 1-2, 2-21, 2-23, A-1 RMS\_FILEPROT parameter, (M) Security, 4-34, level 2, (M) System Management Intro, 5-8, 5-117-2; (M) DECnet-VAX Guide, 1-3; (M) RMS\_GBLBUFQUO system parameter, (P) File Networking, 1-2, 2-21, 2-23, A-1 Applications, 1–16 on VAXcluster, (M) Networking, 1-12 RNE option, (P) File Def Language, FDL-14 Phase IV, (M) Networking, 2-23 RNF option, (P) File Def Language, FDL-14 redundant level 2 routers, (M) Networking, RNO file, (U) DSR Ref, 5-1, 5-2 A-3Rn symbol, (P) Delta/XDelta, DELTA-9 ROUTER PRIORITY parameter, (M) Networking, RNT file, (U) DSR Ref, 5-2 producing, (U) DSR Ref. 5-3 Route-through control, (M) Networking, 3-70 with DSR, (U) Text Processing, 3-49 Routine, (P) Librarian, LIB-10 RNX file, (U) DSR Ref, 6-6 with DSR, (U) Text Processing, 3-53 See also DECtalk routine Role boundaries See also Entry point of personnel, Dependability Handbook, 5-9 See also Mathematics routine See also String manipulation routine Rolling upgrade calling, (P) Debugger, 8-10, 11-22, CD-10 See Multiple VMS versions calling from a program, (P) Convert, CONV-1 ROM (read-only memory), (M) Terminal Fallback, call stack, (P) Debugger, 2-13, 7-6, 7-9, TFU-23

CD-166, CD-209

Roman numeral

Routine	Routing (cont'd)
call stack (cont'd)	hop, (M) Networking, 2–28
with DECwindows, (P) Debugger, 1–21,	initialization passwords, (M) Networking, 2-23
1–23, 1–26	2–39, 2–47, 3–93, A–15
definition of, (P) RTL Intro, 1-1	maximum visits, (M) Networking, 2-29
displaying instructions for, on call stack, (P)	message, (M) Networking, 2-30, 3-72
Debugger, 7-9, CD-166	message timer, (M) Networking, 2-30
with DECwindows, (P) Debugger, 1–21	parameters, (M) Networking, 2–28
displaying source code for, on call stack, (P)	path, (M) Networking, 2–28
Debugger, 7-6, CD-166	path control parameters, (M) Networking, 3-69
with DECwindows, (P) Debugger, 1–21	path cost, (M) DECnet-VAX Guide, 1-3; (M)
EXAMINE/SOURCE command, (P) Debugger,	Networking,2–28
6–4	path length, (M) DECnet-VAX Guide, 1-3; (M)
how to call, $(P)$ RTL Intro, 1–19, 3–1, 3–2	Networking, 2-28
library, (P) File Def Language, FDL-41,	problems, (M) DECnet-VAX Guide, 4-14
FDL-42	reachable node, (M) Networking, 2–28
multiple invocations of, $(P)$ Debugger, 5–10,	route-through control parameters, $(M)$
CD-166	Networking, 3–70
with DECwindows, (P) Debugger, 1–26	segmented message, (M) Networking, 2-30
processwide resource allocation, (P) RTL	setting configuration limits, (M) Networking,
Library, 2-16, 2-17	3–66
selecting from DEC windows window, (P)	timer, (M) Networking, 3–72
Debugger, 1-22	timing of messages, (M) Networking, 2-30
SET BREAK command, (P) Debugger, 3–10	verification, (M) Networking, 3-41
SET SCOPE command, (P) Debugger, CD-166	Routing information
SET TRACE command, (P) Debugger, 3–10	displaying with SHOW NETWORK command,
SHOW CALLS command, (P) Debugger, 2–13	(M) DECnet-VAX Guide, 3–2
traceback information, (P) Debugger, 5–3	Routing initialization password, (M) Networking,
with DECwindows, (P) Debugger, 1–23	1–10
variable-length bit field, (P) RTL Library, 2–10	Routing layer events, (M) Network Control
ROUTINE clause	Program, A-26
for DEFINE SYNTAX statement, (P)	Routing node
Command Def, CDU-26	See Router
for DEFINE VERB statement, (P) Command	Routing path
Def, CDU-35	tracing, (M) DECnet-VAX Guide, 4–14
Routine name	Routing timer, (M) Networking, 2-30
made available to debugger, (P) MACRO, 6–23 Routine name heading, (P) Routines Intro, 1–1	RP05 disk, $(P) I/O User's I$ , 3–7
	RP06 device, (P) File Def Language, FDL-38
Routing (M) DECret VAY Cuide 1 2: (M)	RP06 disk, $(P) I/O User's I, 3-7$
Routing, (M) DECnet-VAX Guide, 1-2; (M) Networking, 2-21	RP07 disk, (P) $I/O$ User's $I$ , 3–7
adaptive, (M) DECnet-VAX Guide, 1-3	RPG II
area, (M) System Management Intro, 7-2; (M)	See VAX RPG II
DECnet-VAX Guide, 1–3; (M) Networking,	RQDX3 disk controller, (P) $I/O$ User's $I$ , 3–5
1–2	RQUEUE, $(M) DTS/DTR$ , DTS-1
broadcast message timer, (M) Networking,	RR ("round robin") scheduling, (P) DECthreads,
2–30	2–6
commands, (M) Networking, 3-65	RRL option, (P) File Def Language, FDL-13
concepts, (M) Networking, 2–28	RRV (record reference vector), (P) File
configuration considerations, (M) Networking,	Applications, 3-6, 3-22; (P) Analyze / RMS
2–21	$File,  \mathrm{ARMS-6}$
control parameters, (M) Networking, 3-68	RSB (resource block), (P) System Dump Analyzer,
cost, (M) Networking, 2–28	SDA-109, SDA-143
data, (M) DECnet-VAX Guide, 1-1	RSB (Return from Subroutine) instruction, (P)
definition, (M) System Management Intro, 7–2;	Device Support (A), 7–4; (P) MACRO, 9–60
(M) Networking, 1–1	RSPID (response ID)
equal cost path splitting, (M) Networking,	displaying SDA information, (P) System Dump
2–29, 3–70	Analyzer, SDA–148

RTL (Run-Time Library) (cont'd) RST (run-time symbol table), (P) Debugger, 5-6 PPL\$REMOVE\_WORK\_ITEM, V5.5 New and symbol search, (P) Debugger, 5-8 Features, 13-4 deleting symbol records in, (P) Debugger, 5-7, PPL\$UNIQUE\_NAME, V5.5 New Features, CD-24 displaying modules in, (P) Debugger, 5-7, PPL\$WAIT\_AT BARRIER, V5.5 New Features, CD-225 13 - 4displaying symbols in, (P) Debugger, 5-9, queue access, (P) RTL Library, 2-12 CD-243 vectorized MTH\$ routines, V5.5 New Features, inserting symbol records in, (P) Debugger, 5-6, B-7, B-21, B-23 CD-152 RTL procedures, (P) Modular Procedures, 1-6 shareable image, (P) Debugger, 5-13 RTL routine, (P) Programming Resources, 1-24 to with DECwindows, (P) Debugger, 1-26 RSTS/E. (P) File Def Language, FDL-38 capabilities of, (P) RTL Intro, 1-18 RSTS/E node, (M) Networking, 9-7 DECtalk, (P) RTL DECtalk, 1-1 RSX-11M, (P) File Def Language, FDL-38 defined, (P) RTL Intro, 1-1 RSX-11M/M-PLUS entry point, (P) RTL Intro, 3-3, 3-4, 3-5 differences from VMS, (P) I/O User's I, 4-35 general purpose, (P) RTL General Purpose, 1-1 RSX-11M-PLUS, (P) File Def Language, FDL-38 how to call, (P) RTL Intro, 1-19, 3-1, 3-2 RSX-11S integer and floating-point, (P) RTL Library, checkpointing tasks, (M) Networking, 4-24 downline load of system, (M) Networking, 4-1 interaction with operating system, (P) RTL NETGEN procedure, (M) Networking, 4-20 Library, 2-1 overlaying tasks, (M) Networking, 4-24 jacket routine, (P) RTL Library, 2-1 task load, (M) Networking, 4-20 library, (P) RTL Library, 1-1 RSX node, (M) Networking, 9-10, 9-12 linking with, (P) RTL Intro, 1-19 RSX system output formatting control, (P) RTL Library, in network operations, (M) DECnet-VAX Guide, performance measurement, (P) RTL Library, RT-11, (P) File Def Language, FDL-38 node, (M) Networking, 9-14 return status, (P) Programming Resources, 9-3 volume, (U) Files and Devices, 3-12 string manipulation, (P) RTL String block-addressable, (U) Files and Devices, Manipulation, 2-1 5-3, 5-10 system service access, (P) RTL Library, 2–1 volume format, (M) Exchange, EXCH-1, to access command language interpreter, (P) EXCH-4 RTL Library, 2-2 specifying devices, (M) Exchange, EXCH-4 to access VAX instruction set, (P) RTL Library, specifying files, (M) Exchange, EXCH-4 2 - 9RT-11 volume to access VMS system components, (P) RTL block-addressable, (M) Maintaining VMS, 2-8 Library, 2-1 RTL (Run-Time Library), V5.5 Release Notes, to manipulate character string, (P) RTL 3 - 29Library, 2-14 capabilities of, (P) RTL Intro, 1-1 variable-length bit field instruction, (P) RTL condition handling, (P) RTL Library, 4-1 Library, 2–10 described, (P) RTL Intro, 1-1 RTPAD, (P) I/O User's I, 8–11 DNS\$ routines, V5.5 New Features, C-49 to RUB (recovery unit block), (P) System Dump Analyzer, SDA-77 LIB\$CREATE\_VM\_ZONE routine, new flags RUFB (recovery unit file block), (P) System Dump added, V5.5 Release Notes, 3-28 Analyzer, SDA-77 LIB\$GETQUI, V5.5 New Features, 13-1 LIB\$SYS\_TRNLOG routine, V5.5 Release Ruler key Notes, 4-14See WPS Ruler key MTH\$ routines, V5.5 New Features, B-7, B-21, Rules B - 23for FDL validity, (P) File Def Language, organization of, (P) RTL Intro, 1-19 FDL-39 Parallel Processing, V5.5 New Features, 13–3 Rules to remember PPL\$, V5.5 New Features, 13-3 complex applications require more sophisticated PPL\$DECREMENT\_SEMAPHORE, V5.5 New recovery strategies, Dependability Features, 13-4 Handbook, 8-41

Running DSR consider cable terminations when modifying DSSI configurations, Dependability Handbook, 6-20 consider memory and I/O as well as CPU capacity, Dependability Handbook, 4-14 continuous improvement means constant change, Dependability Handbook, 2-5 disaster/risk management is for professionals, Dependability Handbook, 5-11 eliminating single points of failure, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 5-16 cast on fo journal files, Dependability Handbook, 5-2 location of journal files, Dependability Handbook, 5-2 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-5 RUN (Targe) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 and debugger, (U) DCL Dictionary, DCL2-53 to DCL2-62 sabbreviating, (U) DCL Dictionary, DCL2-54 to DCL2-63 to DCL2-64 see also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-65 to DCL2-65 to DCL2-66 see also ATTACH command See also SPAWN command	Rules to remember (cont'd)	Dunning DCD
DSSI configurations, Dependability Handbook, 4-30 consider memory and I/O as well as CPU capacity, Dependability Handbook, 2-5 disaster/risk management is for professionals, Dependability Handbook, 2-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 3-5 disastering Dependability Handbook, 3-6 disastering Dependability Handbook, 3-6 disastering Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 3-6 disastering Dependability Handbook, 3-8 disastering Dependability Handbook, 3-6 severely restrict use of BYPASS privilege, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 3-6 stacking can be used to make a too small computer room can freeze, Dependability Handbook, 3-6 stacking can be used to make a too small computer room can freeze, Dependability Handbook, 3-6 stacking command, (U) USL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-61 (U) DCL Dictionary, DCL2-61 (U) DCL Dictionary, DCL2-61 (U) DC	consider cable terminations when modifying	
Handbook, 6-20 consider memory and I/O as well as CPU capacity, Dependability Handbook, 4-14 continuous improvement means constant change, Dependability Handbook, 2-5 disaster/risk management is for professionals, Dependability Handbook, 5-11 elliminating single points of failure, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5 I/O throughput of Ethernet-only VAKcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //GNORE-INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege,	DSSI configurations, Dependability	
consider memory and I/O as well as CPU capacity, Dependability Handbook, 4-14 continuous improvement means constant change, Dependability Handbook, 2-5 disaster/risk management is for professionals, Dependability Handbook, 6-12 eliminating single points of failure, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5-5 I/O throughput of Ethernet-only VAXCluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 3-3 location of journal files, Dependability Handbook, 3-3 location of journal files, Dependability Handbook, 3-4 stacking can be used to make a to small computer room more orderly, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 waxely restrict use of BYPASS privilege, Dependability Handbook, 5-6 water interconnect configuration rules are usually stricter than network in		
continuous improvement means constant change. Dependability Handbook, 2–5 disaster/risk management is for professionals, Dependability Handbook, 6–11 elimiating single points of failure, Dependability Handbook, 6–2 environmental maintenance equipment covered by UPS, Dependability Handbook, 6–2 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 2–3 never back up ALL—IN—1 using BACKUP / IGNORE—INTERLOCK, Dependability Handbook, 3–32 never back up ALL—IN—1 using BACKUP / IGNORE—INTERLOCK, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–5 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability		
change, Dependability Handbook, 5–1 eliminating single points of failure, Dependability Handbook, 6–2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5–5 I/O throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6–17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 8–32 never back up ALL-IN-1 using BACKUP //GNORE-DNTERLOCK, Dependability Handbook, 8–16 personal safety is more important than system safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–5 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–52 ea slas ATTACH command See also STAWN command See also SPAWN command See also SPAWN command See also SPAWN command See also STAWN command See also STAWN command See also SPAWN command See also SPAW		
disaster/risk management is for professionals, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 6-15 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 3-2 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-5 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-5 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-20 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 6-27 stacking on an of 61 (U) DSR Ref, 2-63 cates within, (U) DSR Ref, 2-6. 6 severely restrict use of BYPASS privilege, Dependability Handbook, 6-27 stacking on an of 61 (U) DSR Ref, 2-6. 8 running NaXTPU from subsproves example, (U) DSR Ref, 5-3 list of, (U) DSR Ref,		
Dependability Handbook, 5-11 eliminating single points of failure, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5 L/O throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, 8-36 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-6 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 RUN(Process) command, (V) Using VMS, 3-1; (U) DCL Dictionary, DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  lavout of, (U) DSR Ref, 2-65 dates within, (DSR), (U) DSR Ref, 2-6 dates within, (U) DSR Ref, 2-15 date within (DSR), (U) DSR Ref, 2-16 attentin		
eliminating single points of failure, Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5 I/O throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 8-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE=INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-5 RUN (Image) command, V. U. using VMS, 3-4; (U. DCL Dictionary, DCL2-51 and debugger, (U. DCL Dictionary, DCL2-52 abbreviating, (U.) DCL Dictionary, DCL2-53 RUN (Process) command, V. S. Release Notes, 1-17, 4-4; (U.) U.D. Dictionary, DCL2-61 RUN (Process) command, V. S. Release Notes, 1-17, 4-4; (U.) U. Sing VMS, 3-1; (U.) DCL Dictionary, DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U.) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V. S. Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U.) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V. S. Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U.) DCL Dictionary, DCL1-241 RUN command, (U.) VMS Intro, 4-3, 4-9, 4-13; (P.) Debugger, 3-1, 3-3, 5-4; (P.) Linker, 2-5 See also Execution  eliminating lead, (U.) Using VMS, 9-13, adjusting with DSR, (U.) DSR Ref, 2-65 dates within, (U.) DSR Ref, 2-15 dates within, (U.) DSR Ref, 2-125 subtitles within (DSR), (U.) DER Ref, 2-20 subtitles within (DSR), (U.) Text Processing, 3-39 title on first page within (DSR), (U.) DER Ref, 2-63 with no chapters, (U.) DSR Ref, 2-63 with no chapters, (U.) DSR Ref, 5-6, 6-9 qualifiers defaults, (U.) DSR Ref, 5-6, 6-9 qualifiers defaults, (U.) DSR Ref, 5-3 list of, (U.) DSR Ref, 5-3 list of, (U.) DSR Ref, 5-3 list of, (U.) DSR Ref		
Dependability Handbook, 6-2 environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5 LIO throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, 8-36 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-6 SVAKcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room an freeze, Dependability Handbook, 5-5 RUN (Imago) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-61 and debugger, (U) DCL Di		
environmental maintenance equipment covered by UPS, Dependability Handbook, 5-5 I/O throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL—IN-1 using BACKUP /IGNORE—INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-5 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-6 severely restrict rate on make a too small computer room more orderly, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6-9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (I) Using VMS, 3-4; (I) DCL Dictionary, DCL2-51 and debugger, (I) DCL Dictionary, DCL2-51 and debugger, (I) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (I) Using VMS, 3-1; (I) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (I) DCL Dictionary, DCL2-61 RUNAUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (I) DCL Dictionary, DCL1-241 RUN command, (II) VMS Intro, 4-3, 4-9, 4-13; (IP) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  Solution of (II) DSR Ref, 2-125 subtitles within, (U)SR), (II) Text Processing, 3-39 title on first page within (DSR), (II) Text Processing, 3-49 Running vastem modifying, (II) Setting VB, (II) VAMS Processing, 3-8 RUNOFF Command, (II) DSR Ref, 5-6, 6-9 quitient vari		
covered by UPS, Dependability Handbook, 5-5  I/O throughput of Ethernet-only VAXcluster systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP / IGNORE=INTERLOCK, Dependability Handbook, 8-6 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 5-9  VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 5-5  RUN (Image) command, (U U Sing VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-62 See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 (U) DCL Dictionary, DCL2-62 (U) DCL Dictionary, DCL2-63 (U) DCL Dictionary, DCL2-64 (U) DCL Dictionary, DCL2-65 (U) DCL Dictionary, DCL2-65 (U) DCL Dictionary, DCL2-66 (U) DCL Dictionary, DCL2-67 (U) Text Processing, 3-42 (U) DSR Ref, 2-62 (u) subtitle within (DSR), (U) Text Processing, 3-39 title on first page within (DSR), (U) Text Processing, 3-39 title on first page within (DSR), (U) Text Processing, 3-37 (urning on and off, (U) DSR Ref, 2-63 (untitle within (DSR), (U) Text Processing, 3-35 (untitle within (DSR), (U) Text Processing, 3-37 (urning on and off, (U) DSR Ref, 2-63 (untitle within (DSR), (U) Text Processing, 3-37 (urning on and off, (U) DSR Ref, 2-63 (untitle within (DSR), (		
Josephaghut of Ethernet-only VAXcluster systems, Dependability Handbook, 6–17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 8–32 never back up ALL—IN-1 using BACKUP / IGNORE—INTERLOCK, Dependability Handbook, 8–16 personal safety is more important than system safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–5 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules, Dependability Handbook, 5–5 reasonability Handbook, 5–5 (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–51 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–51 to DCL2–61 RUN(AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4; (U) DCL Dictionary, DCL2–61 RUN(AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4; (U) DCL Dictionary, DCL2–61 Runamand See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 Runamand, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution See also Exec		
systems, Dependability Handbook, 6-17 include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP /IGNORE-INTERLOCK, Dependability Handbook, 8-16 personal safety is more important than system safety, Dependability Handbook, 8-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-9 VAXcluster interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 and debugger, (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-63 to DCL2-72 (U) Text Processing, 3-49 title within (DSR), (U) Text Processing, 3-39 title on first page within (DSR), (U) DSR Ref, 2-63 with no chapters, (U) DSR Ref, 2-63 with no chapters, (U) DSR Ref, 5-6 sub DCL2-62 as boreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-62 See also ATTACH		
include users in planning phase preventing complaints in operational phase, Dependability Handbook, 2-3 location of journal files, Dependability Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-53 abreviating, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-53 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-53 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-53 and debugger, (U) DCL Dictionary, DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-53 and		
preventing complaints in operational phase, Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 8–32 never back up ALL—IN—1 using BACKUP / IGNORE—INTERLOCK, Dependability Handbook, B–16 personal safety is more important than system safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 5–9 variety intercent of small computer room more orderly, Dependability Handbook, 5–9 variety intercent of small computer room more orderly, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–63 to DCL2–63 to DCL2–64 See See See See See See See See See Se		
Dependability Handbook, 2–3 location of journal files, Dependability Handbook, 8–32 never back up ALL-IN-1 using BACKUP //IGNORE-INTERLOCK, Dependability Handbook, B–16 personal safety is more important than system safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 8–45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also SPAWN command See also SPAWN command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution		
location of journal files, Dependability Handbook, 8-32 never back up ALL—IN-1 using BACKUP //IGNORE=INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U Using VMS, 3-1; (U) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUNAUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-3, 3-3, 3-4; (P) Linker, 2-5 See also Execution		
Handbook, 8-32 never back up ALL-IN-1 using BACKUP //IGNORE=INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-5 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-63 to DCL2-62 See also ATTACH command See also SPAWN command See also SPAWN command See also SPAWN command See also SPAWN command Creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Hunaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution		
never back up ALL-IN-1 using BACKUP //IRONGE-INTERLOCK, Dependability Handbook, B-16 personal safety is more important than system safety, Dependability Handbook, 5-6 severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-63 to DCL2-62 See also SPAWN command See also SPAWN command Creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  Processing, 3-42 title within (DSR), (U) DSR Ref, 2-60 with no chapters, (U) DSR Ref, 2-40 Running system modifying on and off, (U) DSR Ref, 2-40 Running vaxTPU from subprocess example, (P) VAXTPU, A-5 RUNOFF RUNOFF See also DSR definition of, (U) DSR Ref, 5-3 list of, (U) DSR Ref, 5-6, 6-9 qualifiers defaults, (U) DSR Ref, 5-3 RUNOFF/DEVICE=LN03, (U) DSR Ref, 4-9, B-1 RUNOFF/DEVICE=L	$Handbook,8 ext{}32$	
title within (DSR), (U) Text Processing, 3–37 turning on and off, (U) DSR Ref, 2–60 with no chapters, (U) DSR Ref, 2–40 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 8–85 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUNAUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3, 1, 3–3, 5–4; (P) Linker, 2–5 See also Execution safety. (P) Linker, 2–5 See also Execution safety. (U) DSR Ref, 2–40 Running system modifying, on and off, (U) DSR Ref, 2–40 Running system modifying, (M) Setting Up VMS, 6–15 Running vAXTPU from subprocess example, (P) VAXTPU, A–5 Running vAXTPU brom subprocess example, (P) VAXTPU, A–5 Running vaxtem modifying, (M) Setting Up VMS, 6–15 Running vAXTPU brom subprocess example, (P) VAXTPU, A–5 Running vAXTPU brom subprocess example, (P) VAXTPU,		
personal safety is more important than system safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 8–45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL2–61 RUNGFINDEX command, (U) DCL Dictionary, DCL2–71 to DCL2–72; (U) Text Processing, 3–53 RUN processor state, (P) Device Support (B), 1–16 Run-time access options under VMS RMS, (P) RMS, 1–2 implementation of VMS RMS services, (P)		
safety, Dependability Handbook, 5–6 severely restrict use of BYPASS privilege, Dependability Handbook, 8–45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution		
severely restrict use of BYPASS privilege, Dependability Handbook, 8-45 stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5-9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6-27 water in an overcooled computer room can freeze, Dependability Handbook, 5-5 RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  Handbook, 8-45 Running VAXTPU from subprocess example, (P) VAXTPU, A-5 RunofF RunoFF See also DSR definition of, (U) DSR Ref, 5-3 list of, (U) DSR Ref, 5-3 RunoFF/DEVICE=LN01[E], (U) DSR Ref, 4-9, RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4-9, RUNOFF/INDEX command, (U) Using VMS, 9-17; (U) DCL Dictionary, DCL2-73 to DCL2-76; (U) Text Processing, 3-4, 3-5, 3-6 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 3-6 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 3-6 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 4-9 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 4-9 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 4-9 RUN officionary, DCL2-76; (U) Text Processing, 3-4, 3-5, 4-9 RUN officionary, DCL2-76; (U) Text Processing, 3-4 RUN officionary, D		
stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9  VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27  water in an overcooled computer room can freeze, Dependability Handbook, 5–5  RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–61 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–63 to DCL2–62  See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUNNOFF/INDEX command, (U) DCL Dictionary, DCL2–61 RUNNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–49  RUNNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53  RUN processor state, (P) Device Support (B), 1–16 Run-time access options, (P) RMS, 1–2 implementation of VMS RMS services, (P)		
stacking can be used to make a too small computer room more orderly, Dependability Handbook, 5–9 VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–63 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  **RUNOFF See also DSR definition of, (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3 list of, (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/OENTENTS command, (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/OENTENTS command, (U) DSR Ref, 4–9, RUNOFF/OENTENTS command, (U) DSR Ref, 4–9, RUNOFF/OENTENTS command, (U) DCL Dictionary, DCL2–61 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUN processo options, (P) RMS, 1–2 access options under VMS RMS, (P) RMS, 1–2 implementation of VMS RMS services, (P)		
small computer room more orderly, Dependability Handbook, 5–9  VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27  water in an overcooled computer room can freeze, Dependability Handbook, 5–5  RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 to DCL2–52  RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–62  See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61  RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4  Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241  RUN cff See also DSR definition of, (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3  RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3  RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 4–9, RUNOFF/CONTENTS command, (U) DSR Ref, 4–9, RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–62  RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–76; (U) Text Processing, 3–49  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78, (U) Text Processing, 3–5, 3–6  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78, (U) Text Processing, 3–5, 3–6  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/ONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/ONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/ONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/ONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–5, 3–6  RUNOFF/ONTENTS command,		
Dependability Handbook, 5–9  VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27  water in an overcooled computer room can freeze, Dependability Handbook, 5–5  RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–54 Dictionary, DCL2–55 to DCL2–62  See also DSR definition of, (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3  RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 5–3  RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–6  RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2-73 to DCL2-73; (U) DCL Dictionary, DCL2-73 to DCL2-75; (U) Text Processing, 3–4, 3–5, 3–6  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3–53  RUN processor state, (P) Device Support (B), 1–16  Runaway magnetic tape acc		
VAXcluster interconnect configuration rules are usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27  water in an overcooled computer room can freeze, Dependability Handbook, 5–5  RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command see also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  definition of, (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, B-1 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, B-1 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 5–8 RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2-63 to DCL2-72; (U) Text Processing, 3-4, 3–5, 3–6 RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2-63 to DCL2-72; (U) Text Processing, 3-4, 3–5, 3–6 RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2-76; (U) Text Processing, 3-4, 3–5, 3–6 RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2-77;		
usually stricter than network interconnect configuration rules, Dependability Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 Run command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  examples, (U) DSR Ref, 5–6, 6–9 qualifiers defaults, (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) Using VMS, 9–17; (U) DCL Dictionary, DCL2–61 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Di		
Handbook, 6–27 water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 and defaults, (U) DSR Ref, 5–3 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, B-1 RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 4–9, B-1 RUNOFF/INDEX command, (U) Using VMS, 9–17; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–61 Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/CONTENTS command, (U) DSR Ref, 4–9, B-1 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–53 RUNOFF/DEVICE=LN01[E], (U) DSR Ref, 4–9, B-1 RUNOFF/DEVICE=LN01[E], (U) DCL Dictionary, DCL2–73; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–77; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77;		
water in an overcooled computer room can freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–62 See also ATTACH command see also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  and debugger, (U) DCL Dictionary, DCL2–51 RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 6–6 RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DSR Ref, 4–9, RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–73; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–4, 3–5, 3–5 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–4, 3–5, 3–5 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–4, 3–5, 3–5 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–70; (U) Text Processing, 3–4, 3–5		-
freeze, Dependability Handbook, 5–5 RUN (Image) command, (U) Using VMS, 3–4; (U) DCL Dictionary, DCL2–51 to DCL2–52 abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–73 to DCL2–73; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–78; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–79; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–79; (U) Text Processing, 3–5 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–79; (U) Text Processing, 3–5 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–79; (U) Text Processing		
RUN (Image) command, (U) Using VMS, 3-4; (U) DCL Dictionary, DCL2-51 to DCL2-52 abbreviating, (U) DCL Dictionary, DCL2-51 and debugger, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  RUNOFF/INDEX command, (U) DSR Ref, 4-9 RUNOFF/INDEX command, (U) Using VMS, 9-17; (U) DCL Dictionary, DCL2-63 to DCL2-72; (U) Text Processing, 3-4, 3-5, 3-6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2-73 to DCL2-76; (U) Text Processing, 3-49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3-53 RUN processor state, (P) Device Support (B), 1-16 Run-time access options under VMS RMS, (P) RMS, 1-2 implementation of Services, (P) RMS, 4-1 implementation of VMS RMS services, (P)	_	
abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  RUNOFF/DEVICE=LN03, (U) DSR Ref, 4–9 RUNOFF/INDEX command, (U) Using VMS, 9–17; (U) DCL Dictionary, DCL2–63 to DCL2–72; (U) Text Processing, 3–4, 3–5, 3–6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUN processor state, (P) Device Support (B), 1–16 Run-time access options under VMS RMS, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)		
abbreviating, (U) DCL Dictionary, DCL2–51 and debugger, (U) DCL Dictionary, DCL2–51 RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61 RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution RUNOFF/INDEX command, (U) DCL Text Processing, 3–4, 3–5, 3–6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–76; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77		
and debugger, (U) DCL Dictionary, DCL2-51 RUN (Process) command, V5.5 Release Notes, 1-17, 4-4; (U) Using VMS, 3-1; (U) DCL Dictionary, DCL2-53 to DCL2-62 See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  RUNOFF command, (U) Using VMS, 9-17; (U) DCL Dictionary, DCL2-63 to DCL2-72; (U) Text Processing, 3-4, 3-5, 3-6 RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2-73 to DCL2-76; (U) Text Processing, 3-49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3-53 RUN processor state, (P) Device Support (B), 1-16 Run-time access options, (P) RMS, 1-2 implementation of services, (P) RMS, 4-1 implementation of VMS RMS services, (P)		
RUN (Process) command, V5.5 Release Notes, 1–17, 4–4; (U) Using VMS, 3–1; (U) DCL Dictionary, DCL2–53 to DCL2–62  See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–4, 3–5, 3–6  RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53  RUN processor state, (P) Device Support (B), 1–16 Run-time stopping, (U) DCL Dictionary, DCL1–241  RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  DCL Dictionary, DCL2–63 to DCL2–72; (U) Text Processing, 3–4, 3–5, 3–6  RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53  RUN processor state, (P) Device Support (B), 1–16 Run-time access options, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)		·
Dictionary, DCL2–53 to DCL2–62  See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2–61  RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4  Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241  RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  RUNOFF/CONTENTS command, (U) DCL Dictionary, DCL2–73 to DCL2–76; (U) Text Processing, 3–49  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2–77 to DCL2–80; (U) Text Processing, 3–53  RUN processor state, (P) Device Support (B), 1–16 Run-time access options, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)	· · · · · · · · · · · · · · · · · · ·	
See also ATTACH command See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  Dictionary, DCL2-73 to DCL2-76; (U) Text Processing, 3-49 RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3-53 RUN processor state, (P) Device Support (B), 1-16 Run-time access options, (P) RMS, 1-2 implementation of services, (P) RMS, 4-1 implementation of VMS RMS services, (P)		
See also SPAWN command creating detached process, (U) DCL Dictionary, DCL2-61  RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4  Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241  RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5  See also Execution  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3-53  RUN processor state, (P) Device Support (B), 1-16  Run-time access options, (P) RMS, 1-2 access options under VMS RMS, (P) RMS, 1-2 implementation of services, (P) RMS, 4-1 implementation of VMS RMS services, (P)	• '	• • • • • • • • • • • • • • • • • • • •
creating detached process, (U) DCL Dictionary, DCL2-61  RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4  Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241  RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5  See also Execution  RUNOFF/INDEX command, (U) DCL Dictionary, DCL2-77 to DCL2-80; (U) Text Processing, 3-53  RUN processor state, (P) Device Support (B), 1-16  Run-time access options, (P) RMS, 1-2 access options under VMS RMS, (P) RMS, 1-2 implementation of services, (P) RMS, 4-1 implementation of VMS RMS services, (P)		
DCL2-61 RUN/AUTHORIZE command, V5.5 Release Notes, 1-17, 4-4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1-241 RUN command, (U) VMS Intro, 4-3, 4-9, 4-13; (P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 See also Execution  DCL2-77 to DCL2-80; (U) Text Processing, 3-53 RUN processor state, (P) Device Support (B), 1-16 Run-time access options, (P) RMS, 1-2 implementation of services, (P) RMS, 4-1 implementation of VMS RMS services, (P)		
RUN/AUTHORIZE command, V5.5 Release Notes, 1–17, 4–4  Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241  RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  RUN processor state, (P) Device Support (B), 1–16  Run-time access options, (P) RMS, 1–2 access options under VMS RMS, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)		
1–17, 4–4 Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  RUN processor state, (P) Device Support (B), 1–16 Run-time access options, (P) RMS, 1–2 access options under VMS RMS, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)		<del>-</del> '
Runaway magnetic tape stopping, (U) DCL Dictionary, DCL1–241 RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 See also Execution  Run-time access options, (P) RMS, 1–2 access options under VMS RMS, (P) RMS, 1–2 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)	· · · · · · · · · · · · · · · · · · ·	
RUN command, (U) VMS Intro, 4–3, 4–9, 4–13; access options under VMS RMS, (P) RMS, 1–2 (P) Debugger, 3–1, 3–3, 5–4; (P) Linker, 2–5 implementation of services, (P) RMS, 4–1 implementation of VMS RMS services, (P)		- · · · · · · · · · · · · · · · · · · ·
(P) Debugger, 3-1, 3-3, 5-4; (P) Linker, 2-5 implementation of services, (P) RMS, 4-1 See also Execution implementation of VMS RMS services, (P)		access options, (P) RMS, 1-2
See also Execution implementation of VMS RMS services, (P)		
1		
snareable image, (r) Debugger, 5-13 KMS, 4-1		
with DECwindows, (P) Debugger, 1-4 information, (P) RMS, 1-4		

Run-time (cont'd) Sample procedures using DECwindows VAXTPU information to VMS RMS listed, (P) RMS, 1-4 built-in procedures, (P) VAXTPU, B-1 to processing environment, (P) RMS, 2-1 Sample program, (P) System Services Intro, 15-1 Run-Time Library invoked by user-defined command, (P) See RTL Command Def, CDU-45 Run-time option to parse and execute commands, (P) Command example, (P) File Applications, 9-20 to 9-22 Def, CDU-46 specifying, (P) File Applications, 9–1 to 9–6 Sample VAXTPU procedures Run-time symbol table debugon, (P) VAXTPU, 7-365 See RST delete\_all\_definitions, (P) VAXTPU, 7-533 RUSB (recovery unit stream block), (P) System init\_help\_key\_map\_list, (P) VAXTPU, 7-66 Dump Analyzer, SDA-77 init\_sample\_key\_map, (P) VAXTPU, 7-64 /RU\_JOURNAL qualifier line\_number\_example, (P) VAXTPU, 7-417 description, (P) Analyze/RMS\_File, ARMS-18  $mail\_sub$ , (P) VAXTPU, 7–343 format, (P) Analyze/RMS\_File, ARMS-18 my\_call\_user, (P) VAXTPU, 7-43 overview, (P) Analyze/RMS\_File, ARMS-18 remove comments, (P) VAXTPU, 7-312 using with /OUTPUT qualifier, (P) SAVE, (P) VAXTPU, 7-318 Analyze/RMS\_File, ARMS-16 shift\_key\_handler, (P) VAXTPU, 7-257 RWC option, (P) File Def Language, FDL-21 show\_key\_maps\_in\_list, (P) VAXTPU, 7-161 RWO option, (P) File Def Language, FDL-22 show\_key\_map\_lists, (P) VAXTPU, 7-160 RX01 console disk, (P) I/O User's I, 3-8 show\_self\_insert, (P) VAXTPU, 7-161 RX02 diskette, (P) I/O User's I, 3-8 strip\_blanks, (P) VAXTPU, 7-124, 7-126, RX23 diskette, (P) I/O User's I, 3-9 7 - 128RX33 diskette, (P) I/O User's I, 3-10 strip\_eight, (P) VAXTPU, 7-528 RX50 diskette, (P) I/O User's I, 3-10 toggle\_self\_insert, (P) VAXTPU, 7-471 RX-series, (P) I/O User's I, 3-9traceback\_example, (P) VAXTPU, 7-489 RZ22 disk, (P) I/O User's I, 3-10 user\_change\_mode, (P) VAXTPU, 7-103 RZ23 disk, (P) I/O User's I, 3-10 user\_change\_windows, (P) VAXTPU, 7-290 RZ55 disk, (P) I/O User's I, 3-10 user\_clear\_key, (P) VAXTPU, 7-533 user\_collect\_rnos, (P) VAXTPU, 7-145 S user\_dcl\_process, (P) VAXTPU, 7-68 user\_define\_edtkey, (P) VAXTPU, 7-240 S command, (P) Delta/XDelta, DELTA-34 user\_define\_key, (P) VAXTPU, 7-103 S (substitute) command, (U) EDT Ref, EDT-305 user\_delete, (P) VAXTPU, 7-89 See also Replacing text user\_delete\_char, (P) VAXTPU, 7-29 S0 region user delete\_extra, (P) VAXTPU, 7-109 examining, (P) System Dump Analyzer, user\_delete\_key, (P) VAXTPU, 7-120 SDA-52user\_display\_current\_character, (P) VAXTPU, "safe\_for\_journaling" string constant parameter 7 - 82GET\_INFO built-in, (P) VAXTPU, 7-175 user\_display\_help, (P) VAXTPU, 7-23 Sample user\_display\_key\_map\_list, (P) VAXTPU, a company's first steps to dependability, 7 - 160Dependability Handbook, 2-14 user\_display\_position, (P) VAXTPU, 7-522 dependability requirements worksheet, user\_do, (P) VAXTPU, 7-131 Dependability Handbook, 2-11 user\_double\_parens, (P) VAXTPU, 7-265 LAVC\$FAILURE\_ANALYSIS.MAR program, user\_edit\_string, (P) VAXTPU, 7-114 Dependability Handbook, 7–12 user\_emphasize\_message, (P) VAXTPU, 7-509 related subroutine package, Dependability user\_end\_of\_line, (P) VAXTPU, 7-251 Handbook, 7-15 user\_erase\_message\_buffer, (P) VAXTPU, usage summary, Dependability Handbook, 7 - 3157 - 13user\_erase\_to\_eob, (P) VAXTPU, 7-71 mapping options to requirements, user\_error\_messsage, (P) VAXTPU, 7-139 Dependability Handbook, 2–17 user\_fao\_conversion, (P) VAXTPU, 7-139 multiadapter connections to LAN segments, user\_find\_chap, (P) VAXTPU, 7-330, 7-335 Dependability Handbook, 7–7 user\_find\_mark\_twain, (P) VAXTPU, 7-514 proposed dependability enhancements, user find parens, (P) VAXTPU, 7-320 Dependability Handbook, 2-16 user\_find\_procedure, (P) VAXTPU, 7-27

Sample VAXTPU procedures (cont'd) Sample VAXTPU procedures (cont'd) user find string, (P) VAXTPU, 7-315 user slow up arrow, (P) VAXTPU, 7-354 user\_split\_line, (P) VAXTPU, 7-84, 7-519 user\_free-cursor\_up, (P) VAXTPU, 7-98 user\_free\_cursor\_down, (P) VAXTPU, 7-98 user\_start\_journal, (P) VAXTPU, 7-142 user\_free\_cursor\_left, (P) VAXTPU, 7-95 user start select, (P) VAXTPU, 7-339 user\_free\_cursor\_right, (P) VAXTPU, 7-95 user\_tab, (P) VAXTPU, 7-33 user get info, (P) VAXTPU, 7-160 user test key, (P) VAXTPU, 7-34 user\_get\_key\_info, (P) VAXTPU, 7-256 user\_toggle\_direction, (P) VAXTPU, 7-80 user\_top, (P) VAXTPU, 7-38 user go down, (P) VAXTPU, 7-91 user\_go\_up, (P) VAXTPU, 7-91 user tpu, (P) VAXTPU, 7-132 user\_help, (P) VAXTPU, 7-229 user\_trans\_text, (P) VAXTPU, 7-528 user\_two\_window, (P) VAXTPU, 7-298 user\_help buffer, (P) VAXTPU, 7-62 user\_upcase\_item, (P) VAXTPU, 7-46 user\_help\_on\_key, (P) VAXTPU, 7–302 user\_include\_file, (P) VAXTPU, 7-38 user\_what\_is\_comment, (P) VAXTPU, 7-256 user\_initial\_cap, (P) VAXTPU, 7-524 user\_write\_file, (P) VAXTPU, 7-545 user\_is\_character, (P) VAXTPU, 7-231 Satellite adding, (M) VAXcluster, 7-9 user\_lowercase\_line, (P) VAXTPU, 7-46 user\_make\_window, (P) VAXTPU, 7-79 booting, (M) VAXcluster, 7-32 user\_mark, (P) VAXTPU, 7-248 disabling conversational bootstrap operations, user\_message\_window, (P) VAXTPU, 7-260 (M) VAXcluster, 7–31 user\_move\_8\_lines, (P) VAXTPU, 7-283 failure to boot, (M) VAXcluster, 7-33, C-4 user\_move\_by\_lines, (P) VAXTPU, 7-279 failure to join the cluster, (M) VAXcluster, C-6 user\_move\_text, (P) VAXTPU, 7-281 functions, (M) VAXcluster, 2-3 user\_move\_to\_mouse, (P) VAXTPU, 7-253 local disk used for paging and swapping, (M) user\_next\_page, (P) VAXTPU, 7-286 VAXcluster, 2-3 user\_next\_screen, (P) VAXTPU, 7-93 maintaining network configuration data, (M) user\_not\_quite\_working, (P) VAXTPU, 7-39 VAXcluster, 7–11 user\_one\_window\_to\_two, (P) VAXTPU, 7-537 modifying LAN hardware address, (M) user\_on\_eol, (P) VAXTPU, 7-269 VAXcluster, 7–13 user\_paste, (P) VAXTPU, 7-116, 7-263 obtaining LAN hardware address, (M) user\_print, (P) VAXTPU, 7-485 VAXcluster, 7-5 user\_prompt\_number, (P) VAXTPU, 7-233, rebooting if operating system installed on local 7 - 305disk, (M) VAXcluster, 7-29 user\_quick\_parse, (P) VAXTPU, 7-137 removing, (M) VAXcluster, 7-12 user\_quit, (P) VAXTPU, 7-292 restoring network configuration data, (M) user\_quote, (P) VAXTPU, 7-294 VAXcluster, 7-11 user\_remove\_blank\_lines, (P) VAXTPU, 7-514 system files created by CLUSTER\_ user\_remove\_comments, (P) VAXTPU, 7-25 CONFIG.COM, (M) VAXcluster, 7-2 user\_remove\_crlfs, (P) VAXTPU, 7-118 Satellite booting, Dependability Handbook, 7–12 user\_remove\_dsrlines, (P) VAXTPU, 7-250 Satellite link, (M) DECnet-VAX Guide, 1-2, 1-7 user\_remove\_non\_numbers, (P) VAXTPU, Satellite loader 7 - 323See SLD user\_remove\_numbers, (P) VAXTPU, 7-514 Satellite node user\_remove\_odd\_characters, (P) VAXTPU, functions, (M) System Management Intro, 6-7 7 - 321legal systems, (M) System Management Intro, user\_remove\_paren\_text, (P) VAXTPU, 7-531 user\_repaint, (P) VAXTPU, 7-311 RD-series disk used for local paging and user\_replace\_prefix, (P) VAXTPU, 7-31 swapping, (M) System Management Intro, user\_ring\_bell, (P) VAXTPU, 7-356 user\_runoff\_line, (P) VAXTPU, 7-87 Satellite transmission control, (M) Networking, user\_scroll\_buffer, (P) VAXTPU, 7-326 user\_search\_for\_nonalpha, (P) VAXTPU, 7-285 SAVE ATTRIBUTES command, (U) EVE Ref. user\_search\_range, (P) VAXTPU, 7-331, 7-336 EVE-134 to EVE-135 user\_select, (P) VAXTPU, 7-341 EVE editor, (U) Text Processing, 1-60, 1-61, user\_show\_direction, (P) VAXTPU, 7-85 1-65, 1-73 user\_show first line, (P) VAXTPU, 7-539 with command file, (U) EVE Ref, 1-37 user\_simple\_insert, (P) VAXTPU, 7-54 with section file, (U) EVE Ref, 1-36 user\_slow\_down\_arrow, (P) VAXTPU, 7-354

SAVE built-in procedure, (P) VAXTPU, 7-316 to SAVE command, (M) Show Cluster, SHCL-73; (P) Debugger, 7-21, CD-110 See also SAVE EXTENDED EVE command .SAVE command, (U) DSR Ref, 2-106 SAVEDUMP parameter, (M) System Generation, A-29; (P) System Dump Analyzer, SDA-3, SDA-28 SAVE EXTENDED EVE command, (U) Using VMS, 8-39, 8-43; (U) Text Processing, 1-60, 1-61, 1-65, 1-73; (U) EVE Ref, EVE-136 to EVE-137 using, (U) Text Processing, 1–60 using to save GOLD key definitions, (U) Text Processing, 1-65 SAVE EXTENDED TPU command, (U) EVE Ref, EVE-138 See also SAVE EXTENDED EVE command SAVE FILE AS command, (U) EVE Ref, EVE-140 for buffer manipulation (EVE), (U) Text Processing, 1–48 SAVE FILE command, (U) EVE Ref, EVE-139 for buffer manipulation (EVE), (U) Text Processing, 1-48 Save operation (BACKUP), (M) Backup, BCK-17 /SAVE qualifier, (U) EDT Ref, EDT-7, EDT-169 with EXIT, (U) EDT Ref, EDT-138 with QUIT, (U) EDT Ref, EDT-161 Save set (BACKUP), (M) Backup, BCK-7; (P) File Applications, 10-31 creating, (M) Backup, BCK-17 description of, (M) Backup, BCK-1 directing output to, (M) Backup, BCK-26 Files-11 disk, (M) Backup, BCK-12 in network operations, (M) DECnet-VAX Guide, listing contents of, (M) Backup, BCK-19 magnetic tape, (M) Backup, BCK-8 media used for storing, (M) Backup, BCK-3 multivolume, (M) Backup, BCK-14, BCK-19 network, (M) Backup, BCK-12 protection of, (M) Backup, BCK-15 Save-set specification, (M) Backup, BCK-3 SAVE SYSTEM ATTRIBUTES command, (U) EVE Ref, 1-38, EVE-141 EVE editor, (U) Text Processing, 1-72 .SAVE\_PSECT directive, (P) MACRO, 6-87 /SAVE\_SET qualifier as input save-set qualifier, (M) Backup, BCK-85 as output save-set qualifier, (M) Backup, **BCK-86** /SAVE\_VECTOR\_STATE qualifier, (P) Debugger, 11-22, CD-11 Saving attributes, (U) EVE Ref, 1-2 in a command file (EVE), (U) Text Processing,

Saving attributes (cont'd) in a section file (EVE), (U) Text Processing, 1 - 76Saving buffer contents to file, (U) EVE Ref. EVE-250 Saving LAT characteristics, (M) LATCP, LAT-2, A-1, A-3 Saving the queue database, (M) Maintaining VMS, 5-64 SAVIPL macro, (P) Device Support (A), 3-10; (P) Device Support (B), 2-64 SB (system block), (P) System Dump Analyzer, SDA-83, SDA-99 SBI (synchronous backplane interconnect), (P) Device Support (A), 1–11 UNIBUS interlock sequence to, (P) Device Support (A), 14-10 SBICONF array, (P) Device Support (A), 16–8 SBR register displaying, (P) System Dump Analyzer, SDA-90 SBWC (Subtract with Carry) instruction, (P) MACRO, 9-29 SBZ field, (P) MACRO, 7-2 SCA (Source Code Analyzer), (P) Modular Procedures, 1–13 Scalability defined, Dependability Handbook, Glossary-5 lack of software, Dependability Handbook, 8 - 21predicting future software requirements, Dependability Handbook, 8-21 Scalar defined, V5.5 New Features, B-5 processor synchronization, V5.5 New Features, B-32; (P) Routines Intro, 2-13 Scalar consumer, V5.5 New Features, B-8 Scalar type, (P) Debugger, 4-14 Scalar/vector memory synchronization, (P) MACRO, 10-38 Scale Factor processing option, V5.5 New Features, B-47 Scaling vector, (P) RTL Math, MTH-183 SCAN See VAX SCAN SCAN built-in procedure, (P) VAXTPU, 7-319 to 7 - 321SCANC (Scan Characters) instruction, (P) MACRO, 9-138 RTL routine to access. (P) RTL Library. LIB-334 SCANL built-in procedure, (P) VAXTPU, 7-322 to 7 - 323Scatter-gather map, (P) Device Support (A), 14-4 See also Map registers

1 - 77

```
Scavenging
  disk, (M) Security, 4-39
SCB (storage control block), (M) Analyze/Disk,
SCB (system control block), (P) Device Support
    (A), 16-10; (P) Device Support (B), 1-7
SCBB register
  displaying, (P) System Dump Analyzer,
      SDA-90
SCB vector, (P) MACRO, 10-28
SCDRP$L_ABCNT, (P) Device Support (A), 17-15
SCDRP$L_BCNT, (P) Device Support (A), 17-15,
    17-19; (P) Device Support (B), 2-78, 2-85
SCDRP$L CMD PTR, (P) Device Support (A),
    17-11; (P) Device Support (B), 2-85
SCDRP$L_DISCON_TIMEOUT, (P) Device
    Support (A), 17-11, 17-12
SCDRP$L_DMA_TIMEOUT, (P) Device Support
    (A), 17–11, 17–12
SCDRP$L_IRP, (P) Device Support (A), 17-27
SCDRP$L_MEDIA, (P) Device Support (A), 17–15
SCDRP$L_PAD_COUNT, (P) Device Support (A),
    17 - 15
SCDRP$L_SCSI_FLAGS, (P) Device Support (A),
    17-15, 17-16, 17-27; (P) Device Support (B),
SCDRP$L_SPTE_SVAPTE, (P) Device Support
    (A), 17–16
SCDRP$L_STS_PTR, (P) Device Support (A),
    17-11, 17-18; (P) Device Support (B), 2-85,
SCDRP$L_SVAPTE, (P) Device Support (A),
    17-15; (P) Device Support (B), 2-78
SCDRP$L SVA SPTE, (P) Device Support (B),
SCDRP$L_SVA_USER, (P) Device Support (A),
    17-15, 17-16; (P) Device Support (B), 2-78,
    2-79, 2-85
SCDRP$L_TRANS_CNT, (P) Device Support (A),
    17-19; (P) Device Support (B), 2-86
SCDRP$V BUFFER MAPPED, (P) Device
   Support (A), 17-16, 17-27
SCDRP$V_S0BUF, (P) Device Support (A), 17-16,
    17 - 27
SCDRP$W_BOFF, (P) Device Support (A), 17–15;
   (P) Device Support (B), 2-78
SCDRP$W_FUNC, (P) Device Support (A), 17–15;
   (P) Device Support (B), 2-85
SCDRP$W_MAPREG, (P) Device Support (A),
   17-17; (P) Device Support (B), 2-79
SCDRP$W_NUMREG, (P) Device Support (A),
   17–16; (P) Device Support (B), 2–79
SCDRP$W_PAD_BCNT, (P) Device Support (B),
```

SCDRP\$W\_STS, (P) Device Support (A), 17-15,

17-16; (P) Device Support (B), 2-78

```
SCDRP (SCSI class driver request packet), (P)
   Device Support (A), 17-7; (P) Device Support
    (B), 1-46 to 1-54
  allocating, (P) Device Support (A), 17-27
  deallocating, (P) Device Support (A), 17-28
  defining fields of, (P) Device Support (A), 17-24
  initializing, (P) Device Support (A), 17-15 to
      17-16, 17-27
$SCDRPDEF macro, (P) Device Support (A),
    17 - 24
SCDT (SCSI connection descriptor table), (P)
    Device Support (A), 17-7; (P) Device Support
    (B), 1-54 to 1-60
SCF option, (P) File Def Language, FDL-24
SCH$GL_CURPCB, (P) Delta/XDelta, DELTA-9
  replaced in VMS Version 5.0, (P) Device
      Support (A), E-6
SCH$GL_PCBVEC, (P) Delta/XDelta, DELTA-9;
    (P) Device Support (A), 13–13
SCH$POSTEF, (P) Device Support (B), 1-39
SCH$QAST, (P) Device Support (A), 3-4
SCH$RESCHED, (P) Device Support (A), 3-7
SCHED spin lock, (P) Device Support (A), 3-4,
    3-8, 3-14; (P) Device Support (B), 3-19
Scheduler
  blocking activity of, (P) Device Support (A), 3-5
  global symbols, (P) System Dump Analyzer,
      SDA-61
  synchronization of, (P) Device Support (A), 3-7
Scheduling
  of batch jobs, (M) Maintaining VMS, 5-5
  of print jobs, (M) Maintaining VMS, 5-5
      based on job size, (M) Maintaining VMS,
  overview, (M) Performance Management, 2-22
  priority
      changing for a batch or print job, (M)
          Maintaining VMS, 5-80
  thread, (P) DECthreads, 2-20
Scheduling policy
  obtaining for thread, (P) DECthreads,
      cma-104, pthread-59
  setting for thread, (P) DECthreads, cma-111,
      pthread-98
Scheduling policy attribute, (P) DECthreads, 2-6,
    cma-39, pthread-19
  obtaining, (P) DECthreads, cma-27,
      pthread-11
Scheduling preventative maintenance,
   Dependability Handbook, 9-12
Scheduling priority attribute, (P) DECthreads,
   2-7
Scheduling states, (M) Performance Management,
  involuntary wait, (M) Performance
      Management, 3-12
  isolating CPU limitations, (M) Performance
```

Management, 4-34

Scheduling states (cont'd)	Screen
voluntary wait, (M) Performance Management,	enabling resizing of, (P) VAXTPU, 7–372
3–12	minimal update, (P) RTL Screen Management,
Scheduling timer, (M) Networking, 3-59	2–17
Scope	refreshing, (M) LATCP, LAT-25
built-in symbol, (P) Debugger, 7–4, 7–7, 7–16,	resizing, (P) VAXTPU, 7-391, 7-501
7–18, C–3, C–5, D–10	specifying size of, (P) VAXTPU, 7-458
canceling, (P) Debugger, 5–11, CD–27; (P)	supporting more than one, V5.5 New Features,
Patch, PAT $-44$	B-45
current, (P) Debugger, 5-11, CD-166	updating
default, (P) Debugger, 5-8, CD-27, CD-167,	controlling support for, (P) VAXTPU,
CD-235	7–460
with DECwindows, (P) Debugger, 1–26	Screen display
definition of, (P) DECthreads, 3-4	See Display, debugger, screen mode
displaying, (P) Debugger, 5-11, CD-235	Screen format, (M) Monitor, MON-5
displaying current setting, (P) Patch, PAT-88	SCREEN keyword
for instruction display, (P) Debugger, 7-9,	using with widget-related built-in procedures,
CD-166	(P) VAXTPU, 4–16
with DECwindows, (P) Debugger, 1-9,	Screen layout
1–21	built-in procedures
for source display, (P) Debugger, 7-6, CD-166	ADJUST_WINDOW, (P) VAXTPU, 7–19
with DECwindows, (P) Debugger, 1–9,	CREATE_WINDOW, (P) VAXTPU, 7–77
1–21	MAP, (P) VAXTPU, 7-259
for symbol search, (P) Debugger, 3-11, 5-8,	REFRESH, (P) VAXTPU, 7-310
5–11, CD–27, CD–166, CD–235	SHIFT, (P) VAXTPU, 7-503
with DECwindows, (P) Debugger, 1–9,	UNMAP, (P) VAXTPU, 7–536
1–26	UPDATE, (P) VAXTPU, 7-538
PC, (P) Debugger, 5–8	controlling, (U) Phone, PHONE-5
relation to call stack, (P) Debugger, 5–10, 5–11,	viewports, (U) Phone, PHONE-2
7–6, 7–9, CD–166	Screen management, (P) Programming Resources,
with DECwindows, (P) Debugger, 1–9,	7-7; (P) RTL Screen Management, 1-1
1–21, 1–26	See also Key table
SEARCH command, (P) Debugger, 6-6,	See also Pasteboard
CD-114	See also Video attribute
search list, (P) Debugger, 5–8, 5–11, CD–27,	See also Viewport
CD-166, CD-235	See also Virtual display
with DECwindows, (P) Debugger, 1–9, 1–26	
SET SCOPE command, (P) Debugger, 5–11,	See also Virtual keyboard debugging DECwindows application, (P)
7-6, 7-9, CD-166	Debugger, 1–32
setting, (P) Debugger, 5–11, CD–166; (P)	debugging screen-oriented program, (P)
Patch, PAT-84	Debugger, 9-5
with DECwindows, (P) Debugger, 1–26	with DECwindows, (P) Debugger, 1–33
specifying with path name, (P) Debugger, 5–9	deleting text, (P) Programming Resources, 7–21
TYPE command, (P) Debugger, 6-4, CD-266	double-width characters, (P) Programming
vector register, (P) Debugger, 11-1	Resources, 7–19, 7–20
/SCOPE-/NOSCOPE qualifier	drawing lines, (P) Programming Resources,
with DELETE command, (P) Patch, PAT-53	7–20
with DEPOSIT command, (P) Patch, PAT-56	inserting characters, (P) Programming
with EXAMINE command, (P) Patch, PAT-63	Resources, 7–18
with INSERT command, (P) Patch, PAT-69	menus
with REPLACE command, (P) Patch, PAT-72	creating, (P) Programming Resources, 7–22
with SET MODE command, (P) Patch, PAT-77	reading, (P) Programming Resources, 7–23
with VERIFY command, (P) Patch, PAT-91	types of, (P) Programming Resources, 7–22
SCOPE-NOSCOPE mode, (P) Patch, PAT-17	reading data, (P) Programming Resources,
Scratch file, (P) Convert, CONV-11	7–23
Scratchpad	scrolling, (P) Programming Resources, 7–20
creating (EVE), (U) Text Processing, 1–50	

Screen management (cont'd) /SCRIPT=OPTIMIZE qualifier, (P) File setting background color, (P) Programming Applications, 10-29 Resources, 7-9 /SCRIPT qualifier, (P) File Applications, 10–28; setting screen dimensions, (P) Programming (P) File Def Language, FDL-42, FDL-57 Resources, 7-9 Scroll using system routines, (P) Programming backward, (P) Programming Resources, 7-19 Resources, 1-23 down, (P) Programming Resources, 7-19 video attributes, (P) Programming Resources, forward, (P) Programming Resources, 7-19 output, (P) Programming Resources, 7-19 viewport, (P) Programming Resources, 7-17 up, (P) Programming Resources, 7–19 Screen management resources, (P) Modular Scroll bar Procedures, 2-17 disabling, (P) VAXTPU, 7-462 Screen manager, (P) VAXTPU, 2-28, 6-1 to 6-12 enabling, (P) VAXTPU, 7-462 automatic update, (P) VAXTPU, 6-7 Scroll bar slider line changes, (P) VAXTPU, 6-6 adjusting automatically, (P) VAXTPU, 7-224 partial update, (P) VAXTPU, 6-8 Scroll bar widget specific window update, (P) VAXTPU, 6-8 example of fetching, (P) VAXTPU, B-19 to suppressing updates, (P) VAXTPU, 6-6 B-22update all windows, (P) VAXTPU, 6-9 SCROLL built-in procedure, (P) VAXTPU, 6-10, update order, (P) VAXTPU, 6-7 7-324 to 7-326 updates, (P) VAXTPU, 6-6 SCROLL command, (M) Show Cluster, SHCL-10, update with ADJUST\_WINDOW, (P) VAXTPU, SHCL-75; (P) Debugger, 7-11, CD-112 Scrolling, (U) VMS Intro, 2-5 update with CURSOR\_HORIZONTAL, (P) effect of on cursor position, (P) VAXTPU, 7-324 *VAXTPU*, 7–94 effect of on editing point, (P) VAXTPU, 7-324 update with CURSOR\_VERTICAL, (P) with records deleted, (P) VAXTPU, 6-5 *VAXTPU*, 7–97 with records inserted, (P) VAXTPU, 6-5 Screen mode, (P) Debugger, 7-1, CD-150 SCROLLING keyword, (P) VAXTPU, 7-467 multiprocess program, (P) Debugger, 10–14 SCROLL keypad function, (M) Show Cluster, summary reference information, (P) Debugger, SHCL-5 C-1Scroll mode, (P) Debugger, CD-150 Screen object jump, (P) RTL Screen Management, SMG-347 in VAXTPU, (P) VAXTPU, 4–14 smooth, (P) RTL Screen Management, Screen-oriented editor, (U) DCL Dictionary, SMG-347 DCL1-180 /SCROLL qualifier, (P) Debugger, 7-20, CD-118 EVE, (U) DCL Dictionary, DCL1-189 "Scroll" string constant parameter to GET\_INFO, VAXTPU, (U) DCL Dictionary, DCL1-189 (P) VAXTPU, 7-201, 7-224 Screen-oriented program "Scroll\_amount" string constant parameter to debugging, (P) Debugger, 9-5 GET\_INFO, (P) VAXTPU, 7-224 with DECwindows, (P) Debugger, 1–32, "Scroll\_bottom" string constant parameter to GET\_INFO, (P) VAXTPU, 7-224 Screen size "Scroll\_top" string constant parameter to displaying, (P) Debugger, 7-22, CD-249 GET\_INFO, (P) VAXTPU, 7-225 %PAGE, %WIDTH symbols, (P) Debugger, C-6 SCS (system communications services), (P) Device setting, (P) Debugger, 7-22, CD-181 Support (B), 1-33 Screen update base address, (P) System Dump Analyzer, See Screen manager SDA-14 displaying SDA information, (P) System Dump /SCREEN\_LAYOUT qualifier, (P) Debugger, Analyzer, SDA-82, SDA-83, SDA-87, CD-97 SDA-123, SDA-148 SCREEN\_UPDATE keyword, (P) VAXTPU, 7-460 global symbols, (P) System Dump Analyzer, "Screen\_update" string constant parameter to SDA-60 GET\_INFO, (P) VAXTPU, 7-201 SCSDEF.STB, (P) System Dump Analyzer, Script SDA-60 EDIT/FDL, (P) File Def Language, FDL-63 SCSI (Small Computer System Interface) list of, (P) File Applications, 4-4 definition, (P) Device Support (A), 17-1 optimize, (P) File Applications, 10-1

touch-up, (P) File Applications, 10-28

disks, (M) VAXcluster, 1-4, 3-7

SCSI (Small Computer System Interface) (cont'd) hardware considerations, (P) Device Support (A), 1–18 SCSI bus releasing in AEN operation, (P) Device Support (B), 2-81 resetting, (P) Device Support (B), 2-82 17 - 11sensing phase of, (P) Device Support (B), 2-87 setting phase of, (P) Device Support (B), 2-90 See SCDT VAX systems concepts, (P) Device Support (A), 17 - 1SCSI bus analyzer, (P) Device Support (A), 17–32 SCSI class driver, (P) I/O User's I, 11-2 See also Class driver See also Disk class driver SCSI device See also Generic SCSI class driver See also Tape class driver See also Template class driver See also Third-party SCSI class driver A-52SCSI class driver request packet See SCDRP SCSI class/port architecture, (P) I/O User's I, 11-2; (P) Device Support (A), 17-2 to 17-5 summary of I/O request servicing, (P) Device SCSI disk Support (A), 17-22 to 17-24 SCSI command, V5.5 Release Notes, 2-36 controlling the number of retries, (P) Device Support (A), 17–13 determining timeout setting for, (P) Device B - 56Support (B), 2–76 disabling retry, (P) I/O User's I, 11-8; (P) SCSI macro Device Support (A), 17-12; (P) Device Support (B), 2-75, 2-88 enabling retry, (P) I/O User's I, 11-13; (P) Device Support (B), 2-75 See SPDT examining status of, (P) Device Support (A), 17-17 to 17-19, 17-27 padding, when required, (P) I/O User's I, 11 - 14preparing to issue, (P) Device Support (A), 17-10 to 17-13 See SPI sending to SCSI device, (P) Device Support (A), 17-11; (P) Device Support (B), 2-84 to 2 - 86setting disconnect timeout for, (P) I/O User's I, 11-8, 11-14; (P) Device Support (A), 17-11, 17-12; (P) Device Support (B), 2-76, 2-89 setting DMA timeout for, (P) I/O User's I, 11-8, 11-14; (P) Device Support (A), 17-11, 17-12; (P) Device Support (B), 2-76, 2-89 B - 56setting phase change timeout for, (P) I/OUser's I, 11-8, 11-14; (P) Device Support (A), 17-11, 17-12; (P) Device Support (B), 2-76, 2-89 size of, (P) Device Support (A), 17-11

SCSI command byte buffering, (P) Device Support (A), 17-11, 17-27; (P) Device Support (B), 2-69 SCSI command descriptor block creating, (P) Device Support (A), 17–11 initializing pointer to, (P) Device Support (A), SCSI connection descriptor table SCSI controller NCR 5380, (P) Device Support (A), 1-18 SII, (P) Device Support (A), 1–19 SCSI data structures changes, V5.5 New Features, A-52 connecting to, (P) Device Support (A), 17-9 SCSI device ID, (P) Device Support (A), 17-2 SCSI device support NCR 53C94 controller, V5.5 New Features, SCSI device UCB, (P) Device Support (A), 17-8 extending, (P) Device Support (A), 17-24 SCSI disconnect feature enabling, (P) I/O User's I, 11-7 class driver, (P) I/O User's I, 3-22 error recovery, (P) I/O User's I, 3-17, 3-22SCSI disk class driver disabling the loading of, V5.5 New Features, SCSI ID, (P) Device Support (A), 17-2 changes, V5.5 New Features, A-52 SCSI notes, V5.5 Release Notes, 2-36 SCSI port descriptor table SCSI port driver, (P) I/O User's I, 11-2 See Port driver SCSI port ID, (P) Device Support (A), 17-1 SCSI port interface SCSI port UCB, (P) Device Support (A), 17-8 SCSI status byte examining, (P) Device Support (A), 17-18 initializing, (P) Device Support (A), 17-11 servicing CHECK CONDITION status, (P) Device Support (A), 17–18 SCSI tape class driver disabling the loading of, V5.5 New Features, SCSI\_NOAUTO system parameter, V5.5 NewFeatures, B-56; (P) I/O User's I, 11-10; (P) Device Support (A), 17-31 SCSLOA symbol, (P) System Dump Analyzer, SDA-14

SCSNODE, (M) DECnet-VAX Guide, 3-10

terminating, (P) Device Support (A), 17-28;

(P) Device Support (B), 2–68

SCS node name

used with LICENSE MODIFY command, License Management, LMF-6, LMF-38

/SCS qualifier, (P) System Dump Analyzer, SDA-82

SCS SYSGEN parameters, (M) VAXcluster, A-3 to A-5

SCS SYSGEN/TIMVCFAIL parameter, V5.5 Release Notes, 2–72

SCSSYSTEMID, (M) DECnet-VAX Guide, 3-10

SCS system parameters

See System parameters

SCS window, (M) Show Cluster, SHCL-2 classes of data, (M) Show Cluster, SHCL-3 default display, (M) Show Cluster, SHCL-7 example of, (M) Show Cluster, SHCL-1

SCU (system control unit), (P) Device Support (A), 1 - 16

SCU/XMI bus

(A), 1-16

I/O address space, (P) Device Support (A), 16-5 SCU/XMI bus architecture, (P) Device Support

SDA\$INIT logical name, (P) System Dump Analyzer, SDA-8

SDA (System Dump Analyzer), V5.5 Release Notes, 2-52; (M) Maintaining VMS, 6-1; (P) Programming Resources, 1–21 to 1–22; (P) Device Support (A), 13–22

analyzing dump file, (P) Programming Resources, 1-21

command format, (P) System Dump Analyzer, SDA-10 to SDA-14, SDA-32

commands, (P) System Dump Analyzer, SDA-1 to SDA-2, SDA-39 to SDA-165

context, (P) System Dump Analyzer, SDA-9 to SDA-10

current process, (P) Device Support (A), E-19 exiting, (P) System Dump Analyzer, SDA-33, SDA-55

expression, (P) System Dump Analyzer, SDA-11 to SDA-14

initialization file, (P) System Dump Analyzer,

logging a session, (P) System Dump Analyzer, SDA-71

multiple screen displays, (P) System Dump Analyzer, SDA-55

obtaining help, (P) System Dump Analyzer, SDA-58

recording output, (P) System Dump Analyzer, SDA-32, SDA-72

SET CPU command, (P) Device Support (A),

SHOW CPU command, (P) Device Support (A),

SHOW CRASH command, (P) Device Support (A), E-19

SDA (System Dump Analyzer) (cont'd)

SHOW SPINLOCKS command, (P) Device Support (A), E-20

site-specific startup, (M) Setting Up VMS, 2-12 specifying an alternate system symbol table, (P) System Dump Analyzer, SDA-37

usage summary, (P) System Dump Analyzer, SDA-32

using to debug device driver, (P) Device Support (A), 13-29

SDA (System Dump Analyzer) commands, V5.5 New Features, 20–1

SHOW LOGS, V5.5 New Features, 20-2 SHOW PROCESS

/PARTICIPANTS qualifer, V5.5 New Features, 20-3

/TRANSACTIONS qualifer, V5.5 New Features, 20-4

SHOW TRANSACTIONS, V5.5 New Features, 20 - 6

SDA current CPU, (P) System Dump Analyzer, SDA-10, SDA-68, SDA-74, SDA-89, SDA-93, SDA-126, SDA-157

SDA current process, (P) System Dump Analyzer, SDA-9, SDA-10, SDA-68, SDA-73, SDA-93, SDA-126, SDA-157; (P) Device Support (A), E - 19

SDA symbol table, (P) System Dump Analyzer, SDA-13

building, (P) System Dump Analyzer, SDA-7 expanding, (P) System Dump Analyzer, SDA-8

SDBBF (Software Detected Bad Block File), (M) Bad Block, BAD-1

Search

anchored, (P) VAXTPU, 7-24 anchoring a pattern, (P) VAXTPU, 2-19 case-exact, (U) EVE Ref, 1-2 for pattern, (P) VAXTPU, 2-11 synonyms, (P) RMS, 7-12 unanchoring pattern elements, (P) VAXTPU, 2–19 to 2–20

SEARCH built-in procedure, (P) VAXTPU, 7-327 to 7-331

SEARCH command, (U) VMS Intro, 6-6; (U) Using VMS, 1-31; (U) Mail, MAIL-3, MAIL-75; (U) DCL Dictionary, DCL2-81 to DCL2-87; (P) Debugger, 6-6, CD-114; (P)System Dump Analyzer, SDA-66 displaying default qualifiers for, (P) Debugger,

6-7, CD-237

setting default qualifiers for, (P) Debugger, 6-7, CD-170

using over the network, (M) DECnet-VAX *Guide*, 2–8

Searching for a string, (U) Mail, MAIL-3

```
SEARCH_QUIETLY built-in procedure, (P)
Search list, (U) DCL Dictionary, DCL1-39,
    DCL1-114; (M) VAXcluster, 4-2; (P) System
                                                          VAXTPU, 7-332 to 7-336
                                                      $SECDEF macro, (P) Device Support (A), 19-6
    Services Intro, 6-2
                                                      Secondary attribute, (P) File Applications, 4-9;
  See also File specification
                                                          (P) File Def Language, FDL-2
  and multiple file locations. (P) File
                                                      Secondary bootstrap program (SYSBOOT), (P)
      Applications, 5-7, 5-8
                                                          Device Support (A), 13-21
  and the SET DEFAULT command, (U) DCL
                                                      Secondary completion status value field, (P) File
       Concepts, 4–20
                                                          Applications, 5-12
  as alternative to using wildcard characters, (P)
                                                      Secondary controller data channel, (P) Device
      RMS, 4-10
                                                          Support (A), 15-14, 15-15; (P) Device Support
  definition, (U) Using VMS, 4-15; (U) DCL
                                                          (B), 2–57
      Concepts, 4-18; (U) Command Procedures,
                                                         obtaining ownership of, (P) Device Support (B),
      2-4; (P) File Applications, 5-7
                                                             2-63, 3-100 to 3-101
  example, (U) Using VMS, 4-15; (U) DCL
                                                         releasing, (P) Device Support (B), 3-91
      Concepts,\, 4\text{--}18;\ \ (P)\ File\ Applications,\, 5\text{--}15
                                                      Secondary controller data channel wait queue, (P)
  in a file specification, (U) Using VMS, 4–15;
                                                          Device Support (B), 3-91, 3-101
      (U) DCL Concepts, 4-20
                                                      SECONDARY day
  multiple, (U) DCL Concepts, 4-21
                                                         defining, (M) Setting Up VMS, 4-25
  nested, (U) DCL Concepts, 4-21
  priority of installed images, (M) Install, INS-6
                                                      Secondary device characteristics field
  scope, (P) Debugger, 5-8, 5-11, CD-166,
                                                         See FAB$L_SDC field
       CD-235
                                                      Secondary exception vector, (P) Programming
       with DECwindows, (P) Debugger, 1-9,
                                                          Resources, 9–13
           1 - 26
                                                      Secondary index
  source file, (P) Debugger, 6-2, CD-2
                                          J-172,
                                                         See Alternate index
       CD-239
                                                      Secondary index data record
  translation, (U) Using VMS, 4-15; (C)
                                                         See SIDR
      Command Procedures, 2-4; (P) File
                                                      Secondary loader, (M) Networking, 4-5, 4-12,
      Applications, 6–7 to 6–8
                                                          4-13
  using with Remove service, (P) RMS, RMS-82
                                                      SECONDARY LOADER parameter, (M)
$SEARCH macro
                                                          Networking, 4–16
  for processing wildcard characters, (P) RMS,
                                                      Secondary page cache
                                                         evaluating, (M) Performance Management,
Search operations, (P) System Services Intro, 3-14
                                                             3-25, 3-35
Search order
                                                      Secondary password, (M) Security, 3-12, 5-16
   for logical name translation, (U) Using VMS,
                                                      Secondary processor, (M) Setting Up VMS, 2-19
       4-11; (U) DCL Concepts, 4-11
                                                         showing state, (U) DCL Dictionary, DCL2-258
Search service, (P) File Applications, 5–8 to 5–12;
                                                         starting, (U) DCL Dictionary, DCL2-343
    (P) RMS, RMS-91, RMS-92
                                                         stopping, (U) DCL Dictionary, DCL2-361
  condition values, (P) RMS, RMS-94
                                                      Secondary service
  control block input fields, (P) RMS, RMS-92
                                                         effect on next-record position, (P) File
  control block output fields, (P) RMS, RMS-93
                                                             Applications, 8-16
  example of completion code handling, (P) RMS,
                                                      Second Generation Ethernet Controller (SGEC),
       4-12
                                                          V5.5 Release Notes, 2–27
  program example, (P) RMS, 4-9
                                                         circuit name, V5.5 New Features, B-105
  requirement for Parse service, (P) RMS, 4-9
                                                         line name, V5.5 New Features, B-105
   using with wildcard characters and search lists,
                                                      Seconds, (U) DSR Ref, 3–18
       (P) RMS, RMS-92
                                                      SECT command, (U) Using VMS, 8-57; (U) EDT
Search string, (U) Using VMS, 8-17
                                                          Ref, EDT-93
   case sensitivity of (EVE), (U) Text Processing,
                                                         See also Cursor movement
                                                      Section, (P) System Services Intro, 12-7
   definition of (EVE), (U) Text Processing, 1-27
                                                         characteristic, (P) System Services Intro, 12-9
   EDT, (U) Text Processing, 2-29
                                                         creating, (P) System Services Intro, 12-8; (P)
Search string translation
                                                             System Services Ref, SYS-117
   requirements for parsing, (P) RMS, 4-9
                                                         defining extent, (P) System Services Intro, 12-9
                                                         deleting, (P) Programming Resources, 8-9; (P)
                                                             System Services Intro, 12–17
```

Section (cont'd) "Section file" string constant parameter to deleting global, (P) System Services Ref, GET\_INFO, (P) VAXTPU, 7-178, 7-207 SYS-158 section\_id data type, (P) Routines Intro, A-12t global, (P) Programming Resources, 5-15 section\_name data type, (P) Routines Intro, A-12t global paging file, (P) System Services Intro, /SECTION\_NUMBERS qualifier, (U) DSR Ref, 12-145-5image, (P) System Services Intro, 12-17 +Sect key mapping, (P) Programming Resources, 8-4; (P) See also SECT command System Services Intro, 12–12; (P) System on LK201 keyboard, (U) EDT Ref, EDT-93 Services Ref, SYS-117 -Sect key page frame, (P) System Services Intro, 12-18 See also SECT command paging, (P) System Services Intro, 12-14, 12-15 on LK201 keyboard, (U) EDT Ref, EDT-93 private, (P) Programming Resources, 8-4 SECT keypad function releasing, (P) System Services Intro, 12-17 EDT, (U) Text Processing, 2-12 unmapping, (P) System Services Intro, 12-17 Sector, (P) File Applications, 1-5 updating, (P) Programming Resources, 8-9 Sector size, (M) Bad Block, BAD-8 using to share data, (P) System Services Intro, Sector translation, (P) I/O User's I, 3–18 12 - 16Secure server, (M) Security, 3–13, 5–26 writing back, (P) System Services Intro, 12-17 Security, (M) Maintaining VMS, 6-13; (P) writing modifications to disk, (P) System Programming Resources, 1–23 Services Ref, SYS-657, SYS-662 See also Local area cluster Section file, (U) EVE Ref, 1–16; (P) VAXTPU, See also Network security at the network circuit level, (M) DECnet-VAX and initialization file, (U) Using VMS, 8-44 Guide, 3–36 created with EVE editor\$BUILD, (P) VAXTPU, at the network node level, (M) DECnet-VAX G-10 to G-11 Guide, 3–36 creating, (U) EVE Ref, EVE-136; (P) at the network system level, (M) DECnet-VAX VAXTPU, 4-23 Guide, 3-36 creating (EVE), (U) Text Processing, 1-76 auditing failure mode setting, V5.5 Release debugging, (P) VAXTPU, 4-34 Notes, 2-41 default, (P) VAXTPU, 4-21 audit log file, (M) Security, 6–2 default location of, (U) Using VMS, 8-43 converting message from binary to ASCII, (P) definition, (P) VAXTPU, 1-10 System Services Ref, SYS-262 EVE editor, (U) Text Processing, 1-71 enhancements to NETCONFIG.COM extending, (P) VAXTPU, 4-24 for existing systems, V5.5 New Features, processing, (P) VAXTPU, 4-24, 4-25 recommended conventions, (P) VAXTPU, 4-28 for new systems, V5.5 New Features, D-2 saving attributes in, (U) EVE Ref, 1-35 environmental, Dependability Handbook, 5-6 saving attributes in (EVE), (U) Text Processing, filtering sensitive message information, (P) 1-71, 1-73, 1-75 System Services Ref, SYS-262 saving command definitions and learn for DECnet-VAX node, (M) DECnet-VAX sequences in, (U) Using VMS, 8-43 Guide, 3-34 to 3-37 updating, (P) System Services Ref, SYS-657, for dynamic asynchronous connection, (M)SYS-662 DECnet-VAX Guide, 3-24; (M) Networking, Section headers format, (U) DSR Ref, 2-22 levels, (U) DSR Ref, 2-60, 2-111 for point-to-point connection, (M) Networking, 2-47, 3-93numbering sequence of, (U) DSR Ref, 2-89 for static asynchronous connection, (M)specifying format of, (U) DSR Ref, 2-117 DECnet-VAX Guide, 3-20 Section name for users, (M) Security, 3-1 made available to debugger, (P) MACRO, 6-23 for user-written system services, (P) System Section number (DSR), (U) Text Processing, 3-32 Services Intro, A-1 /SECTION qualifier, (U) EVE Ref, 1–16; (P) hashing passwords, (P) System Services Ref, VAXTPU, 4-25, 5-16 SYS-399 "Section" string constant parameter to GET\_INFO, image, (P) Debugger, 5-5 (P) VAXTPU, 7-178 in local area cluster, (M) SYSMAN, SM-10

Security (cont'd) Security auditing (cont'd) locking the data center, Dependability and OPCOM, (M) Security, 6-5 Handbook, 3-6 archive file, (M) Security, 6-4, 6-9 managing remote nodes, (M) SYSMAN, SM-6 audit analysis, (M) Security, 6-13 messages in operator log file, (M) Maintaining audit log file, (M) Security, 6-7 VMS, 6-10 audit server database, (M) Security, 6-4 monitoring tools audit server process, (M) Security, 6-4 accounting log, (M) Security, 7-3 changing disk monitor mode, (M) Security, network, (M) DECnet-VAX Guide, 3-37 6 - 18object protection components, (M) Security, 6-2, 6-3 importance, (M) Security, 4-1 data packet format, (M) Audit Analysis, A-5 physical default audited events, (M) Security, 6-11 of networks, (M) Security, 8-5 disabling, (M) Security, 6-5 policies, Dependability Handbook, 9-25 disabling events, (M) Security, 6-11 protecting network configuration files, (M) disabling resource monitoring, (M) Security, Networking, 2–42 6 - 19protecting public volumes, (M) Maintaining enabling events, (M) Security, 6-10 VMS. 2-2 header packet format, (M) Audit Analysis, A-1 protecting queues, (M) Maintaining VMS, 5-21 listener device, (M) Security, 6-10 to 5-23 mailbox, (M) Security, 6-10 screening new passwords, V5.5 New Features, overview, (M) Security, 6-1 process exclusion list, (M) Security, 6-19 password history list, V5.5 New Features, resource monitoring, (M) Security, 6-14 restarting, (M) Security, 6-5 terminal session, (M) Security, 6-21 site-specific filter, V5.5 New Features, B - 65Security audit log file, (M) Maintaining VMS, site, Dependability Handbook, 5-6 6-1, 6-13site-defined password policy, V5.5 New analyzing, (M) Audit Analysis, AUD-9 Features, B-64 to B-66 audit analysis of, (M) Audit Analysis, AUD-2 specifying an encryption algorithm, V5.5 closing, (M) Maintaining VMS, 6-14 New Features, B-65 creating, (M) Maintaining VMS, 6-14 terminal. (P) Debugger, 9-6 opening next, (M) Audit Analysis, AUD-35 SECURITY.EXE review policy, (M) Maintaining VMS, 6-14 global symbols, (P) System Dump Analyzer, Security audit log file record SDA-61 criteria for selecting, (M) Audit Analysis, Security administrator AUD-20 and cluster manager, (M) Security, 9-1 directing output, (M) Audit Analysis, AUD-18 goals of, (M) Security, 1-1displaying, (M) Audit Analysis, AUD-29 personal account, (M) Security, 5-1 displaying full content, (M) Audit Analysis, privilege requirements, (M) Security, 5-1 AUD-15 Security alarm display time application, (M) Security, 4-41 specifying, (M) Audit Analysis, AUD-19 disabling on system console, (M) Security, 6–12 excluding specific groups of, (M) Audit Security alarm ACE, (M) Security, 4-21, 4-26; Analysis, AUD-16 (M) ACL Editor, ACL-18 moving backward, (M) Audit Analysis, AUD-37 specifying access, (M) Security, 4-27; (M) ACL moving forward, (M) Audit Analysis, AUD-37 resuming processing, (M) Audit Analysis, Editor, ACL-19 AUD-28 specifying options, (M) Security, 4-27; (M) ACL Editor, ACL-18 selecting by class, (M) Audit Analysis, AUD-14 Security archive file selecting by time, (M) Audit Analysis, AUD-11, audit analysis of, (M) Audit Analysis, AUD-2 AUD-25 losing the remote link to, (M) Security, 6-20 summary of, (M) Audit Analysis, AUD-26 Security attack Security audit message, (M) Audit Analysis, forms of, (M) Security, 7-1 AUD-9 Security audit, (M) Security, 4-40, 7-3 format, (M) Audit Analysis, A-1 Security auditing, (M) Security, 6–1 Security breach alarm failure mode, (M) Security, 6-4 handling, (M) Security, 7-4 analyzing archive file, (M) Security, 6-10

Security problem Security considerations, (P) VAXTPU, 1-12, 7-59, automatic login accounts (cont'd) 7-234, 7-235, 7-406 how to reduce, (M) Security, 5–29 Security enhancements to NETCONFIG.COM categories of, (M) Security, 1-1 for new systems, V5.5 Release Notes, 2-40 network protected communications, (M) Security event Security, 8-4 as alarm message, (M) Security, 6-1 telephone system as, (M) Security, 7-7 as audit message, (M) Security, 6–1 Security services, (P) System Services Intro, 1-1 Security event class, (M) Audit Analysis, AUD-14 SECURITY\_AUDIT.AUDIT\$JOURNAL, (M) Security event message Security, 6-4, 6-13 determining when to ignore, (M) Audit SECURITY\_AUDIT.AUDIT\$JOURNAL file, (M) Analysis, AUD-5 Maintaining VMS, 6–13 extracting, (M) Audit Analysis, AUD-2 Seek operation, (P) I/O User's I, 3-16; (P) Device producing daily reports, (M) Audit Analysis, Support (A), 8–6 AUD-5 overlapping with data transfer, (P) Device Security event record Support (A), 8–2 changing selection criteria, (M) Audit Analysis, Seek time, (P) File Applications, 1-5 SEGMENT BUFFER SIZE parameter displaying next, (M) Audit Analysis, AUD-36 for executor, (M) Networking, 3-21 interrupt processing, (M) Audit Analysis, Segmented key, (P) File Def Language, FDL-30; AUD-27 (P) RMS, 13-13resume processing, (M) Audit Analysis, restriction against overlapping, (P) RMS, AUD-27 showing selected criteria, (M) Audit Analysis, SEGn secondary, (P) File Def Language, FDL-40 AUD-38 SEGn\_LENGTH attribute, (P) File Def Language, Security feature FDL-30 account duration, (M) Security, 3-14 SEGn\_POSITION attribute, (P) File Def auditing, (M) Security, 7-3 Language, FDL-30 break-in evasion, (M) Security, 3-17 SEL (select) command, (U) EDT Ref, EDT-307 dialup retries, (M) Security, 3-16 erase-on-delete, (M) Security, 5-43 See also Moving text erasure patterns, (M) Security, 4-39 See also Replacing text high-water marking, (M) Security, 5-43 SELECT ALL command, (U) EVE Ref, EVE-145 passwords, (M) Security, 3-6 to 3-14, 5-14 to moving text with (EVE), (U) Text Processing, 5 - 201-19 secure server, (M) Security, 3–13 SELECT built-in procedure, (P) VAXTPU, 7-337 secure terminal server, (M) Security, 5-26 to 7-339 security alarm, (M) Security, 4-41 SELECT command, (U) VMS Intro, 1-13; (U) shift restrictions, (M) Security, 3–16 Using VMS, 1-33, 8-15, 8-62; (U) Mail, Security kernel MAIL-11, MAIL-76; (U) EDT Ref, EDT-95; defined, (M) Security, 2-2 (U) EVE Ref, EVE-142 to EVE-144; (M) Security levels, (M) Security, 1–3 Show Cluster, SHCL-10, SHCL-76; (P) Security management, (M) Setting Up VMS, 4-9 Debugger, 7-18, CD-117 controlling conversational bootstrap operations, See also Moving text (M) VAXcluster, 7-31 for buffer manipulation (EVE), (U) Text modifying cluster group number, (M) Processing, 1–48 VAXcluster, 7-30 moving text with (EVE), (U) Text Processing, modifying cluster password, (M) VAXcluster, 1-19 7 - 30Selected map register overview, (M) VAXcluster, 7-29 See MBA\$L SMR Security model, (M) Security, 2–1 Selecting a box of text Security operator See also BOX SELECT command terminal, (M) Security, 6–12 EVE editor, (U) Text Processing, 1-22 SECURITY privilege, (M) Setting Up VMS, 5-16; Selecting a systems integrator, Dependability (M) Security, 5–15, A–8; (M) Networking, 5–2 Handbook, 3-14 Security problem Selecting records, (M) Accounting, ACC-1 anonymity of network and dialup users, (M)Selection, (P) VAXTPU, 4-16 Security, 5-31 dynamic, (P) VAXTPU, 4-17 automatic login accounts

Selection (cont'd) Semicolon (;) (cont'd) found range, (P) VAXTPU, 4-18 as statement separator, (P) VAXTPU, 1-8, 3-4, static, (P) VAXTPU, 4-17 3-15, 3-16, 3-17, 4-3 using MODIFY\_RANGE built-in to alter, (P) command separator, (P) Debugger, CD-4 *VAXTPU*, 7–273 SEND built-in procedure, (P) VAXTPU, 7-342 to Selective mode, (M) Backup, BCK-16 /SELECTIVE\_SEARCH positional qualifier, (P) SEND command. (U) VMS Intro, 1-11; (U) Using Librarian, LIB-40; (P) Linker, LINK-27 VMS, 1–28; (U) Mail, MAIL–5, MAIL–79 Select key See also MAIL command See also SELECT command qualifiers, (U) Mail, MAIL-19 moving text with (EVE), (U) Text Processing, SEND/EDIT command (MAIL), (U) Using VMS, 1 - 181 - 35on LK201 keyboard, (U) EDT Ref, EDT-95 SENDING ADDRESS parameter to cancel GOLD key (EVE), (U) Text Processing, for DTE, (M) Networking, 3–82 1-65Sending files, (U) Mail, MAIL-4, MAIL-6 SELECT keypad function Sending messages, (U) Mail, MAIL-4, MAIL-5, EDT, (*U*) Text Processing, 2–18, 2–20 MAIL-57 /SELECT qualifier, (M) Backup, BCK-87; (M) canceling, (U) Mail, MAIL-5 Audit Analysis, AUD-20 over the network, (U) Mail, MAIL-1, MAIL-6 Select range to distribution lists, (U) Mail, MAIL-6 in EVE editor, (P) VAXTPU, 4-16 using DECnet-VAX, (U) Mail, MAIL-7 SELECT\_RANGE built-in procedure, (P) SEND TOC command, (U) DSR Ref, 2-107, 4-8 *VAXTPU*, 7–340 to 7–341 example, (U) DSR Ref. 2–107 /SELF qualifier, (U) Mail, MAIL-22 SEND\_CLIENT\_MESSAGE built-in procedure, Self-relative queue, (P) MACRO, 9-85 (P) VAXTPU, 7-344 to 7-345 validating, (P) System Dump Analyzer, SEND\_EOF built-in procedure, (P) VAXTPU, SDA-164 7 - 346Self-test status, (P) Device Support (A), 16–25 Sense device characteristics function, (P) Device SELF\_INSERT keyword, (P) VAXTPU, 7–470 Support (A), 7–9 "Self\_insert" string constant parameter to Sense device mode function, (P) Device Support GET INFO. (P) VAXTPU, 7-204 (A), 7-9/SELF\_RELATIVE qualifier, (P) System Dump Sense tape mode function, (P) I/O User's I, 6–22 Analyzer, SDA-164 /SEPARATE\_UNDERLINE qualifier, (U) DSR Semaphore, (P) Programming Resources, 4–17; Ref, 4–22 (P) RTL Parallel Processing, 4-9 Separation of job controller and queue manager, V5.5 New Features, 5-1; (M) VAXcluster, 6-1 See also Synchronization Separator adjusting maximum value, (P) RTL Parallel in symbolic name, (P) RMS, 2-3 Processing, 4–13 semicolon used as, (P) VAXTPU, 1-8, 3-4, binary, (P) Programming Resources, 4–17; (P) 3-15, 3-16, 3-17, 4-3 RTL Parallel Processing, 4-10 Sequence checking counting, (P) Programming Resources, 4–17; default, (U) Sort/Merge, SORT-12 (P) RTL Parallel Processing, 4–10 specifying, (U) Sort/Merge, SORT-51 creating, (P) RTL Parallel Processing, 4-11 SEQUENCE keyword decrementing, (P) RTL Parallel Processing, description, (P) National Char Set, NCS-13 /SEQUENCE qualifier, (U) EDT Ref, EDT-170; deleting, (P) RTL Parallel Processing, 4–12 incrementing, (P) RTL Parallel Processing, (U) DSR Ref, 4-23 EDT editor, (U) Text Processing, 2-23 with EXIT, (U) EDT Ref, EDT-138 reading, (P) RTL Parallel Processing, 4-13 with RESEQUENCE, (U) EDT Ref, EDT-167 setting maximum value, (P) RTL Parallel with WRITE, (U) EDT Ref, EDT-253 Processing, 4–14 Sequence test, (M) DTS/DTR, DTS-9, DTS-13 Semaphore synchronization Sequential access, (P) File Applications, 8-6 advantages and disadvantages, (P) RTL mode, (P) File Applications, 1–2 Parallel Processing, 5–8 to indexed files, (P) File Applications, 2-4, PPL\$ routines for, (P) RTL Parallel Processing, 4-11 to 4-14 to relative files, (P) File Applications, 2-4, 8-9 Semicolon (;) to sequential files, (P) File Applications, 2-3

Sequential access (cont'd) Server module counters, (M) Network Control use with sequential files, (P) File Applications, Program, A-14 Server queue, (U) DCL Dictionary, DCL1-251; with multibuffer count, (P) File Applications, (M) Maintaining VMS, 5-4 Server queue status, (M) Maintaining VMS, 5-71 SEQUENTIAL attribute, (P) File Def Language, Service FDL-22 allowable program execution modes, (P) RMS, Sequential disk file creating over the network, (M) DECnet-VAX announcements, (M) LATCP, LAT-1 Guide, 2-7 application, (M) LATCP, LAT-10, LAT-13, Sequential-disk save set, (M) Backup, BCK-13 LAT-14, LAT-37, LAT-41 initializing, (M) Backup, BCK-13 block I/O, (P) RMS, 3-5 mounting, (M) Backup, BCK-13 calling example, (P) RMS, 3-11 Sequential file, (U) Using VMS, 2-4; (P) File circuit identification for downline load, (M) Applications, 2–14; (P) File Def Language, Networking, 4-17 FDL-25 creating, (M) LATCP, LAT-13 advantages and disadvantages of using, (P) database, (M) LATCP, LAT-1, LAT-31, LAT-34 File Applications, 2–15 defined, V5.5 New Features, 9-5; (M) LATCP, allocating, (P) File Applications, A-1 and Sort/Merge Utility, (U) Using VMS, 1-41 deleting, (M) LATCP, LAT-21 buffering, (P) File Applications, 7-18 to 7-19 device identification for downline load, (M) creating, (P) Programming Resources, 8–10 Networking, 4-16 designing, (P) File Applications, 3-9 to 3-12 displaying characteristics of, (M) LATCP, examining, (P) File Applications, 10–12, 10–13 LAT-58 maximum record size, (P) File Applications, displaying counters, (M) LATCP, LAT-58 3 - 10displaying information, (M) LATCP, LAT-58 merging, (P) Programming Resources, 8-13, general timesharing, (M) LATCP, LAT-14 8 - 14identifier, (M) LATCP, LAT-13, LAT-31, optimizing performance, (P) File Applications, LAT-41 3-9 to 3-12 invoking at run time, (P) RMS, 3-1 organization, (P) File Applications, 1-2 limiting size of node database, (M) LATCP, read-ahead and write-behind, (P) File LAT-31, LAT-34 Applications, 3-9 modifying characteristics of, (M) LATCP, record access, (P) File Applications, 8-7 to 8-8, LAT-41 8-12 to 8-13 naming, (M) LATCP, LAT-13, LAT-26 sorting, (P) Programming Resources, 8–13, naming conventions, (P) RMS, 3-3 8 - 14operations for circuit, (M) Networking, 3-40 structure, (P) Analyze/RMS\_File, ARMS-1 passing argument list to, (P) RMS, 3-10 tuning, (P) File Applications, 3-9 to 3-12 password for downline load, (M) Networking, updating, (P) Programming Resources, 8-11 4 - 17rating, (M) LATCP, LAT-13, LAT-41, LAT-53, Sequential only option See FAB\$V\_SQO option LAT-59 responder, (M) LATCP, LAT-32 /SEQUENTIAL qualifier, (U) Sort/Merge, SORT-48; (P) File Applications, 7-19 restrictions to calling, (P) RMS, 2-7 SEQUENTIAL\_ONLY attribute, (P) File Def target, (M) LATCP, LAT-57 Service and maintenance arrangements, Language, FDL-24 Dependability Handbook, 3-14 Serial line multiplexer, (P) I/O User's I, 8-1 Service announcements, V5.5 New Features, 9–7 Server, (P) DECthreads, 1-4 defined, Dependability Handbook, Glossary-5 SERVICE CIRCUIT parameter, (M) Networking, MSCP, (M) System Generation, SGN-23 secure terminal, (M) Security, 3-13 SERVICE DEVICE parameter, (M) Networking, 4-16 terminal, (M) DECnet-VAX Guide, 1-7 Service macro Server module description, (P) RMS, 3-1 See X25-SERVER module and X29-SERVER for creating and processing files, (P) RMS, 4-1 module format, (P) RMS, 3-10, 3-11 format rules, (P) RMS, 3–11 types, (P) RMS, 3-12

- Service node, V5.5 New Features, 9-7; (M) LATCP, LAT-1
  - controlling access to, (M) LATCP, LAT-30, LAT-34
  - defined, V5.5 New Features, 9–5, 9–7; (M) LATCP, LAT-1
  - deleting a port, (M) LATCP, LAT-20 modifying characteristics of, (M) LATCP, LAT-28, LAT-41
  - naming, (M) LATCP, LAT-38
  - service announcements, (M) LATCP, LAT-31
- Service passwords, V5.5 Release Notes, 2–14 Service routine
  - AST, (P) System Services Intro, 5-3
- Services
  - See Digital services
- Service timer, (M) Networking, 3-59
- Serving corporate data to local personal computers, Dependability Handbook, 3–7
- Session
  - terminating, (M) Analyze/Disk, ADSK-4
- Session Control layer events, (M) Network Control Program, A-25
- Session language
  - new languages, V5.5 New Features, B-45 setting another, V5.5 New Features, B-45
- Session limit, (M) LATCP, LAT-32
- Session Manager
  - setting another language, V5.5 New Features, B-45
- SET (ACTIVE\_AREA) built-in procedure, (P) VAXTPU, 7–350
- SET (AUTO\_REPEAT) built-in procedure, (P) VAXTPU, 7–353 to 7–354
- SET (BELL) built-in procedure, (P) VAXTPU, 7–355 to 7–356
- SET (CLIENT\_MESSAGE) built-in procedure, (P) VAXTPU, 7–357 to 7–358
- SET (COLUMN\_MOVE\_VERTICAL) built-in procedure, (P) VAXTPU, 7–359 to 7–360
- SET (CROSS\_WINDOW\_BOUNDS) built-in procedure, (P) VAXTPU, 7–361
- SET (DEBUG) built-in procedure,  $\,$  (P) VAXTPU, 7–362 to 7–365
- SET (DEFAULT\_DIRECTORY) built-in procedure, (P) VAXTPU, 7-366
- SET (DETACHED\_ACTION) built-in procedure, (P) VAXTPU, 7-367 to 7-369
- SET (DISPLAY\_VALUE) built-in procedure, (P) VAXTPU, 7–370
- SET (DRM\_HIERARCHY) built-in procedure, (P) VAXTPU, 7-371
- SET (ENABLE\_RESIZE) built-in procedure, (P) VAXTPU, 7–372
- SET (EOB\_TEXT) built-in procedure, (P) VAXTPU, 7–374

- SET (ERASE\_UNMODIFIABLE) built-in procedure, (P) VAXTPU, 7-375 to 7-377
- SET (FACILITY\_NAME) built-in procedure, (P) VAXTPU, 7-378
- SET (Field) command, (M) Show Cluster, SHCL-9, SHCL-78
- SET (FORWARD) built-in procedure, (P) VAXTPU, 7–379
- SET (GLOBAL\_SELECT) built-in procedure, (P) VAXTPU, 7–380
- SET (GLOBAL\_SELECT\_GRAB) built-in procedure, (P) VAXTPU, 7–382
- SET (GLOBAL\_SELECT\_READ) built-in procedure, (P) VAXTPU, 7–385
- SET (GLOBAL\_SELECT\_TIME) built-in procedure, (P) VAXTPU, 7–387
- SET (GLOBAL\_SELECT\_UNGRAB) built-in procedure, (P) VAXTPU, 7–389
- SET (HEIGHT) built-in procedure, (P) VAXTPU, 7-391
- SET (ICONIFY\_PIXMAP) built-in procedure, (P) VAXTPU, 7-395 to 7-396
- SET (ICON\_NAME) built-in procedure, (P) VAXTPU, 7-392
- SET (ICON\_PIXMAP) built-in procedure, (P) VAXTPU, 7-393 to 7-394
- SET (INFORMATIONAL) built-in procedure, (P) VAXTPU, 7-397
- SET (INPUT\_FOCUS) built-in procedure, (P) VAXTPU, 7–398
- SET (INPUT\_FOCUS\_GRAB) built-in procedure, (P) VAXTPU, 7–400
- SET (INPUT\_FOCUS\_UNGRAB) built-in procedure, (P) VAXTPU, 7–402
- SET (INSERT) built-in procedure, (P) VAXTPU, 7-404
- SET (JOURNALING) built-in procedure, (P) VAXTPU, 7-405 to 7-407
- SET (KEYSTROKE\_RECOVERY) built-in procedure, (P) VAXTPU, 7–408 to 7–409
- SET (KEY\_MAP\_LIST) built-in procedure, (P) VAXTPU, 7-410 to 7-411
- SET (LEFT\_MARGIN) built-in procedure, (P) VAXTPU, 7-412 to 7-413
- SET (LEFT\_MARGIN\_ACTION) built-in procedure, (P) VAXTPU, 7-414 to 7-415
- SET (LINE\_NUMBER) built-in procedure, (P) VAXTPU, 7-416 to 7-417
- SET (MAPPED\_WHEN\_MANAGED) built-in procedure, (P) VAXTPU, 7-418
- SET (MARGINS) built-in procedure, (P) VAXTPU, 7-419 to 7-420
- SET (MAX\_LINES) built-in procedure, (P) VAXTPU, 7–421
- SET (MENU\_POSITION) built-in procedure, (P) VAXTPU, 7-422 to 7-423

- SET (MESSAGE\_ACTION\_LEVEL) built-in procedure, (P) VAXTPU, 7-424 to 7-425
- SET (MESSAGE\_ACTION\_TYPE) built-in procedure, (P) VAXTPU, 7-426
- SET (MESSAGE\_FLAGS) built-in procedure, (P) VAXTPU, 7-427 to 7-428
- SET (MODIFIABLE) built-in procedure, (P) VAXTPU, 7-429 to 7-430
- SET (MODIFIED) built-in procedure, (P) VAXTPU, 7-431
- SET (MOUSE) built-in procedure, (P) VAXTPU, 7-432 to 7-433
- SET (NO\_WRITE) built-in procedure, (P) VAXTPU, 7-434
- SET (OUTPUT) built-in procedure, (P) VAXTPU, 7-203
- SET (OUTPUT\_FILE) built-in procedure, (P) VAXTPU, 7-435
- SET (OVERSTRIKE) built-in procedure, (P) VAXTPU, 7-436
- SET (PAD) built-in procedure, (P) VAXTPU, 7-437 to 7-438
- SET (PAD\_OVERSTRUCK\_TABS) built-in procedure, (P) VAXTPU, 7-439 to 7-440
- SET (PERMANENT) built-in procedure, (P) VAXTPU, 7-441
- SET (POST\_KEY\_PROCEDURE) built-in procedure, (P) VAXTPU, 7-442 to 7-443
- SET (PRE\_KEY\_PROCEDURE) built-in procedure, (P) VAXTPU, 7-444 to 7-445
- SET (PROMPT\_AREA) built-in procedure, (P) VAXTPU, 7-446 to 7-447
- SET (RECORD\_ATTRIBUTE) built-in procedure, (P) VAXTPU, 7–448 to 7–450
- SET (RESIZE\_ACTION) built-in procedure, (P) VAXTPU, 7-451
- SET (REVERSE) built-in procedure,  $\,$  (P) VAXTPU, 7-453
- SET (RIGHT\_MARGIN) built-in procedure, (P) VAXTPU, 7-454 to 7-455
- SET (RIGHT\_MARGIN\_ACTION) built-in procedure, (P) VAXTPU, 7–456 to 7–457
- SET (SCREEN\_LIMITS) built-in procedure, (P) VAXTPU, 7–458
- SET (SCREEN\_UPDATE) built-in procedure, (P) VAXTPU, 7-460 to 7-461
- SET (SCROLLING) built-in procedure, (P) VAXTPU, 7-467 to 7-469
- SET (SCROLL\_BAR) built-in procedure, (P) VAXTPU, 7-462
- example of use, (P) VAXTPU, B-22 to B-25
- SET (SCROLL\_BAR\_AUTO\_THUMB) built-in procedure, (P) VAXTPU, 7–465
- example of use, (P) VAXTPU, B-22 to B-25
- SET (SELF\_INSERT) built-in procedure, (P) VAXTPU, 7-470 to 7-471

- SET (SHIFT\_KEY) built-in procedure, (P) VAXTPU, 7-472 to 7-473
- SET (SPECIAL\_ERROR\_SYMBOL) built-in procedure, (P) VAXTPU, 7-474 to 7-475
- SET (STATUS\_LINE) built-in procedure, (P) VAXTPU, 7-476 to 7-478
- SET (SUCCESS) built-in procedure, (P) VAXTPU, 7-479
- SET (SYSTEM) built-in procedure, (P) VAXTPU, 7-480
- SET (TAB\_STOPS) built-in procedure, (P) VAXTPU, 7-481 to 7-482
- SET (TEXT) built-in procedure, (P) VAXTPU, 7-483 to 7-485
- SET (TIMER) built-in procedure,  $\,$  (P) VAXTPU, 7-486 to 7-487
- SET (TRACEBACK) built-in procedure, (P) VAXTPU, 7–488 to 7–489
- SET (UNDEFINED\_KEY) built-in procedure, (P) VAXTPU, 7-490 to 7-491
- SET (VIDEO) built-in procedure, (P) VAXTPU, 7–492 to 7–493
- SET (WIDGET) built-in procedure, (P) VAXTPU, 7–494
  - example of use, (P) VAXTPU, B-22 to B-27 using to specify resource values, (P) VAXTPU, 4-12
- SET (WIDGET\_CALLBACK) built-in procedure, (P) VAXTPU, 7-499
  - example of use, (P) VAXTPU, B-22 to B-25 using to specify callback routine, (P) VAXTPU, 4-9
- SET (WIDGET\_CALL\_DATA) built-in procedure, (P) VAXTPU, 7-496 to 7-498
- SET (WIDTH) built-in procedure, (P) VAXTPU, 7-501 to 7-502
- SET ABORT\_KEY command, (P) Debugger, 2-7, CD-121
- SET ACCOUNTING command, (U) DCL Dictionary, DCL2-91 to DCL2-92; (M) Accounting, ACC-1
  - See also ACCOUNTING command
    /NEW\_FILE qualifier, (M) Maintaining VMS,
    6-3
- SET ACL command, V5.5 New Features, B-14; (U) Using VMS, 7-13, 7-14; (U) Files and Devices, 4-9; (U) DCL Concepts, 4-18; (U) DCL Dictionary, DCL2-93 to DCL2-99; (M) Security, 4-17
  - example, (M) Security, 5–12, 8–19 with wildcards, (M) Security, 4–35
- SET ACL/LIKE command, (M) Security, 4–35
- SET ACL/OBJECT=DEVICE command, (M) Security, 5–29
- SET ACL/OBJECT\_TYPE command, V5.5 Release Notes, 4–5

Set All Processes Writable command, (P) Delta/XDelta, DELTA-43 \$SETAST, (P) System Services Ref, SYS-512 SET ATSIGN command, (P) Debugger, 8-2, CD-123 Set attention AST See Attention AST SET AUDIT command, (U) DCL Dictionary, DCL2-100 to DCL2-111; (M) Maintaining VMS, 6-13; (M) Security, 4-42, 6-1 alarms, (M) Security, E-17 /SERVER=NEW\_LOG qualifier, (M) Maintaining VMS, 6-14 suggested auditing applications, (M) Security, 7 - 3SET AUTOREPEAT command, (U) EDT Ref. EDT-171 See also Terminal attributes SET AUTO\_POSITIONING command, (M) Show Cluster, SHCL-77 SET AUTO\_PURGE command, (U) Mail, MAIL-83 SET BOX NOPAD command, (U) EVE Ref. EVE-146 EVE editor, (U) Text Processing, 1-22 SET BOX NOSELECT command, (U) EVE Ref. EVE-147 EVE editor, (U) Text Processing, 1-22 SET BOX PAD command, (U) EVE Ref, EVE-148 EVE editor, (U) Text Processing, 1-22 SET BOX SELECT command, (U) EVE Ref, EVE-149 EVE editor, (U) Text Processing, 1-22 SET BREAK command, (P) Debugger, 3-8, 6-7, 9-10, 11-3, 12-24, 12-27, CD-124 SET BROADCAST command, (U) DCL Dictionary, DCL2-112 to DCL2-113 SET BUFFER command, (U) EVE Ref, EVE-150 to EVE-151 changing editing status with (EVE), (U) Text Processing, 1-50 creating a scratchpad with (EVE), (U) Text Processing, 1–50 for buffer manipulation (EVE), (U) Text Processing, 1-48 keywords with (EVE), (U) Text Processing, 1 - 50SET built-in procedure, (P) VAXTPU, 7-347 to 7 - 349WIDGET, (P) VAXTPU, 4-10 SET CARD\_READER command, (U) DCL Dictionary, DCL2-114; (P) I/O User's I, 2-2

SET CASE command, (U) EDT Ref, EDT-172

SET CASE LOWER command, (U) EDT Ref,

SET CASE NONE command, (U) EDT Ref,

SET CASE UPPER command, (U) EDT Ref. EDT-172 SET CC\_PROMPT command, (U) Mail, MAIL-84 Set characteristic card reader, (P) I/O User's I, 2-7 line printer. (P) I/O User's I, 5-9 magnetic tape, (P) I/O User's I, 6-23 terminal, (P) I/O User's I, 8-38 SET CIRCUIT ALL command, (M) Network Control Program, NCP-73 SET CIRCUIT command, (M) Network Control Program, NCP-74 CHANNEL parameter, (M) Networking, 3-47 COST parameter, (M) Networking, 3-68 COUNTER TIMER parameter, (M) Networking, 3-51 DTE parameter, (M) Networking, 3-47 MAXIMUM BUFFERS parameter, (M) Networking, 3-43 MAXIMUM DATA parameter, (M) Networking, 3 - 48MAXIMUM RECALLS parameter, (M) Networking, 3-49 MAXIMUM ROUTERS parameter, (M) Networking, 3-45, 3-67 MAXIMUM TRANSMITS parameter, (M) Networking, 3-44 MAXIMUM WINDOW parameter, (M) Networking, 3–48 NUMBER parameter, (M) Networking, 3-49 OWNER EXECUTOR parameter, (M) Networking, 3-48 polling control parameters, (M) Networking, 3 - 42POLLING STATE parameter, (M) Networking, RECALL TIMER parameter, (M) Networking, ROUTER PRIORITY parameter, (M) Networking, 3-44 SERVICE parameter, (M) Networking, 3-40, 4-7, 4-19STATE parameter, (M) Networking, 3-40, 4-19 TRIBUTARY parameter, (M) Networking, 3-36 TYPE parameter, (M) Networking, 3-47 USAGE parameter, (M) Networking, 3-47, 3 - 50VERIFICATION INBOUND parameter, (M) Networking, 3-42, 3-93 VERIFICATION parameter, (M) Networking, 3-41SET CLIPBOARD command, (U) EVE Ref, EVE-152 SET CLUSTER/EXPECTED\_VOTES command, (U) DCL Dictionary, DCL2-115 to DCL2-116; (M) VAXcluster, 7–27

EDT-172

EDT-172

- SET CLUSTER/QUORUM command, Obsolete Features, 1–2 to 1–3
- SET command, (U) DCL Dictionary, DCL2-88 to DCL2-90; (P) File Def Language, FDL-66 establishing volatile network database, (M) DECnet-VAX Guide, 3-13, 3-32
  - summary of options, (U) DCL Dictionary, DCL2-88
- SET COMMAND command, (U) DCL Dictionary, DCL2-117; (U) EDT Ref, EDT-173
  - See also Command Definition Utility delete mode, (P) Command Def, CDU-15, CDU-39
  - input for, (P) Command Def, CDU-44 object mode, (P) Command Def, CDU-16, CDU-41
  - output from, (P) Command Def, CDU-42 processing modes, (P) Command Def, CDU-14 qualifiers for, (P) Command Def, CDU-38 to CDU-44
  - replace mode, (P) Command Def, CDU-15, CDU-43
- **SET** commands
  - line mode, (U) EDT Ref, EDT-171
- SET CONTROL=Y command, (U) Using VMS, 6-32
- SET CONTROL command, (U) DCL Dictionary, DCL2–118 to DCL2–119
- SET CONTROL\_Y command, (U) Command Procedures, 7–10
- SET COPY\_SELF command, (U) Mail, MAIL-86 SET CPU command, (P) System Dump Analyzer, SDA-10, SDA-68
  - analyzing a running system, (P) System Dump Analyzer, SDA-9
- SET CURSOR BOUND command, (U) Using VMS, 8-9; (U) EVE Ref, EVE-153 to EVE-154
  - moving the cursor with (EVE), (U) Text Processing, 1–10
- SET CURSOR command, (U) EDT Ref, EDT-175 See also Cursor movement
- SET CURSOR FREE command, (U) Using VMS, 8–9; (U) EVE Ref, EVE–155
  - moving the cursor with (EVE), (U) Text Processing, 1-10
- Set cursor pattern \$QIO call, V5.5 Release Notes, 3-12
- .SET DATE command, (U) DSR Ref, 2–109, A–5 SET DAY command, (U) DCL Dictionary, DCL2–120
- SET DEFAULT command, (U) VMS Intro, 3-8; (U) Using VMS, 2-22, 2-23; (U) DCL Concepts, 3-12; (U) DCL Dictionary, DCL2-121 to DCL2-122; (M) Monitor, MON-88; (P) File Applications, 6-14, 6-15

- SET DEFAULT command (cont'd)
  - and a logical name search list, (U) DCL Concepts, 4–20
  - /TRANSLATION\_ATTRIBUTES qualifier, (P) File Applications, 6-15
- SET DEFAULT COMMAND FILE command, (U) EVE Ref, 1–38, EVE–156
  - EVE editor, (U) Text Processing, 1-73
- SET DEFAULT SECTION FILE command, (U) EVE Ref, 1-36, EVE-157 to EVE-158 EVE editor, (U) Text Processing, 1-73
- SET DEFAULT\_TABLE command, (M) Terminal Fallback, TFU-10, TFU-20
- SET DEFINE command, (P) Debugger, 8–6, CD–133
- SET/DEFINE EXECUTOR command, V5.5 New Features, C-1
- SET DEVICE/ACL command, Obsolete Features, 1-4 to 1-7
- Set device characteristics function, (P) Device Support (A), 7-9; (P) Device Support (B), 1-76
- SET DEVICE command, (U) DCL Dictionary, DCL2–123 to DCL2–124
- Set device mode function, (P) Device Support (A), 7-9; (P) Device Support (B), 1-76
- SET DEVICE/SERVED command, V5.5 Release Notes, 4-5; (U) DCL Dictionary, DCL2-125
- SET DIRECTORY/ACL command, Obsolete Features, 1–8 to 1–13
  - example, (M) Security, 5-13
- SET DIRECTORY command, (U) Files and Devices, 4-9; (U) DCL Concepts, 3-12; (U) DCL Dictionary, DCL2-126 to DCL2-128
- SET DISPLAY command, (U) DCL Dictionary, DCL2-129 to DCL2-135
- Set Display Mode command, (P) Delta/XDelta, DELTA-16
- SET ECO command, (P) Patch, PAT-75 affect of UPDATE command, (P) Patch, PAT-89 applying patches, (P) Patch, PAT-2
- SET EDITOR command, (U) Using VMS, 1–35; (U) Mail, MAIL-85; (P) Debugger, CD-134
- SET EDITOR TPU command in MAIL, (U) EVE Ref, 1–24
- SET ENTITY command, (U) Using VMS, 8-72; (U) EDT Ref, EDT-176
- SET ENTITY PAGE command, (U) EDT Ref, EDT-176
- SET ENTITY PARAGRAPH command, (U) EDT Ref, EDT-176
- SET ENTITY SENTENCE command, (U) EDT Ref, EDT-176
- SET ENTITY WORD command, (U) EDT Ref, EDT-176
- SET ENTRY/AFTER command, V5.5 Release Notes, 4–5

SET ENTRY command, (U) Command Procedures, 8-7; (U) DCL Dictionary, DCL2-136 to DCL2-143; (M) Maintaining VMS, 5-78 /AFTER qualifier, (M) Maintaining VMS, 5-80 /FORM qualifier, (M) Maintaining VMS, 5-89 /HOLD qualifier, (M) Maintaining VMS, 5-79 /PRIORITY qualifier, (M) Maintaining VMS, 5-80 /RELEASE qualifier. (M) Maintaining VMS.

/RELEASE qualifier, (M) Maintaining VMS, 5-79

/REQUEUE qualifier, (M) Maintaining VMS, 5-81, 5-90

/RETAIN qualifier, (M) Maintaining VMS, 5-81

SET ENTRY/PRIORITY command, V5.5 Release Notes, 4–5

SET ENVIRONMENT command, (M) SYSMAN, SM-3, SM-68

SET EVENT\_FACILITY command, (P) Debugger, 12–28, CD–136

SET EXECUTOR ALL command, (M) Network Control Program, NCP-80

SET EXECUTOR command, (M) DECnet-VAX Guide, 3-36; (M) Network Control Program, NCP-81

ADDRESS parameter, (M) Networking, 3-9, 3-66

ALIAS INCOMING parameter, (M)
Networking, 3-12

ALIAS MAXIMUM LINKS parameter, (M)
Networking, 3–73

ALIAS NODE parameter, (M) Networking, 3-12

AREA MAXIMUM COST parameter, (M)
Networking, 3-71

AREA MAXIMUM HOPS parameter, (M)
Networking, 3-71

BROADCAST ROUTING TIMER parameter, (M) Networking, 3-72

BUFFER SIZE parameter, (M) Networking, 3-9, 3-20

COUNTER TIMER parameter, (M) Networking, 3-27

DEFAULT ACCESS parameter, (M) Networking, 2-43, 3-95

DELAY FACTOR parameter, (M) Networking, 3-75

DELAY WEIGHT parameter, (M) Networking, 3-75

IDENTIFICATION parameter, (M) Networking, 3-10

INACTIVITY TIMER parameter, (M)
Networking, 3-75

INCOMING PROXY parameter, (M) Networking, 2-45, 3-96

INCOMING TIMER parameter, (M)
Networking, 3-74

local node address, (M) Networking, 3-9

SET EXECUTOR command (cont'd)

MAXIMUM ADDRESS parameter, (M)
Networking, 3-9

MAXIMUM AREA parameter, (M) Networking, 3-67

MAXIMUM BROADCAST NONROUTERS parameter, (M) Networking, 3-67

MAXIMUM BROADCAST ROUTERS parameter, (M) Networking, 3-67

MAXIMUM BUFFERS parameter, (M)
Networking, 3–22

MAXIMUM CIRCUITS parameter, (M)
Networking, 3-22

MAXIMUM COST parameter, (M) Networking, 3-70

MAXIMUM HOPS parameter, (M) Networking, 3-70

MAXIMUM LINKS parameter, (M)
Networking, 3-73

MAXIMUM PATH SPLITS parameter, (M)
Networking, 3-70

MAXIMUM VISITS parameter, (M)
Networking, 3-70

OUTGOING PROXY parameter, (M) Networking, 2-45, 3-96

OUTGOING TIMER parameter, (M)
Networking, 3-74

PATH SPLIT POLICY parameter, (M)
Networking, 3-71

PIPELINE QUOTA parameter, (M) Networking, 3-76

RETRANSMIT FACTOR parameter, (M)
Networking, 3-75

ROUTING TIMER parameter, (M) Networking, 3-72

SEGMENT BUFFER SIZE parameter, (M) Networking, 3-21

STATE parameter, (M) Networking, 3-22, 6-3 SUBADDRESSES parameter, (M) Networking, 3-50

SET EXECUTOR NODE command, (M)
Networking, 3-7; (M) Network Control
Program, NCP-89

access control information, (M) Networking, 3-95

SET EXIT ATTRIBUTE CHECK command, (U) EVE Ref, EVE-159

EVE editor, (U) Text Processing, 1-73

SET FILE/PROTECTION command, (U) VMS Intro, 2-8

SET FILE/ACL command, Obsolete Features, 1-14 to 1-19

SET FILE/ACL/DEFAULT command example, (M) Security, 8–19

SET FILE/AI\_JOURNAL command

errors when creating duplicate journals, *V5.5* Release Notes, 3–42

SET FILE/BI\_JOURNAL command errors when creating duplicate journals, V5.5 Release Notes, 3-42 SET FILE command, (U) Files and Devices, 4-9, 4-10; (U) Mail, MAIL-87; (U) DCL Dictionary, DCL2-144 to DCL2-148 /ACL qualifier, (P) File Applications, 4-22 example, (M) Setting Up VMS, 4-19 /EXTENSION qualifier, (P) File Applications, for changing global buffer count value, (P) RMS, 5-19 /GLOBAL\_BUFFERS qualifier, (P) File Applications, 3-9, 7-22 SET FILE/ERASE command, (M) Security, 4-40 SET FILE/MOVE[NOMOVE] command, V5.5 New Features, 11-2 SET FILE/OWNER\_UIC command, (M) Security, 4 - 32SET FILE/PROTECTION command, (M) Security, 4-33 SET FIND CASE EXACT command, (U) EVE Ref. EVE-160 finding text with (EVE), (U) Text Processing, SET FIND CASE NOEXACT command, (U) EVE Ref, EVE-161 finding text with (EVE), (U) Text Processing, SET FIND command, (U) Using VMS, 8-19 SET FIND NOWHITESPACE command, (U) EVE Ref, EVE-162 EVE editor, (U) Text Processing, 1-26, 1-30 SET FIND WHITESPACE command, (U) EVE Ref, EVE-163 EVE editor, (U) Text Processing, 1-26, 1-30 SET FNF command, (U) EDT Ref, EDT-178 SET FOLDER command, (U) Mail, MAIL-88 SET FORM command, (U) Mail, MAIL-91 SET FORWARD command, (U) Mail, MAIL-92 SET FUNCTION command, (M) Show Cluster, SHCL-5, SHCL-10, SHCL-79 SET FUNCTION KEYS DECWINDOWS command, (U) EVE Ref, 1-27, EVE-164 SET FUNCTION KEYS NODECWINDOWS command, (U) EVE Ref, EVE-165 SET GOLD KEY command, (U) Using VMS, 8-41; (U) EVE Ref, EVE-166 to EVE-167 EVE editor, (U) Text Processing, 1-59, 1-62 SET HELP command, (U) EDT Ref, EDT-179 SET HOST command, (U) Using VMS, 1-3; (U) DCL Dictionary, DCL2-149 to DCL2-151; (M) Security, 5-17; (M) DECnet-VAX Guide, 2-2See also Network node and network security, (M) DECnet-VAX Guide,

3 - 34

SET HOST command (cont'd) heterogeneous command terminal, (M) Networking, 1-22, 8-2 to access remote node, (M) DECnet-VAX Guide, SET HOST/DTE command, (U) DCL Dictionary, DCL2-152 DTE commands, (U) DCL Dictionary, DCL2-158 CLEAR, (U) DCL Dictionary, DCL2-158 EXIT, (U) DCL Dictionary, DCL2-159 QUIT, (U) DCL Dictionary, DCL2-160 SAVE, (U) DCL Dictionary, DCL2-161 SEND BREAK, (U) DCL Dictionary, DCL2-162 SET DTE, (U) DCL Dictionary, DCL2-163 SHOW DTE, (U) DCL Dictionary, DCL2-168 SPAWN, (U) DCL Dictionary, DCL2-169 using over the network, (M) DECnet-VAX Guide, 3-25SET HOST/DUP command, (U) DCL Dictionary, DCL2-171 to DCL2-172 See also Network node SET HOST facility, (P) I/O User's I, 8-11 SET HOST/HSC command, (U) DCL Dictionary, DCL2-173 to DCL2-174 See also Network node SET HOST/LAT command, V5.5 New Features, 9-5SET IMAGE command, (P) Debugger, 5-14, CD-138 effect on symbol definitions, (P) Debugger, CD-48 SET INTERVAL command, (M) Show Cluster, SHCL-80 SETIPL macro, (P) Device Support (A), 3-9, 3-10, E-4; (P) Device Support (B), 2-65 example, (P) Device Support (B), 2-66 replacing with spin lock synchronization macro, (P) Device Support (A), E-13 SET JOURNALING ALL command, (U) EVE Ref, 1-23, EVE-169 EVE editor, (U) Text Processing, 1-37 SET JOURNALING command, (U) EVE Ref, 1-23, EVE-168 EVE editor, (U) Text Processing, 1-37 SET KEY command, (U) DCL Dictionary, DCL2-175; (P) Debugger, 8-9, CD-140 SET KEYPAD command, (U) EDT Ref, EDT-180 EDT editor, (U) Text Processing, 2-32 SET KEYPAD EDT command, (U) EVE Ref, EVE-170 to EVE-176 SET KEYPAD NOEDT command, (U) EVE Ref, EVE-177 SET KEYPAD NOWPS command, (U) EVE Ref, EVE-178

- SET KEYPAD NUMERIC command, (U) EVE Ref, EVE-179 to EVE-180
- SET KEYPAD VT100 command, (U) EVE Ref, EVE-181 to EVE-182
- SET KEYPAD WPS command, (U) EVE Ref, EVE-183 to EVE-190
- SET KNOWN NODES command, (M) DECnet-VAX Guide, 3-17
- SET KNOWN PROXIES ALL command, (M) Networking, 2–46, 3–98; (M) Network Control Program, NCP-91
- SET LANGUAGE command, (P) Debugger, 4–10, CD–141
- SET LEFT MARGIN command, (U) Using VMS, 8–26, 8–36; (U) EVE Ref, EVE–191 to EVE–192
  - formatting text with (EVE), (U) Text Processing, 1-40
- .SET LEVEL command, (U) DSR Ref, 2–111 example, (U) DSR Ref, 2–111
- SET LIBRARY command, (M) Terminal Fallback, TFU-7, TFU-10, TFU-21
- SET LINE ALL command, (M) Network Control Program, NCP-92
- SET LINE command, V5.5 Release Notes, 4-12; (M) Network Control Program, NCP-93
  - BUFFER SIZE parameter, (M) Networking, 3-20, 3-57
  - CONTROLLER parameter, (M) Networking, 7-13
  - DUPLEX parameter, (M) Networking, 3-58 HOLDBACK TIMER parameter, (M) Networking, 3-62
  - INTERFACE parameter, (M) Networking, 3-64 MAXIMUM BLOCK parameter, (M) Networking, 3-63
  - MAXIMUM DATA parameter, (M) Networking, 3-62
  - MAXIMUM RETRANSMITS parameter, (M)
    Networking, 3–62
  - MAXIMUM WINDOW parameter, (M) Networking, 3-63
  - MICROCODE DUMP parameter, (M)
    Networking, 7-14
  - PROTOCOL parameter, (M) Networking, 3–53, 3–54
  - RECEIVE BUFFERS parameter, (M) Networking, 3-58
  - SERVICE TIMER parameter, (M) Networking, 4-7, 4-19
  - STATE parameter, (M) Networking, 3-57, 7-13 TRANSMIT PIPELINE parameter, (M) Networking, 3-60, 3-76
- SET LINES command, (U) Using VMS, 8-72; (U) EDT Ref, EDT-181
  - See also Displaying text EDT editor, (U) Text Processing, 2-32, 2-53

- SET LINK command, (M) LATCP, LAT-26 SET LOG command, (P) Debugger, 8-5, CD-143; (P) System Dump Analyzer, SDA-71
  - compared with SET OUTPUT command, (P) System Dump Analyzer, SDA-71
- SET LOGGING ALL command, (M) Network Control Program, NCP-100
- SET LOGGING command, (M) Networking, 3–98 EVENTS parameter, (M) Networking, 3–89, 3–91
  - NAME parameter, (M) Networking, 3–88 STATE parameter, (M) Networking, 3–91 to set logging sink state, (M) DECnet-VAX Guide, 4–5
- SET LOGGING EVENTS command, (M) Networking, 3-88; (M) Network Control Program, NCP-101
- SET LOGGING MONITOR command SINK parameter, (M) Networking, 3–90
- SET LOGGING STATE command, (M)
  Networking, 3-88; (M) Network Control
  Program, NCP-103
- SET LOGINS command, (U) DCL Dictionary, DCL2-176
- SET LOGINS/INTERACTIVE command, (M) System Management Intro, 5-4
- SET MAGTAPE command, (U) Files and Devices, 4-9, 4-10; (U) DCL Dictionary, DCL2-177 to DCL2-178
- SET MAGTAPE/RETENSION command, V5.5 New Features, 2–5
- SET MAIL\_DIRECTORY command, (U) Mail, MAIL-94
- SET MARGINS command, (P) Debugger, 6–8, CD–144
- SET MAX\_SOURCE\_FILES command, (P) Debugger, 6-3, CD-147
- SET MESSAGE command, (U) Using VMS, 1-20; (U) DCL Dictionary, DCL2-179 to DCL2-181; (P) Message, MSG-5
- Set mode
  - card reader, (P) I/O User's I, 2-7 line printer, (P) I/O User's I, 5-9 magnetic tape, (P) I/O User's I, 6-23 mailbox, (P) I/O User's I, 7-9 terminal, (P) I/O User's I, 8-38
- SET MODE CHANGE command, (U) EDT Ref, EDT-183
- SET MODE command, (U) Using VMS, 8–73; (U) EDT Ref, EDT–183; (P) Debugger, CD–148; (P) Patch, PAT–76
- EDT editor, (U) Text Processing, 2-32, 2-53 Set mode function, (P) Device Support (B), 1-76
- SET MODE LINE command, (U) EDT Ref, EDT-183
- SET MODE [NO]DYNAMIC command, (P) Debugger, 5-7, 5-14, CD-148

- SET MODE [NO]G\_FLOAT command, (P)

  Debugger, CD-148

  SET MODE [NO]INTERRIPT command
- SET MODE [NO]INTERRUPT command, (P) Debugger, 10–5, CD–149
- SET MODE [NO]KEYPAD command, (P) Debugger, 8–7, CD–149, B–1
- SET MODE [NO]LINE command, (P) Debugger, CD-149
- SET MODE [NO]OPERANDS command, (P) Debugger, 4-19, CD-150
- SET MODE [NO]SCREEN command, (P) Debugger, 7-1, CD-150
- SET MODE [NO]SCROLL command, (P)
  Debugger, CD-150
- SET MODE [NO]SEPARATE command, (P) Debugger, 9–5, CD–150
  - with DECwindows, (P) Debugger, 1-33
- SET MODE [NO]SYMBOLIC command, (P) Debugger, 4-13, CD-151
- SET MODULE command, (P) Debugger, 5-6, 5-15, CD-152; (P) Patch, PAT-78
- SET MODULE CONFIGURATOR command, (M) DECnet-VAX Guide, 4-6; (M) Network Control Program, NCP-105
  - KNOWN CIRCUITS parameter, (M)
    Networking, 3-46
  - STATUS display, (M) Networking, 3-46
  - SURVEILLANCE DISABLED parameter, (M)
    Networking, 3-46
  - SURVEILLANCE ENABLED parameter, (M)
    Networking, 3-45
- SET MODULE X25-ACCESS command, (M)
  Network Control Program, NCP-107
  ACCOUNT parameter, (M) Networking, 3-87
  NETWORK qualifier, (M) Networking, 3-86
  NODE parameter, (M) Networking, 3-87
  PASSWORD parameter, (M) Networking, 3-87
  USER parameter, (M) Networking, 3-87
- SET MODULE X25-PROTOCOL command, (M) Networking, 3-28; (M) Network Control Program, NCP-109
  - CALL TIMER parameter, (M) Networking, 3-31
  - CLEAR TIMER parameter, (M) Networking, 3-32
  - DEFAULT DATA parameter, (M) Networking, 3-30
  - DEFAULT WINDOW parameter, (M)
    Networking, 3-31
  - DTE qualifier, (M) Networking, 3-28 GROUP qualifier, (M) Networking, 3-33
  - MAXIMUM CLEARS parameter, (M)
    Networking, 3–32
  - MAXIMUM DATA parameter, (M) Networking, 3-30
  - MAXIMUM RESETS parameter, (M) Networking, 3-32

- SET MODULE X25-PROTOCOL command (cont'd) MAXIMUM RESTARTS parameter, (M)
  - Networking, 3–33
  - MAXIMUM WINDOW parameter, (M)
    Networking, 3-31
  - RESET TIMER parameter, (M) Networking, 3-32
  - RESTART TIMER parameter, (M) Networking, 3-33
- SET MODULE X25-SERVER command, (M) Network Control Program, NCP-115
  - CALLED ADDRESS parameter, (M)
    Networking, 3-84
  - CALLED DTE parameter, (M) Networking, 3-84
  - CALL MASK parameter, (M) Networking, 3-83 CALL VALUE parameter, (M) Networking, 3-83
  - DESTINATION qualifier, (M) Networking, 3-81
  - EXTENSION MASK parameter, (M)
    Networking, 3–83
  - EXTENSION VALUE parameter, (M)
    Networking, 3-83
  - GROUP parameter, (M) Networking, 3–82 INCOMING ADDRESS parameter, (M) Networking, 3–84
  - MAXIMUM CIRCUITS parameter, (M)
    Networking, 3-85
  - NODE parameter, (M) Networking, 3-85 OBJECT parameter, (M) Networking, 3-85
  - PRIORITY parameter, (M) Networking, 3-84
  - RECEIVING DTE parameter, (M) Networking, 3-84
  - REDIRECT REASON parameter, (M)
    Networking, 3–84
  - SENDING ADDRESS parameter, (M) Networking, 3–82, 3–84
  - STATE parameter, (M) Networking, 3-86 SUBADDRESSES parameter, (M) Networking, 3-82
- SET MODULE X29-SERVER command, (M) Network Control Program, NCP-115
- SET NOAUTOREPEAT command, (U) EDT Ref, EDT-171
- SET NOAUTO\_PURGE command, (U) Mail, MAIL-83
- SET NOCC\_PROMPT command, (U) Mail, MAIL-84
- SET NOCLIPBOARD command, (U) EVE Ref, EVE-193
- SET NOCOPY\_SELF command, (U) Mail, MAIL-86
- SET NODE ALL command, (M) Network Control Program, NCP-120
- SET NODE CIRCUIT command, (M) Network Control Program, NCP-127

SET NODE command, (M) LATCP, LAT-28; (M) Networking, 7-3; (M) Network Control Program, NCP-121 ACCESS parameter, (M) Networking, 2-43, 3 - 95ADDRESS parameter, (M) Networking, 3-4, COUNTER TIMER parameter, (M) Networking, 3-27 DIAGNOSTIC FILE parameter, (M) Networking, 4-17 HARDWARE ADDRESS parameter, (M) Networking, 4-8, 4-11 INBOUND parameter, (M) Networking, 3-96 LOAD ASSIST AGENT parameter, (M) Networking, 4–16 LOAD ASSIST PARAMETER parameter, (M) Networking, 4-16 MANAGEMENT FILE parameter, (M) Networking, 4-14 NAME parameter, (M) Networking, 3-9 NONPRIVILEGED parameter, (M) Networking, 3-94 PRIVILEGED parameter, (M) Networking, RECEIVE PASSWORD parameter, (M) Networking, 3-93 remote node name and address, (M) Networking, 3-9 SERVICE CIRCUIT parameter, (M) Networking, 4-10 SERVICE DEVICE parameter, (M) Networking, 4-16SERVICE PASSWORD parameter, (M) Networking, 4-17 SOFTWARE IDENTIFICATION parameter, (M) Networking, 4-16 SOFTWARE TYPE parameter, (M) Networking, 4-16 TRANSMIT PASSWORD parameter, (M) Networking, 3-93 SET NODEFAULT COMMAND FILE command, (U) EVE Ref, EVE-194 EVE editor, (U) Text Processing, 1-73 SET NODEFAULT SECTION FILE command. (U) EVE Ref, 1-36, EVE-195 EVE editor, (U) Text Processing, 1-73 SET NOEXIT ATTRIBUTE CHECK command, (U) EVE Ref, 1-35, EVE-196 EVE editor, (U) Text Processing, 1-73 SET NOFNF command, (U) EDT Ref, EDT-178 SET NOFORM command, (U) Mail, MAIL-91 SET NOFORWARD command, (U) Mail, MAIL-92 SET NOGOLD KEY command, (U) Using VMS, 8-43; (U) EVE Ref, EVE-197

EVE editor, (U) Text Processing, 1-59, 1-65

SET NOJOURNALING ALL command, (U) EVE Ref, 1–22, EVE–199 EVE editor, (U) Text Processing, 1-37 SET NOJOURNALING command, (U) EVE Ref, 1-22, EVE-198 EVE editor, (U) Text Processing, 1-37 SET NOKEYPAD command, (U) EDT Ref, EDT-180 SET NOLOG command, (P) System Dump Analyzer, SDA-71 SET NOMAIL DIRECTORY command, (U) Mail, MAIL-94 SET NONUMBERS command, (U) EDT Ref, EDT-184 EDT editor, (U) Text Processing, 2-52 SET NOON command, (U) Command Procedures, 7-5SET NOPENDING DELETE command, (U) EVE Ref, EVE-200 EVE editor, (U) Text Processing, 1-19 SET NOPERSONAL\_NAME command, (U) Mail, MAIL-95 SET NOQUEUE command, (U) Mail, MAIL-97 SET NOQUIET command, (U) EDT Ref, EDT-188 SET NOREPEAT command, (U) EDT Ref, EDT-189 SET NOSECTION FILE PROMPTING command, (U) EVE Ref, 1-36, 1-38, EVE-201 EVE editor, (U) Text Processing, 1-73 SET NOSHIFT KEY command EVE editor, (U) Text Processing, 1-59 SET NOSUMMARY command, (U) EDT Ref, EDT-195 SET NOTAB command, (U) EDT Ref, EDT-196 SET NOTRUNCATE command, (U) EDT Ref, EDT-201 SET NOVERIFY command, (U) EDT Ref. EDT-202 SET NOWRAP command, (U) Using VMS, 8-36; (U) EDT Ref, EDT-204; (U) EVE Ref, EVE-202 formatting text with (EVE), (U) Text Processing, 1-41 SET NUMBERS command, (U) Using VMS, 8-62; (U) EDT Ref, EDT-184 See also Displaying text EDT editor, (U) Text Processing, 2-32 SET OBJECT ALL command, (M) Network Control Program, NCP-128 SET OBJECT command, (M) DECnet-VAX Guide, 3-35; (M) Network Control Program, NCP-129 ACCOUNT parameter, (M) Networking, 3-81 ALIAS INCOMING parameter, (M) Networking, 3–12, 3–78 ALIAS OUTGOING parameter, (M) Networking, 3–12, 3–78

FILE parameter, (M) Networking, 3-79, 3-80

- SET OBJECT command (cont'd)
  - NUMBER parameter, (M) Networking, 3–77 PASSWORD parameter, (M) Networking, 3–81, 3–95
  - PRIVILEGE parameter, (M) Networking, 3–94 PROXY parameter, (M) Networking, 2–46, 3–97
- USER parameter, (M) Networking, 3-81, 3-95 SET ON command, (U) Using VMS, 6-30, 6-31; (U) DCL Dictionary, DCL2-182
- SET OUTPUT command, (P) Debugger, CD-155; (P) System Dump Analyzer, SDA-72 compared with SET LOG command, (P) System
- Dump Analyzer, SDA-71 SET/OUTPUT command, (M) System Generation,
- SGN-25 SET OUTPUT [NO]LOG command, (P) Debugger,
- 8-5, CD-155 SET OUTPUT [NO]SCREEN\_LOG command, (P) Debugger, 8-5, CD-155
- SET OUTPUT [NO]TERMINAL command, (P) Debugger, CD-155
- SET OUTPUT [NO]VERIFY command, (P) Debugger, 8-2, CD-155
- SET OUTPUT\_RATE command, (U) DCL Dictionary, DCL2-183
- SET PARAGRAPH command, (U) EDT Ref, EDT-185
  - See also Cursor positioning
- .SET PARAGRAPH command, (U) DSR Ref, 2-114
- SET PARAGRAPH INDENT command, (U) EVE Ref, EVE-203 to EVE-204
  - EVE editor, (U) Text Processing, 1-44 formatting text with (EVE), (U) Text Processing, 1-40
  - with filling a range, (U) EVE Ref, EVE-59, EVE-62
- SET PARAGRAPH NOWPS command, (U) EDT Ref, EDT-185
- SET PARAGRAPH WPS command, (U) EDT Ref, EDT-185
  - See also Cursor positioning
- SET parameter-name command, (M) System Generation, SGN-26
- SET PASSWORD command, (U) VMS Intro, 1–3; (U) Using VMS, 1–2; (U) DCL Dictionary, DCL2–184 to DCL2–186; (M) Security, 3–8
- SET PASSWORD/GENERATE command, (M) Security, 3–9, 5–19
- SET PASSWORD/SECONDARY command, (M) Security, 3–12
- SET PASSWORD/SYSTEM command, (M) Security, 5–15
- SET PASSWORD/SYSTEM/GENERATE command, (M) Security, 5-15
- SET PATCH\_AREA command, (P) Patch, PAT-79

- SET PATCH AREA command (cont'd)
  - creating and accessing patch area, (P) Patch, PAT-19
- with /INITIALIZE qualifier, (P) Patch, PAT-80 SET PENDING DELETE command, (U) EVE Ref, EVE-205
  - EVE editor, (U) Text Processing, 1-19
- SET PERSONAL\_NAME command, (U) Mail, MAIL-95
- SET PORT command, (M) LATCP, LAT-37
- \$SETPRA, (P) System Services Ref, SYS-522
- SET PREFIX command, V5.5 New Features, 3-6 to 3-7
- SET PRINTER command, (U) DCL Dictionary, DCL2–187 to DCL2–190; (M) Maintaining VMS, 5–51
- SET PROCESS command, (U) VMS Intro, 6–11; (U) DCL Dictionary, DCL2–191 to DCL2–194; (P) Debugger, 10–6, 10–7, CD–157; (P) System Dump Analyzer, SDA–9, SDA–73; (P) Device Support (A), E–19
- SET PROCESS/PRIVILEGES command, (M) Security, 5–32; (M) DECnet-VAX Guide, 3–9
- SET PROFILE command, (M) SYSMAN, SM-6, SM-70
- SET PROMPT command, (U) VMS Intro, 6–10; (U) DCL Dictionary, DCL2–195; (U) EDT Ref, EDT–186; (P) Debugger, CD–161
  - See also Terminal attributes
- SET PROTECTION command, (U) VMS Intro, 3-7; (U) Using VMS, 7-10; (U) Files and Devices, 4-9, 4-11; (U) DCL Concepts, 8-6, 8-8, 8-9; (U) DCL Dictionary, DCL2-196 to DCL2-198; (M) Security, 4-13, 4-33, 5-12; (P) File Applications, 4-21
  - changing directory protection, (M) Security, 4-13
  - /DEFAULT qualifier, (U) Files and Devices, 2-10
  - for network file security, (M) DECnet-VAX Guide, 3-34
- SET PROTECTION/DEFAULT command, (U) DCL Concepts, 8–9; (U) DCL Dictionary, DCL2–199; (M) Security, 4–34, 5–8
- SET PROTECTION/DEVICE command, (U) Using VMS, 7–3; (U) DCL Dictionary, DCL2–200 to DCL2–202; (M) Security, 5–29, 5–30
- \$SETPRT, (P) System Services Ref, SYS-529 SETPRV privilege, (M) Setting Up VMS, 5-16; (M) Security, 5-32, A-8
- SET QUEUE command, (U) Mail, MAIL-97; (U) DCL Concepts, 8-7; (U) DCL Dictionary, DCL2-203 to DCL2-209; (M) Maintaining VMS, 5-72
  - /BLOCK\_LIMIT qualifier, (M) Maintaining VMS, 5–30
  - /CHARACTERISTICS qualifier, (M)
    Maintaining VMS, 5–26, 5–90

SET QUEUE command (cont'd)
/DEFAULT qualifier

for banner pages, (M) Maintaining VMS, 5-32

for controlling page overflow, (M)

Maintaining VMS, 5-45

for forms, (M) Maintaining VMS, 5-43

FORM\_MOUNTED qualifier, (M) Maintaining VMS, 5–43

/NOCHARACTERISTICS qualifier, (M)
Maintaining VMS, 5–26

/NORETAIN qualifier, (M) Maintaining VMS, 5–25

/PROTECTION qualifier, (M) Maintaining VMS, 5-23

/RETAIN qualifier, (M) Maintaining VMS, 5-24

/SCHEDULE qualifier, (M) Maintaining VMS, 5–30

/SEPARATE qualifier

for banner pages, (M) Maintaining VMS, 5-32

for reset modules, (M) Maintaining VMS, 5-46

specifying queue options with, (M) Maintaining VMS, 5-18

/WSEXTENT qualifier, (M) Maintaining VMS, 5-30

SET QUEUE /DEFAULT command, V5.5 Release Notes, 2–12

SET QUEUE/ENTRY command, (U) Command Procedures, 8–7; Obsolete Features, 1–20 to 1–28

SET QUIET command, (U) Using VMS, 8–73; (U) EDT Ref, EDT–188

See also Terminal attributes

EDT editor, (U) Text Processing, 2-32, 2-52

SET QUORUM/CLUSTER command, (M) SYSMAN, SM-8

SET RADIX command, (P) Debugger, 4–10, 9–8, CD–164

SET REPEAT command, (U) EDT Ref, EDT-189 See also Terminal attributes

SET RESTART\_VALUE command, (U) DCL Dictionary, DCL2-210 to DCL2-211

SET RIGHT MARGIN command, (U) Using VMS, 8-27, 8-36; (U) EVE Ref, EVE-206 EVE editor, (U) Text Processing, 1-42 formatting text with (EVE), (U) Text

Processing, 1–40

SET RIGHTS\_LIST command, (U) DCL Dictionary, DCL2-212 to DCL2-213

SET RMS command, (P) System Dump Analyzer, SDA-76

SET RMS\_DEFAULT command, (U) DCL Dictionary, DCL2-214 to DCL2-217; (P) RMS, 7-6 SET RMS\_DEFAULT command (cont'd)

/BUFFER\_COUNT qualifier, (P) File Applications, 3–8, 3–11, 3–13, 7–19, 7–20

/EXTEND\_QUANTITY qualifier, (P) File Applications, 3–5, 9–8

/INDEXED qualifier, (P) File Applications, 7-20

/RELATIVE/BUFFER\_COUNT qualifier, (P) File Applications, 3–14

/RELATIVE qualifier, (P) File Applications, 7-19

/SEQUENTIAL qualifier, (P) File Applications, 7–19

to limit default extension quantity, (P) RMS, 5-6

SET SCOPE command, (P) Debugger, 5–11, 6–4, 7–6, 7–9, CD–166; (P) Patch, PAT–84

SET SCREEN command, (U) Using VMS, 8-72; (U) EDT Ref, EDT-190; (M) Show Cluster, SHCL-81

See also Displaying text

SET SCROLL MARGINS command, (U) EVE Ref, EVE–207 to EVE–208

using with EVE to move cursor, (U) Text Processing, 1–10

SET SEARCH BEGIN command, (U) EDT Ref, EDT-192

SET SEARCH BOUNDED command, (U) EDT Ref, EDT-192

SET SEARCH CASE INSENSITIVE command, (U) EDT Ref, EDT–192

SET SEARCH command, (U) Using VMS, 8–63, 8–65; (U) EDT Ref, EDT–192; (P) Debugger, 6–7, CD–170

See also Locating text

SET SEARCH DIACRITICAL INSENSITIVE command, (U) EDT Ref, EDT-192

SET SEARCH END command, (U) EDT Ref, EDT-192

SET SEARCH EXACT command, (U) EDT Ref, EDT-192

EDT editor, (*U*) Text Processing, 2–17, 2–32, 2–53

SET SEARCH GENERAL command, (U) EDT Ref, EDT–192

SET SEARCH UNBOUNDED command, (U) EDT Ref, EDT-192

SET SEARCH WPS command, (U) EDT Ref, EDT-192

SET SECTION FILE PROMPTING command, (U) EVE Ref, 1–36, EVE–209

EVE editor, (U) Text Processing, 1-73

SET SERVICE command, (M) LATCP, LAT-41

SET SHIFT KEY command

EVE editor, (U) Text Processing, 1–59

SET SOURCE command, (P) Debugger, 6–2, CD–172

SET/STARTUP command, (M) Setting Up VMS, 6-22; (M) System Generation, SGN-27 SET STEP command, (P) Debugger, 3-7, 4-18, 6-7, 11-3, CD-175 \$SETSTK, (P) System Services Ref, SYS-540 SET SUMMARY command, (U) EDT Ref, EDT-195 See also Terminal attributes SETSWM, (P) Programming Resources, 10-4 \$SETSWM, (P) System Services Ref, SYS-542 SET SYMBOL command, (U) Using VMS, 5-5; (U) Command Procedures, 2–8; (U) DCL Dictionary, DCL2-218 to DCL2-220 SET SYMBOL/SCOPE command, (U) Using VMS, 5-5; (U) DCL Concepts, 5-4 Set system failure exception mode See SYS\$SETSFM SET TAB command, (U) EDT Ref, EDT-196 See also Tabbing functions EDT editor, (U) Text Processing, 2-38 SET TABS AT command formatting text with (EVE), (U) Text Processing, 1-40 SET TABS command, (U) Using VMS, 8-36; (U) EVE Ref, EVE-210 to EVE-212 SET TABS EVERY command formatting text with (EVE), (U) Text Processing, 1-40 SET TABS INSERT command formatting text with (EVE), (U) Text Processing, 1-40 SET TABS INVISIBLE command formatting text with (EVE), (U) Text Processing, 1-41 SET TABS MOVEMENT command formatting text with (EVE), (U) Text Processing, 1-41 SET TABS SPACES command formatting text with (EVE), (U) Text Processing, 1-41 SET TABS VISIBLE command formatting text with (EVE), (U) Text Processing, 1-41 SET TASK command, (P) Debugger, 12-10, 12-22, CD-178 SET TERMINAL command, (U) VMS Intro, 6-14; (U) Using VMS, 1-23, 3-6; (U) DCL Concepts, 2-4; (U) DCL Dictionary, DCL2-221 to DCL2-233; (M) Maintaining VMS, 5-51; (M) DECnet-VAX Guide, 3–19; (P) Debugger, 7-22, CD-181; (P) I/O User's I, 8-4, 8-19. 8 - 25See also SHOW TERMINAL command APPLICATION\_KEYPAD qualifier, (U) VMS

Intro, 6-15

18 - 2

COMMSYNC qualifier, V5.5 New Features,

SET TERMINAL command (cont'd) /ECHO qualifier, (U) VMS Intro, 6-14 /INSERT qualifier, (U) VMS Intro, 6-15 /NOECHO qualifier, (U) VMS Intro, 6-14 /NOWRAP command, (U) VMS Intro, 6–16 NUMERIC KEYPAD qualifier, (U) VMS Intro, /OVERSTRIKE qualifier, (U) VMS Intro, 6-15 using over the network, (M) DECnet-VAX Guide, 3-24 /WIDTH qualifier, (U) VMS Intro, 6-16 /WRAP command, (U) VMS Intro, 6–16 SET TERMINAL/DISCONNECT command. (M) Security, 5-22 stopping password grabbers, (M) Security, 5-26 SET TERMINAL EDIT command, (U) EDT Ref, EDT-198 See also Terminal attributes command SET TERMINAL EIGHTBIT command, (U) EDT Ref, EDT-198 SET TERMINAL/FALLBACK command, (M) Terminal Fallback, TFU-10, TFU-22 SET TERMINAL/HANGUP command, (M) Security, 3–22 SET TERMINAL HCPY command, (U) EDT Ref, EDT-198 SET TERMINAL/NOAUTOBAUD, (M) Security, 3 - 7SET TERMINAL NOEDIT command, (U) EDT *Ref*, EDT–198 SET TERMINAL NOEIGHTBIT command, (U) EDT Ref, EDT-198 SET TERMINAL/NOMODEM/SECURE command, (M) Security, 5–26 SET TERMINAL NOSCROLL command, (U) EDT Ref, EDT-198 SET TERMINAL SCROLL command, (U) EDT Ref, EDT-198 SET TERMINAL/SECURE command, (M) Security, 5–26 SET TERMINAL/SYSPWD command, (M) Security, 5–15 SET TERMINAL VT100 command, (U) EDT Ref, EDT-198 SET TERMINAL VT52 command, (U) EDT Ref, EDT-198 SET TEXT END command, (U) EDT Ref, EDT-200 SET TEXT PAGE command, (U) EDT Ref, EDT-200 SET TIME command, (U) DCL Dictionary, DCL2-234 to DCL2-235 .SET TIME command, (U) DSR Ref, 2-109, A-5 SET TIMEOUT command, (M) SYSMAN, SM-4, SM-71SETTIME parameter, (M) System Generation, A - 30

Setting date, (U) DSR Ref, 2-109 time, (U) DSR Ref, 2-109 Setting up cluster queues, (M) System Management Intro, disk quorum, (M) System Management Intro, 6 - 14Setting up LAT printers, (M) Maintaining VMS, 5-51Setting up printers, (M) Maintaining VMS, 5-50 Setting up terminals and output devices, (M) Maintaining VMS, 5-51 SET TRACE command, (P) Debugger, 3-9, 6-7, 9-10, 11-3, 12-24, 12-27, CD-183 Set translation mode, (P) I/O User's I, 2-2 SET TRUNCATE command, (U) Using VMS, 8-72; (U) EDT Ref, EDT-201 See also Displaying text See also Formatting, text SET TYPE command, (P) Debugger, 4-23, CD-191 SET TYPE/OVERRIDE command, (P) Debugger, 4-24, CD-191 SET UIC command, (U) Using VMS, 7-3; (U) DCL Dictionary, DCL2-236 See also Protection Setup module, (M) Maintaining VMS, 5-46 specifying in forms, (M) Maintaining VMS, SET VECTOR\_MODE command, (P) Debugger, 11-19, CD-194 SET VERIFY command, V5.5 Release Notes, 1–19: (U) Using VMS, 6–28; (U) DCL Dictionary, DCL2-237 to DCL2-239; (U) EDT Ref, EDT-202; (P) Linker, 3-4 changing with F\$VERIFY lexical function, (U) Command Procedures, 3–13 debugging command procedure with, (U) Command Procedures, 1-13 SET VOLUME command, (U) Files and Devices, 4-9; (U) DCL Concepts, 8-7; (U) DCL Dictionary, DCL2-240 to DCL2-243 /REBUILD=FORCE option, V5.5 New Features, SET VOLUME/ERASE ON DELETE command. (M) Security, 5-43 SET VOLUME/NOHIGHWATER command, (M)

SET WASTEBASKET\_NAME command, (U) Mail, MAIL-98 SET WATCH command, (P) Debugger, 3-15, 6-7, 11-3, CD-196 SET WIDTH command, (U) Using VMS, 8-28, 8-36; (U) EVE Ref, EVE-213 to EVE-214 in window environment (EVE), (U) Text Processing, 1-56 SET WILDCARD ULTRIX command, (U) EVE Ref, EVE-215 EVE editor, (U) Text Processing, 1-26 SET WILDCARD VMS command, (U) EVE Ref, EVE-216 EVE editor, (U) Text Processing, 1-26 SET WINDOW command, (P) Debugger, 7-14, CD-202 SET WORD DELIMITER command, (U) EDT Ref, EDT-203 See also Cursor movement SET WORD NODELIMITER command, (U) EDT Ref, EDT-203 SET WORKING\_SET command, (U) DCL Dictionary, DCL2-244 to DCL2-245 SET WRAP command, (U) Using VMS, 8-36, 8-67, 8-72; (U) EDT Ref, EDT-204; (U) EVE Ref, EVE-217 See also Formatting, text EDT editor, (U) Text Processing, 2-53 formatting text with (EVE), (U) Text Processing, 1-41 /SET\_STATE qualifier, (P) Debugger, 8-9, CD-50; (P) System Dump Analyzer, SDA-45 /SEVERE qualifier in message definition, (P) Message, MSG-23 \$SEVERITY, (U) DCL Concepts, 5-2; (U) DCL Dictionary, DCL2-182 changing, (U) DCL Dictionary, DCL1-222, DCL2-49 Severity code, (P) Routines Intro, 2-9, 2-10 handling of, (P) Routines Intro, 2–10 in completion status code field, (P) RMS, 2-6 interpreting, (P) Routines Intro, 2-10 meanings, (P) Routines Intro, 2-10 symbols, (P) Routines Intro, 2-10 .SEVERITY directive, (P) Programming Resources, 9-8 Severity directive (.SEVERITY) in message source file, (P) Message, MSG-26 \$SEVERITY global symbol commands that do not set, (U) Command Procedures, 7–2 definition, (U) Command Procedures, 7-2 testing for successful (odd) value, (U)

Command Procedures, 7-2

Procedures, 7-5

value with SET NOON, (U) Command

Security, 4-40

Security, 4–31

Security, 5–8

SET VOLUME/NOHIGHWATER\_MARKING

SET VOLUME/OWNER\_UIC command, (M)

SET VOLUME/PROTECTION command, (M)

command, (M) Security, 5-44

Shareable image (cont'd) Severity level, (P) Message, MSG-1 contents of, (P) Programming Resources, 5-3; determining, (U) Command Procedures, 7-2 (P) Linker, 1-4, 2-2 specifying error handling based upon, (U) creating, (P) Programming Resources, 5–6; (P) Command Procedures, 7–4 Modular Procedures, 5-4; (P) Linker, 1-11, testing for with IF command, (U) Command Procedures, 7-2 debugging, (P) Debugger, 5-12 use of ON command with, (U) Command with DECwindows, (P) Debugger, 1-28 Procedures, 7-2 default directory of, (P) Linker, 1-11, 4-12 \$SEVERITY symbol, (U) Using VMS, 5-4 default file type, (P) Programming Resources, S field in symbolic offset for specifying field length, (P) RMS, 2-3 default location, (P) Programming Resources, SFSB (shared file synchronization block), (P) System Dump Analyzer, SDA-77 deleting, (P) Programming Resources, 5-8 SHADBOOTFAIL bugcheck message, V5.5 file analysis, (U) DCL Dictionary, DCL1-22 Release Notes, 2–76 Shadowed disks used as linker input, (P) Linker, 1-4 See Volume shadowing for COMMON area, (P) Linker, 4-22 Shadowing IDSee Volume shadowing major, (P) Programming Resources, 5-5 SHADOWING parameter, (M) System Generation, minor, (P) Programming Resources, 5-5 specifying major, (P) Programming /SHADOW qualifier, (M) Mount, MOUNT-38 Resources, 5-7 Shadow set specifying minor, (P) Programming components, (M) VAXcluster, 3-6 Resources, 5-7 definition, (M) VAXcluster, 3-6 identification of, (P) Linker, LINK-28 displaying SDA information, (P) System Dump input to linker, (P) Linker, 1-4, 2-2, 6-3 Analyzer, SDA-99 in resource allocation, (P) Linker, 4-13 distributing, (M) VAXcluster, 3-7 installation of, (P) Linker, 4-1, 4-11 in a VAXcluster system, (M) VAXcluster, 3-7 library, (P) Programming Resources, 5–8; (P) overview, (M) VAXcluster, 3-5 Linker, 1–11, 4–11 quorum disk, (M) VAXcluster, 3-9 linking, (P) Programming Resources, 5-7, 5-8 Shadow set virtual unit driver, (P) I/O User's I, linking of multiple, (P) Linker, 4-18 10-1 linking several, (P) Linker, 4-22 functions, (P) I/O User's I, 10-4listing, (P) Programming Resources, 5–8 hardware configurations, (P) I/O User's I, 10-2 location of by image activator, (P) Linker, 4-12 system configuration, (P) I/O User's I, 10-2match control for, (P) Linker, 1-8, 3-7 SHADOW\_MBR\_TMO parameter, V5.5 New memory allocation for, (P) Linker, 6-7 Features, 8-1 output of linker, (P) Linker, 1-5, 2-5 Shareable device, (P) Device Support (B), 1–75 patching, (U) DCL Dictionary, DCL2-11 Shareable files position independent, (P) Linker, 1-10, 4-4, opening, (U) Command Procedures, 6-3 6 - 7Shareable image, (M) Install, INS-2; (P) private copy of, (P) Linker, 4–12 Programming Resources, 5-3; (P) Modular privileged, (P) Linker, 1–11, 4–11 Procedures, A-6; (P) Linker, 6-2; (P) Patch, processing of, (P) Linker, 6-14 PAT-3, PAT-19; (P) RTL Intro, 1-19 program sections in, (P) Linker, 1-10, 4-3 See also Module protection of, (P) Linker, 1-8, 3-11 activating, (P) RTL Library, LIB-160 replacing, (P) Programming Resources, 5-8 adding, (P) Programming Resources, 5-8 resolving references to, (P) Linker, 6-7 as separate cluster, (P) Linker, 6-7 restriction to use as input file, (P) Linker, 1–1 based, (P) Linker, 1-11, 4-9, 6-7 rules for upward compatibility, (P) Linker, benefit of, (P) Linker, 4-1 1-11, 4-9 CANCEL IMAGE command, (P) Debugger, SET BREAK/INTO command, (P) Debugger, 5-14, CD-22 3-12, CD-128 code references to, in map, (P) Linker, 5-8 SET IMAGE command, (P) Debugger, 5–14, coding for position independence, (P) Linker, CD-138 SET STEP INTO command, (P) Debugger, 3-8, CD-176

Shareable image (cont'd) SHARE command, (M) System Generation, SET TRACE/INTO command, (P) Debugger, 3-12, CD-186 Shared access, (P) File Applications. 3-3 SET WATCH command, (P) Debugger, 3-20 requirement to specify, (P) RMS, 4-1 shareability, (P) Linker, 4-3 Shared command procedure files, (M) VAXcluster, guidelines for, (P) Linker, 1-10, 4-4 shared image, (P) Programming Resources, Shared data providing dependability, Dependability SHOW IMAGE command, (P) Debugger, 5-13, Handbook, 8-57 CD-217Shared device specification of, (P) Linker, 1-11, 4-11 dismounting, (U) DCL Dictionary, DCL1-171 specifying alternate locations, (P) Shared disk volume, (M) VAXcluster, 5-12 Programming Resources, 5–9 mounting, (M) VAXcluster, 5-12 STEP/INTO command, (P) Debugger, CD-259 Shared files, (M) VAXcluster, 4-12; (P) symbol table of, (P) Linker, 6-2 Programming Resources, 5–19 transfer vector, (P) Programming Resources, See also File sharing 5-3, 5-6; (P) Linker, 1-10, 4-5 considerations for a VAXcluster, (M) Security, universal symbol, (P) Programming Resources, 9 - 25-5; (P) Linker, 1-11, 4-10 end-of-file positioning. (P) RMS, RMS-7 updating, (P) Modular Procedures, 6-6; (P) NETPROXY.DAT, (M) VAXcluster, 4-12 Linker, 3-8, 3-9 SYSUAF.DAT, (M) VAXcluster, 4-12 use for, (P) Linker, 1-5, 2-5 Shared files limit use of for COMMON area. (P) Linker, 4-18 See SHRFILLM use of GSMATCH, (P) Linker, 3-8, 3-9, 4-10 Shared file synchronization block writing code for, (P) Linker, 4-3 See SFSB Shareable image file Shared image, (M) Install, INS-2, INS-3 analyzing, (U) DCL Dictionary, DCL1-22 creating, (P) Programming Resources, 5-10 creating, (U) DCL Dictionary, DCL1-388 installing in MA780 multiport memory, (M) Shareable image library, (P) Programming Install, INS-6 Resources, 1–18; (P) Librarian, LIB-1, LIB-3 Shared memory, (P) RTL Parallel Processing, 3-1 See also Shareable image to 3-3 as user default library, (P) Linker, LINK-21 creating, (P) RTL Parallel Processing, 3-1 content of, (P) Linker, 1-5, 2-3 definition of, (P) RTL Parallel Processing, 1-2 creating, (P) Modular Procedures, 5-10 deleting, (P) RTL Parallel Processing, 3-3 input to linker, (P) Linker, 1-5, 2-3 error messages, V5.5 Release Notes, 3-43 processing of, (P) Linker, 6-13, 6-14 flushing to disk, (P) RTL Parallel Processing, shareable image in, (P) Librarian, LIB-3 system default, (P) Linker, LINK-18 possible error when creating, (P) RTL Parallel updating, (P) Modular Procedures, 6-7 Processing, 3-2 SHAREABLE positional qualifier, (P) Linker, /SHARED qualifier, (M) Install, INS-11 LINK-28 in .FACILITY directive, (P) Message, MSG-18 /SHAREABLE qualifier, (P) Debugger, 5–12; (P) Shared queues, (M) System Management Intro, Linker, 1-5, 2-5, LINK-15 6-15; (M) VAXcluster, 6-1 LIBRARY command, (P) Programming Shared variables, (P) DECthreads, 3-3 Resources, 5-8 SHARE/INITIALIZE command, (M) System Shareable tables Generation, SGN-29 definition, (U) DCL Concepts, 4-6 SHARE privilege, (M) Setting Up VMS, 5–17; group logical name table, (U) Using VMS, 4-7; (M) Security, A-8 (U) DCL Concepts, 4-6 /SHARE qualifier, (M) Mount, MOUNT-39; job logical name, (U) DCL Concepts, 4-6 (P) Debugger, 3-12, 5-15, CD-128, CD-186, system logical name table, (U) Using VMS, CD-225, CD-259; (P) Librarian, LIB-41; (P) 4-7; (U) DCL Concepts, 4-7 Convert, CONV-21 user-defined, (U) DCL Concepts, 4-15 Sharing a disk volume, (M) Maintaining VMS, Shareable volume 2-8dismounting, (U) DCL Dictionary, DCL1-170 SHARING attribute, (P) File Def Language, initializing disk as, (U) DCL Dictionary, FDL-2, FDL-36

DCL1-247

Sharing cluster resources, (M) System Management Intro, 6–12 Sharing data VMS RMS shared files, (P) Programming Resources, 5-19 SHARING primary attribute secondary attributes, (P) File Applications, 7-4, 7-7, 7-22 SHDRIVER.EXE, (P) I/O User's I, 10-1 Sheet feed paper specifying in forms, (M) Maintaining VMS, SHIFT built-in procedure, (P) VAXTPU, 7-503 to 7 - 504Shift instruction vector, (P) MACRO, 10-67 SHIFT key restriction on defining in EVE, (P) VAXTPU, 7 - 472SHIFT LEFT command, (U) Using VMS, 8-28, 8-36; (U) EVE Ref, EVE-218 in window environment (EVE), (U) Text Processing, 1-56 moving the cursor with (EVE), (U) Text Processing, 1–10 Shift operator (@), (P) System Dump Analyzer, SDA-13; (P) MACRO, 3-16 Shift restrictions, (M) Security, 3-16 SHIFT RIGHT command, (U) Using VMS, 8-28, 8-36; (U) EVE Ref, EVE-219 in window environment (EVE), (U) Text Processing, 1-56 moving the cursor with (EVE), (U) Text Processing, 1–10 "Shift\_amount" string constant parameter to GET\_INFO, (P) VAXTPU, 7-225 SHIFT\_KEY keyword, (P) VAXTPU, 7-472 "Shift\_key" string constant parameter to GET\_INFO, (P) VAXTPU, 7-204, 7-207 SHL (shift left) command, (U) EDT Ref, EDT-309 See also Displaying text SHMEM privilege, (M) Setting Up VMS, 5–17; (M) Security, A-8 Short literal mode usage restricted in vector floating-point instructions, (P) MACRO, 10-16 Should Be Zero

See SBZ field

AUTH-52

AUTH-54

AUTH-55

VAXTPU, 2-5

SHOW (KEYWORDS) built-in procedure, (P)

SHOW/IDENTIFIER command, (M) Authorize,

SHOW/PROXY command, (M) Authorize,

SHOW/RIGHTS command, (M) Authorize,

SHOW ABORT\_KEY command, (P) Debugger, CD-204 SHOW ACCOUNTING command, (U) DCL Dictionary, DCL2-248 to DCL2-249; (M) Maintaining VMS, 6-2 See also ACCOUNTING command items enabled, (U) DCL Dictionary, DCL2-248 SHOW ACL command, V5.5 New Features, B-14; (U) Using VMS, 7-12; (U) Files and Devices, 2-13, 4-2; (U) DCL Dictionary, DCL2-250; (M) Security, 4-17 SHOW/ADAPTER command, (M) System Generation, SGN-31 SHOW ALL command, (U) Mail, MAIL-99 SHOW AREA command, (M) Network Control Program, NCP-133 SHOW AST command, (P) Debugger, 9-16, CD-205SHOW ATSIGN command, (P) Debugger, 8-2, CD-206SHOW AUDIT command, (U) DCL Dictionary, DCL2-251 to DCL2-254 SHOW AUTOREPEAT command, (U) EDT Ref, EDT-206 See also Terminal attributes SHOW AUTO\_PURGE command, (U) Mail, MAIL-83 SHOW/BI=Blindex command in System Generation Utility (SYSGEN), V5.5 New Features, B-59 SHOW BREAK command, (P) Debugger, 3-9, CD-207SHOW BROADCAST command, (U) DCL Dictionary, DCL2-255 to DCL2-256 SHOW BUFFER command, (U) Using VMS, 8-70; (U) EDT Ref, EDT-207 EDT editor, (U) Text Processing, 2-34 SHOW BUFFERS command, (U) Using VMS, 8-31, 8-32; (U) EVE Ref, EVE-222 EVE editor, (U) Text Processing, 1–51 for buffer manipulation (EVE), (U) Text Processing, 1-48 SHOW built-in procedure, (P) VAXTPU, 7-505 to 7 - 507SHOW/BUS=busId command in System Generation Utility (SYSGEN), V5.5 New Features, B-60 SHOW CALLS command, (P) Debugger, 2-13, 3-3, 9-10, 9-16, CD-209 SHOW CALL\_FRAME command, (P) System Dump Analyzer, SDA-65, SDA-79 SHOW CASE command, (U) EDT Ref, EDT-208 SHOW CC\_PROMPT command, (U) Mail, MAIL-84 SHOW CHAR display, (M) Security, 8–16

SHOW CIRCUIT command, V5.5 Release Notes, 4–12; (M) Network Control Program, NCP–136

SHOW CLUSTER

See Show Cluster Utility

SHOW CLUSTER command, (U) DCL Dictionary, DCL2-257; (P) System Dump Analyzer, SDA-82

SHOW CLUSTER/SCS command, (P) System Dump Analyzer, SDA-123

Show Cluster Utility (SHOW CLUSTER), (M) VAXcluster, 7–26

 ${\rm CL\_QUORUM},\ \ (M)\ V\!AX cluster,\ 7\text{--}27$ 

CL\_VOTES, (M) VAXcluster, 7-27

commands, (M) Show Cluster, SHCL-22

controlling the display, (M) Show Cluster, SHCL-4 to SHCL-11

DCL qualifiers, (M) Show Cluster, SHCL-15 to SHCL-20

directing output from, (M) Show Cluster, SHCL-14

display formatting, (M) Show Cluster, SHCL-8 to SHCL-11

exiting, (M) Show Cluster, SHCL-14 invoking, (M) Show Cluster, SHCL-14 refreshing the screen, (M) Show Cluster,

SHCL-11

report, (M) Show Cluster, SHCL-1 startup initialization files, (M) Show Cluster, SHCL-12

SHOW command, (U) VMS Intro, 1-3; (U) Using VMS, 8-31; (U) Files and Devices, 4-1; (U) DCL Dictionary, DCL2-246 to DCL2-247; (U) EVE Ref, EVE-220 to EVE-221; (M) Exchange, EXCH-40; (M) Authorize, AUTH-49; (M) Audit Analysis, AUD-38; (M) DECnet-VAX Guide, 4-1; (M) Networking, 3-98; Obsolete Features, 4-15

EVE editor, (U) Text Processing, 1-49 for buffer manipulation (EVE), (U) Text Processing, 1-48

LMCP Utility, V5.5 New Features, B–93 summary of options, (U) DCL Dictionary, DCL2–246

to display network configuration database, (M) DECnet-VAX Guide, 3–33

SHOW COMMAND command, (U) EDT Ref, EDT-209

SHOW commands

line mode, (U) EDT Ref, EDT-206

SHOW/CONFIGURATION command, (M) System Generation, SGN-32

SHOW CONNECTIONS command, (P) System Dump Analyzer, SDA-87

SHOW COPY\_SELF command, (U) Mail, MAIL-86

SHOW COUNTER command, (M) DECnet-VAX Guide, 4-3

SHOW CPU command, (U) DCL Dictionary, DCL2-258 to DCL2-261; (M) Setting Up VMS, 2-20; (M) Maintaining VMS, 6-15, 6-16; (P) System Dump Analyzer, SDA-10, SDA-68, SDA-89

analyzing a running system, (P) System Dump Analyzer, SDA-9

vector processing support, V5.5 New Features, B-15

SHOW CRASH command, (P) System Dump Analyzer, SDA-10, SDA-15, SDA-16, SDA-68, SDA-93

analyzing a running system, (P) System Dump Analyzer, SDA-9

SHOW CURSOR command, (U) EDT Ref, EDT-210

See also Cursor positioning

SHOW DEFAULT command, (U) VMS Intro, 3-6; (U) Using VMS, 2-22; (U) DCL Concepts, 3-12; (U) DCL Dictionary, DCL2-262 to DCL2-263; (M) Monitor, MON-89

SHOW DEFAULTS BUFFER command, (U) EVE Ref, EVE-223 to EVE-224; (P) VAXTPU, 4-32

for buffer manipulation (EVE), (U) Text Processing, 1–49

SHOW DEFAULT\_TABLE command, (M) Terminal Fallback, TFU-11, TFU-26

SHOW DEFINE command, (P) Debugger, 8-6, CD-211

SHOW DELETED command, (U) Mail, MAIL–101 SHOW/DEVICE=device-driver, (M) System Generation, SGN–34

SHOW DEVICE command, (P) System Dump Analyzer, SDA-15, SDA-24, SDA-98; (P) Device Support (B), 1-80

SHOW DEVICES command, (U) VMS Intro, 3–5; (U) Using VMS, 7–12; (U) Files and Devices, 2–13, 3–16, 4–2, 4–4; (U) DCL Dictionary, DCL2–264 to DCL2–268

/FILES qualifier, (M) Install, INS-6

SHOW DEVICES/FULL command, (M) Security, 4-31

SHOW DEVICES/SERVED command, (U) DCL Dictionary, DCL2–269 to DCL2–271

.SHOW directive, (P) MACRO, 6-89

SHOW DISPLAY command, (U) DCL Dictionary, DCL2-272 to DCL2-274; (P) Debugger, 7-12, CD-212

See also SET DISPLAY command

SHOW/DRIVER=device-driver, (M) System Generation, SGN-35

SHOW EDITOR command, (U) Mail, MAIL–85; (P) Debugger, CD–214

SHOW ENTITY command, (U) EDT Ref, EDT-211

```
SHOW ENTITY PAGE command, (U) EDT Ref,
EDT-211
```

- SHOW ENTITY PARAGRAPH command, (U) EDT Ref, EDT-211
- SHOW ENTITY SENTENCE command, (U) EDT Ref. EDT-211
- SHOW ENTITY WORD command, (U) EDT Ref, EDT-211
- SHOW ENTRY command, V5.5 New Features, 3-1; (U) Using VMS, 2-18, 3-8; (U) Command Procedures, 8-6; (U) DCL Dictionary, DCL2-275 to DCL2-278; (M) Maintaining VMS, 5-77
- change in display, V5.5 Release Notes, 2–11 change in format of, V5.5 New Features, 3–1 executing, V5.5 New Features, 3–2 jobnames parameter, V5.5 New Features, 3–1
- job state, *V5.5 New Features*, 3–2 job state, *V5.5 New Features*, 3–2
- SHOW entry point, (P) Modular Procedures, 4–8 SHOW ENVIRONMENT command, (M) SYSMAN, SM-3, SM-68, SM-72
- SHOW ERROR command,  $\,$  (U) DCL Dictionary, DCL2–279
- SHOW EVENT\_FACILITY command, (P) Debugger, 3–14, 12–28, CD–215
- SHOW EXECUTIVE command, (P) System Dump Analyzer, SDA-15, SDA-104
- SHOW EXECUTOR CHARACTERISTICS command, V5.5 New Features, C-2
  - display of proxy access, (M) Networking, 3-97
- SHOW EXECUTOR command, (M) Network Control Program, NCP-142
  - CHARACTERISTICS display, (M) Networking, 3-10
  - display of Ethernet address, (M) Networking, 3-14
- display of executor type, (M) Networking, 3–66 SHOW EXIT\_HANDLERS command, (P)
- SHOW FILE command, (U) Mail, MAIL-87

Debugger, 9-16, CD-216

- SHOW FILES command, (U) EDT Ref, EDT-212
- SHOW FNF command, (U) EDT Ref, EDT-213
- SHOW FOLDER command, (U) Mail, MAIL-88
- SHOW FORM command, (U) Mail, MAIL-91
- SHOW FORWARD command, (U) Mail, MAIL-92
- SHOW HEADER command, (P) System Dump Analyzer, SDA-106
- SHOW HELP command, (U) EDT Ref, EDT-214
  SHOW/DENTIFIER command, (M) Security 5-
- SHOW/IDENTIFIER command, (M) Security, 5–7 SHOW/IDENTIFIER/FULL command, (M) Security, 5–7
- SHOW IMAGE command, (P) Debugger, 5–13, CD–217
- Showing version number, (P) VAXTPU, 4–2 SHOW INTRUSION command, (U) DCL Dictionary, DCL2–280 to DCL2–282; (M) Security, 5–25

- SHOW KEY command, (U) VMS Intro, 6–11; (U)
  Using VMS, 1–26; (U) Mail, MAIL–102; (U)
  DCL Dictionary, DCL2–283 to DCL2–284; (U)
  EDT Ref, EDT–215; (U) EVE Ref, EVE–225;
  (M) SYSMAN, SM–73; (P) Debugger, 8–8,
  CD–218
- SHOW KEYPAD command, (U) EDT Ref, EDT-218
- SHOW LANGUAGE command, (P) Debugger, 4-10, CD-220
- SHOW LIBRARY command, (M) Terminal Fallback, TFU-10, TFU-27
- SHOW LICENSE command, (U) DCL Dictionary, DCL2-285; License Management, LMF-13, LMF-50
  - $\begin{array}{c} {\it difference from \ LICENSE \ LIST \ command,} \\ {\it License \ Management, \ LMF-108} \end{array}$
  - examples, License Management, LMF-109
- SHOW LINE command, V5.5 Release Notes, 4–12; (M) Network Control Program, NCP-145 Ethernet hardware address, (M) Networking, 3–62, 7–11
- SHOW LINES command, (U) EDT Ref, EDT-219 See also Displaying text
- EDT editor, (U) Text Processing, 2–33
- SHOW LINK command, (M) LATCP, LAT-43 SHOW LINKS command, (M) Network Control Program, NCP-149
- SHOW LOCK command, (P) System Dump Analyzer, SDA-108
- SHOW LOG command, (P) Debugger, 8-5, CD-221
- SHOW LOGGING command, (M) Network Control Program, NCP-152
  - to display network logging activity, (M)

    DECnet-VAX Guide, 4-6
- SHOW LOGICAL command, (U) VMS Intro, 3–10; (U) Using VMS, 4–4; (U) Command Procedures, 2–4; (U) DCL Dictionary, DCL2–288 to DCL2–291
  - See also SHOW TRANSLATION command and logical name access mode, (U) Using VMS, 4–13
  - and logical name table structure,  $\ (U)\ Using\ VMS,\ 4-9$
  - default search order, (U) DCL Concepts, 4-3 displaying all logical name tables, (U) DCL Concepts, 4-3
  - displaying a particular logical name table,  $\,(U)$   $\,DCL$   $\,Concepts,\,4-4\,$
  - displaying name of local node, (M) DECnet-VAX Guide, 3-2
  - displaying the access mode of a logical name, (U) DCL Concepts, 4-14
  - displaying the logical name table structure, (U) DCL Concepts, 4–8
  - including a wildcard, (U) DCL Concepts, 4-4

- SHOW LOGS SDA command, V5.5 New Features, 20-2
- SHOW MAGTAPE command, (U) Files and Devices, 4–2, 4–6
- SHOW MAIL\_DIRECTORY command, (U) Mail, MAIL-94
- SHOW MARGINS command, (P) Debugger, 6–8, CD–222
- SHOW MAX\_SOURCE\_FILES command, (P) Debugger, 6-3, CD-223
- SHOW MEMORY command, (U) DCL Dictionary, DCL2–292 to DCL2–299; (P) System Dump Analyzer, SDA–3
- SHOW MODE command, (U) EDT Ref, EDT-220; (P) Debugger, CD-224; (P) Patch, PAT-85
- SHOW MODULE command, (P) Debugger, 5–7, 5–15, CD–225; (P) Patch, PAT–86
- SHOW MODULE CONFIGURATOR command, (M) DECnet-VAX Guide, 4–6; (M) Networking, 3–45, 3–46; (M) Network Control Program, NCP–155
- SHOW MODULE X25-ACCESS command, (M) Network Control Program, NCP-159
- SHOW MODULE X25-PROTOCOL command, (M) Network Control Program, NCP-161
- SHOW MODULE X25-SERVER command, (M) Network Control Program, NCP-165
- SHOW MODULE X29-SERVER command, (M) Network Control Program, NCP-165
- SHOW NETWORK command, (M) DECnet-VAX
  Guide, 2-2, 3-4; (M) Networking, 8-1, 8-2
  display of network status, (M) Networking, 8-1
  to display name and address of local node, (M)
  DECnet-VAX Guide, 3-2
  - to display routing information, (M) DECnet-VAX Guide, 3-2
- SHOW NEW\_MAIL\_COUNT command, (U) Mail, MAIL-103
- SHOW NODE command, (M) LATCP, LAT–49; (M) DECnet-VAX Guide, 3–33; (M) Network Control Program, NCP–167
  - COUNTERS parameter, (M) Networking, 3–27 display of node type, (M) Networking, 3–66
- SHOW NUMBERS command, (U) EDT Ref, EDT-221
  - EDT editor, (U) Text Processing, 2-33
- SHOW OBJECT command, (M) Network Control Program, NCP-173
- SHOW OUTPUT command, (P) Debugger, 8-2, 8-5, CD-228
- SHOW PAGE\_TABLE command, (P) System Dump Analyzer, SDA-23, SDA-111
- SHOW PARAGRAPH command, (U) EDT Ref, EDT-222
- SHOW PATCH\_AREA command, (P) Patch, PAT-87

- SHOW PERSONAL\_NAME command, (U) Mail, MAIL-95
- SHOW PFN\_DATA command, (P) System Dump Analyzer, SDA-115
- SHOW POOL command, (P) System Dump Analyzer, SDA-118
- SHOW PORT command, (M) LATCP, LAT-55
- SHOW PORTS command, (P) System Dump Analyzer, SDA-123
- SHOW PRINTER command, (U) DCL Dictionary, DCL2–300 to DCL2–301
- SHOW PROCESS/ALL command, (P) System Dump Analyzer, SDA-128
- SHOW PROCESS command, (U) VMS Intro, 6-11; (U) Using VMS, 3-2, 7-12; (U) Files and Devices, 2-13; (U) DCL Dictionary, DCL2-302 to DCL2-307; (M) Maintaining VMS, 6-16; (P) Debugger, 10-2, 11-2, CD-229; (P) System Dump Analyzer, SDA-74, SDA-126
  - and WORLD privilege, (M) Security, 5–39 vector processing support, V5.5 New Features, B-15
- SHOW PROCESS/IMAGES command SDA (System Dump Analyzer), V5.5 New Features, B-113
- SHOW PROCESS/LOCKS command, (P) System Dump Analyzer, SDA-108
- SHOW PROCESS/PARTICIPANTS command SDA (System Dump Analyzer), V5.5 New Features, 20–3
- SHOW PROCESS/PRIVILEGES command, (M) DECnet-VAX Guide, 3–2, 3–9
- SHOW PROCESS/RMS command, (P) System Dump Analyzer, SDA-147
  - selecting display options, (P) System Dump Analyzer, SDA-76
- SHOW PROCESS/VECTOR\_REGISTERS command
  - SDA (System Dump Analyzer), V5.5 New Features, B-113
- SHOW PROFILE command, (M) SYSMAN, SM-6, SM-74
- SHOW PROMPT command, (U) EDT Ref, EDT-223
  - See also Terminal attributes
- SHOW PROTECTION command, (U) Using VMS, 7–12; (U) Files and Devices, 2–13, 4–2, 4–7, 4–8; (U) DCL Concepts, 8–9; (U) DCL Dictionary, DCL2–308; (M) Security, 4–34
- /SHOW qualifier, (M) Bad Block, BAD-15
- SHOW QUEUE/CHARACTERISTICS command, (U) DCL Dictionary, DCL2-313 to DCL2-314
- SHOW QUEUE command, V5.5 New Features, 3-2; (U) Using VMS, 2-18; (U) Mail, MAIL-97; (U) Command Procedures, 8-6; (U) DCL Dictionary, DCL2-309 to DCL2-312

SHOW QUEUE command (cont'd) change in display, V5.5 Release Notes, 2-11; V5.5 New Features, 3-2 CHARACTERISTIC qualifier, (M) Maintaining VMS, 5-26/FORM qualifier, (M) Maintaining VMS, 5-42 for showing defined forms, (M)Maintaining VMS, 5-42 /FULL qualifier for showing assigned form. (M) Maintaining VMS, 5-44 for showing characteristics, (M) Maintaining VMS, 5-26 for showing protection, (M) Maintaining VMS, 5-22, 5-23 5 - 695 - 70

with a batch queue, (U) VMS Intro, 6-3 with a print queue, (U) VMS Intro, 6-2 SHOW/QUEUE command, (M) Maintaining VMS, /ALL\_JOBS qualifier, (M) Maintaining VMS,

/BATCH qualifier, (M) Maintaining VMS, 5-69 /BRIEF qualifier, (M) Maintaining VMS, 5-70 /BY\_JOB\_STATUS qualifier, (M) Maintaining VMS, 5-69

/DEVICE qualifier, (M) Maintaining VMS, 5-69

/FILES qualifier, (M) Maintaining VMS, 5-70 /FULL qualifier, (M) Maintaining VMS, 5-70 GENERIC qualifier, (M) Maintaining VMS.

/SUMMARY qualifier, (M) Maintaining VMS, 5 - 70

SHOW QUEUE/FORM command, (U) DCL Dictionary, DCL2-315 to DCL2-316

SHOW QUIET command, (U) EDT Ref, EDT-224 See also Terminal attributes

SHOW QUOTA command, (U) Files and Devices, 4-2, 4-8; (U) DCL Dictionary, DCL2-317

SHOW RADIX command, (P) Debugger, 4–10, CD-234

SHOW REPEAT command, (U) EDT Ref, EDT-225

See also Terminal attributes

SHOW RESOURCE command, (P) System Dump Analyzer, SDA-108, SDA-143

SHOW/RIGHTS command, (M) Security, 5-7

SHOW RMS command, (P) System Dump Analyzer, SDA-147

SHOW RMS\_DEFAULT command, (U) DCL Dictionary, DCL2-318; (P) File Applications, 3-8, 3-14; (P) Convert, CONV-19; (P) File Def Language, FDL-30

current default extension size, (P) File Applications, 9-8

current process-default buffer count, (P) File Applications, 7–19 to 7–20

SHOW RSPID command, (P) System Dump Analyzer, SDA-148

SHOW SCOPE command, (P) Debugger, 5-11, CD-235; (P) Patch, PAT-88

SHOW SCREEN command, (U) EDT Ref. EDT-226

SHOW SEARCH command, (U) EDT Ref, EDT-227; (P) Debugger, 6-7, CD-237

See also Locating text

EDT editor, (U) Text Processing, 2–33

SHOW SELECT command, (P) Debugger, 7-20, CD-238

SHOW SERVICE command, (M) LATCP, LAT-58 SHOW SERVICES command, (M) LADCP, LADCP-9

SHOW SOURCE command, (P) Debugger, 6-2, CD-239

SHOW SPINLOCKS command, (P) System Dump Analyzer, SDA-151; (P) Device Support (A), E-17

SHOW STACK command, (P) Debugger, 9-12, CD-241; (P) System Dump Analyzer, SDA-21, SDA-157

SHOW/STARTUP command, (M) Setting Up VMS, 6-22; (M) System Generation, SGN-39

SHOW STATISTICS command, (M) Terminal Fallback, TFU-10, TFU-28

SHOW STATUS command, (U) DCL Dictionary, DCL2-319

SHOW STEP command, (P) Debugger, 3-7, CD-242

SHOW SUMMARY command, (U) EDT Ref, EDT-229; (U) EVE Ref, EVE-226; (P) System Dump Analyzer, SDA-126, SDA-159 See also Processing commands

SHOW SYMBOL command, (U) VMS Intro, 5-2; (U) Using VMS, 5-5, 6-29; (U) DCL Concepts, 5-4; (U) DCL Dictionary, DCL2-320 to DCL2-321; (P) Debugger, 5-9, 12-26, CD-243; (P) System Dump Analyzer, SDA-161

SHOW SYMBOL/DEFINED command, (P) Debugger, 8–6

SHOW SYSTEM BUFFERS command, (U) Using VMS, 8-31; (U) EVE Ref, EVE-227 EVE editor, (U) Text Processing, 1-51 for buffer manipulation (EVE), (U) Text Processing, 1–49

SHOW SYSTEM command, (U) DCL Dictionary, DCL2-322 to DCL2-325

SHOW SYSTEM/INTERACTIVE command, V5.5 Release Notes, 4–5

SHOW TAB command, (U) EDT Ref, EDT-230 See also Tabbing functions EDT editor, (U) Text Processing, 2-43

SHOW TABLES command, (M) Terminal Fallback, TFU-10, TFU-11, TFU-29 SHOW TASK command, (P) Debugger, 12-13, 12-15, CD-246 SHOW TERMINAL command, (U) VMS Intro, 6-13; (U) DCL Concepts, 2-4; (U) DCL Dictionary, DCL2-326 to DCL2-327; (U) EDT Ref, EDT-232; (P) Debugger, 7-22, CD-249 See also SET TERMINAL command See also Terminal attributes SHOW TERMINAL/FALLBACK command, (M) Terminal Fallback, TFU-11, TFU-30 SHOW TEXT command, (U) EDT Ref, EDT-233 SHOW TEXT END command, (U) EDT Ref, EDT-233 SHOW TEXT PAGE command, (U) EDT Ref. **EDT-233** SHOW TIME command, (U) VMS Intro, 1-3; (U) DCL Dictionary, DCL2-328 SHOW TIMEOUT command, (M) SYSMAN, SM-75 SHOW TRACE command, (P) Debugger, 3-9, CD-250SHOW TRANSACTIONS SDA command, V5.5 New Features, 20-6 SHOW TRANSLATION command, (U) Using VMS, 4-4; (U) DCL Concepts, 4-3; (U) DCL Dictionary, DCL2-329 to DCL2-330 See also SHOW LOGICAL command SHOW TRUNCATE command, (U) EDT Ref, EDT-234 See also Displaying text SHOW TYPE command, (P) Debugger, 4-24, CD-252SHOW/UNIBUS command, (M) System Generation, SGN-40 SHOW USERS command, (U) DCL Dictionary, DCL2-331 to DCL2-334 and disconnected jobs, (M) Security, 3-21 SHOW VECTOR\_MODE command, (P) Debugger, 11-19, CD-253 SHOW VERIFY command, (U) EDT Ref, EDT-235 See also Processing text SHOW VERSION command, (U) EDT Ref, EDT-236 SHOW WASTEBASKET\_NAME command, (U) Mail, MAIL-98 SHOW WATCH command, (P) Debugger, 3-15,

SHOW WORKING\_SET command, (U) DCL Dictionary, DCL2-335 SHOW WRAP command, (U) EDT Ref, EDT-239 See also Displaying text SHOW/XMI=Blindex command in System Generation Utility (SYSGEN), V5.5 New Features, B-61 SHOW ZONE command, V5.5 New Features, B-41; (U) DCL Dictionary, DCL2-336 SHOW [parameter] command, (M) System Generation, SGN-36 SHOW\_BUFFER identifier, (P) VAXTPU, 7-506 SHOW\_BUFFER variable, (P) VAXTPU, 4-29 SHOW\_CLUSTER\$INIT, (M) Show Cluster, SHCL-13, SHCL-22 SHR\$\_HALTED, (P) I/O User's II, 4-32 SHR\$\_NOCMDMEM, (P) I/O User's II, 4-28, 4-31, 4-32, 4-33 SHR\$\_QEMPTY, (P) I/O User's II, 4-32 SHR (shift right) command, (U) EDT Ref. EDT-310 See also Displaying text SHR field See FAB\$B\_SHR field SHRFILLM (shared files limit), (M) Setting Up VMS, 5–6 SHRINK WINDOW command, (U) Using VMS, 8-35; (U) EVE Ref, EVE-229 in window environment (EVE), (U) Text Processing, 1–56 Shutdown See also Shutting down allowing batch and print jobs to complete before, (M) Maintaining VMS, 5-75 emergency, (M) Setting Up VMS, 3-11 notification, (M) Setting Up VMS, 3-10 operator-requested, (P) System Dump Analyzer, SDA-5 options specifying time interval between DISABLE AUTOSTART/QUEUES and STOP /QUEUES/ON\_NODE commands., (M) Maintaining VMS, 5-75 site-specific, (M) Setting Up VMS, 3-5 stopping queues before, (M) Maintaining VMS. 5 - 75system, (M) Setting Up VMS, 3-5 SHUTDOWN\$DISABLE AUTOSTART logical name, V5.5 Release Notes, 2-50; (M) Maintaining VMS, 5-75 SHUTDOWN\$INFORM\_NODES logical name, (M) Setting Up VMS, 3-10 SHUTDOWN.COM changes, V5.5 Release Notes, 2-50 Shutdown procedure changes, V5.5 Release Notes, 2-50 system, (M) Setting Up VMS, 3-1

CD-254

EVE-228

SHOW WILDCARDS command, (U) EVE Ref,

SHOW WINDOW command, (P) Debugger, 7-14,

SHOW WORD command, (U) EDT Ref, EDT-238

EVE editor, (U) Text Processing, 1-26

Shutting down Signal handlers DECnet-VAX, (M) DECnet-VAX Guide, 3-31 installing for UNIX signals, (P) DECthreads, Shutting down queue manager A-5before moving queue files, V5.5 New Features, Signaling, (P) Programming Resources, 9-5 changing to return status, (P) Programming Shutting down the cluster. (M) VAXcluster, 7-27 Resources, 9-6 SIDR (secondary index data record), (P) File Signaling a condition, (P) Routines Intro, 2-47 Signaling and condition handling, (P) Modular Applications, 3–15, 3–19, 10–22; (P) Analyze / RMS\_File, ARMS-7; (P) File Def Procedures, 2–22 Language, FDL-5 Signaling a wake-up, (P) DECthreads, cma-49, for storing sorted pointers, (P) Convert, cma-51, pthread-40 Signaling error conditions, (P) Modular CONV-12 Procedures, 2-23 SID register displaying, (P) System Dump Analyzer, Signaling errors SDA-90 example in a VAX MACRO program, (P) File /SID\_REGISTER qualifier, (M) Error Log, Applications, 5–12 ERR-20 Signal primitive operation, (P) RTL Parallel Sign (+ | -) specifier Processing, 4–10 with APPEND, (U) EDT Ref, EDT-261 Signed byte storage directive (.SIGNED BYTE). with CHGC (change case), (U) EDT Ref. (P) MACRO, 6-91 EDT-266 Signed word storage directive (.SIGNED\_WORD), (P) MACRO, 6-92 with CHGL (change case lower), (U) EDT Ref, EDT-267 .SIGNED\_BYTE directive, (P) MACRO, 6-91 with CHGU (change case upper), (U) EDT Ref, .SIGNED\_WORD directive, (P) MACRO, 6-92 EDT-268 Sign-Extended longword field, (P) RTL Library, with CUT, (U) EDT Ref, EDT-275 LIB-142 with D (delete), (U) EDT Ref, EDT-276 Significance indicator, (P) MACRO, 9-185 with FILL, (U) EDT Ref, EDT-289 Sign representation with "move", (U) EDT Ref, EDT-296 preference for key type coding, (P) RMS, 13-7 with R (replace), (U) EDT Ref, EDT-302 SII controller, (P) Device Support (A), 1–19 with S (substitute), (U) EDT Ref, EDT-305 SII integral adapter, (P) I/O User's I, 3–4 with SN (substitute next), (U) EDT Ref, /SILENT qualifier, (P) Debugger, 3-13, 12-31, CD-128, CD-187, CD-197, CD-259 EDT-311 with SSEL (search and select), (U) EDT Ref, Simple breakpoint, (P) Delta/XDelta, DELTA-28 EDT-312 Simple key, (P) RMS, 13-13 with TADJ (tab adjust), (U) EDT Ref, EDT-317 Simple name Signal converting to opaque, V5.5 New Features, alternatives to using, (P) DECthreads, A-6 C-31; (P) System Services Ref, SYS-178 arithmetic error, (P) DECthreads, A-7 Simple\_Name\_Str identifier, V5.5 New Features, asynchronous, (P) DECthreads, A-4, A-7 enabling an event, (P) RTL Parallel Processing, Simplified callable interface See VAXTPU routines illegal instruction, (P) DECthreads, A-8 /SIMULATE qualifier. (U) DSR Ref. 4-24 nonterminating, (P) DECthreads, A-4 /SINCE qualifier, (M) Backup, BCK-88; (M) reasons to avoid in a multithreaded program, Error Log, ERR-21; (M) Audit Analysis, (P) DECthreads, A-6 AUD-25; (M) Accounting, ACC-28; (P) reported as exceptions, (P) DECthreads, A-7 Librarian, LIB-42; (P) National Char Set, synchronous, (P) DECthreads, A-4 NCS-41 terminating, (P) DECthreads, A-4, A-7 EXCHANGE/NETWORK command, V5.5 New types of, (P) DECthreads, A-3 Features, E-19 Signal argument vector, (P) RTL Library, 4-7, Sine 4-9, 4-20 hyperbolic, (P) RTL Math, MTH-100, Signal array, (P) Programming Resources, 9-14; MTH-133 (P) System Dump Analyzer, SDA-18 in degrees, (P) RTL Math, MTH-99, MTH-127, Signal array argument, (P) System Services Intro, MTH-131 in radians, (P) RTL Math, MTH-98, MTH-122, Signaler's registers, (P) Routines Intro, 2-53

MTH-124

V5.5 Release Notes, 3-47 MTH-54.SKIP command, (U) DSR Ref, 2-115 Single-file/multivolume configuration, (U) Files Skip file function, (P) I/O User's I, 6-20 and Devices, B-5 Skip sectoring, (P) I/O User's I, 3-17 Single-file/single-volume configuration, (U) Files SKPC (Skip Character) instruction, (P) MACRO, and Devices, B-4 9 - 139Single instruction access, (P) Modular Procedures, Skulk, V5.5 New Features, C-16 3 - 22Slash (/) Single points of failure division operator, (P) Debugger, D-7 defined, Dependability Handbook, Glossary-5 Slave formatter, (P) I/O User's I, 6-8 in configurations, Dependability Handbook, 6-2 Slave node, (M) Networking, 4-18 in networks, Dependability Handbook, 7-1, SLD (satellite loader), (M) Networking, 4-20 7-7, 7-14 building, (M) Networking, 4-20 Sink, (M) Networking, 2–37 SLEEP built-in procedure, (P) VAXTPU, 7-508 to logging, (M) Networking, 2-38, 3-88 7 - 509name, (M) Networking, 2-38 Slider, (P) VAXTPU, 7-224 node, (M) Networking, 2-38 example of fetching, (P) VAXTPU, B-19 to related event, (M) Networking, 2-37 B-22state, (M) Networking, 2-38 SLR register SINK parameter, (M) Networking, 3-90 displaying, (P) System Dump Analyzer, Sink test, (M) DTS/DTR, DTS-9, DTS-13 SDA-90 SIRR (software interrupt request register), (P) SLS Device Support (A), 3–9 archiving backup data, Dependability SISR register Handbook, 9-21 displaying, (P) System Dump Analyzer, use at CSC lights out data center, SDA-90 Dependability Handbook, 11–23 Site security, Dependability Handbook, 5-6 Small Computer System Interface Site-specific LAT configuration file See SCSI LAT\$SYSTARTUP.COM procedure, (M) Small request packet LATCP, LAT-2 See SRP Site-specific startup, (M) Setting Up VMS, 2-7 SMB\$CHECK\_FOR\_MESSAGE routine, (P) announcements, (M) Setting Up VMS, 2-14 Utility Routines, SMB-15 installing known images, (M) Setting Up VMS, SMB\$INITIALIZE routine, (P) Utility Routines, 2-10SMB-16procedure SMB\$READ\_MESSAGE routine, (P) Utility See SYS\$MANAGER:SYSTARTUP.COM Routines, SMB-18 setting up queues, (M) Setting Up VMS, 2-9 SMB\$READ\_MESSAGE\_ITEM routine, (P) setting up spooled devices, (M) Setting Up Utility Routines, SMB-21 VMS, 2-9SMB\$SEND\_TO\_JOBCTL routine, (P) Utility Site-specific startup command file Routines, SMB-31 elements, (M) VAXcluster, 4-11 SMB routines Size See also Job Controller allocating pages for PPL\$ data structures, (P) See also Symbiont RTL Parallel Processing, PPL-11 introduction, (P) Utility Routines, SMB-1 NCS library, specifying, (P) National Char Set, SMG\$ NCS-24, NCS-25 debugging screen-oriented program, (P) scheduling jobs based on, (M) Maintaining Debugger, 9-5 VMS, 5-30SMG\$ADD\_KEY\_DEF, (P) Programming SIZE attribute, (P) File Def Language, FDL-35 Resources, 7-28; (P) RTL Screen Size limit Management, 3-2, SMG-3 for RT-11 volumes, (M) Exchange, EXCH-1 SMG\$BEGIN\_DISPLAY\_UPDATE, (P) RTL /SIZE qualifier, (P) Debugger, CD-69 Screen Management, 2-18, SMG-7 SIZE secondary attribute, (P) File Applications, SMG\$BEGIN\_PASTEBOARD\_UPDATE, (P) RTL Screen Management, 2-18, SMG-8 SJC\$\_DELETE\_QUEUE function code privilege or access required for, V5.5 Release Notes, 4-18

SJC\$ START QUEUE MANAGER function code.

Sine (cont'd)

of complex number, (P) RTL Math, MTH-53,

- SMG\$CANCEL\_INPUT, (P) RTL Screen Management, 1-7, 3-1, SMG-9
- SMG\$CHANGE\_PBD\_CHARACTERISTICS, (P) RTL Screen Management, 1–5, SMG–10
- SMG\$CHANGE\_RENDITION, (P) RTL Screen Management, 2-9, SMG-13
- SMG\$CHANGE\_VIEWPORT, (P) RTL Screen Management, 2–13, SMG–16
- SMG\$CHANGE\_VIRTUAL\_DISPLAY, (P) Programming Resources, 7–15; (P) RTL Screen Management, 2–9, SMG–21
- SMG\$CHECK\_FOR\_OCCLUSION, (P)
  Programming Resources, 7–12; (P) RTL
  Screen Management, 2–5, SMG–24
- SMG\$CONTROL\_MODE, (P) RTL Screen Management, 2–16, SMG–28
- SMG\$COPY\_VIRTUAL\_DISPLAY, (P) RTL Screen Management, SMG-31
- SMG\$CREATE\_KEY\_TABLE, (P) Programming Resources, 7–28; (P) RTL Screen Management, 3–2, SMG–36
- SMG\$CREATE\_MENU, (P) RTL Screen Management, 2-14, SMG-37
- SMG\$CREATE\_PASTEBOARD, (P) Programming Resources, 7–8; (P) RTL Screen Management, 1–4, 6–2, SMG–41
- SMG\$CREATE\_SUBPROCESS, (P) Programming Resources, 7–16; (P) RTL Screen Management, SMG-45
- SMG\$CREATE\_VIEWPORT, (P) RTL Screen Management, 2–13, SMG–58
- SMG\$CREATE\_VIRTUAL\_DISPLAY, (P)
  Programming Resources, 7–8; (P) RTL Screen
  Management, 1–6, SMG–49
- SMG\$CREATE\_VIRTUAL\_KEYBOARD, (P) Programming Resources, 7–24; (P) RTL Screen Management, 1–7, 3–1, SMG–54
- SMG\$CURSOR\_COLUMN, (P) RTL Screen Management, 2-6, SMG-62
- SMG\$CURSOR\_ROW, (P) RTL Screen Management, 2-6, SMG-63
- SMG\$DEFINE\_KEY, (P) RTL Screen Management, 3-2, SMG-64
- SMG\$DELETE\_CHARS, (P) Programming Resources, 7–22; (P) RTL Screen Management, 2–7, SMG–67
- SMG\$DELETE\_KEY\_DEF, (P) RTL Screen Management, 3–2, SMG-71
- SMG\$DELETE\_LINE, (P) Programming Resources, 7–22; (P) RTL Screen Management, 2–7, SMG–73
- SMG\$DELETE\_MENU, (P) RTL Screen Management, 2–14, SMG–77
- SMG\$DELETE\_PASTEBOARD, (P) Programming Resources, 7–9; (P) RTL Screen Management, 1–4, SMG–78

- SMG\$DELETE\_SUBPROCESS, (P) Programming Resources, 7–16; (P) RTL Screen Management, SMG-80
- SMG\$DELETE\_VIEWPORT, (P) RTL Screen Management, 2–13, SMG–81
- SMG\$DELETE\_VIRTUAL\_DISPLAY, (P)
  Programming Resources, 7–14; (P) RTL
  Screen Management, 1–6, 2–4, 6–1, SMG–82
- SMG\$DELETE\_VIRTUAL\_KEYBOARD, (P) RTL Screen Management, 3-1, SMG-83
- SMG\$DEL\_TERM\_TABLE, (P) RTL Screen Management, 5-2, SMG-66
- SMG\$DISABLE\_BROADCAST\_TRAPPING, (P) RTL Screen Management, SMG-84
- SMG\$DISABLE\_UNSOLICITED\_INPUT, (P) RTL Screen Management, SMG-94
- SMG\$DRAW\_CHAR, (P) RTL Screen Management, 2–11, SMG–96
- SMG\$DRAW\_LINE, (P) Programming Resources, 7–20; (P) RTL Screen Management, 2–11, SMG–100
- SMG\$DRAW\_RECTANGLE, (P) Programming Resources, 7–20; (P) RTL Screen Management, 2–11, SMG–105
- SMG\$ENABLE\_UNSOLICITED\_INPUT, (P) RTL Screen Management, 4–2, SMG–110
- SMG\$END\_DISPLAY\_UPDATE, (P) RTL Screen Management, 2–18, SMG–113
- SMG\$END\_PASTEBOARD\_UPDATE, (P) RTL Screen Management, 2–18, SMG–114
- SMG\$ERASE\_CHARS, (P) Programming Resources, 7–21; (P) RTL Screen Management, 2–8, SMG–116
- SMG\$ERASE\_COLUMN, (P) Programming Resources, 7–22; (P) RTL Screen Management, 2–8, SMG–120
- SMG\$ERASE\_DISPLAY, (P) Programming Resources, 7–21; (P) RTL Screen Management, 2–8, SMG–122
- SMG\$ERASE\_LINE, (P) Programming Resources, 7–21; (P) RTL Screen Management, 2–8, SMG–126
- SMG\$ERASE\_PASTEBOARD, (P) Programming Resources, 7–9; (P) RTL Screen Management, 1–5, SMG–130
- SMG\$EXECUTE\_COMMAND, (P) Programming Resources, 7–16; (P) RTL Screen Management, SMG–133
- ${\it SMG\$FIND\_CURSOR\_DISPLAY}, \ \ (P) \ RTL \ Screen \\ Management, \ {\it SMG-136}$
- SMG\$FLUSH\_BUFFER, (P) RTL Screen Management, 2–17, SMG–138
- SMG\$GET\_BROADCAST\_MESSAGE, (P) RTL Screen Management, 4–1, SMG–139
- SMG\$GET\_CHAR\_AT\_PHYSICAL\_CURSOR, (P) RTL Screen Management, SMG-141

- SMG\$GET\_DISPLAY\_ATTR, (P) RTL Screen Management, SMG-143
- SMG\$GET\_KEYBOARD\_ATTRIBUTES, (P) RTL Screen Management, 3-1, SMG-149
- SMG\$GET\_KEY\_DEF, (P) RTL Screen Management, SMG-146
- SMG\$GET\_NUMERIC\_DATA, (P) RTL Screen Management, 5–2, SMG–152
- SMG\$GET\_PASTEBOARD\_ATTRIBUTES, (P) RTL Screen Management, 1–5, SMG–154
- SMG\$GET\_PASTING\_INFO, (P) RTL Screen Management, SMG-158
- SMG\$GET\_TERM\_DATA, (P) RTL Screen Management, 5-2, SMG-160
- SMG\$GET\_VIEWPORT\_CHAR, (P) RTL Screen Management, 2–14, SMG–162
- SMG\$HOME\_CURSOR, (P) Programming Resources, 7–17; (P) RTL Screen Management, 2–7, SMG–166
- SMG\$INIT\_TERM\_TABLE, (P) RTL Screen Management, 5–2, SMG–168
- SMG\$INIT\_TERM\_TABLE\_BY\_TYPE, (P) RTL Screen Management, 5–2, SMG–170
- SMG\$INSERT\_CHARS, (P) Programming Resources, 7–18; (P) RTL Screen Management, 2–8, SMG–172
- SMG\$INSERT\_LINE, (P) Programming Resources, 7–20; (P) RTL Screen Management, 2–8, SMG–177
- SMG\$INVALIDATE\_DISPLAY, (P) RTL Screen Management, SMG-183
- SMG\$KEYCODE\_TO\_NAME, (P) RTL Screen Management, 3-4, SMG-184
- SMG\$LABEL\_BORDER, (P) Programming Resources, 7–10; (P) RTL Screen Management, SMG–186
- SMG\$LIST\_KEY\_DEFS, (P) RTL Screen Management, SMG-192
- SMG\$LIST\_PASTING\_ORDER, (P) Programming Resources, 7–14; (P) RTL Screen Management, 2–5, SMG–195
- SMG\$LOAD\_KEY\_DEFS, (P) RTL Screen Management, 3-2, SMG-197
- SMG\$LOAD\_VIRTUAL\_DISPLAY, (P) RTL Screen Management, 2–15, SMG–199
- SMG\$MOVE\_TEXT, (P) RTL Screen Management, 2–4, SMG–201
- SMG\$MOVE\_VIRTUAL\_DISPLAY, (P) RTL Screen Management, 2–3, SMG–204
- SMG\$NAME\_TO\_KEYCODE, (P) RTL Screen Management, 3–4, SMG–207
- SMG\$PASTE\_VIRTUAL\_DISPLAY, (P)
  Programming Resources, 7–8; (P) RTL Screen
  Management, 2–1, SMG–209
- SMG\$POP\_VIRTUAL\_DISPLAY, (P)
  Programming Resources, 7–32; (P) RTL
  Screen Management, 2–4, 6–2, SMG–212

- SMG\$PRINT\_PASTEBOARD, (P) RTL Screen Management, SMG-214
- SMG\$PUT\_CHARS, (P) RTL Screen Management, 2–8, SMG-216
- SMG\$PUT\_CHARS\_HIGHWIDE, (P)
  Programming Resources, 7–19; (P) RTL
  Screen Management, 2–8, SMG–221
- SMG\$PUT\_CHARS\_MULTI, (P) RTL Screen Management, 2–8, SMG–224
- SMG\$PUT\_CHARS\_WIDE, (P) RTL Screen Management, 2-8, SMG-227
- SMG\$PUT\_HELP\_TEXT, (P) RTL Screen Management, SMG-230
- SMG\$PUT\_LINE, (P) Programming Resources, 7–19; (P) RTL Screen Management, 2–9, SMG–233
- SMG\$PUT\_LINE\_HIGHWIDE, (P) RTL Screen Management, 2-9, SMG-240
- SMG\$PUT\_LINE\_MULTI, (P) RTL Screen Management, 2–9, SMG-244
- SMG\$PUT\_LINE\_WIDE, (P) Programming Resources, 7–20; (P) RTL Screen Management, 2–9, SMG–249
- SMG\$PUT\_PASTEBOARD, (P) RTL Screen Management, SMG-254
- SMG\$PUT\_STATUS\_LINE, (P) RTL Screen Management, SMG-256
- SMG\$PUT\_WITH\_SCROLL, (P) Programming Resources, 7–19
- SMG\$READ\_COMPOSED\_LINE, (P) Programming Resources, 7–28; (P) RTL Screen Management, 1–7, 3–2, SMG–258
- SMG\$READ\_FROM\_DISPLAY, (P) Programming Resources, 7–23; (P) RTL Screen Management, 2–12, SMG–263
- SMG\$READ\_KEYSTROKE, (P) RTL Screen Management, 3-1, SMG-267
- SMG\$READ\_STRING, (P) Programming Resources, 7–24; (P) RTL Screen Management, 1–7, 3–1, SMG–275
- SMG\$READ\_VERIFY, (P) RTL Screen Management, 3–1, SMG–285
- SMG\$REMOVE\_LINE, (P) RTL Screen Management, 2–11, SMG–292
- SMG\$REPAINT\_LINE, (P) RTL Screen Management, SMG-294
- ${\it SMG\$REPAINT\_SCREEN,\ (P)\ RTL\ Screen} \\ {\it Management,\ SMG-296}$
- SMG\$REPASTE\_VIRTUAL\_DISPLAY, (P) RTL Screen Management, 2–3, SMG–299
- SMG\$REPLACE\_INPUT\_LINE, (P) RTL Screen Management, SMG-304
- SMG\$RESTORE\_PHYSICAL\_SCREEN, (P) Programming Resources, 7–31; (P) RTL Screen Management, 6–3, SMG–307

- SMG\$RETURN\_CURSOR\_POS, (P) Programming Resources, 7–18; (P) RTL Screen Management, 2–6, SMG–309
- SMG\$RETURN\_INPUT\_LINE, (P) RTL Screen Management, SMG-311
- SMG\$RING\_BELL, (P) RTL Screen Management, SMG-315
- SMG\$SAVE\_PHYSICAL\_SCREEN, (P) Programming Resources, 7–31; (P) RTL Screen Management, 6–3, SMG–316
- SMG\$SAVE\_VIRTUAL\_DISPLAY, (P) RTL Screen Management, 2–15, SMG-318
- SMG\$SCROLL\_DISPLAY\_AREA, (P) Programming Resources, 7–20; (P) RTL Screen Management, SMG–320
- SMG\$SCROLL\_VIEWPORT, (P) RTL Screen Management, 2–13, SMG–323
- SMG\$SELECT\_FROM\_MENU, (P) RTL Screen Management, 2–15, SMG–328
- SMG\$SET\_BROADCAST\_TRAPPING, (P) RTL Screen Management, 4–1, SMG–343
- SMG\$SET\_CURSOR\_ABS, (P) Programming Resources, 7–17; (P) RTL Screen Management, 2–7, SMG–345
- SMG\$SET\_CURSOR\_MODE, (P) RTL Screen Management, SMG-347
- SMG\$SET\_CURSOR\_REL, (P) Programming Resources, 7–17; (P) RTL Screen Management, 2–7, SMG–349
- SMG\$SET\_DEFAULT\_STATE, (P) RTL Screen Management, SMG-351
- SMG\$SET\_DISPLAY\_SCROLLING\_REGION, (P) RTL Screen Management, SMG-353
- SMG\$SET\_DISPLAY\_SCROLL\_REGION, (P) Programming Resources, 7–20
- SMG\$SET\_KEYPAD\_MODE, (P) RTL Screen Management, 3–2, SMG–355
- SMG\$SET\_OUT\_OF\_BAND\_ASTS, (P) RTL Screen Management, 4–2, SMG–357
- SMG\$SET\_PHYSICAL\_CURSOR, (P) Programming Resources, 7–18; (P) RTL Screen Management, SMG-361
- SMG\$SET\_TERM\_CHARACTERISTICS, (P) RTL Screen Management, SMG-363
- SMG\$SNAPSHOT, (P) RTL Screen Management, SMG-367
- SMG\$UNPASTE\_VIRTUAL\_DISPLAY, (P)
  Programming Resources, 7–14; (P) RTL
  Screen Management, 2–1, 6–1, SMG–369
- SMISERVER process
  - attributes of, (M) SYSMAN, SM-5 starting, (M) SYSMAN, SM-14
- SMM (System Marketing Model), *License Management*, LMF–26
- SMP\$ACQNOIPL, (P) Device Support (A), 13–29, E–18; (P) Device Support (B), 2–17

- SMP\$ACQUIRE, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–34, 2–47
- SMP\$ACQUIREL, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–17
- SMP\$AR\_IPLVEC, (P) Device Support (B), 2–33, 3–26, 3–30
- SMP\$AR\_SPNLKVEC, (P) Device Support (A), 3–13; (P) Device Support (B), 1–66, 2–34, 2–47, 2–96
- SMP\$GL\_FLAGS, (P) Device Support (A), 12–13, E–3
- SMP\$RELEASE, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–35, 2–96
- SMP\$RELEASEL, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–19
- SMP\$RESTORE, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–35, 2–96
- SMP\$RESTOREL, (P) Device Support (A), 13–28, 13–29, E–18; (P) Device Support (B), 2–19
- SMP\$V\_UNMOD\_DRIVER, (P) Device Support (A), 12–13, E–3
- SMP (symmetric multiprocessing), V5.5 Release Notes, 2–51
  - after CPU failure, Dependability Handbook, 4–16
  - defined, Dependability Handbook, Glossary-5 equivalent processing functions, Dependability Handbook, 4-5
  - features of multiple CPUs, Dependability Handbook, 5–13
- SMP\_CPUS parameter, V5.5 New Features, B-11; (M) System Generation, A-30
- SMP\_LNGSPINWAIT parameter, (M) System Generation, A-31
- SMP\_SANITY\_CNT parameter, (M) System Generation, A-31
- SMP\_SPINWAIT parameter, (M) System Generation, A-31
- SN (substitute next) command, (U) EDT Ref, EDT-311
  - See also Replacing text
- \$SNDJBC, (P) System Services Ref, SYS-558 SOBGEQ (Subtract One and Branch Greater Than
- or Equal) instruction, (P) MACRO, 9-61 SOBGTR (Subtract One and Branch Greater Than)
- instruction, (P) MACRO, 9–62 Soft faults
  - characterizing, (M) Performance Management,
- SOFTINT macro, (P) Device Support (A), 3–10; (P) Device Support (B), 2–67, 3–26, 3–30
- Soft link DNS, V5.5 New Features, C-6
  - enumerating, V5.5 New Features, C-29; (P) System Services Ref, SYS-175

Soft link (cont'd) locating target, (P) System Services Ref, SYS-180 locating target entry, V5.5 New Features, C-32 Soft page break See PAGINATE command Software analyzing options, Dependability Handbook, 3-9 to 3-15 application software dependability features. Dependability Handbook, 8-27 to 8-57 avoiding errors in specification, Dependability Handbook, 8-20 avoiding implementation errors, Dependability Handbook, 8-20 building block, Dependability Handbook, 1–19 applying dependability strategies. Dependability Handbook, 1-21 development, Dependability Handbook, 8-57 error messages, (M) DECnet-VAX Guide, 3-30 evolution, Dependability Handbook, 8-22 fifth generation languages (5GL), Dependability Handbook, 3-11 fourth generation languages (4GL), Dependability Handbook, 3–11 loopback test, (M) DECnet-VAX Guide, 4-9 managing shared information, Dependability Handbook, 8-57 to 8-60 managing software information, Dependability Handbook, 8-58 matching business needs, Dependability Handbook, 3-13 prototyping applications, Dependability Handbook, 8-23 to 8-24 quality metrics and mindsets, Dependability Handbook, 3-13 remote access with DNS. Dependability Handbook, 8-60 robust application design, Dependability Handbook, 3-10 scalability, Dependability Handbook, 8-21 system integration, Dependability Handbook, 8 - 22testing applications, Dependability Handbook, 8-25 to 8-27 testing dependability, Dependability Handbook,

training programmers, Dependability

transaction processing, Dependability

using CASE products, Dependability

using COHESION products, Dependability

VMS dependability features, Dependability

Handbook, 3-13

Handbook, 3-12

Handbook, 3-10

Handbook, 3-10

Handbook, 8-2 to 8-19

writing custom applications, Dependability Handbook, 3-10 writing dependable code, Dependability Handbook, 8-19 to 8-23 Software-based fault tolerance defined, Dependability Handbook, Glossary-5 Software components connection manager, (M) System Management Intro, 6–2 distributed file system, (M) System Management Intro, 6-2 distributed job controller, (M) System Management Intro, 6-3 distributed lock manager, (M) System Management Intro, 6-3 Software Detected Bad Block File See SDBBF Software errors, (P) File Applications, 10–1 reporting, (M) Maintaining VMS, 6-1 SOFTWARE IDENTIFICATION parameter, (M) Networking, 4-16 Software interrupts exceptions, (P) DECthreads, A-6 Software life cycle, (P) Modular Procedures, 1-1 Software loopback test, (M) Networking, 7-6, 7-7 Software Performance Report See SPR Software Performance Report (SPR) submitting, (M) Maintaining VMS, 6-1 submitting for queue manager, (M) Maintaining VMS, 5-66 Software problem reporting, (M) Setting Up VMS, 3-5 Software timer interrupt service routine, (P) Device Support (A), 3-8, 10-4 Solicited interrupt See Device interrupt SOR\$\$STAT routine, (P) Utility Routines, SOR-50 SOR\$BEGIN MERGE routine, (P) Programming Resources, 8-19; (P) Utility Routines, SOR-18 SOR\$BEGIN SORT routine, (P) Programming Resources, 8–15; (P) Utility Routines, SOR–25 SOR\$DTYPE routine, (P) Utility Routines, SOR-31 SOR\$END\_SORT routine, (P) Programming Resources, 8-15; (P) Utility Routines, SOR-34 SOR\$PASS FILES routine, (P) Programming Resources, 8-15, 8-19; (P) Utility Routines, SOR-36 SOR\$RELEASE\_REC routine, (P) Programming Resources, 8–16; (P) Utility Routines, SOR-41 SOR\$RETURN\_REC routine, (P) Programming Resources, 8–16; (P) Utility Routines, SOR–43

vulnerable to external events, Dependability

Software (cont'd)

Handbook, 8-21

Sort/Merge Utility (SORT) (cont'd) SOR\$SORT MERGE routine, (P) Programming DCL qualifiers, (U) Sort/Merge, SORT-11 to Resources, 8–15; (P) Utility Routines, SOR-45 SORT-35 SOR\$SPEC\_FILE routine, (P) Utility Routines, directing output from, (U) Sort/Merge, **SOR-48** SORT-10 SOR routines entering records from terminal with, (U) Using examples, (P) Utility Routines, SOR-4 to VMS, 1-40 SOR-17 example, (U) Sort/Merge, SORT-1 interface exiting, (U) Sort/Merge, SORT-10 file, (P) Utility Routines, SOR-2 file interface, (P) Programming Resources, record, (P) Utility Routines, SOR-2 8-14, 8-15, 8-19 introduction, (P) Utility Routines, SOR-1 invoking, (U) Using VMS, 1-37; (U) list of, (P) Utility Routines, SOR-1 Sort/Merge, SORT-10 reentrancy keys, (P) Programming Resources, 8-14 using context argument, (P) Utility merging files with, (U) Using VMS, 1-42 Routines, SOR-4 multiple sort operations, (P) Programming Sort Resources, 8-14 batch job, (U) Using VMS, 1-41 optimizing, (U) Sort/Merge, SORT-7 character data, (U) Using VMS, 1-39 optimizing on batch queues, (M) Maintaining collating sequence, (U) Using VMS, 1-39 VMS, 5-30indexed output file, (U) Using VMS, 1-41 record interface, (P) Programming Resources, key, (U) Using VMS, 1-38 8-14, 8-16, 8-21 output file, (U) Using VMS, 1-41 sorting noncharacter data files with, (U) Using single key, (U) Using VMS, 1-38 VMS, 1-40 suggestions for improving performance, (P) sorting records with, (U) Using VMS, 1-37 Convert, CONV-22 specification file, (U) Sort/Merge, SORT-5 terminal input, (U) Using VMS, 1-40 using over the network, (M) DECnet-VAX types of, (U) Using VMS, 1-37 to 1-39 Guide, 2-8SORT Sort order See Sort/Merge Utility establishing, (P) RMS, 7-5 SORT32 specifying, (U) Sort/Merge, SORT-66 open file limitation, (P) Convert, CONV-22 /SORT qualifier, (M) Accounting, ACC-29; (P) SORT command, (U) VMS Intro, 6-4; (U) Using Convert, CONV-22, CONV-27 VMS, 1-37, 1-38; (U) DCL Dictionary, /SOURCE, (P) Debugger, 12–26 DCL2-337; (P) Programming Resources, 8-13 SOURCE attribute, (P) File Def Language, See also Sort/Merge Utility FDL-38 file interface, (P) Programming Resources, 8-15 Source code record interface, (P) Programming Resources, See Source display Source Code Analyzer using over the network, (M) DECnet-VAX See Language-Sensitive Editor/Source Code Guide, 2-8 Analyzer Sorting process, (U) Sort/Merge, SORT-3 address, (U) Sort/Merge, SORT-29 See SCA default, (U) Sort/Merge, SORT-29, SORT-70 Source directory displaying, (P) Debugger, 6-2, CD-239 index, (U) Sort/Merge, SORT-29 record, (U) Sort/Merge, SORT-29 search list, (P) Debugger, 6-2, CD-28, CD-172 selecting, (U) Sort/Merge, SORT-29 Source display, (P) Debugger, 2-8, 6-1, 7-1 specifying, (U) Sort/Merge, SORT-70 discrepancies in, (P) Debugger, 7-4, 9-1 tag, (U) Sort/Merge, SORT-29 with DECwindows, (P) Debugger, 1-10 Sorting records, (M) Accounting, ACC-1 display kind, (P) Debugger, 7-17, C-1 EXAMINE/SOURCE command, (P) Debugger, Sort/Merge routines 6-4, 7-6, 7-17, C-4 See SOR routines for routine on call stack, (P) Debugger, 7-6, Sort/Merge Utility (SORT), (P) Programming CD-166 Resources, 8–13 with DECwindows, (P) Debugger, 1-9, See also Sort 1-10, 1-21collating sequence, (U) Sort/Merge, SORT-4 line-oriented, (P) Debugger, 6-3 ASCII, (U) Using VMS, 1-39 margins in, (P) Debugger, 6-8, CD-222 EBCDIC, (U) Using VMS, 1-39

Source display (cont'd) Space multiprocess program, (P) Debugger, 10-14 allocating for PPL\$, (P) RTL Parallel not available, (P) Debugger, 2-10, 2-11, 6-1, Processing, PPL-11 7-4, CD-172, C-4 creating (DSR), (U) Text Processing, 3-22 with DECwindows, (P) Debugger, 1-10, Space flag, (U) DSR Ref, 3–16 1 - 21default, (U) DSR Ref, 3-16 optimized code, (P) Debugger, 2-5, 5-2, 7-7, recognizing, (U) DSR Ref, 2-53 Space service, (P) RMS, RMS-95 with DECwindows, (P) Debugger, 1-10 condition values, (P) RMS, RMS-96 SEARCH command, (P) Debugger, 6-6, control block input fields, (P) RMS, RMS-96 CD-114 control block output fields, (P) RMS, RMS-96 SET BREAK command, (P) Debugger, 6-7 Spacing SET SCOPE/CURRENT command, (P) See also Text spacing Debugger, 7-6, CD-166 between lines, (U) DSR Ref, 2-116 SET STEP command, (P) Debugger, 6-7, lines, (U) DSR Ref, 2-84 CD-175 .SPACING command, (U) DSR Ref, 2–116 SET TRACE command, (P) Debugger, 6-7 SPAN built-in procedure, (P) VAXTPU, 7-510 to SET WATCH command, (P) Debugger, 6-7 SRC, predefined, (P) Debugger, 7-4, C-3 SPANC (Span Characters) instruction, (P) with DECwindows, (P) Debugger, 1–10 MACRO, 9-140 STEP command, (P) Debugger, 6-7 SPANL built-in procedure, (P) VAXTPU, 7-512 to TYPE command, (P) Debugger, 6-3, CD-266 with DECwindows, (P) Debugger, 1-9, 1-10, SPAWN built-in procedure, (P) VAXTPU, 7-515 to 1-21Source file SPAWN command, V5.5 Release Notes, 2-41; See also Message source file (U) Using VMS, 1-21, 3-5, 8-46; (U) Mail, See also Source display MAIL-28, MAIL-104; (U) DCL Dictionary, correct version of, (P) Debugger, CD-172, DCL2-338 to DCL2-342; (U) EVE Ref, CD-239 EVE-230 to EVE-231; (M) SYSMAN, defined, (P) Debugger, 6-2; (P) VAXTPU, SM-76; (M) LATCP, LAT-60; (P) Debugger, 7 - 3083-4, CD-256; (P) System Dump Analyzer, EVE editor, (P) VAXTPU, 1-11 SDA-162 file specification, (P) Debugger, 6-2 and ATTACH command, (U) DCL Dictionary, location, (P) Debugger, 6-2, CD-28, CD-172, DCL1-49; (M) SYSMAN, SM-27 CD-239 EVE editor, (U) Text Processing, 1-67 maximum number, (P) Debugger, 6-3, CD-147, restriction on using (EVE), (U) Text Processing, CD-223 not available, (P) Debugger, 6-2, CD-172 to create a subprocess, (U) DCL Concepts, 2-3 Source file statements Spawned subprocess See Message source file statements See Subprocess Source line, (P) File Def Language, FDL-40 Spawning a subordinate, (P) RTL Parallel Source line correlation, (P) Debugger, 6-1 Processing, 2-3 Source program, (U) VMS Intro, 4-1 Spawning a subprocess, (M) SYSMAN, SM-13 creating, (U) VMS Intro, 4-7, 4-10 Spawning of processes /SOURCE qualifier, (P) Debugger, 6-4, 6-7, 7-6, security implications in restricted accounts, 7-20, CD-84, CD-118, CD-128, CD-187, (M) Security, 5-48 CD-197, CD-260 SPDT (SCSI port descriptor table), (P) Device Source-related event, (M) Networking, 2-37 Support (A), 17-7; (P) Device Support (B), Source statement 1-60 to 1-66 See Statement creation of, (P) Device Support (A), 17-26 Source task, (M) Networking, 8–12 Special analysis sections, (P) Analyze/RMS\_File, Source window ARMS-14 See also Source display Special characters, (P) Librarian, LIB-5 SRC, DECwindows, (P) Debugger, 1-10, 1-21 inserting, (U) DSR Ref, 2-14 %SOURCE\_SCOPE, (P) Debugger, 7-18, C-3 Special keys %SP, (P) Debugger, 4-22, D-3 See also SHOW KEY command Backspace, (U) EDT Ref, EDT-2

Special keys (cont'd)	Specifier
Delete, (U) EDT Ref, EDT-2	entity (cont'd)
Linefeed, (U) EDT Ref, EDT-2	See also Entity specifier
Tab, $(U)$ EDT Ref, EDT-2	nokeypad mode, (U) EDT Ref, EDT-285
user-defined keys, (U) EDT Ref, EDT-131	file specification, (U) EDT Ref, EDT-138
SPECIAL_GRAPHICS keyword	See also File specification specifier
with SET (STATUS_LINE), (P) VAXTPU,	increment, (U) EDT Ref, EDT-138
7–476	See also Increment specifier
"Special_graphics_status" string constant	initial, (U) EDT Ref, EDT-138
parameter to GET_INFO, (P) VAXTPU, 7–225	
Specification	See also Initial specifier
of file, (P) File Def Language, FDL-19	input and output, (M) Backup, BCK-2
Specification file	key name, $(U)$ EDT Ref, EDT-130
comments, (U) Sort/Merge, SORT-5	See also Key name specifier
converting previous versions, (U) Sort/Merge,	macro name, (U) EDT Ref, EDT-133
SORT-6	See also Macro name specifier
creating, (U) Sort/Merge, SORT-5	"n", (U) EDT Ref, EDT-137
example of, (U) Sort/Merge, SORT-73	See also "n" specifier
qualifiers, (U) Sort/Merge, SORT-49	nokeypad mode, (U) EDT Ref, EDT-122
/CDD_PATH_NAME, (U) Sort/Merge,	number, (U) EDT Ref, EDT-262
SORT-50	See also Number specifier
/CHECK_SEQUENCE, (U) Sort/Merge,	prompt type, (U) EDT Ref, EDT-223
SORT-51	See also Prompt type specifier
/COLLATING_SEQUENCE, (U)	
Sort/Merge, SORT-52	range, (U) EDT Ref, EDT-122
/CONDITION, (U) Sort/Merge, SORT-57	See also Range specifier
/DATA, (U) Sort/Merge, SORT-60	range-1, $(U)$ EDT Ref, EDT-125
/FIELD, (U) Sort/Merge, SORT-62	See also Range-1 specifier
/INCLUDE, (U) Sort/Merge, SORT-64	range-2, (U) EDT Ref, EDT-125
/KEY, (U) Sort/Merge, SORT-66	See also Range-2 specifier
/OMIT, (U) Sort/Merge, SORT-68	sign $(+ \mid -)$ , $(U)$ EDT Ref, EDT-261
/PAD, (U) Sort/Merge, SORT-69	See also Sign (+   -) specifier
/PROCESS, (U) Sort/Merge, SORT-70	string, $(U)$ EDT Ref, EDT-312
/STABLE, (U) Sort/Merge, SORT-71	See also String specifier
/WORK_FILES, (U) Sort/Merge, SORT-72	keypad mode, (U) EDT Ref, EDT-99
special considerations, (U) Sort/Merge,	line mode, (U) EDT Ref, EDT-241
SORT-5	nokeypad mode, (U) EDT Ref, EDT-313
uses for, (U) Sort/Merge, SORT-5, SORT-31	string-1, (U) EDT Ref, EDT-305
/SPECIFICATION qualifier, (U) Sort/Merge,	See also String-1 specifier
SORT-31	string-2, (U) EDT Ref, EDT-305
Specifier	
bottom, $(U)$ EDT Ref, EDT-175	See also String-2 specifier
See also Bottom specifier	subtopic, (U) EDT Ref, EDT-145
buffer, (U) EDT Ref, EDT-261	See also Subtopic specifier
See also Buffer specifier	top, $(U)$ EDT Ref, EDT-175
line mode, (U) EDT Ref, EDT-120	See also Top specifier
nokeypad mode, $(U)$ EDT Ref, EDT-265	topic, $(U)$ EDT Ref, EDT-145
buffer-1, (U) EDT Ref, EDT-125	See also Topic specifier
See also Buffer-1 specifier	using element lists in, (M) Backup, BCK-4
buffer-2, (U) EDT Ref, EDT-125	using wildcard characters in, (M) Backup,
	BCK-5
See also Buffer-2 specifier	width, $(U)$ EDT Ref, EDT-190
character, (U) EDT Ref, EDT-269	See also Width specifier
See also Character specifier	SPECIFY error options, (M) Backup, BCK-25
count, (U) $EDT$ $Ref$ , $EDT$ -261	SPECINS, (U) EDT Ref, EDT-97
See also Count specifier	See also DEC Multinational Character Set
nokeypad mode, (U) EDT Ref, EDT-274	TI SILV DIE I I I I I I I I I I I I I I I I I I
entity, (U) EDT Ref, EDT-261	

SPECINS keypad function EDT, (U) Text Processing, 2-21 Speed See Performance SPELL command, (U) EVE Ref, EVE-232 SPI\$ABORT\_COMMAND macro, (P) Device Support (A), 17-6, 17-28; (P) Device Support (B), 2-68SPI\$ALLOCATE\_COMMAND\_BUFFER macro, (P) Device Support (A), 17-6, 17-11, 17-27; (P) Device Support (B), 2-69 SPI\$CONNECT macro, (P) Device Support (A), 17-6, 17-10, 17-26, 17-29; (P) Device Support (B), 2–70 to 2–71 using byte count, V5.5 New Features, A-52 SPI\$DEALLOCATE\_COMMAND\_BUFFER macro, (P) Device Support (A), 17-6, 17-11, 17-28; (P) Device Support (B), 2-72 SPI\$DISCONNECT macro, (P) Device Support (A), 17-6; (P) Device Support (B), 2-73 SPI\$FINISH\_COMMAND macro, (P) Device Support (A), 17–29; (P) Device Support (B), SPI\$GET\_CONNECTION\_CHAR macro, (P) Device Support (A), 17-6; (P) Device Support (B), 2-75 to 2-76, 2-88 SPI\$MAP\_BUFFER macro, (P) Device Support (A), 17-6, 17-16 to 17-17, 17-27; (P) Device Support (B), 2-77 to 2-79 SPI\$RECEIVE\_BYTES macro, (P) Device Support (A), 17-29; (P) Device Support (B), 2-80 SPI\$RELEASE\_BUS macro, (P) Device Support (A), 17-29; (P) Device Support (B), 2-81 SPI\$RESET macro, (P) Device Support (A), 17-6 SPI\$SEND\_BYTES macro, (P) Device Support (A), 17-29; (P) Device Support (B), 2-83 SPI\$SEND\_COMMAND macro, (P) Device Support (A), 17–6, 17–11, 17–17, 17–27; (P) Device Support (B), 2-84 to 2-86 SPI\$SENSE\_PHASE macro, (P) Device Support (A), 17-29; (P) Device Support (B), 2-87 SPI\$SET\_CONNECTION\_CHAR macro, (P) Device Support (A), 17-6, 17-12, 17-13, 17-14, 17–27; (P) Device Support (B), 2–88 to 2–89 SPI\$SET\_PHASE macro, (P) Device Support (A), 17-29; (P) Device Support (B), 2-90 SPI\$UNMAP\_BUFFER macro, (P) Device Support (A), 17-6, 17-17; (P) Device Support (B), 2-91 SPI (SCSI port interface), (P) Device Support (A), 17-5 to 17-6; (P) Device Support (B), 2-68 to 2 - 90calling protocol for, (P) Device Support (A), 17-6; (P) Device Support (B), 2-68

extensions to, (P) Device Support (A), 17-29

to 17-30; (P) Device Support (B), 2-73 to

Spin lock. (P) Programming Resources, 4–16: (P) Device Support (A), 1-7, 3-3, 3-12 to 3-17 See also Device lock See also Fork lock See also Spin lock index See also Spin wait See also SPL See also Synchronization acquisition IPL, (P) Device Support (A), 3-11, 3-15, E-17, E-20; (P) Device Support (B), 1-67, 3-111 acquisition PC list, (P) Device Support (A), E-17: (P) Device Support (B), 1-68 address, (P) Device Support (A), E-20 creating, (P) RTL Parallel Processing, 4-14 definition of, (P) RTL Parallel Processing, 4-14 deleting, (P) RTL Parallel Processing, 4-15 displaying SDA information, (P) System Dump Analyzer, SDA-150 dynamic, (P) Device Support (A), 3-13; (P) Device Support (B), 1–68 multiple acquisition of, (P) Device Support (A), 3-15, E-20; (P) Device Support (B), 2-96, 3 - 116name, (P) Device Support (A), E-20 obtaining, (P) Device Support (A), 3-10; (P) Device Support (B), 2-47 to 2-48, 3-111 to owned, (P) System Dump Analyzer, SDA-90 ownership, (P) Device Support (A), 3-15, 13-30, E-20; (P) Device Support (B), 1-67, 1-68 rank, (P) Device Support (A), 3-13 to 3-14, 3-15, 3-17, E-17, E-20; (P) Device Support (B), 1-67 reading, (P) RTL Parallel Processing, 4-16 releasing, (P) RTL Parallel Processing, 4-15; (P) Device Support (A), 3–10; (P) Device Support (B), 2-96, 3-114 restoring, (P) Device Support (B), 2–96, 3–116 seizing, (P) RTL Parallel Processing, 4-15 static, (P) Device Support (A), 3-13; (P) Device Support (B), 1-68 status, (P) Device Support (A), E-20 system, (P) Device Support (A), 3-13; (P) Device Support (B), 1–68 Spin lock index, (P) Device Support (A), 3–13 to 3-14, E-20 Spin lock IPL vector See SMP\$AR SPNLKVEC Spin lock synchronization advantages and disadvantages, (P) RTL Parallel Processing, 5–8 PPL\$ routines for, (P) RTL Parallel Processing, 4-14 to 4-16 Spin lock synchronization macros, (P) Device Support (A), E-4, E-13

See also DEVICELOCK

2 - 90

```
Spin lock synchronization macros (cont'd)
See also DEVICEUNLOCK
```

See also FORKLOCK

See also FORKUNLOCK

See also LOCK

See also UNLOCK

Spin wait, (P) Device Support (A), 3-15; (P) Device Support (B), 1-68, 3-110, 3-112, 3-113

SPL\$B\_IPL, (P) Device Support (A), 3–9, E–18; (P) Device Support (B), 1–77

SPL\$B\_RANK, (P) Device Support (A), E-18 SPL\$L\_BUSY\_WAITS, (P) Device Support (A),

SPL\$L\_OWN\_PC\_VEC, (P) Device Support (A), E-17

 $\begin{array}{ll} {\rm SPL\$Q\_ACQ\_COUNT}, \ \ (P) \ Device \ Support \ (A), \\ {\rm E-}17 \end{array}$ 

SPL (spin lock data structure), (P) Device Support (B), 1–66 to 1–68

SPLACQERR bugcheck, (P) Device Support (A), 13–28, 13–30, E–18; (P) Device Support (B), 3–111

\$SPLCODDEF macro, (P) Device Support (A), E-8; (P) Device Support (B), 2-23, 2-25

SPLIPLHIGH bugcheck, (P) Device Support (A), 13–28, E–18; (P) Device Support (B), 3–111, 3–113

SPLIPLLOW bugcheck, (P) Device Support (A), 13–28, E–18; (P) Device Support (B), 3–114, 3–115, 3–116, 3–117

SPLIT WINDOW command, (U) Using VMS, 8-35; (U) EVE Ref, EVE-233

EVE editor, (U) Text Processing, 1–56 in window environment (EVE), (U) Text Processing, 1–56

SPLIT\_LINE built-in procedure, (P) VAXTPU, 7–518 to 7–519

SPL option, (P) File Def Language, FDL-23 SPLRELERR bugcheck, (P) Device Support (A), 13-29, 13-30, E-18; (P) Device Support (B), 3-114, 3-115

SPLRSTERR bugcheck, (P) Device Support (A), 13–29, 13–30, E–18; (P) Device Support (B), 3–116, 3–117

Spooled device, (P) Device Support (B), 1–74 Spooled output device, (M) Maintaining VMS, 5–6, 5–52

despooling, (M) Maintaining VMS, 5-53 recommended use, (M) Maintaining VMS, 5-6 sample configuration, (M) Maintaining VMS, 5-16

testing, (M) Maintaining VMS, 5-53

Spool file option

See FAB\$V\_SPL option

Spool on close option, (P) File Applications, 9-12

SPR (Software Performance Report), (P) File Applications, 10–2; (P) System Dump Analyzer, SDA–2, SDA–28

SP symbol, (P) System Dump Analyzer, SDA-14 SPTREQ parameter, (M) System Generation, A-31; (P) Device Support (B), 3-16

SQL prototyping tool, Dependability Handbook, 8-24

SQO option, (P) File Def Language, FDL-24 Square root, (P) RTL Math, MTH-102, MTH-136 /SQUEEZE qualifier, (P) Librarian, LIB-43 SQUEUE, (M) DTS/DTR, DTS-1 SRC

source display, screen mode, (P) Debugger, 7–4, C–3

source window, DECwindows, (P) Debugger, 1–10, 1–21

SRP (small request packet), (P) System Dump Analyzer, SDA-119

SRPCOUNT parameter, (M) System Generation, A-31

SRPCOUNTV parameter, (M) System Generation, A-31

SRP lookaside list

displaying contents, (P) System Dump Analyzer, SDA-119

/SRP qualifier, (P) System Dump Analyzer, SDA-119

SS\$\_ABORT return, (P) I/O User's I, 8–45, 8–50, A-2, A-3, A-5, A-7, A-9; (P) I/O User's II, 2-15, 4-23, 6-33, A-1, A-3, A-4, A-5, A-6; (P) Device Support (A), 10-6

SS\$\_ACCONFLICT return, (P) I/O User's I, A-1 SS\$\_ACCVIO return, V5.5 New Features, B-28, B-29; (P) I/O User's I, 7-12, 8-51; (P) I/O User's II, A-6; (P) Device Support (B), 3-32, 3-33, 3-35, 3-41, 3-43, 3-46, 3-50, 3-51, 3-55, 3-56, 3-59, 3-73

SS\$\_ACPVAFUL return, (P) I/O User's I, A-1 SS\$\_BADATTRIB return, (P) I/O User's I, A-1 SS\$\_BADCHKSUM return, (P) I/O User's I, A-1 SS\$\_BADCONTEXT return, V5.5 New Features, B-31

SS\$\_BADESCAPE return, (P) I/O User's I, 8–7, A–9

SS\$\_BADFILEHDR return, (P) I/O User's I, A-1 SS\$\_BADFILENAME return, (P) I/O User's I,  $\Delta_{-1}$ 

SS\$\_BADFILEVER return, (P) I/O User's I, A-1
SS\$\_BADIRECTORY return, (P) I/O User's I,
A-1

SS\$\_BADPARAM return, (P) I/O User's I, 8–51, A–1, A–5, A–9; (P) I/O User's II, 3–11, 4–22, 4–26, 4–27, 4–31, 6–9, 6–23, 6–35, A–1, A–3, A–4, A–5, A–6; (P) Device Support (B), 3–32, 3–35, 3–41, 3–43, 3–46, 3–55, 3–56, 3–59, 3–107

- SS\$\_BADQFILE return, (P) I/O User's I, A-1 SS\$\_BADQUEHDR return, (P) I/O User's II, 4-33, A-4
- SS\$\_BADQUEUEHDR return, (P) I/O User's II, 4-28, 4-31, 4-32
- SS\$\_BLOCKCNTERR return, (P) I/O User's I, A-1
- SS\$\_BUFFEROVF return, (P) I/O User's I, 7–6, A–7; (P) I/O User's II, 2–20, 5–10, 5–11, 6–38, A–3, A–5, A–6
- SS\$\_BUFNOTALIGN return, (P) I/O User's I, A-5; (P) I/O User's II, 4-23, A-4
- SS\$\_CANCEL return, (P) I/O User's I, A-3, A-5, A-7, A-9; (P) I/O User's II, 4-23, A-3, A-4, A-5; (P) Device Support (A), 11-7
- SS\$\_COMMHARD return, (P) I/O User's II, A-6 SS\$\_CONTROLC return, (P) I/O User's I, 8-46, A-9
- SS\$\_CONTROLO return, (P) I/O User's I, A-9 SS\$\_CONTROLY return, (P) I/O User's I, A-9 SS\$\_CPUNOTACT return, V5.5 New Features, B-31
- SS\$\_CREATED return, (P) I/O User's I, A-1 SS\$\_CTRLERR return, (P) I/O User's I, A-3, A-5, A-7; (P) I/O User's II, 3-8, 4-23, 4-33, 4-36, A-3, A-4, A-6
- SS\$\_DATACHECK return, (P) I/O User's I, A=3, A=5, A=7; (P) I/O User's II, A=6
- SS\$\_DATAOVERUN return, (P) I/O User's I, 8-9, A-2, A-3, A-7, A-9; (P) I/O User's II, 1-6, 2-8, 5-5, 6-19, A-1, A-6
- SS\$\_DEBUG condition, (P) Debugger, D-1
- SS\$\_DEVACTIVE return, (P) I/O User's I, 8–50, A–5; (P) I/O User's II, 4–20, A–1, A–3, A–4, A–5, A–6
- SS\$\_DEVALLOC return, (P) I/O User's II, A-6
- SS\$\_DEVCMDERR return, (P) I/O User's I, A-5
- SS\$\_DEVICEFULL return, (P) I/O User's I, A-1; (P) I/O User's II, A-3, A-5
- SS\$\_DEVINACT return, (P) I/O User's II, A-3, A-5, A-6
- SS\$\_DEVOFFLINE return, (P) I/O User's I, A-7; (P) I/O User's II, A-1, A-3, A-5, A-6
- SS\$\_DEVREQERR return, (P) I/O User's I, A-5; (P) I/O User's II, 4-23, 4-36, A-4, A-6
- SS\$\_DIRFULL return, (P) I/O User's I, A-1
- SS\$\_DIRNOTEMPTY return, (P) I/O User's I, A-1
- SS\$\_DISCONNECT return, (P) I/O User's II, A-6 SS\$\_DRVERR return, (P) I/O User's I, A-3, A-7; (P) I/O User's II, 3-8, A-3
- SS\$\_DUPDSKQUOTA return, (P) I/O User's I,
- SS\$\_DUPFILENAME return, (P) I/O User's I, A-1
- SS\$\_DUPUNIT return, (P) I/O User's II, A-6

- SS\$\_ENDOFFILE return, (P) I/O User's I, 6–21, 7–6, 7–9, A–1, A–2, A–7; (P) I/O User's II, 2–8, 5–5, 6–19, A–1, A–6
- SS\$\_ENDOFTAPE return, (P) I/O User's I, A-7 SS\$\_ENDOFVOLUME return, (P) I/O User's I, 6-21, A-7
- SS\$\_EXBYTLM return, (P) I/O User's I, A-1 SS\$\_EXDISKQUOTA return, (P) I/O User's I, A-1
- SS\$\_EXQUOTA return, V5.5 New Features, B-31; (P) I/O User's I, A-5; (P) I/O User's II, 4-23, A-3, A-4, A-6; (P) Device Support (A), E-6; (P) Device Support (B), 3-6, 3-20, 3-22
- SS\$\_FCPREADERR return, (P) I/O User's I, A-1
  SS\$\_FCPREWNDERR return, (P) I/O User's I,
  A-1
- SS\$\_FCPSPACERR return, (P) I/O User's I, A-1 SS\$\_FCPWRITERR return, (P) I/O User's I, A-1
- SS\$\_FILELOCKED return, (P) I/O User's I, A-1
- SS\$\_FILENUMCHK return, (P) I/O User's I, A-1 SS\$\_FILEPURGED return, (P) I/O User's I, A-1
- SS\$\_FILEFURGED return, (P) I/O User's I, A-1 SS\$\_FILESEQCHK return, (P) I/O User's I, A-1
- SS\$\_FILESTRUCT return, (P) I/O User's I, A-1
- SS\$\_FILNOTEXP return, (P) I/O User's I, A-1
- SS\$\_FORCEDERR return, (P) I/O User's I, A-3 SS\$\_FORMAT return, (P) I/O User's I, A-3, A-7
- SS\$\_HANGUP return, (P) I/O User's I, A-3, A-
- SS\$\_HEADERFULL return, (P) I/O User's I, A-1
- SS\$\_IBCERROR return, (P) I/O User's I, A-1
- SS\$\_IDXFILEFULL return, (P) I/O User's I, A-1 SS\$\_ILLCNTRFUNC return, (P) I/O User's I, A-1
- SS\$\_ILLIOFUNC return, (P) I/O User's I, 8-50, A-3, A-7; (P) Device Support (B), 3-51
- SS $_{\text{ILLVECOP}}$  return,  $V5.5\ New\ Features$ , B-29
- SS\$\_INCOMPAT return, (P) I/O User's I, A-9 SS\$\_INSFBUFDP return, (P) I/O User's I, A-5
- SS\$\_INSFMAPREG return, (P) I/O User's II,
- A-6; (P) Device Support (B), 3-64 SS\$\_INSFMAPREQ return, (P) I/O User's I, A-5 SS\$\_INSFMEM return, V5.5 New Features, B-31;
- (P) I/O User's I, 7–12, A–5; (P) I/O User's II, 4–23, 4–28, 4–31, A–4, A–6; (P) Device Support (B), 3–6, 3–12, 3–14, 3–15, 3–16, 3–52, 3–61
- SS\$\_INSFSPTS return, (P) Device Support (B), 3-16, 3-107
- SS\$\_INSFWSL return, *V5.5 New Features*, B-31; (*P*) *Device Support* (*B*), 3-33, 3-35, 3-41, 3-46, 3-59
- SS\$\_IVADDR return, V5.5 New Features, A-6; (P) I/O User's I, A-3
- SS\$\_IVBUFLEN return, (P) I/O User's I, A-3, A-5; (P) I/O User's II, 4-23, 6-21, A-4, A-6
- SS\$\_IVCHAN return, (P) Device Support (B), 3-103
- SS\$\_IVMODE return, (P) I/O User's I, A-5

```
SS$_MBFULL return, (P) I/O User's I, 7-2, 7-7,
    7-12; (P) Device Support (B), 3-52, 3-61
SS$_MBTOOSML return, (P) I/O User's I, 7-12;
    (P) Device Support (B), 3-52, 3-61
SS$_MCHECK return, V5.5 New Features, B-31
SS$_MCNOTVALID return, (P) I/O User's I, A-5;
    (P) I/O User's II, 4-23, A-4
SS$_MEDOFL return, (P) I/O User's I, A-3, A-7;
    (P) I/O User's II, A-6
SS$_NODISKQUOTA return, (P) I/O User's I,
SS$_NOMOREFILES return, (P) I/O User's I,
SS$_NONEXDRV return, (P) I/O User's I, A-3,
SS$_NONSMPDRV return, (P) Device Support
    (A), E-4
SS$_NOPRIV return, V5.5 New Features, B-31;
    (P) I/O User's I, 7-12, 8-51, A-1; (P) I/O
    User's II, A-3, A-6; (P) Device Support (B),
    3-52, 3-61, 3-103
SS$_NOQFILE return, (P) I/O User's I, A-1
SS$_NORMAL return, (P) I/O User's I, 8-50,
    8-51, A-2, A-3, A-7, A-9; (P) I/O User's II,
    4-23, A-1, A-3, A-4, A-5, A-6
SS$_NOSUCHFILE return, (P) I/O User's I, A-1
SS$_NOTAPEOP return, (P) I/O User's I, A-2
SS$_NOTLABELMT return, (P) I/O User's I, A-2
SS$_NOTPRINTED return, (P) I/O User's I, A-2
SS$_NOTVOLSET return, (P) I/O User's I, A-2
SS$_OPINCOMPL return, (P) I/O User's I, A-3,
    A-7; (P) I/O User's II, 3-12, 6-33, A-3, A-6
SS$_OVRDSKQUOTA return, (P) I/O User's I,
    A-2
SS$_PARITY return, (P) I/O User's I, A-3, A-5,
    A-7, A-9; (P) I/O User's II, 4-20, 4-23, 4-36,
    A-3, A-4
SS$_PARTESCAPE return, (P) I/O User's I, 8-7,
    8-30, A-9
SS$_POWERFAIL return, (P) I/O User's I, A-5;
    (P) I/O User's II, 4-3, 4-20, 4-23, A-4
SS$_QFACTIVE return, (P) I/O User's I, A-2
SS$_QFNOTACT return, (P) I/O User's I, A-2
SS$_RCT return, (P) I/O User's I, A-3
SS$ RDDELDATA return, (P) I/O User's I, A-3
SS$_SERIOUSEXCP return, (P) I/O User's I,
   A-2, A-7
SS$_SSFAIL return, (P) Device Support (B), 3-64,
    3-75, 3-85, 3-93
SS$_SUPERSEDE return, (P) I/O User's I, A-2
SS$ TAPEPOSLOST return, (P) I/O User's I, A-2
SS$_TIMEOUT return, (P) I/O User's I, 8-27,
   8-50, A-3, A-5, A-7, A-9; (P) I/O User's II,
    6-33, A-3, A-6
SS$_TOOMANYVER return, (P) I/O User's I, A-2
SS$_TOOMUCHDATA return, (P) I/O User's II,
   A-6
```

```
SS$_UNSAFE return, (P) I/O User's I, A-3, A-7
SS$_VARITH return, V5.5 New Features, B-28,
SS$_VASFUL return, V5.5 New Features, B-31
SS$_VECALIGN return, V5.5 New Features,
   B-28, B-30
SS$_VECDIS return, V5.5 New Features, B-30
SS_VOLINV return, (P) I/O User's I, A=3, A=7
SS$_WASECC return, (P) I/O User's I, A-3
SS$_WRITLCK return, (P) I/O User's I, A-2,
   A-3, A-7
SS$_WRONGACP return, (P) I/O User's I, A-2
SSEL (search and select) command, (U) EDT Ref,
   EDT-312
  See also Locating text
SSP symbol, (P) System Dump Analyzer, SDA-14
SSRVEXCEPT bugcheck, (P) System Dump
   Analyzer, SDA-16
/STABLE qualifier, (U) Sort/Merge, SORT-32,
   SORT-71
Stack, (P) DECthreads, 3-5
  See also Call stack, Call frame, Scope
  changing minimum size of, (P) DECthreads,
      cma-41, pthread-21
  changing minimum size of guard area, (P)
      DECthreads, cma-31
  device driver use of, (P) Device Support (A),
      8-1
  displaying contents, (P) System Dump
      Analyzer, SDA-157
  obtaining minimum size of, (P) DECthreads,
      cma-29, pthread-13
  obtaining minimum size of guard area, (P)
      DECthreads, cma-19
  overflow, (P) DECthreads, 3-5
  preventing and detecting overflow, (P)
      DECthreads, cma-19, cma-31
  routines for, (P) DECthreads, cma-91
  sizing, (P) DECthreads, 3-5
  using for temporary storage, (P) Device
      Support (A), 5-3
  variable, (P) Debugger, 3-17, 4-1
      with DECwindows, (P) Debugger, 1-24
Stack frame, (P) MACRO, 9-64
  displaying in SDA, (P) System Dump Analyzer,
      SDA-79
  following a chain, (P) System Dump Analyzer,
      SDA-79
Stack guard area
  location of, (P) DECthreads, cma-19, cma-31
Stack limit
  changing size of, (P) System Services Ref,
      SYS-540
  checking, (P) DECthreads, cma-91
Stack memory, (P) DECthreads, 3-4
Stack pointer
```

adjusting, (P) System Services Ref, SYS-14

Stack pointer symbol, (P) Delta/XDelta, DELTA-9, DELTA-13 Stacksize attribute, (P) DECthreads, 2-8, cma-29, cma-41, pthread-21 obtaining, (P) DECthreads, pthread-13 Stack usage, (P) Routines Intro, 2-14, 2-45 Staffing tradeoffs, Dependability Handbook, 4-19 Stage checks, (M) Analyze/Disk, C-1 Stalled job state, V5.5 New Features, 3-2; (M) Maintaining VMS, 5-78 Stalled queue troubleshooting, (M) Maintaining VMS, 5-90 Stalled queue status, (M) Maintaining VMS, 5-71, 5-88, 5-90 Standalone BACKUP, V5.5 Release Notes, 2-49 building kit on a disk, (M) Backup, BCK-22 command to boot from an RL02 disk, V5.5 Release Notes, 4-19 description of, (M) Backup, BCK-1 qualifiers, (M) Backup, BCK-24 Standalone computer converting to cluster computer, (M) VAXcluster, Standard Disk Interconnect (SDI), (P) I/O User's I, 3-5Standby active system kernels, Dependability Handbook, 4-7 Star coupler, (M) System Management Intro, 6-4; (M) VAXcluster, 1–3 Star coupler expander (CISCE), (M) VAXcluster, 1 - 3STARLET.OLB, (P) Programming Resources, 5-1, See also SYS\$LIBRARY:STARLET.OLB STARLET library symbols, V5.5 Release Notes, 2 - 45START command, License Management, LMF-99 START/CPU command, V5.5 New Features, B-11; (U) DCL Dictionary, DCL2-343 to DCL2-344 Start I/O routine, (P) System Dump Analyzer, SDA-99; (P) Device Support (A), 1-3 See also Alternate start I/O routine activating, (P) Device Support (B), 3-28 address, (P) Device Support (A), 2-4, 6-4; (P) Device Support (B), 1-30, 4-17 checking for zero-length buffer, (P) Device Support (B), 3-32, 3-41, 3-55 context, (P) Device Support (A), 4-15, 8-1 to 8-2; (P) Device Support (B), 4-17 entry point, (P) Device Support (B), 4-17 exit method, (P) Device Support (B), 4-18 for connect to interrupt facility, (P) Device Support (A), 19-10, 19-15 to 19-16 for MASSBUS device, (P) Device Support (A),

functions, (P) Device Support (A), 4-15 to 4-16

input, (P) Device Support (B), 4-17

Start I/O routine (cont'd) of CONINTERR.EXE, (P) Device Support (A), 19 - 13of third-party SCSI class driver, (P) Device Support (A), 17-27 to 17-28 reactivating, (P) Device Support (A), 4-18 register usage, (P) Device Support (A), 8-1; (P) Device Support (B), 4-17 suspending, (P) Device Support (A), 4-16 synchronization requirements, (P) Device Support (A), 3-6, 3-22, 8-5, E-9 to E-11; (P) Device Support (B), 4-17 transferring control to, (P) Device Support (A), 4-13 to 4-15, 8-1, 10-3; (P) Device Support (B), 3-38, 3-70 to 3-71 writing, (P) Device Support (A), 8-1 to 8-7 Starting a transaction, (P) System Services Ref. SYS-629, SYS-631, SYS-633 Starting autostart queues, V5.5 New Features, 5-7, 5-9 Starting key position, (P) File Def Language, FDL-29 Starting logical block number field See XAB\$L\_SBN field Starting queues autostart, (M) Maintaining VMS, 5-68, 5-69 in startup command procedure, (M) Maintaining VMS, 5-61 nonautostart, (M) Maintaining VMS, 5-57, 5 - 68in startup command procedure, (M) Maintaining VMS, 5-61 relationship with activating an autostart queue, (M) Maintaining VMS, 5-5 Starting queue status, (M) Maintaining VMS, 5 - 71Starting the ERRFMT process, (M) Maintaining VMS, 6-4Starting the LAT protocol software with LAT\$STARTUP.COM, V5.5 New Features, 9-1. 9-13 Starting the new queue manager, V5.5 New Features, 5–5 Starting the queue manager, (M) VAXcluster, 6-1 initially, (M) Maintaining VMS, 5-54 restarting, (M) Maintaining VMS, 5-63 STARTNET.COM command procedure, (M) DECnet-VAX Guide, 3-15, 3-21, 3-25, 3-31, 3-32; (M) Networking, 3-98, 5-4, 5-14, 6-2 START OF LINE command, (U) Using VMS, 8-9; (U) EVE Ref, EVE-234 moving the cursor with (EVE), (U) Text Processing, 1-10 Start position, (U) EVE Ref, 1-18 START/QUEUE command, (U) DCL Concepts, 8-7; (U) DCL Dictionary, DCL2-345 to DCL2-354; (M) Maintaining VMS, 5-61

15 - 13

```
START/QUEUE command (cont'd)
  /AUTOSTART_ON qualifier, V5.5 New
      Features, 5-7, 5-8; (M) Maintaining VMS,
  /BACKWARD qualifier, (M) Maintaining VMS,
      5 - 83
  /BLOCK_LIMIT qualifier, (M) Maintaining
      VMS, 5-30
  /CHARACTERISTICS qualifier, (M)
      Maintaining VMS, 5-26
  /DEFAULT qualifier
      for banner pages, (M) Maintaining VMS,
          5 - 32
      for controlling page overflow, (M)
          Maintaining VMS, 5-45
      for forms, (M) Maintaining VMS, 5-43
  for activating an autostart queue, (M)
      Maintaining VMS, 5-68
  /FORM_MOUNTED qualifier, (M) Maintaining
      VMS, 5-43
  for starting a nonautostart queue, (M)
      Maintaining VMS, 5-68
  /FORWARD qualifier, (M) Maintaining VMS,
  /GENERIC qualifier, (M) Maintaining VMS,
      5 - 57
  /NOCHARACTERISTICS qualifier, (M)
      Maintaining VMS, 5-26
  /NORETAIN qualifier, (M) Maintaining VMS,
  /RETAIN qualifier, (M) Maintaining VMS,
      5 - 24
  /SCHEDULE qualifier, (M) Maintaining VMS,
      5 - 30
  SEARCH qualifier, (M) Maintaining VMS,
      5 - 84
  /SEPARATE qualifier
      for banner pages, (M) Maintaining VMS,
      for reset modules, (M) Maintaining VMS,
  specifying queue options with, (M) Maintaining
      VMS, 5-18
  TOP_OF_FILE qualifier, (M) Maintaining
      VMS, 5-84
  using to resume printing of a suspended job.
      (M) Maintaining VMS, 5-83
  with /BATCH qualifier, Obsolete Features, 1-30
  with /PRIORITY qualifier, Obsolete Features,
  with TERMINAL qualifier, Obsolete Features,
  /WSEXTENT qualifier, (M) Maintaining VMS,
```

5 - 30

```
START/QUEUE/MANAGER command, V5.5 New
    Features, 5-1; (U) DCL Dictionary, DCL2-355
    to DCL2-356; (M) VAXcluster, 6-2; (M)
    Maintaining VMS, 5-54, 5-62
   caution about /NEW_VERSION qualifier, V5.5
      New Features, 5–5
   change in behavior of /NEW_VERSION
      qualifier, V5.5 Release Notes, 2-10
  NEW_VERSION qualifier, (M) Maintaining
      VMS, 5-54
   obsolete qualifiers, V5.5 Release Notes, 2-11;
      V5.5 New Features, 5-7
  ON qualifier, (M) VAXcluster, 6-1; (M)
      Maintaining VMS, 5–55
   storage of, V5.5 New Features, 5–6; (M)
      Maintaining VMS, 5-55
Startup
   computer-specific function, (M) VAXcluster,
  editing command procedures, (M) LATCP, A-2
  location of command procedures, (M) LATCP,
  mounting of queue file disk, V5.5 Release
      Notes, 2-10; V5.5 New Features, 5-4
  of queue manager, (M) Maintaining VMS,
      5-54, 5-62, 5-63
  of queues, (M) Maintaining VMS, 5-5
      See also Starting queues
  order of command procedures, (M) LATCP, A-1
STARTUP$STARTUP_LAYERED, (M) SYSMAN,
    SM-11, SM-89
STARTUP$STARTUP_VMS, (M) SYSMAN,
    SM-11, SM-89
STARTUP.COM procedure, (M) Setting Up VMS,
  operator-assisted mount, (M) Maintaining
      VMS, 2-7
Startup command
  example, (U) EDT Ref, EDT-134
Startup command file, (U) EDT Ref, EDT-183
  coordinating, (M) VAXcluster, 4-9
  creating, (U) EDT Ref, EDT-7
  creating common version, (M) VAXcluster, 4–10
  displaying, (U) EDT Ref, EDT-209
  processing, (U) EDT Ref, EDT-173, EDT-178,
      EDT-213
  site-specific elements, (M) VAXcluster, 4-11
  with DEFINE MACRO, (U) EDT Ref, EDT-133
Startup command procedure, (M) System
   Management Intro, 2-1; (M) Setting Up VMS,
  known file lists, (M) Setting Up VMS, 2-10
  site-independent file name, (M) System
      Generation, SGN-39
  site-specific, (M) Setting Up VMS, 2-7
  SYSGEN commands, (M) Setting Up VMS,
```

6 - 21

Startup command procedure (cont'd) Statement, (P) MACRO, 1-1 to set up output devices, (M) Maintaining character set, (P) MACRO, 3-1 VMS, 5-54comment, (P) MACRO, 2-3 to start queues, (M) Maintaining VMS, 5-61 continuation of, (P) MACRO, 2-1 STARTUP commands, (M) SYSMAN, SM-1, for command definition file. (P) Command Def. SM-11 CDU-19 to CDU-37 See also Startup database format, (P) MACRO, 2-1 Startup database label, (P) MACRO, 2-2 adding a component, (M) SYSMAN, SM-81 operand, (P) MACRO, 2-3 deleting a record, (M) SYSMAN, SM-88 operator, (P) MACRO, 2-3, C-7 disabling a component, (M) SYSMAN, SM-82 separator for, (P) VAXTPU, 4-3 displaying contents, (M) SYSMAN, SM-90 special characters, (P) MACRO, C-6 enabling a component, (M) SYSMAN, SM-84 STAT entry point, (P) Modular Procedures, 4-9 modifying records, (M) SYSMAN, SM-86 STATE parameter setting the default, (M) SYSMAN, SM-89 for circuit, (M) Networking, 3-40 Startup file, (P) VAXTPU, 1-10 to 1-11, 4-21 to for DTE, (M) Networking, 3-29 4-33 for executor node, (M) Networking, 3-22 command file, (P) VAXTPU, 1-10 for line, (M) Networking, 3-57 definition, (P) VAXTPU, 1-10 for X25-SERVER module, (M) Networking, in EDT, (U) Using VMS, 8-71; (U) Text 3 - 86Processing, 2-51, 2-52, 2-53 /STATE qualifier, (P) Debugger, 8-8, CD-57, in EVE CD-140, CD-219, CD-247 See also Command file STATES class record, (M) Monitor, A-43 See also Initialization file Static asynchronous connection, (M) Networking, See also Section file 1-5, 1-8, 1-10 customizing editing sessions with, (U) Text connection example, (M) DECnet-VAX Guide, Processing, 1-71 3 - 23types of attributes for, (U) Text Processing, installing, (M) DECnet-VAX Guide, 3-18 local intermittent, (M) DECnet-VAX Guide, initialization file, (P) VAXTPU, 1-10 order of execution, (P) VAXTPU, 4-22 network configuration, (M) Networking, 5-19 section file, (P) VAXTPU, 1-10 procedure for establishing, (M) DECnet-VAX Startup phase, (M) SYSMAN, SM-11, SM-80 Guide, 3-18 Startup procedure reasons for failure, (M) DECnet-VAX Guide, changes, V5.5 Release Notes, 2-49 4-16; (M) Networking, 5-10 failure to complete, (M) VAXcluster, C-6 receive password, (M) DECnet-VAX Guide, system, (M) Setting Up VMS, 3-1 3-20STARTUP\_Pn parameter, (M) SYSMAN, SM-80; security, (M) DECnet-VAX Guide, 3-20 (M) System Generation, A-32 switching of terminal line, (M) DECnet-VAX START/ZONE command, V5.5 New Features, Guide, 3-21 B-41; (U) DCL Dictionary, DCL2-357 transmit password, (M) DECnet-VAX Guide, "Start\_character" string constant parameter to 3 - 20GET\_INFO, (P) VAXTPU, 7-178 turning back on, (M) DECnet-VAX Guide, 3-22 /START\_POSITION qualifier, (U) EVE Ref, 1–18; turning on and off line and circuit, (M)(P) Debugger, CD-134; (P) VAXTPU, 5-17 DECnet-VAX Guide, 3-21 "Start\_record" string constant parameter to Static asynchronous line, (M) Networking, 1–10, GET\_INFO, (P) VAXTPU, 7-178 2-15, 5-8State, (P) RTL Screen Management, 3-3 installing, (M) Networking, 5-9 logging, (M) Networking, 3-91 shutting down, (M) Networking, 5–10 of circuit, (M) Networking, 2-7 Static memory, (P) DECthreads, 3-4 of jobs, (M) Maintaining VMS, 5-78 /STATIC qualifier, (P) Debugger, CD-197 of line, (M) Networking, 2-13 Static selection, (P) VAXTPU, 4-17 of local node, (M) Networking, 2-3 Static service rating, (M) LATCP, LAT-13, of task or thread, (P) Debugger, 12-15, 12-19 LAT-41 substates, (M) Network Control Program, A-16 displaying, (M) LATCP, LAT-53, LAT-59 transitions, (M) Network Control Program, Static spin lock, (P) Device Support (A), 3-13 A-17Static variable, (P) Debugger, 3-17, 4-1

Statistical report, (P) Analyze/RMS_File,	Status bits
ARMS-10	changed, V5.5 Release Notes, 3-44
Statistics	Status code
network performance and error, (M)	controlling command interpreter response to,
DECnet-VAX Guide, 4-3	(U) DCL Dictionary, DCL2-182
printing, (M) DTS/DTR, DTS-7, DTS-12	STATUS display type, (M) Networking, 3-99
produced by CONVERT, (P) Convert, CONV-24	Status line
produced by CONVERT/RECLAIM, (P)	default information, (P) VAXTPU, 7-77
Convert, CONV-24	definition
reporting, (M) DTS/DTR, DTS-5, DTS-7	EVE, (U) Text Processing, 1-2
sample display, (U) Sort/Merge, SORT-33	fields added with EVE\$BUILD, (P) VAXTPU,
/STATISTICS qualifier, (U) Sort/Merge,	G-7 to G-8
SORT-33; (M) Error Log, ERR-22; (P)	video attributes, (P) VAXTPU, 7-476
Debugger, CD-247; (P) File Applications,	with mouse, (U) EVE Ref, EVE-25, EVE-27,
10–6	EVE-92, EVE-151
description, (P) Analyze/RMS_File, ARMS-19	Status messages, (U) Mail, MAIL-17
example of, (P) Analyze/RMS_File, ARMS-16	/STATUS qualifier, (M) Accounting, ACC-31
format, (P) Analyze/RMS_File, ARMS-19	Status register
limitation, (P) Analyze/RMS_File, ARMS-13,	and the control of th
ARMS-14, ARMS-19, ARMS-20	See CSR
overview, (P) Analyze/RMS_File, ARMS-19	See MBA\$L_SR
using with /OUTPUT qualifier, (P)	\$STATUS symbol
Analyze/RMS_File, ARMS-16	set by IF-THEN-ELSE construct, V5.5 Release
with CONVERT/RECLAIM, (P) Convert,	Notes, 3-22
CONV-5, CONV-24	STATUS_LINE keyword, (P) VAXTPU, 7–476
with wildcard characters, (P) Analyze/RMS_	"Status_line" string constant parameter to
File, ARMS-10	GET_INFO, (P) VAXTPU, 7–225
	"Status_video" string constant parameter to
Statistics report, (P) File Applications, 10–6, 10–11	GET_INFO, (P) VAXTPU, 7–225
Status	/STAY qualifier, (U) EDT Ref, EDT-240
	with TYPE, (U) EDT Ref, EDT-251
See also Port See also SCSI command	Step button
	with DECwindows, (P) Debugger, 1–9
See also SCSI status byte	STEP command, (P) Debugger, 3-6, 6-7, CD-258
displaying (II) DCL D: (	and instruction-level debugging, (P) Debugger,
current process, (U) DCL Dictionary,	4–18
DCL2-319	displaying default qualifiers for, (P) Debugger,
device, (U) DCL Dictionary, DCL2-246,	CD-242
DCL2–264	multiprocess program, (P) Debugger, 10-5
process, (U) DCL Dictionary, DCL2-246	setting default qualifiers for, (P) Debugger,
system, (U) DCL Dictionary, DCL2–246	CD-175
job, V5.5 New Features, 3–2	vectorized program, (P) Debugger, 11-3
of queues, V5.5 Release Notes, 3-44; (M)	with DECwindows, (P) Debugger, 1-23
Maintaining VMS, 5–71	Step Instruction command, (P) Delta/XDelta,
\$STATUS, (U) Using VMS, 5-4; (U) DCL	DELTA-34
Concepts, 5-2; (U) DCL Dictionary,	Step Instruction Over Subroutine command, (P)
DCL2-182	Delta / $XDelta$ , DELTA-35
changing, (U) DCL Dictionary, DCL1-222,	Sticky default
DCL2-49	defined, (P) File Applications, 6-9
commands that do not set, (U) Command	Stock
Procedures, 7-2	See also Forms
definition, (U) Command Procedures, 7-1	changing, V5.5 Release Notes, 2-9
format of, $(U)$ Command Procedures, 7–1	commands used with, (M) Maintaining VMS,
severity of error condition, (U) Command	5–40
Procedures, 7-2	mismatch problems, (M) Maintaining VMS,
testing for successful (odd) value, $(U)$	5–41
Command Procedures, 7–2	troubleshooting, (M) Maintaining VMS,
value with SET NOON, (U) Command	5–89
Procedures, 7-5	

Stock (cont'd) STOP/QUEUE command, (U) DCL Dictionary, specifying, (M) Maintaining VMS, 5-40 DCL2-363 to DCL2-364; (M) Maintaining STOP/QUEUE/ENTRY command VMS, 5-73, 5-83 with a batch job, (U) VMS Intro, 6-4 /ON\_NODE qualifier, V5.5 New Features, 5-7 with a print job, (U) VMS Intro, 6-2 STOP/QUEUE/ENTRY command, (U) DCL Stop button Dictionary, DCL2-367 to DCL2-368 with DECwindows, (P) Debugger, 1-9, 1-20 STOP/QUEUE/MANAGER/CLUSTER command, STOP command, (U) Using VMS, 1-21, 6-4, (M) Maintaining VMS, 5-63 6-32; (U) Command Procedures, 5-16; (U) STOP/QUEUE/MANAGER command, (U) DCL DCL Dictionary, DCL2-358 to DCL2-360; (P) Dictionary, DCL2-369 Debugger, 3-4 /CLUSTER command, V5.5 New Features, 5-7 See also Ctrl/C STOP/QUEUE/NEXT command, (U) DCL See also Ctrl/Y Dictionary, DCL2-370; (M) Maintaining See also EXIT command VMS, 5-68, 5-73 and detached process image, (U) DCL and DELETE/QUEUE command, (U) DCL Dictionary, DCL2-55 Dictionary, DCL1-143 and subprocess image, (U) DCL Dictionary, with autostart queues, V5.5 New Features, 5-9; DCL2-55 (M) Maintaining VMS, 5-74 detached process, (U) DCL Dictionary, STOP/QUEUE/REQUEUE command, (U) DCL DCL2-358 Dictionary, DCL2-371 to DCL2-373 process, (U) DCL Dictionary, DCL2-358 STOP/QUEUE/RESET command, V5.5 Release runaway magnetic tape, (U) DCL Dictionary, Notes, 2–11; (U) DCL Dictionary, DCL2–374; DCL1-241 (M) Maintaining VMS, 5-68, 5-73 subprocess, (U) DCL Dictionary, DCL2-358 with autostart queues, V5.5 New Features, 5-9; terminating command execution, (U) DCL (M) Maintaining VMS, 5-74 Concepts, 2-2, 2-3 STOP/QUEUES/ON\_NODE command STOP/CPU command, V5.5 New Features, B-11; entering before shutting down a system, (M) (U) DCL Dictionary, DCL2-361, DCL2-362 Maintaining VMS, 5-75 Stopped bit relationship with DISABLE AUTOSTART in queue status longword, V5.5 Release Notes, /QUEUES, (M) Maintaining VMS, 5-75 3 - 44STOP/ZONE command, V5.5 New Features, B-41; STOPPED processor state, (P) Device Support (B), (U) DCL Dictionary, DCL2-375 1 - 16Storage, (P) Modular Procedures, 2–12 heap, (P) Modular Procedures, 2-12 Stopped queues checking status of, V5.5 Release Notes, 3-44 initializing, (P) Modular Procedures, 3-14 Stopped queue status, (M) Maintaining VMS. stack, (P) Modular Procedures, 2-12 5-71, 5-88 static, (P) Modular Procedures, 2-13, A-5 Stop pending queue status, (M) Maintaining summary, (P) Modular Procedures, 2-15 VMS, 5-71types of, (P) DECthreads, 3-3 Stopping all queues on a node, (M) Maintaining Storage bitmap file, (U) Files and Devices, A-2 VMS, 5-74Storage control block Stopping a queue, (M) Maintaining VMS, 5-73 See SCB abruptly, (M) Maintaining VMS, 5-73 Storage management smoothly, (M) Maintaining VMS, 5-73 Rdb/VMS database failover in VAXclusters, STOPPING processor state, (P) Device Support Dependability Handbook, 8-28 (B), 1–16 minimizing impact of component failure, Stopping queues on a node, V5.5 New Features, Dependability Handbook, 8-33 5 - 7placement of files, Dependability Stopping queue status, (M) Maintaining VMS, Handbook, 8-31 Rdb/VMS dependability features, Dependability Stopping the queue manager, V5.5 New Features, Handbook, 8-27 5-7; (M) Maintaining VMS, 5-63 Rdb/VMS online backups, Dependability before moving queue files, V5.5 New Features, Handbook, 8-34 redundant disk devices, Dependability STOP/QUEUE/ABORT command, (U) DCL Handbook, 4-5 Dictionary, DCL2-365 to DCL2-366

Stored semantics file attribute

See File tag

```
STORE TEXT command, (U) Using VMS, 8–15;
(U) EVE Ref, EVE–235
```

moving text with (EVE), (U) Text Processing, 1-19

using with search string (EVE), (U) Text Processing, 1–20

STR\$ADD, (P) RTL String Manipulation, STR-3 STR\$ANALYZE\_SDESC, (P) RTL String Manipulation, 2-4, STR-7

STR\$APPEND, (P) RTL String Manipulation, 2–9, STR–9

 $\begin{array}{cccc} {\rm STR\$CASE\_BLIND\_COMPARE}, & \textit{(P) RTL String} \\ \textit{Manipulation}, {\rm STR-11} \end{array}$ 

STR\$COMPARE, (P) RTL String Manipulation, STR-13

STR\$COMPARE\_EQL, (P) RTL String Manipulation, STR-15

STR\$COMPARE\_MULTI, (P) RTL String Manipulation, STR-17

STR\$CONCAT, (P) RTL String Manipulation, 2–9, STR–20

STR\$COPY\_DX, (P) RTL String Manipulation, 2-7, 2-8, STR-23

 $\begin{array}{ll} {\rm STR\$COPY\_R}, & \textit{(P) RTL String Manipulation}, \\ {\rm STR-25} \end{array}$ 

 $\begin{array}{ll} {\tt STR\$DIVIDE,} & \textit{(P) RTL String Manipulation,} \\ {\tt STR-28} & \end{array}$ 

 $\begin{array}{ll} {\rm STR} \$ {\rm DUPL\_CHAR}, \ \ (P) \ RTL \ String \ Manipulation, \\ {\rm STR-32} \end{array}$ 

 $\begin{array}{ll} {\tt STR\$ELEMENT}, \ \ (P) \ RTL \ String \ Manipulation, \\ {\tt STR-34} \end{array}$ 

 $\begin{array}{c} {\rm STR\$FIND\_FIRST\_IN\_SET}, \ \ (P) \ RTL \ String \\ Manipulation, \ {\rm STR-36} \end{array}$ 

STR\$FIND\_FIRST\_NOT\_IN\_SET, (P) RTL String Manipulation, STR-38

STR\$FIND\_FIRST\_SUBSTRING, (P) RTL String Manipulation, STR-41

 $\begin{array}{ll} {\rm STR\$FREE1\_DX}, \ \ (P) \ RTL \ String \ Manipulation, \\ {\rm STR-45} \end{array}$ 

STR\$GET1\_DX, (P) RTL String Manipulation, STR-46

STR\$GET1\_DX routine, (P) File Applications, 5–10

 $\begin{array}{ll} {\rm STR\$LEFT}, \ \ (P) \ RTL \ String \ Manipulation, \ 2-9, \\ {\rm STR-48} \end{array}$ 

STR\$LEN\_EXTR, (P) RTL String Manipulation, STR-51

STR\$MATCH\_WILD, (P) RTL String Manipulation, STR-55

STR\$MUL, (P) RTL String Manipulation, STR-58 STR\$POSITION, (P) RTL String Manipulation, STR-62

STR\$POS\_EXTR, (P) RTL String Manipulation, 2–9, STR-65

STR\$PREFIX, (P) RTL String Manipulation, 2–9, STR–68

STR\$RECIP, (P) RTL String Manipulation, STR-70

 $\begin{array}{ll} {\rm STR\$REPLACE}, \ \ (P) \ RTL \ String \ Manipulation, \\ {\rm STR-74} \end{array}$ 

STR\$RIGHT, (P) RTL String Manipulation, 2–9, STR–77

STR\$ROUND, (P) RTL String Manipulation, STR-80

STR\$TRANSLATE, (P) RTL String Manipulation, STR-84

STR\$TRIM, (P) RTL String Manipulation, STR-87

STR\$UPCASE, (P) RTL String Manipulation, STR-89

Strategies

enhancing dependability, Dependability Handbook, 1-16

for building dependable systems, Dependability Handbook, 1–12

error correction, Dependability Handbook, 1–12, 1–21

failure recovery, Dependability Handbook, 1–12, 1–21

fault prevention, *Dependability Handbook*, 1–12, 1–21

for dependability

concepts, Dependability Handbook, 1-13

STR built-in procedure,  $\,$  (P) VAXTPU, 7–520 to 7–522

STREAM carriage control, (P) Convert, CONV-2 STREAM format, (P) File Def Language, FDL-35 Streamlined synchronization image, (P) Device Support (A), 13-28

loading, (P) Device Support (A), E-2

STREAM option

record format, (M) Exchange, EXCH-8

Stream record format, (P) File Applications, 2–12

Stream record format option

See FAB\$C\_STM option

Stream record format with carriage return option See FAB\$C\_STMCR option

Stream record format with line feed option

See FAB\$C\_STMLF option

Stream record type, (U) Files and Devices, B-14 Stream timer, (M) Networking, 3-59

STREAM\_CR format, (P) File Def Language,

FDL-35 STREAM\_LF format, (P) File Def Language,

FDL-35 Stride

vector, (P) MACRO, 10-49

String, (P) Command Def, CDU-4

See also Descriptor

See also String manipulation routine allocating, (P) RTL General Purpose, OTS-96

String (cont'd)

appending source string to end of destination string, (P) RTL String Manipulation, STR-9

comparing for equality, no padding, (P) RTL String Manipulation, STR-15

comparing strings using operators, (U)

Command Procedures, 5-7

comparing two, (P) RTL String Manipulation, STR-13

comparing without regard to case, (P) RTL String Manipulation, STR-11

concatenating, (U) DCL Concepts, 5–5, 6–1, 6–2; (P) RTL String Manipulation, STR-20; (P) VAXTPU, 3–4

continuation over multiple lines, (U) DCL Concepts, 5-5

converting contents of buffer to using STR, (P) VAXTPU, 7-520

converting contents of range to using STR, (P) VAXTPU, 7-520

converting to an integer value, (U) DCL Concepts, 6-12

converting to uppercase, (P) RTL String Manipulation, STR-89

copying by descriptor, (P) RTL General Purpose, OTS-90; (P) RTL Library, LIB-336; (P) RTL String Manipulation, STR-23

copying by reference, (P) RTL General Purpose, OTS-92; (P) RTL Library, LIB-338; (P) RTL String Manipulation, STR-25

definition, (U) DCL Concepts, 5-5, 6-1

depositing ASCII, (P) Delta/XDelta, DELTA-37 dividing two decimal strings, (P) RTL String Manipulation, STR-28

dynamic length, (P) RTL String Manipulation, 2-2, 2-3, 2-11, 2-12

evaluation rules, (P) RTL String Manipulation, 2-1

finding substring, (P) RTL String Manipulation, STR-62

fixed-length, (P) RTL String Manipulation, 2-1 formatting output, (P) System Services Ref, SYS-221

freeing, (P) RTL General Purpose, OTS-95 how denoted, (P) National Char Set, NCS-7 inserting source string at front of destination, (P) RTL String Manipulation, STR-68

limit on numeric representation, (P) National Char Set, NCS-7

maximum length of, (P) RTL String Manipulation, 2-2

multiple string values in an expression, (U) DCL Concepts, 6-1

null, (P) RTL String Manipulation, 2–11 output length argument, (P) RTL String Manipulation, 2–8 String (cont'd)

ranges used in collating sequence, (P) National Char Set, NCS-18

reciprocal of decimal, (P) RTL String Manipulation, STR-70

reduction, (U) DCL Concepts, 6-2

removing trailing blanks and tabs, (P) RTL String Manipulation, STR-87

rounding or truncating decimal, (P) RTL String Manipulation, STR-80

rules for creating, (U) DCL Concepts, 5-5 searching for file specification in, (P) System Services Ref, SYS-236

semantics of, (P) RTL String Manipulation, 2-1, 2-4

skipping characters in, (P) RTL Library, LIB-379

to insert with FAO, (P) VAXTPU, 7–138 to insert with MESSAGE, (P) VAXTPU, 7–268 to insert with MESSAGE\_TEXT, (P) VAXTPU, 7–271

translating matched characters, (P) RTL String Manipulation, STR-84

String-1 specifier

with S (substitute), (U) EDT Ref, EDT-305 with SUBSTITUTE, (U) EDT Ref, EDT-243 with SUBSTITUTE NEXT, (U) EDT Ref, EDT-247

String-2 specifier

with S (substitute), (U) EDT Ref, EDT-305 with SUBSTITUTE, (U) EDT Ref, EDT-243 with SUBSTITUTE NEXT, (U) EDT Ref, EDT-247

String argument, (P) MACRO, 4-3 String arithmetic

addition of decimal strings, (P) RTL String
Manipulation, STR-3

division of decimal strings, (P) RTL String Manipulation, STR-28

multiplication, (P) RTL String Manipulation, STR-58

:= (string assignment) command, (U) DCL Dictionary, DCL1-5 to DCL1-8

String constants, (P) VAXTPU, 3-5

String data type, (P) Routines Intro, 2-17 character, (P) MACRO, 8-7 leading separate numeric, (P) MACRO, 8-11 packed decimal, (P) MACRO, 8-13 trailing numeric, (P) MACRO, 8-8

STRING data type, (P) VAXTPU, 2-23 to 2-24 String descriptor, (P) RTL Library, LIB-10; (P) RTL String Manipulation, STR-7

String expression

comparison operators, (U) DCL Concepts, 6-2 examples, (U) DCL Concepts, 6-2, 6-3 rules for creating, (U) DCL Concepts, 6-1 String instructions, (P) MACRO, 9-126, 9-144 String manipulation routine, (P) RTL String STUFF\_SELECTION client message, (P) VAXTPU, 7-344 Manipulation, 2-1 descriptor classes and string semantics, (P) STV (status value) field RTL String Manipulation, 2-4 See also Completion status value field how to select, (P) RTL String Manipulation, contents, (P) RMS, 2-6 STYLE HEADERS command, (U) DSR Ref, list of severe errors, (P) RTL String 2-117Manipulation, 2-10 SUBADDRESSES parameter reading input string arguments, (P) RTL for SET EXECUTOR command, (M) String Manipulation, 2-6 Networking, 3-50 writing output string arguments, (P) RTL for X25-SERVER module, (M) Networking, String Manipulation, 2-6 String operator SUBB2 (Subtract Byte 2 Operand) instruction, (P) in macro, (P) MACRO, 4-8 MACRO, 9-30 /STRING qualifier, (P) Debugger, 6-6, CD-115 SUBB3 (Subtract Byte 3 Operand) instruction, (P) String specifier MACRO, 9-30keypad mode, (U) EDT Ref, EDT-99 Subclass line mode, (U) EDT Ref, EDT-241 finding out if a widget is a member of, (P) nokeypad mode, (U) EDT Ref, EDT-313 VAXTPU, 7-214 with DEFINE KEY, (U) EDT Ref, EDT-130 Subconditional assembly block directive, (P) with SET ENTITY, (U) EDT Ref, EDT-176 MACRO, 6-43 with SET PROMPT, (U) EDT Ref, EDT-186 .IF\_FALSE, (P) MACRO, 6-43 with SET TEXT, (U) EDT Ref, EDT-200 .IF\_TRUE, (P) MACRO, 6-43 with SSEL (search and select), (U) EDT Ref, .IF TRUE FALSE, (P) MACRO, 6-43 EDT-312 Subcontroller, (P) Device Support (B), 1–33 with XLATE, (U) EDT Ref, EDT-332 SUBD2 (Subtract D\_floating 2 Operand) String type, (P) Debugger, 4-15, 4-26 instruction, (P) MACRO, 9-123 String value, (P) File Def Language, FDL-2, SUBD3 (Subtract D\_floating 3 Operand) FDL-32 instruction, (P) MACRO, 9-123 String variable Subdirectory, (U) VMS Intro, 3-7; (U) Using in VAXTPU procedure, (U) Text Processing, VMS, 2-1creating, (U) VMS Intro, 3-8; (U) Using VMS, String with bounds descriptor, (P) Routines Intro, 2-21; (U) DCL Concepts, 3-7; (U) DCL Dictionary, DCL1-89 Strong definition, (P) Linker, 2-9, 2-10 definition, (U) Using VMS, 2-6; (U) DCL Strong reference, (P) Linker, 2-9 Concepts, 3-7 Structure setting default to another, (U) Using VMS, error, (P) Analyze/RMS\_File, ARMS-13 examining, (P) Analyze/RMS\_File, ARMS-15 syntax, (U) Using VMS, 2-7 of file, (P) Analyze/RMS File, ARMS-1, Subdirectory ACL, (M) Security, 4-33 ARMS-10 SUBF2 (Subtract F\_floating 2 Operand) of indexed file, (P) Analyze/RMS\_File, instruction, (P) MACRO, 9-123 ARMS-6; (P) File Def Language, FDL-29 SUBF3 (Subtract F\_floating 3 Operand) of relative file, (P) Analyze/RMS\_File, instruction, (P) MACRO, 9-123 ARMS-2 SUBG2 (Subtract G\_floating 2 Operand) of sequential file, (P) Analyze/RMS\_File, instruction, (P) MACRO, 9-123 ARMS-1 SUBG3 (Subtract G\_floating 3 Operand) pointer, (P) Analyze/RMS\_File, ARMS-21 instruction, (P) MACRO, 9-123 Structure level SUBH2 (Subtract H\_floating 2 Operand) defining for disks, (U) DCL Dictionary, instruction, (P) MACRO, 9-123 DCL1-247 SUBH3 (Subtract H floating 3 Operand) instruction, (P) MACRO, 9-123 /STRUCTURE qualifier, (M) Install, INS-18 STS (status) field Subindex flag, (U) DSR Ref, 3-17 See also Completion status field default, (U) DSR Ref, 3-17 recognizing, (U) DSR Ref, 2-54 See also FAB\$L STV field contents, (P) RMS, 2-6 /SUBJECT qualifier, (U) Mail, MAIL-4, MAIL-6, MAIL-23

Subjects Subprocess, (U) Using VMS, 3-1; (P) System in security model, (M) Security, 2-1 Services Intro, 8-2; (P) System Services Ref, role in security, (M) Security, 2-2 SYS-111; (P) RTL Screen Management, 4-2; Subkeys, (P) Librarian, LIB-5, LIB-6 (P) System Dump Analyzer, SDA-162 SUBL2 (Subtract Long 2 Operand) instruction, See also SPAWN command (P) MACRO, 9-30 accounting, (U) DCL Dictionary, DCL2-55 SUBL3 (Subtract Long 3 Operand) instruction, and job tree, (U) Using VMS, 3-3, 3-5 (P) MACRO, 9-30 and process identification number, (U) Using Sublock, (P) System Services Intro, 13-11 VMS, 3-7SUBMIT command, (U) VMS Intro, 5-11, assigning resource quota to, (U) DCL 6-3; (U) Using VMS, 3-8; (U) Files and Dictionary, DCL2-54 Devices, 4-1; (U) DCL Dictionary, DCL1-269, at DCL level, (P) VAXTPU, 7-67 DCL2-376 to DCL2-385 built-in procedures /CHARACTERISTIC qualifier, (M) Maintaining ATTACH, (P) VAXTPU, 7-35 VMS, 5-25 CREATE\_PROCESS, (P) VAXTPU, 7-67 /NOTE qualifier, V5.5 New Features, 3-7 RECOVER\_BUFFER, (P) VAXTPU, 7-307 preventing users from executing, (M) SEND, (P) VAXTPU, 7-342 Maintaining VMS, 5–73 SEND\_EOF, (P) VAXTPU, 7-346 PRIORITY qualifier, (M) Maintaining VMS, built-in procedures for defining SPAWN, (P) VAXTPU, 7-515 processing of, (M) Maintaining VMS, 5-1 connecting to using LIB\$ATTACH, (P) RTL RETAIN qualifier, (M) Maintaining VMS, Library, 2-9 5-24, 5-81 context, (U) Using VMS, 3-7 specifying multiple command procedures with, creating, (U) Using VMS, 3-5; (M) LATCP, (U) Command Procedures, 8–3 LAT-6; (P) RTL Screen Management, 4-2 with batch job command procedure, (U) with EVE, (U) Text Processing, 1-67 Command Procedures, 1-6, 8-1 with LIB\$SPAWN, (P) Programming Submit command file option Resources, 2-2; (P) RTL Library, 2-9 with PPL\$CREATE\_PROCESS, (P) See FAB\$V\_SCF option Programming Resources, 2-4 SUBMIT/DELETE command, V5.5 Release Notes, with PPL\$ routines, (P) Programming 1-4 Resources, 4-16 SUBMIT/PRIORITY command, V5.5 Release with SMG\$ routines, (P) Programming Notes, 4-6 Resources, 7-16 SUBMIT/REMOTE command with SPAWN command, (U) DCL Concepts, using over the network, (M) DECnet-VAX Guide, 2-13with SYS\$CREPRC, (P) Programming Submitting files Resources, 2-3 with the /DELETE qualifier, V5.5 Release creating with RUN command, (U) DCL Notes, 1-4 Dictionary, DCL2-53 SUBMIT\_ON\_CLOSE attribute, (P) File Def creating with SPAWN command, (U) DCL Language, FDL-24 Dictionary, DCL2-338; (M) SYSMAN, SUBMON.COM procedure, (M) System SM-76 Management Intro, 5-2 creation limit, (M) System Management Intro, Subordinate creation of, (P) RTL Parallel Processing, 2-3 defining attributes, (U) DCL Dictionary, definition of, (P) RTL Parallel Processing, 1-2 DCL2-54 deletion of, (P) RTL Parallel Processing, 2-3 defining equivalence names for processnotification of abnormal termination, (P) RTL permanent logical names, (U) DCL Parallel Processing, 2–3 Dictionary, DCL2-53 retrieving information about, (P) RTL Parallel definition of, (U) Using VMS, 3-5; (P) RTL Processing, 2-4 Parallel Processing, 1-2 SUBP4 (Subtract Packed 4 Operand) instruction, deleting, (U) Using VMS, 3-6; (P) RTL Screen (P) MACRO, 9-167 Management, 4-2; (P) VAXTPU, 7-67 SUBP6 (Subtract Packed 6 Operand) instruction, deleting with PPL\$ routines, (P) Programming (P) MACRO, 9-167 Resources, 4-16 .SUBPAGE command, (U) DSR Ref, 2-119

disk and directory default, (P) System Services

Intro, 8-5

Subprocess (cont'd) SUBS keypad function displaying characteristics of, (U) DCL EDT, (U) Text Processing, 2-20 Dictionary, DCL2-302 SUBSTITUTE command, (U) Using VMS, 8-64; displaying quota, (U) DCL Dictionary, (U) EDT Ref, EDT-243 DCL2-304 See also Replacing text establishing values for, (M) Performance EDT editor, (U) Text Processing, 2-28 Management, 5-5 Substitute flag, (U) DSR Ref, 3-18 executing commands, (P) RTL Screen default, (U) DSR Ref, 3-18 Management, 4-3 example, (U) DSR Ref, 3-18 exiting from, (U) Using VMS, 3-6 pairing, (U) DSR Ref, 3-18 image, (P) System Services Intro, 8-3 recognizing, (U) DSR Ref, 2-55 image hibernation, (U) DCL Dictionary, SUBSTITUTE NEXT command, (U) EDT Ref, DCL2-55 EDT-247 input, output, and error device, (P) System See also Replacing text Services Intro, 8-3 EDT editor, (U) Text Processing, 2–28 leaving (EVE), (U) Text Processing, 1-67 Substituting volumes, (M) Maintaining VMS, 3-3 naming with RUN/PROCESS\_NAME, (U) DCL Substitution Dictionary, DCL2-55 See Symbol substitution priority Substitution operator setting, (P) Programming Resources, 2–12 ampersand (&), (U) DCL Concepts, 7-3 program debugging, (P) Programming apostrophe ('), (U) DCL Concepts, 7-2 Resources, 2-5 definition, (U) DCL Concepts, 7-2 restrictions, (P) VAXTPU, 2-20 order of evaluation, (U) DCL Concepts, 7-3, running VAXTPU from, (P) VAXTPU, A-5 scheduling wakeup, (U) DCL Dictionary, SUBSTR built-in procedure, (P) VAXTPU, 7-523 DCL2-57 to 7-525 specifying default working set, (U) DCL Substring, (P) RTL String Manipulation, 2-10 Dictionary, DCL2-61 replacing, (U) Using VMS, 5-16; (P) RTL specifying quotas, (U) DCL Dictionary, String Manipulation, STR-74 DCL2-57 Substring assignments, V5.5 Release Notes, 3-3 switching control of input stream to, (U) DCL Subsystem level redundancy, Dependability Dictionary, DCL1-49; (M) SYSMAN, Handbook, 4-5 .SUBTITLE command, (U) Text Processing, 3-38, with ATTACH command, (U) EVE Ref, EVE-4 3-39; (U) DSR Ref, 2-120 with DCL command, (U) EVE Ref, EVE-32 .SUBTITLE directive, (P) MACRO, 6-94 within VAXTPU, (P) VAXTPU, 7-67 Subtitle listing control directive with SPAWN command, (U) EVE Ref, EVE-230 (.SUBTITLE), (P) MACRO, 6-94 with SPELL command, (U) EVE Ref, EVE-232 Subtitle within running head Subprocess creation limit See Running head See PRCLM Subtopic specifier Subprocess termination with HELP, (U) EDT Ref, EDT-145 accounting, (M) Maintaining VMS, 6-2 Subtraction Subroutine quadword times, (P) RTL Library, LIB-397 definition of, (P) Routines Intro, 2-3 two's complement, (P) RTL Library, LIB-400 termination of GOSUB, (U) DCL Dictionary, Subtraction operator (-), (P) System Dump DCL2-49 Analyzer, SDA-12 SUBROUTINE command, (U) Using VMS, 6-26; SUBW2 (Subtract Word 2 Operand) instruction, (U) DCL Dictionary, DCL1-53, DCL1-54, (P) MACRO, 9-30 DCL2-386 SUBW3 (Subtract Word 3 Operand) instruction, Subroutine entry points in DCL, V5.5 Release (P) MACRO, 9-30 Notes, 3-2Success completion routine, (P) RMS, 2-5 Subroutine package SUCCESS keyword, (P) VAXTPU, 7-479 for local area VAXcluster failure analysis Successor program, Dependability Handbook, 7-15 See Logical successor SUBS command, (U) EDT Ref, EDT-100 /SUCCESS qualifier See also Replacing text in message definition, (P) Message, MSG-22

"Success" string constant parameter to GET INFO. SUMSLP editing commands, specifying, (P) (P) VAXTPU, 7-207 SUMSLP, SUM-3 /SUFFIX qualifier, (P) Debugger, 10-14, CD-20, SUMSLP files, (P) SUMSLP, SUM-1 CD-69, CD-94, CD-97, CD-104, CD-110, SUMSLP messages, (P) SUMSLP, SUM-13 CD-112, CD-119, CD-161, CD-212 update file, (P) SUMSLP, SUM-1 Suitable tools, Dependability Handbook, 5–8 SUPERSEDE attribute, (P) File Def Language, Suitcases FDL-24 metaphor, Dependability Handbook, 1-11 Supersede existing file option SUMMARY display type, (M) Networking, 3–99 See FAB\$V SUP option Summary extended address block Supersede option, (P) File Applications, 4-27, 5-9 See XABSUM block SUPERSEDE secondary attribute, (P) File Summary format listing, (M) Audit Analysis, Applications, 4–27 AUD-3 Supervisor mode Summary items, (M) Accounting, ACC-32 **Summary of OPCODES** See Access mode Supervisor-mode (PSL\$C\_SUPER) constant alphabetic order, (P) MACRO, D-1 numeric order, (P) MACRO, D-12 for FAB\$V\_CHAN\_MODE, (P) RMS, 5-5 Summary output, (M) Monitor, MON-9 /SUPERVISOR qualifier, (P) System Dump /SUMMARY qualifier, (M) Install, INS-18; (M) Analyzer, SDA-157 Error Log, ERR-23; (M) Audit Analysis, Supervisor stack AUD-26; (M) Accounting, ACC-32; (M) displaying contents, (P) System Dump Monitor, MON-30; (P) System Dump Analyzer, SDA-157 Analyzer, SDA-119 Supervisor stack pointer, (P) System Dump compared with /CHECK qualifier, (P) Analyzer, SDA-14 Analyze/RMS File, ARMS-20 SUP option, (P) File Def Language, FDL-24 description, (P) Analyze/RMS\_File, ARMS-20 Supported terminals, (P) VAXTPU, 1-8 example of, (P) Analyze/RMS\_File, ARMS-20 Support services format, (P) Analyze/RMS\_File, ARMS-20 See Digital services limitation, (P) Analyze/RMS\_File, ARMS-13, Surface\_Plot graph, (P) File Applications, 4–12, ARMS-14, ARMS-20 overview, (P) Analyze/RMS\_File, ARMS-20 Surveillance guidelines, (M) Security, 5-51 using with /OUTPUT qualifier, (P) Suspending a job, (M) Maintaining VMS, 5-83 Analyze/RMS\_File, ARMS-16 Suspending terminal display, (U) Using VMS, with wildcard characters, (P) Analyze/RMS\_ 1-23; (U) DCL Concepts, 2-7, 2-8 File, ARMS-10 Suspension, (P) System Services Intro, 8–10, 8–13 Summary report, (M) Audit Analysis, AUD-3; compared with hibernation, (P) System Services (P) Analyze/RMS\_File, ARMS-10 Intro, 8-11 Summary XAB SVC (switched virtual circuit), (M) Networking, for key information, (P) RMS, 13-1 1-13, 2-7, 2-12 Sum of absolute values for DLM use, (M) Networking, 2-7, 2-12 of a vector, (P) RTL Math, MTH-152 for X.25 native use, (M) Networking, 2-7 SUMSLP SVPCTX (Save Process Context) instruction. (P) See SUMSLP Utility MACRO, 9-194 SUMSLP description, (U) DCL Dictionary, Swap file, (M) Setting Up VMS, 6-16, 6-18 DCL1-185 activating secondary, (M) System Generation, SUMSLP Utility (SUMSLP), (P) Programming SGN-21 Resources, 1-20 to 1-21 controlling size in AUTOGEN, V5.5 New command file, running SUMSLP from a, (P) Features, B-51 SUMSLP, SUM-12 creating or extending, (M) System Generation, directing output from, (P) SUMSLP, SUM-14 SGN-14 examples, (P) SUMSLP, SUM-21 deinstalling, V5.5 New Features, D-1 how SUMSLP processes files, (P) SUMSLP, Swap file (SWAPFILE.SYS) SUM-7 created by CLUSTER CONFIG.COM. (M) input source file, (P) SUMSLP, SUM-1 VAXcluster, 7-2, 7-3 invoking, (P) SUMSLP, SUM-2, SUM-14 SWAPFILES.COM procedure, (M) Setting Up output file, (P) SUMSLP, SUM-3 VMS, 6-16 qualifiers, (P) SUMSLP, SUM-15 to SUM-20

SUMSLP Utility (SUMSLP) (cont'd)

SWAPLONG macro. V5.5 New Features. A-20 Switch-hook character, (U) VMS Intro, 1-15; Swap mode (U) Using VMS, 1-36; (U) Phone, PHONE-6, changing, (P) Programming Resources, 10-4 PHONE-8 Switching of terminal line Swapper global symbols, (P) System Dump Analyzer, automatic, (M) DECnet-VAX Guide, 3-26 SDA-61 manual, (M) DECnet-VAX Guide, 3-26 Swapper trimming SWITCH parameter. (M) Networking, 3-61 adjusting, (M) Performance Management. 5-8 SWPFILCNT parameter, (M) System Generation, alternative to swapping, (M) Performance A - 32Management, 3-26 SWPOUTPGCNT parameter, (M) System analyzing when ineffective, (M) Performance Generation, A-32 Management, 4-22 swapping and swapper trimming, (M) investigating, (M) Performance Management, Performance Management, 3-26, 3-29 SYCONFIG.COM command procedure, (M) memory reclamation, (M) Performance Setting Up VMS, 2-6 Management, 5-11 mounting queue file disk, V5.5 Release Notes, overview, (M) Performance Management, 2-16 2 - 10Swapping SYLOGICALS.COM command procedure, (M) artificially induced, (M) Performance Setting Up VMS, 2-7; (M) Maintaining VMS, Management, 3–26 by suspension, (P) System Services Intro, 8-13 defining logical names in, (M) Maintaining converting to system that rarely swaps, (M) VMS, 3-1 Performance Management, 5-8 mounting queue file disk, V5.5 New Features, effect on CPU resource, (M) Performance 5-4 Management, 3-26 use for specifying master file location, (M) effect on disk subsystem, (M) Performance Maintaining VMS, 5-55 Management, 3-26 SYLOGIN.COM command procedure, (M) Setting Up VMS, 2-18 enabling for disk ACPs, (M) Performance Management, 5-10 coordinating, (M) VAXcluster, 4-10 for created process, (U) DCL Dictionary, creating common version, (M) VAXcluster, DCL2-60 4-10, 4-11 inducing paging to reduce, (M) Performance defining logical name for, (M) VAXcluster, 4-10 Management, 5-11 Symbiont, (M) Maintaining VMS, 5-73 long-waiting processes, V5.5 New Features, See also Queue A - 7allocating memory, (P) Utility Routines, process SMB-4 enabling or disabling swap mode, (U) DCL bypass formatting, (M) Maintaining VMS, Dictionary, DCL2-193 5 - 45vector, (P) RTL Math, MTH-187 carriage control Swapping bytes, V5.5 New Features, A-20, A-21 processing of, (P) Utility Routines, PSM-12 Swapping I/O activity, (M) Performance communicating with, (M) Maintaining VMS, Management, 3-35 5 - 83Swapping I/O function, (P) Device Support (B), connecting to a device, (P) Utility Routines, 1-40 SMB-4 Swapping symptom default, (M) Maintaining VMS, 5-4 analyzing, (M) Performance Management, 4-15 determining, (M) Maintaining VMS, 5-87 diagnosing, (M) Performance Management, device, (P) Utility Routines, PSM-2 environments, (P) Utility Routines, SMB-5 for disks, (M) Performance Management, 4-30 function, (P) Utility Routines, PSM-4, SMB-2 for large waiting process, (M) Performance function of, (M) Maintaining VMS, 5-1 Management, 4-21 input, (P) Utility Routines, PSM-2, SMB-1 SWAPWORD macro, V5.5 New Features, A-21 INPSMB.EXE file, (P) Utility Routines, SWI\$GL\_FQFL SMB-1replaced by CPU\$Q\_SWIQFL, (P) Device input routines Support (A), E-14 demand, (P) Utility Routines, PSM-6 Switch, (P) File Def Language, FDL-2 internal logic, (P) Utility Routines, PSM-5 Switched virtual circuit main format routine, (P) Utility Routines,

See SVC

PSM-13

Symbiont Symbiont (cont'd) internal logic (cont'd) SYSGEN MAXBUF parameter, (P) Utility main input routine, (P) Utility Routines, Routines, PSM-7 type, (P) Utility Routines, SMB-1 PSM-11 user-written, (M) Maintaining VMS, 5-4; (P) main output routine, (P) Utility Routines, Utility Routines, SMB-1, SMB-3 PSM-15 invoking VMS print symbiont, (P) Utility guidelines, (P) Utility Routines, SMB-4 Routines, PSM-23 user-written routines job controller interfaces, (P) Utility Routines, PSM-7 communication with, (P) Utility Routines, using PRTSMB on LAT printers, (M) Maintaining VMS, 5-87 job controller request, (P) Utility Routines, VMS printer, (P) Utility Routines, SMB-1 SMB-5 Symbiont/Job Controller Interface routines asynchronous, (P) Utility Routines, SMB-6 See SMB routines processing, (P) Utility Routines, SMB-10 Symbiont manager reading, (P) Utility Routines, SMB-10 sending message to, Obsolete Features, 2-26 responding, (P) Utility Routines, SMB-13 Symbiont thread. (P) Utility Routines. PSM-3 synchronous, (P) Utility Routines, SMB-6 symbol, (P) Delta/XDelta, DELTA-9 LAT, (M) Maintaining VMS, 5-4, 5-87 Symbol, (U) VMS Intro, 5-1; (P) Command Def, modifying, (P) Utility Routines, PSM-7, SMB-4 CDU-4; (P) Patch, PAT-7 to PAT-14; (P) format routine, (P) Utility Routines, System Dump Analyzer, SDA-13 to SDA-14, PSM-13SDA-23; (P) MACRO, 3-4; (P) VAXTPU, 3-3 guidelines, (P) Utility Routines, PSM-8 initialization routine, (P) Utility Routines, See also DST, GST, RST, Scope PSM-16 abbreviating, (U) Using VMS, 5-4 input routine, (P) Utility Routines, ambiguity, resolving, (P) Debugger, 5-7 PSM-10 with DECwindows, (P) Debugger, 1-26 integration of routines, (P) Utility as another symbol, (U) Using VMS, 5–10 Routines, PSM-17 as foreign command, (U) Using VMS, 1-7, 5-1 output routine, (P) Utility Routines, assigning value with READ command. (U) PSM-14 DCL Dictionary, DCL2-28 restrictions, (P) Utility Routines, PSM-8 assignment, (U) Using VMS, 5-2 multistream, (P) Utility Routines, SMB-9 as variables, (U) Command Procedures, 2-7 multithreaded, (P) Utility Routines, PSM-3 binary overlay in, (U) DCL Dictionary, DCL1-1 output, (P) Utility Routines, PSM-2, SMB-1 built-in, (P) Debugger, C-5, D-2 PRTSMB.EXE file, (P) Utility Routines, character overlays in, (U) DCL Dictionary, SMB-1DCL1-6 print symbiont character string, (U) Using VMS, 5-2 internal logic, (P) Utility Routines, PSM-5 commands that affect, (P) Patch, PAT-14 modifying, (P) Utility Routines, PSM-1 compiler generated type, (P) Debugger, 4-4 processing it performs, (P) Utility Routines, concatenation, (U) DCL Concepts, 7-2  $\cdot$  PSM-1controlling access to, (U) Using VMS, 5-5 user-written, (P) Utility Routines, PSM-1 creating. (U) Using VMS, 5-2: (U) Command processing it performs, (P) Utility Routines, Procedures, 2-7; (P) Patch, PAT-11, PSM-5 PAT-50, PAT-51 process-permanent file, (P) Utility Routines, cross-reference listing, (P) Modular Procedures, SMB-4 purging working set, V5.5 Release Notes, 2–10 cross-referencing, (P) MACRO, 6-16, 6-66 role in processing print jobs, (M) Maintaining DCL commands to use with, (U) Using VMS. VMS, 5-4server, (P) Utility Routines, PSM-2, SMB-1 defined as a lexical function, (U) Using VMS, single stream. (P) Utility Routines, SMB-9 5-9; (*U*) *DCL Concepts*, 5-6 stream defined as an expression, (U) DCL Concepts, active, (P) Utility Routines, PSM-3 multiple streams, (P) Utility Routines, defined as another symbol, (U) DCL Concepts, single stream, (P) Utility Routines, PSM-3 defining, (P) Programming Resources, 5–11; (P) Debugger, 8-6, CD-48

Symbol (cont'd) Symbol (cont'd) label, (P) Debugger, 3-10, 5-1 defining for SDA, (P) System Dump Analyzer, line number, (P) Debugger, 3-11, 5-1 defining in command procedure, (U) Using listing, (P) System Dump Analyzer, SDA-161 VMS, 6-9list of, (P) Delta/XDelta, DELTA-9 defining shared information, Dependability loading into the SDA symbol table, (P) System Handbook, 8-59 Dump Analyzer, SDA-59 local, (U) Using VMS, 5-2, 5-5; (U) DCL definition, (U) Using VMS, 1-23, 5-1; (U) DCL Concepts, 5-1; (U) Command Concepts, 5-1; (U) Command Procedures, Procedures, 2-7; (P) Modular Procedures, 2-7; (P) Programming Resources, 5-11; A-6; (P) Linker, 2-7(P) Debugger, 5-4; (P) Linker, 2-8; (P) deleting, (U) Using VMS, 5-5; (U) Command Patch, PAT-8; (P) MACRO, 3-6 Procedures, 2-9 logical data, (U) Using VMS, 5-10 from global symbol table, (U) DCL macro name, (P) MACRO, 3-6 Dictionary, DCL1-145 made available to debugger, (P) MACRO, 6-22 from local symbol table, (U) DCL masking, (U) DCL Dictionary, DCL2-218 Dictionary, DCL1-145 masking the value of, (U) Command determining value of, (U) Command Procedures, 2-8 Procedures, 2-7; (P) Patch, PAT-60; (P) module name, (P) Patch, PAT-8 MACRO, 3-6 module setting, (P) Debugger, 5-6 differences from logical names, (U) Command with DECwindows, (P) Debugger, 1-26 Procedures, 2-15 name, (P) System Dump Analyzer, SDA-13, displaying, (U) Using VMS, 5-5; (U) DCL SDA-43 Dictionary, DCL2-320; (P) Debugger, 5-9, not in symbol table, (P) Debugger, 5-6, 5-15 8-6, CD-48, CD-243; (P) System Dump with DECwindows, (P) Debugger, 1-26 not unique, (P) Debugger, 5-9 Analyzer, SDA-14 in command procedure, (U) Using VMS, with DECwindows, (P) Debugger, 1-26 6 - 12numeric overlay with, (U) Using VMS, 5-17 with DECwindows, (P) Debugger, 1-24 obtaining an output value with, (U) Command entering into symbol table, (P) Patch, PAT-78 Procedures, 3-11 evaluating, (P) System Dump Analyzer, overloaded, (P) Debugger, 12-26, E-4, E-17 passing, (P) Patch, PAT-7 SDA-161 evaluating using IF command, (U) Command passing to a command procedure, (U) Using VMS, 6-7 Procedures, 5-8 evaluation, (U) Using VMS, 5-3 patch area, (P) Patch, PAT-18, PAT-38 external, (P) MACRO, 6-34, 6-101 PATCH symbol table, (P) Patch, PAT-7 forcing symbol substitution with an apostrophe, path name, (P) Patch, PAT-12 (U) DCL Concepts, 5-7 permanent, (P) MACRO, 3-5, 3-6 general assignment, (U) DCL Dictionary, precedence, (U) Using VMS, 5-3 DCL1-1 preventing assignment in subprocesses, (U) global, (U) Using VMS, 5-3, 5-6; (U) DCL Using VMS, 3-8 program section name, (P) Patch, PAT-8 Concepts, 5-1; (U) Command Procedures, 2-7; (P) Programming Resources, 5-11; referring to, (P) Programming Resources, 5-10 (P) Debugger, 5-4, 5-10; (P) Linker, 2-8; register name, (P) MACRO, 3-5, 3-6 (P) Patch, PAT-7; (P) MACRO, 3-6, 6-34, relation to address expression, (P) Debugger, 6-37, 6-96, 6-101 with DECwindows, (P) Debugger, 1-22 image setting, (P) Debugger, 5-14 relation to path name, (P) Debugger, 5-9 indicating a numeric value, (U) Using VMS, 5-3, 5-8; (U) DCL Concepts, 5-3, 5-5 with DECwindows, (P) Debugger, 1-10 information about, in map, (P) Linker, 5-7 removing from symbol table, (P) Patch, PAT-41 in message source file, (P) Message, MSG-7 repetitive substitution, (U) DCL Concepts, 7-5 in operand field, (P) MACRO, 3-6 representing executive modules, (P) System in operator field, (P) MACRO, 3-6 Dump Analyzer, SDA-104 in place of numbers, (P) Modular Procedures, routine, (P) Debugger, 3-10, 5-1 3-8, A-6routine name, (P) Patch, PAT-8 interactive assignment in command procedure, rules for abbreviating, (U) DCL Concepts, 5-4 (U) DCL Dictionary, DCL1-262 rules for creating, (U) DCL Concepts, 5-2 scope, (U) Using VMS, 5-5 iterative substitution, (U) DCL Concepts, 7-5

Symbol (cont'd) Symbol attribute directive search based on call stack, (P) Debugger, 5-11, (.WEAK), (P) MACRO, 6-101 CD-166 Symbol definition with DECwindows, (P) Debugger, 1-9, \$FABDEF for defining symbols to USEROPEN search conventions, (P) Debugger, 3-11, 5-8, routine, (P) File Applications, 5-10 CD-167 **\$NAMDEF** with DECwindows, (P) Debugger, 1-9, for defining symbols to USEROPEN routine, (P) File Applications, 5-10 search order, (U) DCL Concepts, 5-3 **\$RABDEF** SET SCOPE command, (P) Debugger, 5-11, for defining symbols to USEROPEN CD-166 routine, (P) File Applications, 5-10 shareable image. (P) Debugger, 5-13 Symbol definition for shareable image, (P) with DECwindows, (P) Debugger, 1-28 MACRO, 6-96 show symbol Symbol definition macro with DECwindows, (P) Debugger, 1-24 description, (P) RMS, 3-1 SHOW SYMBOL command, (P) Debugger, 5-9 using, (P) RMS, 3-7 storage, (P) Programming Resources, 5-10 Symbol for shareable image directive string assignment, (U) DCL Dictionary, (.TRANSFER), (P) MACRO, 6–96 DCL1-5 Symbolic address substitution, (U) Using VMS, 5-6; (U) use in locating start of control block, (P) RMS, Command Procedures, 2-14 3 - 7automatic, (U) Using VMS, 5-6 Symbolic bit offset forced, (U) Using VMS, 5-6 use in specifying options, (P) RMS, 2-3 order of, (U) Using VMS, 5-6 Symbolic debugger substring replacement with, (U) Using VMS, See Debugger 5 - 16Symbolic definition macro, (P) System Services suppressing, (P) MACRO, 6-23 Intro, 2-8 symbolic instruction label, (P) Patch, PAT-9 Symbolic instruction label symbolic mode, (P) Debugger, 4-13, CD-151 function of, (P) Patch, PAT-9 symbol table search order, (U) Using VMS, 5-5 side effects when using patch, (P) Patch, PAT-9 traceback information, (P) Debugger, 5-3 Symbolic mode, (P) Debugger, 4–13, CD–151 transferral to VAX Symbolic Debugger, (P) Symbolic name MACRO, 6-18 assigning to starting address, (P) Patch, translating address value into, (P) Patch, PAT-18, PAT-38 PAT-13 creating, (P) Patch, PAT-50 translating into address values, (P) Patch, defining, (U) DCL Dictionary, DCL1-1, PAT-13, PAT-17 DCL1-5 two ways to indicate a character string value, for argument lists, (P) System Services Intro, (*U*) *DCL* Concepts, 5–3, 5–5 2 - 7types of, (P) Linker, 2-8 Symbolic naming exception undefined, (U) DCL Concepts, 7-7; (P) control block, (P) RMS, 2-3 MACRO, 6-22 Symbolic offset universal, (P) Programming Resources, 5-5; control block, (P) RMS, 2-4 (P) Debugger, 5-4, 5-5, 5-12, 5-15; (P)format, (P) RMS, 2-2Linker, 2-8; (P) Patch, PAT-8, PAT-9 use in locating control block fields, (P) RMS, unresolved, (P) Programming Resources, 5-12 used as variable, (U) Using VMS, 5-2 /SYMBOLIC qualifier, (P) Debugger, 4-13, CD-84 used in expressions, (U) Using VMS, 5-7 to Symbolize 5-8, 5-11 to 5-19 address, (P) Debugger, 3-12, 4-13, CD-263 user-defined, (P) System Dump Analyzer, with DECwindows, (P) Debugger, 1-25 SDA-43; (P) MACRO, 3-5, 3-6 register, (P) Debugger, 4-13, CD-263 uses, (U) Using VMS, 5-1 to 5-2; (U) DCL with DECwindows, (P) Debugger, 1-25 Concepts, 5-1 vector register, (P) Debugger, 11-1 variable, (P) Debugger, 3-15, 4-1, 4-14, 5-1 SYMBOLIZE command, (P) Debugger, 3-12, 4-13, vector register, (P) Debugger, 11-1 CD-263with the WRITE command, (U) Command

Procedures, 6-5

Symbol list Symbol table file defining, (P) Device Support (B), 2-29 to 2-30 content of, (P) Linker, 1-5, 2-3 input to linker, (P) Linker, 1-5, 2-3, 6-3 Symbol names output of linker, (P) Linker, 2-6, LINK-16 making assignments, V5.5 Release Notes, 1–18 reading into SDA symbol table, (P) System Symbol record Dump Analyzer, SDA-59 See Symbol used as linker input, (P) Linker, 1-5 Symbol reference, (P) Linker, 2-7 /SYMBOL\_TABLE qualifier, (P) Linker, 2-6, Symbol resolution, (P) Linker, 1-6, 2-3, 2-7, LINK-16 2-10, 4-8, 6-14, LINK-19, LINK-27, Symmetric multiprocessing LINK-31 See SMP /SYMBOLS-/NOSYMBOLS qualifier Symmetric vector processing configuration, V5.5 with DELETE command, (P) Patch, PAT-53 New Features, B-5 with DEPOSIT command, (P) Patch, PAT-56 SYNC (Scalar/Vector Instruction Synchronization) with EXAMINE command, (P) Patch, PAT-63 instruction, (P) MACRO, 10-20, 10-37, 10-88 with INSERT command, (P) Patch, PAT-68 Synchronization, (P) Programming Resources, with REPLACE command, (P) Patch, PAT-72 1-24; (P) RTL Parallel Processing, 4-1; (P) with SET MODE command, (P) Patch, PAT-77 MACRO, 10-37 with VERIFY command, (P) Patch, PAT-91 barrier, (P) Programming Resources, 4-17 Symbol search mode, (P) Patch, PAT-17 binary semaphore, (P) RTL Parallel Processing, See also Entry and display modes 4-10Symbols for characters, (U) EDT Ref, A-1 counting semaphore, (P) RTL Parallel SYMBOLS-NOSYMBOLS mode, (P) Patch, Processing, 4-10 PAT-16 critical section, (P) RTL Parallel Processing, /SYMBOLS qualifier, (P) Message, MSG-13 4-9 for EVALUATE, (P) System Dump Analyzer, deadlock, (P) RTL Parallel Processing, 5-4 debugging vectorized program, (P) Debugger, Symbol substitution 11-19, CD-194, CD-253, CD-264 See also Iterative substitution delivery of vector exception, (P) Debugger, See also Repetitive substitution 11-19, 11-22 See also Substitution operator element, (P) RTL Parallel Processing, 4-1 automatic evaluation, (U) DCL Concepts, 7-1 exception, V5.5 New Features, B-32; (P) definition, (U) DCL Concepts, 7-1 Routines Intro, 2-13 in a command procedure, (U) DCL Concepts, memory, V5.5 New Features, B-32; (P) Routines Intro, 2-13 in a lexical function, (U) DCL Concepts, 7-1 mutex, (P) DECthreads, cma-77, pthread-80 performed by command interpreter, (U) DCL passing control to another image, (P) Concepts, 7-4 Programming Resources, 4-19 rules for, (U) DCL Concepts, 7-1 semaphore, (P) RTL Parallel Processing, 4-9 using an ampersand (&), (U) DCL Concepts, operations on, (P) RTL Parallel Processing, using an apostrophe ('), (U) DCL Concepts, 7-2 SET VECTOR MODE command, (P) Debugger, within a quoted character string, (U) DCL 11-19, CD-194 Concepts, 7-3, 7-4, 7-5SHOW VECTOR MODE command, (P) Symbol table, (P) Patch, PAT-7, PAT-12 Debugger, 11-19, CD-253 See also DST, GST, RST using asynchronous system traps, (P) See also Local symbol table Programming Resources, 4-7 using detached processes, (P) Programming See also SDA symbol table Resources, 4–8 See also System symbol table using events flags, (P) Programming Resources, command interpreter, (M) System Generation, 4-1 using process priority, (P) Programming of a library, (P) Linker, 6-13 Resources, 4–19 of a shareable image, (P) Linker, 1-5, 2-2 using semaphores with PPL\$ routines, (P) search order, (U) DCL Concepts, 5-3 Programming Resources, 4–17 specifying an alternate SDA, (P) System Dump using spin locks with PPL\$ routines, (P) Analyzer, SDA-37 Programming Resources, 4–16

Synchronous SCSI data transfer mode (cont'd) Synchronization (cont'd) using subprocesses, (P) Programming determining transfer period setting, (P) Device Support (B), 2-75 Resources, 4-8 enabling, (P) I/O User's I, 11-7, 11-13; (P) Synchronization element comparing use of, (P) RTL Parallel Processing, Device Support (A), 17–13; (P) Device Support (B), 2-88 definition of, (P) RTL Parallel Processing, 1-2 setting REQ-ACK offset, (P) Device Support retrieving information about, (P) RTL Parallel (A), 17–13; (P) Device Support (B), 2–88 Processing, 4-1 setting transfer period, (P) Device Support (A), Synchronization image 17–13; (P) Device Support (B), 2–88 full-checking, (P) Device Support (A), 13-28, Synchronous signals, (P) DECthreads, A-4 E-2, E-17 to E-18 Synchronous status option streamlined, (P) Device Support (A), 13-28, See FAB\$V\_SYNCSTS option See RAB\$V SYNCSTS option uniprocessing, (P) Device Support (A), 13-28, Synchronous system service, (P) System Services E-2Intro, 2-11 Synchronization objects SYNDROME keyword atomic queue, (P) DECthreads, 2-16 Error Log Utility (ERROR LOG), V5.5 New condition variable, (P) DECthreads, 2-12 Features, B-62 join, (P) DECthreads, 2–16 SYNONYM clause mutex, (P) DECthreads, 2-9 for DEFINE VERB statement, (P) Command Synchronization techniques, (P) Device Support Def, CDU-35 (A), 1–7, 3–1 to 3–27; Dependability Synonyms for commands, (P) VAXTPU, G-5 to Handbook, 8-10 G-7See also Fork queue Syntax, (P) VAXTPU, 4-3 See also IPL See also DEFINE SYNTAX statement See also Resource wait queue changing, (P) Command Def, CDU-5 to CDU-6 See also Spin lock cluster device specification, (U) DCL Concepts, Synchronization with parallel processing routines DCL command line, (U) DCL Concepts, 1-3 See Parallel processing device specification, (U) DCL Concepts, 3-4 SYNCHRONIZE command, V5.5 Release Notes, directory specification, (U) DCL Concepts, 3-9 1-18; (U) Command Procedures, 8-10; (U) file specification, (U) DCL Concepts, 3-1, 3-13 DCL Dictionary, DCL2-387 to DCL2-388 file specification on a tape volume, (U) DCL SYNCHRONIZE VECTOR\_MODE command, (P) Concepts, 3-16 Debugger, 11–19, CD–264 for date and time values, (U) DCL Concepts, Synchronous backplane interconnect 1-14 to 1-17 See SBI foreign command, (U) DCL Concepts, 5-8 Synchronous communications device, (P) Device for event list identification, (M) Network Support (B), 1-76 Control Program, NCP-8 Synchronous connection, (M) Networking, 1-5 identifier, (M) Security, 4-20 Synchronous DDCMP lexical function, (U) DCL Concepts, 5-6 devices, (M) DECnet-VAX Guide, 3-33 logical name definition, (U) DCL Concepts, 4-2 Synchronous disconnect, (M) Networking, 8-11, node specification, (U) DCL Concepts, 3-2, 3-3 8-15, 8-33, 8-40 of BACKUP commands, (M) Backup, BCK-2 Synchronous input/output, (P) Programming of NCP commands, (M) Network Control Resources, 7-46 Program, NCP-1 Synchronous line parameter specification, (U) DCL Concepts, 1-6 for network connections, (M) DECnet-VAX protection code, (M) Security, 4-6 Guide, 3-5 qualifier value, (U) DCL Concepts, 1-9 Synchronous memory management exception rules for naming NCP components and handling, (P) MACRO, 10-30 parameters, (M) Network Control Program, Synchronous operation, (P) File Applications, NCP-7 to NCP-10 8 - 17symbol definition, (U) DCL Concepts, 5-2 Synchronous SCSI data transfer mode UIC, (U) DCL Concepts, 8-1; (M) Security, determining REQ-ACK offset setting, (P)

Device Support (B), 2-75

```
SYNTAX clause
   CDU-5
      PAT-23
      PAT-21
      PAT-24
      PAT-23
   SYS-7
   9-7, E-7
     LIB-401
```

for DEFINE TYPE statement, (P) Command Def, CDU-28 for QUALIFIER clause, (P) Command Def, CDU-25, CDU-34 Syntax-name verb clause, (P) Command Def, Syntax rules for PATCH commands delimiting parameter values, (P) Patch, entering ASCII data strings, (P) Patch, PAT-20 entering comments, (P) Patch, PAT-23 entering numeric data, (P) Patch, PAT-22 entering VAX MACRO instructions, (P) Patch, operators for addressing locations, (P) Patch, operators for arithmetic expressions, (P) Patch, VAX MACRO instructions with same opcodes, (P) Patch, PAT-21 SYPAGSWPFILES.COM procedure, (M) Setting Up VMS, 2-5 SYS\$ABORT\_TRANS, (P) System Services Intro, 14-4; (P) System Services Ref, SYS-3 SYS\$ABORT\_TRANSW, (P) System Services Ref, SYS\$ADD HOLDER, (P) System Services Intro. 3-9; (P) System Services Ref, SYS-8 SYS\$ADD\_IDENT, (P) System Services Intro, 3–8; (P) System Services Ref, SYS-11 SYS\$ADJWSL, (P) System Services Intro, 12–6 SYS\$ALLOC, (P) System Services Ref, SYS-19; (P) Device Support (B), 1-74, 1-77 example, (P) System Services Intro. 7-21 SYS\$ANNOUNCE logical name, (M) Setting Up VMS, 2–15; (M) Security, 5–21 SYS\$AR\_JOBCTLMB, (P) Device Support (A), SYS\$AR\_OPRMBX, (P) Device Support (A), 10-7, SYS\$ASCEFC, (P) System Services Ref, SYS-22 SYS\$ASCTIM, (P) Programming Resources, 3–24; (P) System Services Ref. SYS-26 example, (P) System Services Intro, 10-2 RTL jacket routine for, (P) RTL Library, SYS\$ASCTOID, (P) System Services Intro. 3-7: (P) System Services Ref. SYS-29 SYS\$ASSIGN, (M) Networking, 5–2, 8–19; (P) Programming Resources, 7–45; (P) System Services Ref, SYS-31; (P) I/O User's I, 7-2, 8-17, 8-52; (P) I/O User's II, 2-9, 5-6, 6-2; (P) Device Support (A), 1-6, 2-3, 4-5, 19-9; (P) Device Support (B), 1–11, 1–77, 1–78 example, (P) System Services Intro, 7-12

format, (M) Networking, 8-21, 8-34

for template device, (P) Device Support (B), 4-6

SYS\$ASSIGN (cont'd) \_NET:, (M) Networking, 8-34 nontransparent use of, (M) Networking, 8-27 transparent use of, (M) Networking, 8–19 SYS\$BATCH, (U) Using VMS, 3-8 default queue name, (M) Maintaining VMS, SYS\$BINTIM, (P) Programming Resources, 3-24; (P) System Services Intro, 10-3; (P) System Services Ref, SYS-36; (P) RMS, 3-10 SYS\$BRDCST, Obsolete Features, 2–2 See also SYS\$BRKTHRU SYS\$BRKTHRU, (P) System Services Ref, SYS-39 SYS\$BRKTHRUW, (P) System Services Ref. SYS-47 SYS\$CANCEL, (M) Networking, 8-33; (P) System Services Ref, SYS-48; (P) I/O User's I, 4-14; (P) Device Support (A), 1-4, 11-6, 11-8, 18-17, 19-19; (P) Device Support (B), 1-30, 4-4example, (P) System Services Intro, 7–19 SYS\$CANEXH, (P) System Services Ref. SYS-50 SYS\$CANTIM, (P) System Services Ref, SYS-51 example, (P) System Services Intro, 10-6 SYS\$CANWAK, (P) System Services Intro, 10-7; (P) System Services Ref, SYS-53 SYS\$CHANGE\_ACL, (P) System Services Intro, 3-17, 3-23; (P) System Services Ref. SYS-56 SYS\$CHECK ACCESS, (P) System Services Intro. 3-30; (P) System Services Ref. SYS-62 SYS\$CHFDEF macro, (P) System Services Intro, 11-7SYS\$CHKPRO, (P) System Services Intro, 3-28; (P) System Services Ref, SYS-67 SYS\$CLOSE See Close service SYS\$CLREF, (P) System Services Intro, 4-4; (P) System Services Ref, SYS-74 SYS\$CLUSTER\_NODE logical, V5.5 Release Notes, 2-16 SYS\$CMEXEC, (P) System Services Ref, SYS-75 SYS\$CMKRNL, (P) System Services Ref, SYS-77 SYS\$CNTREG, Obsolete Features, 2-6 See also SYS\$DELTVA SYS\$COMMAND, (U) VMS Intro, 3-11; (U) DCL Concepts, 4-5, 4-23 redefining, (U) Using VMS, 4-19; (U) DCL Concepts, 4–26 SYS\$COMMAND process permanent file, (U) Command Procedures, 2-6 changing the default value of, (U) Command Procedures, 2-7 in batch job command procedure, (U) Command Procedures, 2-6 in interactive command procedure, (U)Command Procedures, 2-6

SYS\$COMMAND process permanent file (cont'd) using to define SYS\$INPUT as your terminal,

(U) Command Procedures, 3-6

SYS\$COMMON, (U) DCL Concepts, 4-7

SYS\$CONNECT

See Connect service

SYS\$CREATE, (P) Programming Resources, 8–8 See also Create service

SYS\$CREATE\_RDB, (P) System Services Intro, 3-6

creation of rights database, V5.5 Release Notes, 2–3

SYS\$CRELNM, (P) System Services Ref, SYS-81 SYS\$CRELNT, (P) System Services Ref, SYS-87 SYS\$CRELOG, Obsolete Features, 2-8

See also SYS\$CRELNM

SYS\$CREMBX, (M) Networking, 5-2, 8-28; (P) Programming Resources, 3-8; (P) System Services Ref, SYS-93; (P) I/O User's I, 7-1

SYS\$CREPRC, (M) Networking, 5-2; (P) System Services Ref, SYS-100

example, (P) System Services Intro, 8-3

SYS\$CRETVA, (P) Programming Resources, 10–3 SYS\$CRMPSC, (P) Programming Resources, 8–4, 8–5; (P) Device Support (A), 19–5 to 19–6, 19–8

SYS\$DACEFC, (P) System Services Ref, SYS-127 SYS\$DALLOC, (P) System Services Ref, SYS-129; (P) Device Support (A), 11-8, 18-17; (P) Device Support (B), 1-30, 1-77, 4-4

SYS\$DASSGN, (M) Networking, 8–15, 8–21, 8–25, 8–43; (P) Programming Resources, 8–9; (P) System Services Ref, SYS–131; (P) I/O User's I, 7–2; (P) I/O User's II, 6–2; (P) Device Support (A), 11–7, 11–8, 18–17; (P) Device Support (B), 1–30, 1–77, 4–4 example, (P) System Services Intro, 7–18

format, (M) Networking, 8-25

SYS\$DCLAST

example, (P) System Services Intro, 5–5 SYS\$DCLCMH, (P) System Services Ref, SYS-135

SYS\$DCLEXH, (P) Programming Resources, 9-27; (P) System Services Ref, SYS-137 example, (P) System Services Intro, 8-15

SYS\$DECDTM\_INHIBIT logical name, V5.5 New Features, B-34, B-69

SYS\$DELETE

See Delete service

SYS\$DELLNM, (P) System Services Ref, SYS-139 SYS\$DELLOG, Obsolete Features, 2-10 See also SYS\$DELLNM

SYS\$DELMBX, (P) System Services Ref, SYS-142; (P) I/O User's I, 7-3

SYS\$DELPRC, (P) System Services Intro, 8–18; (P) System Services Ref, SYS–144

SYS\$DELTVA, (P) Programming Resources, 8-9

SYS\$DEQ, (P) System Services Ref, SYS-149 example, (P) System Services Intro, 13-13 SYS\$DEVICE\_SCAN, (P) System Services Ref, SYS-154

SYS\$DISCONNECT

See Disconnect service

SYS\$DISK, (U) VMS Intro, 3–11; (U) DCL Concepts, 4–5

applied to file specification, (P) File Applications, 6-2

as SDA output, (P) System Dump Analyzer, SDA-72

global read, (P) System Dump Analyzer, SDA-60

SYS\$DISMOU, (P) System Services Intro, 7–24; (P) System Services Ref, SYS–161

SYS\$DISMOUNT, (P) I/O User's I, 1–32

SYS\$DISPLAY

See Display service

SYS\$DLCEFC, (P) System Services Ref, SYS-165

SYS\$DNS system service

See \$DNS system service

SYS\$END\_TRANS, (P) System Services Intro, 14-4; (P) System Services Ref, SYS-196

SYS\$END\_TRANSW, (P) System Services Ref, SYS-201

SYS\$ENQ, (P) System Services Ref, SYS-202 example, (P) System Services Intro, 13-6, 13-9 SYS\$ENQW, (P) System Services Ref, SYS-213

SYS\$ENTER See Enter service

SYS\$ERAPAT, V5.5 Release Notes, 2–39; (P) System Services Intro, 3–32; (P) System Services Ref, SYS–214

SYS\$ERASE

See Erase service

SYS\$ERROR, (U) VMS Intro, 3–11; (U) DCL Concepts, 4–5, 4–23; (P) Programming Resources, 9–24

redefining, (U) Using VMS, 4–19; (U) DCL Concepts, 4–25

specifying equivalence name with RUN command, (U) DCL Dictionary, DCL2-57

SYS\$ERRORLOG directory, (M) Maintaining VMS, 6-6

SYS\$ERROR process permanent file, (U) Command Procedures, 2–6

changing the default value of, (U) Command Procedures, 2–7

in batch job command procedure, (U) Command Procedures, 2-6, 8-5

in interactive command procedure, (U)

Command Procedures, 2-6

SYS\$ERROR warning message, (P) Convert, CONV-3

SYS\$GETDVI (cont'd) SYS\$ERROR\_LOG, (U) DCL Concepts, 4-7 asynchronous DDCMP driver, (P) I/O User's SYS\$EXAMPLES, (U) DCL Concepts, 4-7 II, 5-2data center evaluation checklists, card reader, (P) I/O User's I, 2-5 Dependability Handbook, A-1 disk. (P) I/O User's I. 3-22 SYS\$EXIT, (P) System Services Intro, 8-14; (P) DMC11/DMR11 device, (P) I/O User's II, 1-3 System Services Ref, SYS-217 DMP11/DMF11 device, (P) I/O User's II, 2-3 issuing for specified process, (P) System DR11-W/DRV11-WA device, (P) I/O User's II, Services Ref, SYS-249 SYS\$EXPREG, (P) Programming Resources, 10-3 DR32 device, (P) I/O User's II, 4-3 example, (P) System Services Intro, 12-3 Ethernet/802 drivers, (P) I/O User's II, 6-14 SYS\$EXTEND line printer, (P) I/O User's I, 5-3 See Extend service LPA11-K device, (P) I/O User's I, 4-5 SYS\$FAO, (P) Programming Resources, 3-24; mailbox, (P) I/O User's I, 7-4 (P) System Services Ref, SYS-221; (P) RTL SCSI generic class driver, (P) I/O User's I, Library, 4-13, 4-16, 4-27 11-14 directive terminal, (P) I/O User's I, 8–20 format of, (P) System Services Ref. using to obtain FREEBLOCK count. V5.5 SYS-223 Release Notes, 2–76 list of. (P) System Services Ref. SYS-224 SYS\$GETDVIW, (P) System Services Ref. example, (P) System Services Intro, 7-29; (P) SYS-285 System Services Ref, SYS-228, SYS-229 SYS\$GETJPI, V5.5 New Features, B-24; RTL jacket routine for, (P) RTL Library, (P) System Services Intro, 9–1; (P) System LIB-404 Services Ref, SYS-286 SYS\$FAOL, (P) System Services Ref, SYS-221 See also SYS\$PROCESS\_SCAN example, (P) System Services Ref. SYS-231 AST in target process, (P) System Services SYS\$FILESCAN, (P) System Services Ref. Intro, 9-16 SYS-236; (P) File Applications, 5-8 buffer, (P) System Services Intro. 9-14, 9-15 SYS\$FIND control flags, (P) System Services Intro, 9-16 See Find service example, (P) System Services Ref, SYS-303 SYS\$FIND\_HELD, (P) System Services Intro, 3-9, item list, (P) System Services Intro, 9-6, 9-13 3-14; (P) System Services Ref. SYS-241 specifying criteria to select processes SYS\$FIND\_HOLDER, (P) System Services Intro, example, (P) System Services Intro, 3-9, 3-14; (P) System Services Ref, SYS-244 9\_9 SYS\$FINISH\_RDB, (P) System Services Ref. obtaining information about all processes on the SYS-247 local system, (P) System Services Intro, SYS\$FLUSH 9-2, 9-4See Flush service obtaining information about one process, (P) SYS\$FORCEX, (P) System Services Ref, SYS-249 System Services Intro, 9–2 See also SYS\$DELPRC obtaining information with wildcard search example, (P) System Services Intro, 8-15 example, (P) System Services Intro. 9-5 SYS\$FORMAT\_ACL, (P) System Services Intro, packing information in buffers, (P) System 3-17, 3-23; (P) System Services Ref, SYS-252 Services Intro, 9–14, 9–15 SYS\$FORMAT\_AUDIT, (P) System Services Ref. searching for processes on all nodes, (P) System SYS-262 Services Intro, 9–11 SYS\$FREE searching for processes on specific nodes, (P) See Free service System Services Intro, 9–11, 9–12 SYS\$GET searching for selected processes, (P) System Services Intro, 9-6 See Get service specifying buffer size, (P) System Services SYS\$GETCHN, Obsolete Features, 2-12 Intro, 9–14, 9–15 See also SYS\$GETDVI specifying criteria to select processes SYS\$GETDEV, Obsolete Features, 2-16 example, (P) System Services Intro, 9-10 See also SYS\$GETDVI swapping processes, (P) System Services Intro, SYS\$GETDVI, (M) Networking, 8-34; (P) 9 - 16Programming Resources, 7–50; (P) I/O User's synchronizing calls, (P) System Services Intro, I, 6-119-11, 9-12, 9-13

SYS\$GETJPI (cont'd)

using \$PROCESS\_SCAN item list to specify selection criteria about processes, (P)

System Services Intro, 9-6, 9-7, 9-9, 9-10

using \$PROCESS\_SCAN item-specific flags to control selection information, (P) System Services Intro, 9-6

using \$PROCESS\_SCAN search, (P) System Services Intro, 9–6

using item list with remote procedures, (P) System Services Intro, 9-13

using multiple \$PROCESS\_SCAN contexts, (P) System Services Intro, 9–13

using synchronous calls, (P) System Services Intro, 9–13

using wildcard

example, (P) System Services Intro, 9-5

using wildcard as **pidadr**, (P) System Services Intro, 9-2, 9-4

using wildcard search, (P) System Services
Intro, 9-4

SYS\$GETJPIW, (P) System Services Ref, SYS-305 SYS\$GETLKI, (P) System Services Ref, SYS-306 SYS\$GETLKIW, (P) System Services Ref, SYS-318

SYS\$GETMSG, (P) System Services Ref, SYS-319; (P) RTL Library, 4-16

SYS\$GETQUI, V5.5 New Features, 12–1; (P) Programming Resources, 3–22; (P) System Services Ref, SYS–323

SYS\$GETQUIW, (P) System Services Ref, SYS-365

SYS\$GETSYI, V5.5 New Features, B-24; (P) Programming Resources, 3-22; (P) System Services Ref, SYS-366

SYS\$GETSYIW, (P) System Services Ref, SYS-381

SYS\$GETTIM, (P) Programming Resources, 3–24; (P) System Services Intro, 10–2; (P) System Services Ref, SYS–382

SYS\$GETUAI, (P) System Services Ref, SYS-383 SYS\$GL\_JOBCTLMB

replaced by SYS\$AR\_JOBCTLMB, (P) Device Support (A), E-7

SYS\$GL\_OPRMBX

replaced by SYS\$AR\_OPRMBX, (P) Device Support (A), E-7

SYS\$GRANTID, (P) System Services Ref, SYS-395

SYS\$HASH\_PASSWORD, (P) System Services Ref, SYS-399

SYS\$HELP, (U) DCL Concepts, 4-7

SYS\$HIBER, (P) System Services Ref, SYS-402 example, (P) System Services Intro, 8-12 use of. (P) RTL Parallel Processing, 5-5

SYS\$IDTOASC, (P) System Services Intro, 3-7, 3-14; (P) System Services Ref, SYS-404

SYS\$INIT\_VOL, (P) System Services Ref, SYS-407

SYS\$INPUT, (U) VMS Intro, 3–11; (U)
DCL Concepts, 4–5, 4–23; (U) Command
Procedures, 2–6; (P) Programming Resources,
9–24; (P) Linker, 3–4; Obsolete Features,
2–19

See also SYS\$QIO

changing the default value of, (U) Command Procedures, 2–7

default value of, (P) Programming Resources, 7-2

in batch job command procedure, (U) Command Procedures, 2–6, 8–4

in interactive command procedure, (U)

Command Procedures, 2-6

redefining, (U) Using VMS, 4-18; (U)

DCL Concepts, 4-24; (P) Programming

Resources, 7-3

in command procedure. (U) Using VMS

in command procedure, (U) Using VMS, 6-10

redefining as a data file, (U) Command Procedures, 3–7

redefining as a terminal, (U) Command Procedures, 3-6

redefining to allow input to an image, (U) Command Procedures, 3-5

specifying equivalence name with RUN command, (U) DCL Dictionary, DCL2-57

using with LIB\$GET\_INPUT, (P)
Programming Resources, 7–3
using with LIB\$PUT\_OUTPUT, (P)

Programming Resources, 7–3

SYS\$INSTRUCTION, (U) DCL Concepts, 4–7 SYS\$JOURNAL logical name, V5.5 New Features, B–67, B–73

defining as a search list, V5.5 New Features, B-67

SYS\$LAVC\_DEFINE\_NET\_COMPONENT, (M) VAXcluster, F-4

SYS\$LAVC\_DEFINE\_NET\_PATH, (M) VAXcluster, F-5

SYS\$LAVC\_DISABLE\_ANALYSIS, (M)
VAXcluster, F-7

SYS\$LAVC\_ENABLE\_ANALYSIS, (M) VAXcluster, F-7

 $\begin{array}{lll} {\rm SYS\$LAVC\_START\_BUS.MAR}, & \textit{(M) VAX} cluster, \\ {\rm F-1} \end{array}$ 

SYS\$LAVC\_STOP\_BUS, (M) VAXcluster, F-3 SYS\$LCKPAG, (P) Programming Resources, 10-4 SYS\$LIBRARY, (U) DCL Concepts, 4-7; (P) Linker, 6-14

SYS\$LIBRARY:IMAGELIB.OLB, (P)
Programming Resources, 5–12; (P) Linker,
1–5, 2–4, 4–11, 5–4, 6–7, 6–14, LINK–8
searched by linker, (P) Linker, LINK–17
SYS\$LIBRARY:STARLET.MLB

as source of macros, (P) RMS, 1-1, 3-2

```
SYS$LIBRARY:STARLET.OLB, (P) Linker, 1-5,
    2-4, 6-14, LINK-8
  searched by linker, (P) Linker, LINK-17
SYS$LKWSET, (P) Programming Resources,
    10-3; (P) System Services Intro, 12-6
SYS$LOADABLE_IMAGES directory, (P) Device
    Support (A), E-8
SYS$LOGIN, (U) DCL Concepts, 4-6
SYS$LOGIN:NETSERVER.LOG, (M) Networking,
    2-34, 4-23
SYS$LOGIN:objectname.COM, (M) Networking,
SYS$LOGIN_DEVICE, (U) DCL Concepts, 4-6
SYS$MAINTENANCE, (U) DCL Concepts, 4-7
SYS$MANAGER, (U) DCL Concepts, 4-7
SYS$MANAGER:ACCOUNTING.DAT, (U) DCL
   Dictionary, DCL2-91
SYS$MANAGER:EVL.LOG, (M) Networking,
SYS$MANAGER:NET.LOG, (M) Networking,
    3 - 100
SYS$MANAGER:NETCONFIG.COM, (M)
   Networking, 5-5
SYS$MANAGER:RTTLOAD.COM, (M)
   Networking, 6–1
SYS$MANAGER:STARTNET.COM, (M)
   Networking, 5-6, 5-14, 6-1
SYS$MANAGER:SYSTARTUP.COM
  invoking SDA, (P) System Dump Analyzer,
      SDA-5
  producing an SDA listing, (P) System Dump
      Analyzer, SDA-5
  releasing page file blocks, (P) System Dump
      Analyzer, SDA-3
SYS$MANAGER:SYSTARTUP_V5.COM, (M)
    Terminal Fallback, TFU-6
SYS$MESSAGE, (U) DCL Concepts, 4-7
SYS$MGBLSC, (P) Programming Resources, 5–15
SYS$MOD_HOLDER, (P) System Services Intro,
   3-12; (P) System Services Ref, SYS-430
SYS$MOD_IDENT, (P) System Services Intro,
   3-12; (P) System Services Ref, SYS-433
SYS$MOUNT, (P) System Services Intro. 7-22:
   (P) System Services Ref, SYS-436
SYS$MTACCESS, (P) System Services Intro,
   3-32; (P) System Services Ref, SYS-451
```

SYS\$NET, (U) DCL Concepts, 4-5; (M)

SYS\$NODE, (U) DCL Concepts, 4-7; (M)

(P) System Services Ref, SYS-455

SYS\$NUMTIM, (P) System Services Intro, 10-7;

SYS\$OPEN, (P) Programming Resources, 8–8

Networking, 8-13, 8-20, 8-31

Security, 5-21

See Next Volume service

See also Open service

SYS\$NXTVOL

```
SYS$OUTPUT. (U) VMS Intro. 3-11. 5-5: (U)
    DCL Concepts, 4-5, 4-23; (U) Command
    Procedures, 2-6; (P) Analyze/RMS_File,
    ARMS-16; Obsolete Features, 2-20
   See also SYS$QIO
   changing the default value of, (U) Command
      Procedures, 2-7
   default value of, (P) Programming Resources,
   displaying file on, (U) DCL Dictionary,
      DCL2-389
   for check report, (P) File Applications, 10-1
  in batch job command procedure, (U)
      Command Procedures, 2-6, 8-5
  in interactive command procedure, (U)
      Command Procedures, 2-6
  redefining, (U) Using VMS, 4-18; (U) DCL
      Concepts, 4-24; (U) Command Procedures,
      3-8; (P) Programming Resources, 7-3
  specifying equivalence name with RUN
      command, (U) DCL Dictionary, DCL2-58
  using with LIB$GET_INPUT, (P)
      Programming Resources, 7–3
  using with LIB$PUT_OUTPUT, (P)
      Programming Resources, 7–3
  with CONVERT, (P) Convert, CONV-9
SYS$OUTPUT_HELP, (P) Programming
    Resources, 8-36
SYS$PARSE
  See Parse service
SYS$PARSE_ACL, (P) System Services Intro,
    3-17, 3-23; (P) System Services Ref, SYS-457
SYS$PRINT, (U) Using VMS, 2-18
  and batch job log files, (U) Using VMS, 3-9
  default queue name, (M) Maintaining VMS,
SYS$PROCESS_SCAN, (P) System Services Intro,
    9-1
  See also SYS$GETJPI
  obtaining information about processes on all
      nodes, (P) System Services Intro, 9-11
  obtaining information about processes on
      specific nodes, (P) System Services Intro,
      9-11, 9-12
  searching on all nodes, (P) System Services
      Intro, 9-11
  searching on specific nodes, (P) System Services
      Intro, 9-11, 9-12
  setting up multiple contexts, (P) System
      Services Intro, 9–13
  using item list to specify selection criteria about
      processes, (P) System Services Intro, 9-6,
      9-7, 9-10
      example, (P) System Services Intro, 9-9
  using item list with remote procedures, (P)
      System Services Intro, 9–13
```

SYS\$PROCESS\_SCAN (cont'd) using item-specific flags to control selection information, (P) System Services Intro, 9-6 See Put service SYS\$PUTMSG, (P) Programming Resources, 9-15, 9-22; (P) System Services Ref. SYS-475; (P) RTL Library, 4-4, 4-13, 4-16, 4-27 SYS\$QIO, (P) Programming Resources, 7–45; (P) System Services Ref, SYS-483; (P) Device Support (A), 1-1, 2-2 to 2-4, 4-1 to 4-15; (P) Device Support (B), 1-37 device-dependent arguments of, (P) Device Support (B), 1-41 example, (P) System Services Intro, 7-13 for additional processing, (P) RMS, 5-18 for connect to interrupt facility, (P) Device Support (A), 19-9 to 19-13 format, (M) Networking, 8-35, 8-37, 8-38, 8-39, 8-40, 8-41 format for request to SCSI generic class driver, (P) I/O User's I, 11-11 IO\$\_ACCESS, (M) Networking, 8-29, 8-32, 8-35, 8-37 IO\$\_ACCESS!IO\$M\_ABORT, (M) Networking, 8-32, 8-38 IO\$\_ACPCONTROL, (M) Networking, 8-32, 8-41 IO\$\_DEACCESS!IO\$M\_ABORT, (M) Networking, 8-33, 8-34, 8-41 IO\$\_DEACCESS!IO\$M\_SYNCH, (M) Networking, 8-40 IO\$\_READVBLK, (M) Networking, 8-39 IO\$\_WRITEVBLK, (M) Networking, 8-39 IO\$\_WRITEVBLK!IO\$M INTERRUPT, (M) Networking, 8-33 IO\$\_WRITEVBLK! IO\$M\_INTERRUPT, (M) Networking, 8-39 use in I/O operation, (P) RMS, 2-7 SYS\$QIO(IO\$\_ACCESS!IO\$M\_ABORT), (M) Networking, 8-32 format, (M) Networking, 8-38 SYS\$QIO(IO\$\_ACCESS), (M) Networking, 8-29, 8-32 format, (M) Networking, 8-35, 8-37 SYS\$QIO(IO\$\_ACPCONTROL), (M) Networking, 8-32 format, (M) Networking, 8-41 SYS\$QIO(IO\$\_DEACCESS!IO\$M\_ABORT), (M) Networking, 8-33, 8-34 format, (M) Networking, 8-41 SYS\$QIO(IO\$\_DEACCESS!IO\$M\_SYNCH) format, (M) Networking, 8-40 SYS\$QIO(IO\$\_READVBLK), (M) Networking, 8-39

SYS\$QIO(IO\$\_WRITEVBLK), (M) Networking, 8-39 format, (M) Networking, 8-23 SYS\$QIOW, (P) Programming Resources, 7-45; (P) System Services Ref, SYS-488; (P) Device Support (A), 2-7; (P) Device Support (B), 1-37 SYS\$QUEUE MANAGER.QMAN\$JOURNAL. V5.5 New Features, 5-2; (M) VAXcluster, 4-12, 6-2 See also Journal file changing location after upgrade, V5.5 New Features, 5-4 SYS\$QUEUE\_MANAGER.QMAN\$QUEUES, V5.5 New Features, 5-2; (M) VAXcluster, 4-12, 6-2 See also Queue file changing location after upgrade, V5.5 New Features, 5-4 SYS\$READ See Read service SYS\$READEF, (P) System Services Ref, SYS-489 SYS\$RELEASE See Release service SYS\$RELEASE\_VP, V5.5 New Features, B-24; (P) System Services Ref. SYS-491 SYS\$REMOVE See Remove service SYS\$REM\_HOLDER, (P) System Services Intro, 3–14; (P) System Services Ref, SYS–492 SYS\$REM ID, (U) DCL Concepts, 4-6 SYS\$REM\_IDENT, (P) System Services Intro, 3–14; (P) System Services Ref, SYS–494 SYS\$REM\_NODE, (U) DCL Concepts, 4-6 SYS\$RENAME See also Rename service noting format difference, (P) RMS, 3-11 SYS\$RESTORE\_VP\_EXCEPTION, V5.5 New Features, B-26; (P) System Services Ref, SYS-496 SYS\$RESTORE\_VP\_STATE, V5.5 New Features, B-26; (P) System Services Ref. SYS-498 SYS\$RESUME. (P) System Services Ref. SYS-500 SYS\$REVOKID, (P) System Services Ref, SYS-503 SYS\$REWIND See Rewind service SYS\$RMSRUNDWN, (P) System Services Ref, SYS-639 SYS\$SAVE\_VP\_EXCEPTION, V5.5 New Features, B-26; (P) System Services Ref, SYS-507 SYS\$SCHDWK, (P) System Services Ref, SYS-509 canceling, (P) System Services Intro, 10-7 converting time format for, (P) System Services Ref, SYS-36 example, (P) System Services Intro, 10-6 request, (P) System Services Intro, 10-6

format, (M) Networking, 8-24

format, (M) Networking, 8-39

SYS\$QIO(IO\$\_WRITEVBLK!IO\$M\_INTERRUPT)

SYS\$SCRATCH, (U) DCL Concepts, 4-6 SYS\$SYSROOT, (U) DCL Concepts, 4-7 SYS\$SYSTEM, (U) DCL Concepts, 4-8, 5-8 SYS\$SEARCH SYS\$SYSTEM:objectname.COM, (M) Networking, See Search service SYS\$SETDDIR, (P) System Services Ref, SYS\$SYSTEM:OPCCRASH.COM SYS-641; (P) File Applications, 6-14 involvement in writing crash dump, (P) System SYS\$SETDFPROT, (P) System Services Ref, Dump Analyzer, SDA-5 SYS-643 SYS\$SYSTEM:PAGEFILE.SYS, (P) System Dump SYS\$SETEF, (P) System Services Intro, 4-4; (P) Analyzer, SDA-5, SDA-28 System Services Ref. SYS-514 See also System dump file SYS\$SETEXV, (P) Programming Resources, 9-13; as dump file, (P) System Dump Analyzer, (P) System Services Ref, SYS-515 SDA-3 example, (P) System Services Intro, 11-6 releasing blocks containing a crash dump, (P) SYS\$SETIME, (P) System Services Intro, 10-8; System Dump Analyzer, SDA-36 (P) System Services Ref, SYS-517 SYS\$SYSTEM:REQSYSDEF.STB, (P) System SYS\$SETIMR, (P) System Services Intro, 10–4; Dump Analyzer, SDA-6, SDA-7 (P) System Services Ref. SYS-519 SYS\$SYSTEM:SHUTDOWN.COM converting time format for, (P) System Services involvement in writing crash dump, (P) System Ref, SYS-36 Dump Analyzer, SDA-5 example with AST, (P) System Services Intro, SYS\$SYSTEM:STARTUP.COM, (M) System Generation, C-1 SYS\$SETPRI, (P) System Services Ref, SYS-524 SYS\$SYSTEM:SYS.EXE, (P) Linker, 2-6; (P) SYS\$SETPRN, (P) System Services Ref, SYS-527 System Dump Analyzer, SDA-59 SYS\$SETPRV, (P) System Services Ref, SYS-533 contents, (P) System Dump Analyzer, SDA-60, SYS\$SETRWM, (P) System Services Intro, 7–3; (P) System Services Ref, SYS-538 SYS\$SYSTEM:SYS.STB, (P) Linker, LINK-27; SYS\$SETSFM (P) System Dump Analyzer, SDA-6, SDA-7, use in signaling errors, (P) RMS, 2-6 SDA-9, SDA-15 SYS\$SETSWM SYS\$SYSTEM:SYSDEF.STB, (P) System Dump example, (P) System Services Intro, 12-7 SYS\$SETUAI, (P) System Services Ref, SYS-544 Analyzer, SDA-8 SYS\$SYSTEM:SYSDUMP.DMP, (P) System Dump SYS\$SHARE, (U) DCL Concepts, 4-7; (P) Analyzer, SDA-28 Programming Resources, 5-9; (P) Linker, 4-12, 4-17, 4-22 See also System dump file SYS\$SNDACC, Obsolete Features, 2–22 protection, (P) System Dump Analyzer, SDA-5 See also SYS\$SNDJBC size of, (P) System Dump Analyzer, SDA-3 SYS\$SNDERR, (P) System Services Ref, SYS-556 SYS\$SYSTEM:SYSGEN SYS\$SNDJBC, V5.5 New Features, 12–1 See SYSGEN SYS\$SNDJBCW, (P) System Services Ref, SYS\$TEST, (U) DCL Concepts, 4-8 SYS-614 SYS\$TRNLNM, (P) System Services Ref, SYS-645 SYS\$SNDOPR, (P) System Services Ref, SYS-615 SYS\$TRNLOG, (M) Networking, 8-14; Obsolete SYS\$SNDSMB, Obsolete Features, 2-26 Features, 2-42 See also SYS\$SNDJBC See also SYS\$TRNLNM SYS\$SPACE SYS\$TRUNCATE See Space service See Truncate service SYS\$SPECIFIC, (U) DCL Concepts, 4-7 SYS\$ULKPAG, (P) Programming Resources, 10-4 SYS\$STARTUP, (M) SYSMAN, SM-11 SYS\$ULWSET, (P) Programming Resources, 10-4 SYS\$START\_TRANS, (P) System Services Intro, SYS\$UNWIND, (P) Programming Resources, 14-3; (P) System Services Ref, SYS-629 9-18; (P) RTL Library, 4-14, 4-21, 4-22 to SYS\$START\_TRANSW, (P) System Services Intro, 4-23, 4-29 14-3; (P) System Services Ref, SYS-633 example, (P) System Services Intro, 11-14 SYS\$SUSPND, (P) System Services Ref, SYS-634 SYS\$UPDATE, (U) DCL Concepts, 4–8 SYS\$SYLOGIN See also Update service executing, (U) DCL Dictionary, DCL1-392 SYS\$UPDSEC, (P) Programming Resources, 8-9; SYS\$SYNCH, (P) System Services Ref. SYS-637; (P) System Services Ref, SYS-657 (P) Device Support (A), 2-7 SYS\$UPDSECW, (P) System Services Ref, SYS\$SYSDEVICE, (U) DCL Concepts, 4–7

SYS-662

SYS\$WAIT SYSLOST.DIR. (M) Analyze / Disk. ADSK-2 SYSLOST directory, (U) DCL Dictionary, See Wait service SYS\$WAITFR, (P) System Services Ref, SYS-663 DCL2-146 SYSMAN command, (M) SYSMAN, SM-18 SYS\$WAKE, (P) System Services Ref, SYS-665 SYSMANINI logical name, (M) SYSMAN, SM-14 See also SYS\$HIBER SYSMAN Utility, (M) SYSMAN, SM-1 example, (P) System Services Intro, 8-12 See also System Management Utility use of, (P) RTL Parallel Processing, 5-5 SYS\$WELCOME logical name, (M) Setting Up activating licenses in a VAXcluster environment VMS, 2-15; (M) Security, 5-21 with, License Management, LMF-19, SYS\$WFLAND, (P) System Services Ref, SYS-668 LMF-83 command procedures, (M) SYSMAN, SM-8 SYS\$WFLOR, (P) System Services Ref, SYS-670 commands, (M) SYSMAN, SM-15 SYS\$WRITE directing output, (M) SYSMAN, SM-52 See Write service enabling VAXcluster alias operations, (M) SYSALF.DAT, (M) Security, 5-27 VAXcluster, 4–9 SYSAP (system application), (P) System Dump executing SYSMAN commands, (M) SYSMAN, Analyzer, SDA-148 SM-14 SYSBOOT.EXE image exiting from, (M) SYSMAN, SM-18 renaming before rebooting satellite, (M) invoking, (M) SYSMAN, SM-18 VAXcluster, 7–29 managing SYSBOOT facility using during bootstrap operations, (M) System See System management modifying cluster security data, (M) Generation, SGN-1 SYSBOOT program VAXcluster, 7-30 commands, (M) Setting Up VMS, 3-2 privilege requirements, (M) SYSMAN, SM-18 restrictions, (M) SYSMAN, SM-18 conversational boot, (M) Setting Up VMS, 3-1 SYSDEVICE.EXE SYSMSG.EXE global symbols, (P) System Dump Analyzer, global symbols, (P) System Dump Analyzer, SDA-61 SDA-61 SYSDUMP.DMP file, (M) Maintaining VMS, 6-14 SYSMWCNT parameter, (M) System Generation, SYSECURITY.COM, (M) Security, 6-8 A - 32adjusting to curtail page thrashing, (M) SYSGBL privilege, (M) Setting Up VMS, 5–17; (M) Security, A-9 Performance Management, 3-28 SYSNAM privilege, (M) Setting Up VMS, 5-17; SYSGEN (M) Security, A-9; (M) Networking, 5-2, 8-32 See System Generation Utility for network operations, (M) DECnet-VAX SYSGEN parameters, (M) SYSMAN, SM-11 Guide, 3-10 adjusting page cache size, (M) Performance SYSPRV privilege, (U) DCL Concepts, 8-6; (M) Management, 5-3 Setting Up VMS, 5-18; (M) Security, 4-6, changing, (M) Performance Management, 5–1 A-9; (M) Networking, 5-2, 5-5; (P) System DISK\_QUORUM, (M) System Management Services Intro, 7-6 Intro, 6–14 and SYSTEM category, (M) Security, 4-4 EXPECTED\_VOTES, (M) System Management as requirement to change permanent database, Intro, 6-13 (M) DECnet-VAX Guide, 3-32 VOTES, (M) System Management Intro, 6-13 effect on ownership privilege, (M) Security, SYSGETSYI.EXE 4 - 31global symbols, (P) System Dump Analyzer, for network operations, (M) DECnet-VAX SDA-61 Guide, 3-9 SYSHUTDWN.COM procedure, (M) Setting Up requirement for creating files with different VMS, 3–5 UIC, (P) RMS, 14-8 SYSLCK privilege, (M) Setting Up VMS, 5-17; /SYSSHR qualifier, (P) Linker, LINK-18 (M) Security, A-9 SYSTARTUP\_V5.COM command procedure, /SYSLIB qualifier, (P) Linker, LINK-17 (M) Setting Up VMS, 2-7; (M) DECnet-VAX SYSLICENSE.EXE Guide, 3-19, 3-24, 3-31 global symbols, (P) System Dump Analyzer, and OPCOM, (M) DECnet-VAX Guide, 4-4 SDA-61 SYSTARTUP\_V5.TEMPLATE

changes, V5.5 Release Notes, 2-49

SYSLOA symbol, V5.5 Release Notes, 2–52; (P)

System Dump Analyzer, SDA-14

System (cont'd) System kernel level redundancy, Dependability See also VMS system Handbook, 4-6 access control, (M) DECnet-VAX Guide, 3-36 libraries, decompressing, (M) System accessing, (U) DCL Dictionary, DCL1-392 Management Intro, 5-7 accounting, (M) Maintaining VMS, 6-2 library, (P) System Services Intro, 2-1, 2-5 active standby kernels, Dependability linked in a network, (M) DECnet-VAX Guide, Handbook, 4-7analyzing a running, (P) System Dump loosely coupled kernels, Dependability Analyzer, SDA-2, SDA-8 to SDA-9, Handbook, 4-7 SDA-32 mailbox, (P) System Services Intro, 7-33 bringing up as node on existing network, (M) message, (P) System Services Intro, 2-14 DECnet-VAX Guide, 3-4 MS-DOS, (M) DECnet-VAX Guide, 3-27 building blocks, Dependability Handbook, 3-1 multiple-site data center VAXcluster, changing Dependability Handbook, 5-15, 6-24, 7-16 date, (U) DCL Dictionary, DCL2-234 multiple tightly coupled kernels, Dependability password, (U) DCL Dictionary, DCL2-184 Handbook, 4-6 time, (U) DCL Dictionary, DCL2-234 network redundancy, Dependability Handbook, communication hardware connection, (M) 4 - 14DECnet-VAX Guide, 3-4 non-VMS system connected asynchronously to communications options, Dependability VMS system, (M) DECnet-VAX Guide, Handbook, 3–6 to 3–9 default, (P) File Applications, 4–14 operational procedures options, Dependability directories, (M) System Management Intro, 1-4 Handbook, 3-15 to 3-19 disk fragmentation, (M) Setting Up VMS, 6-17 outages displaying surviving external failures, Dependability information on, (U) DCL Dictionary, Handbook, 8-21 DCL2-246 ownership category, (M) System Management status, (U) DCL Dictionary, DCL2-246 Intro, 3-3 emergency shutdown, (M) Setting Up VMS, peer in network, (M) DECnet-VAX Guide, 1-1 3-5performance, Dependability Handbook, 4–17 environment, Dependability Handbook, 3-2, feasibility constraints, Dependability 3-3, 5-2Handbook, 4-18environmental considerations, Dependability implementation tradeoffs, Dependability Handbook, 5-16 Handbook, 4-18 environment options, Dependability Handbook, learning curve considerations, 3-2 to 3-4Dependability Handbook, 4–19 exception dispatcher, (P) System Services Intro. timing considerations, Dependability Handbook, 4-18failures, Dependability Handbook, 9-13 performance tradeoffs, Dependability files, moving to improve performance, (M)Handbook, 4–16 System Management Intro, 5–8 personnel options, Dependability Handbook, getting information about 3-19 to 3-20 asynchronously, (P) System Services Ref. principles for creating dependability, SYS-366 Dependability Handbook, 2–1 synchronously, (P) System Services Ref, privileges SYS-381 policies, Dependability Handbook, 3–18 hardware options, Dependability Handbook, Professional 300-series in network operations, 3-4 to 3-6 (M) DECnet-VAX Guide, 1-6 hot standby sites, Dependability Handbook, Rainbow in network operations, (M)DECnet-VAX Guide, 1-6, 3-27 independently recoverable, Dependability resources, (P) File Applications, 1–15 Handbook, 4-8 responsiveness dependent on resources, (M) integration of software, Dependability Performance Management, 3-8 Handbook, 8-22robust design, Dependability Handbook, 3-10 investigating performance problems, (P) RSX in network operations, (M) DECnet-VAX System Dump Analyzer, SDA-8

kernel capacity diagrams, Dependability

Handbook, 4-11

Guide, 1-6

shutdown, (M) Setting Up VMS, 3-1, 3-5

System (cont'd) System default library (cont'd) software, Dependability Handbook, 8-1 processing of, (P) Linker, 6-14 searched by linker, (P) Linker, LINK-17 software options, Dependability Handbook, 3-9 to 3-15 symbols in, (P) Linker, LINK-5 startup, (M) Setting Up VMS, 3-1 System default tables, (M) Terminal Fallback, ULTRIX in network operations, (M) TFU-9 DECnet-VAX Guide, 1-6 System-defined identifier, (M) System using new equipment, Dependability Management Intro, 3-5; (M) Security, 4-19, Handbook, 3-4 VAXmate in network operations, (M) System-dependent field, (U) Files and Devices, DECnet-VAX Guide, 1-6 B - 15SYSTEM account System directory, (M) VAXcluster, 4-2 initial modification, (M) Setting Up VMS, 4-5 System directory logical name table user authorization file entry, (M) Setting Up default contents, (U) DCL Concepts, 4-9 VMS. 4-4list of default contents of, (U) Using VMS, 4-10 System activity System directory table, (P) System Services Intro, monitoring, (M) Maintaining VMS, 6-2 6-3 System disk, (M) SYSMAN, SM-8 System application and volume sets, (M) Maintaining VMS, 2-3 See SYSAP building and copying, V5.5 Release Notes, B-1 SYSTEM attribute, (P) File Def Language, configuring in large cluster, (M) VAXcluster, FDL-2, FDL-38 7-34, 7-37 System block creating duplicate, (M) VAXcluster, 7-20 See SB directory structure, (M) VAXcluster, 4-2 System buffer, (U) EVE Ref, EVE-40 moving high-activity files, (M) VAXcluster, See also Buffer 7 - 37See also Nonpaged pool rebuilding, (M) VAXcluster, 5–13 SYSTEM category shadowing the, V5.5 New Features, B-106 definition, (U) DCL Concepts, 8-3 shutdown for volume shadowing, V5.5 Release SYSTEM class record, (M) Monitor, A-45 Notes, 2-76 System clock using multiple, License Management, LMF-25 setting, (P) System Services Intro, 10-8 System disk size, recommendation, V5.5 Release System command procedures Notes, 2-52coordinating, (M) VAXcluster, 4-9 System Dump Analyzer System command table, (P) Command Def. See SDA CDU-2 System Dump Analyzer (SDA) Utility, V5.5 New adding commands to, (P) Command Def, Features, A-2 CDU-3 modifications for DECdtm services, V5.5 New System communication services statistics, (M) Features, 16-2 Monitor, MON-78 PEDRIVER data structures, V5.5 New System communications services (SCS), (M) Features, A-63 VAXcluster, 1-4, C-9, C-10 SHOW PORTS command, V5.5 New Features, System configuration, (P) Device Support (A), A-6312 - 11support for vectorized programs, V5.5 New guidelines, (M) Networking, 5-35 to 5-42 Features, B-27 System console terminal, (P) I/O User's I, 8-1 vector processing support, V5.5 New Features, System context, (P) Device Support (A), 1-8 B-113 System control block System dump file, (M) Maintaining VMS, 6-14; See SCB (P) System Dump Analyzer, SDA-2 to SDA-3 System control unit automatic creation of, (M) Maintaining VMS, See SCU 6 - 14copying, (P) System Dump Analyzer, SDA-4 System crash, (M) Setting Up VMS, 3-5 header, (P) System Dump Analyzer, SDA-5 System default, (P) File Def Language, FDL-30 mapping physical memory to, (P) System Dump System default library, (P) Linker, 1-5, 2-4, Analyzer, SDA-7 LINK-18 requirements for analysis, (P) System Dump content of, (P) Linker, 2-4 linker's search of, (P) Linker, LINK-17, Analyzer, SDA-6 LINK-31 saving, (P) System Dump Analyzer, SDA-4

```
System dump file (cont'd)
  size, (M) Maintaining VMS, 6-15; (P) System
      Dump Analyzer, SDA-3
  use of, (M) Maintaining VMS, 6-1
System failure, (P) MACRO, E-10
  See /RECOVER qualifier
  analyzing, (P) System Dump Analyzer, SDA-15
      to SDA-28
  anticipating, (M) Maintaining VMS, 6-5, 6-7
  causing, (P) System Dump Analyzer, SDA-28
      to SDA-31
  diagnosing from PC contents, (P) System Dump
      Analyzer, SDA-15
  example, (P) System Dump Analyzer, SDA-21
      to SDA-28
  inducing with XDELTA. (P) Device Support (A).
      13 - 21
  summary, (P) System Dump Analyzer, SDA-93
  System Dump Analyzer, (M) Setting Up VMS,
      2-12
System file, (M) VAXcluster, 4-11
  auditing recommendations, (M) Security, 7-4
  on public volumes, (M) Maintaining VMS, 2-1
  size, (M) Setting Up VMS, 6-16
System generation, (M) Setting Up VMS, 6-1
System Generation Utility (SYSGEN), V5.5
   New Features, B-11, B-13, D-1 to D-2;
    (M) Setting Up VMS, 6-1, 6-14; (M) System
    Generation, SGN-3; (P) Device Support (A),
    12-2 to 12-23
  AUTOCONFIGURE command, (M) Setting Up
      VMS, 2-6; (P) Device Support (A), 11-4,
      12-13 to 12-23; (P) Device Support (B),
      1-2, 1-34, 1-68, 2-22, 4-21
  cluster parameters, (M) VAXcluster, A-1 to A-3
  commands
      SHOW/BI=Blindex, V5.5 New Features,
      SHOW/BUS=busId, V5.5 New Features,
          B-60
      SHOW/XMI=Blindex, V5.5 New Features,
          B-61
  configuring SCSI devices, (P) I/O User's I.
      11-9; (P) Device Support (A), 17-30
  CONNECT command, (P) Device Support (A),
      11-4, 12-2, 12-3 to 12-7, E-3; (P) Device
      Support (B), 1-7, 1-26, 1-36, 1-44, 1-68,
      2-22, 4-8, 4-22
      ADAPTER qualifier, (P) Device Support
          (A), 12–5
      ADPUNIT qualifier, (P) Device Support
          (A), 12–6
      /CSR qualifier, (P) Device Support (A),
          12-5
      /CSR_OFFSET qualifier, (P) Device
```

Support (A), 12-6

Support (A), 12-6

/DRIVERNAME qualifier, (P) Device

```
System Generation Utility (SYSGEN)
  CONNECT command (cont'd)
      /MAXUNITS qualifier, (P) Device Support
          (A), 12–6
      /NOADAPTER qualifier, (P) Device
          Support (A), 12–5
      NUMVEC qualifier, (P) Device Support
          (A), 12-6, 14-31, 14-32; (P) Device
          Support (B), 1-23
      /VECTOR qualifier, (P) Device Support (A),
      /VECTOR_OFFSET qualifier, (P) Device
          Support (A), 12-6
  connecting multiport memory, (M) System
      Generation, SGN-28
  DEINSTALL command, V5.5 New Features,
      D-1
  device table, (M) System Generation, B-1 to
      B-2; (P) Device Support (A), 12-15, 12-23
  ERLBUFFERPAGES parameter, V5.5 New
      Features, D-2
  exiting, (M) System Generation, SGN-3
  EXPECTED_VOTES, (M) VAXcluster, 3-1, 7-2,
      7-7, 7-22
  increase in lock manager limit values, V5.5
      New Features, C-1
  initializing multiport memory, (M) System
      Generation, SGN-29
  invoking, (M) System Generation, SGN-3
  IRPCOUNT parameter, (M) Networking, 5-36
  LOAD command, (P) Device Support (A), 11-4,
      12-2 to 12-3, E-3
  loading a VAXBI device driver using, (P) Device
      Support (A), 16-23
  LRPCOUNT parameter, (M) Networking, 5-36
  LRPSIZE parameter, (M) VAXcluster, 2-14;
      (M) Networking, 5-36
  NISCS_CONV_BOOT parameter, (M)
      VAXcluster, 7-33
  NPAGEDYN parameter, (M) Networking, 5-36
  operator log messages, (M) Maintaining VMS,
      6 - 10
  parameters
      global section, (P) RTL Parallel Processing,
      LOAD_PWD_POLICY, V5.5 New Features,
          B-57
      LOAD_SYS_IMAGES, V5.5 New Features,
          B-57
      SHADOW_MBR_TMO, V5.5 New Features,
      TAPE_ALLOCLASS, V5.5 New Features,
      TMSCP_LOAD, V5.5 New Features, 7-1
  PIOPAGES parameter, V5.5 Release Notes,
  PQL_MPRCLM parameter, V5.5 Release Notes,
      1 - 14
```

System Generation Utility (SYSGEN) (cont'd) System logical name table (cont'd) PRIORITY\_OFFSET parameter, V5.5 Release including logical name, (U) DCL Dictionary, DCL1-41, DCL1-116 Notes, 2-51RECNXINTERVAL parameter, (M) VAXcluster, list of default contents of, (U) Using VMS, 4-7 logical name for, (U) Using VMS, 4-7; (U) RELOAD command, (P) Device Support (A), DCL Concepts, 4-7 11-4, 12-7 to 12-8; (P) Device Support (B), System login image 4-10 and detached process, (U) DCL Dictionary, DCL2-56 running, (M) Networking, 5-36 SCS parameters, (M) VAXcluster, A-3 to A-5 System management, (U) Mail, MAIL-14; (P) secondary page or swap file, (M) System File Applications, 3–8 Generation, SGN-21 authorization checks, (M) SYSMAN, SM-6 SHOW/ADAPTER command, (P) Device backup procedures, Dependability Handbook, Support (A), 12-8 9 - 18SHOW/BI command, (P) Device Support (A), creating a crash dump file, (P) System Dump 12 - 9Analyzer, SDA-2 creating disk quota files, (M) SYSMAN, SM-40 SHOW/BUS command, (P) Device Support (A), 12 - 10data center operations, Dependability SHOW/CONFIGURATION command, (P) Handbook, 9-10 Device Support (A), 12-11 to 12-12 DCL procedures, Dependability Handbook, SHOW/DEVICE command, (P) Device Support 9 - 12(A), 12–12 defining a cluster, (M) SYSMAN, SM-4 SHOW/XMI command, (P) Device Support (A), defining target system, (M) SYSMAN, SM-68 displaying target environment, (M) SYSMAN, 12 - 11updating parameters for DECnet, (M) SM-72Networking, 5-36 displaying time, (M) SYSMAN, SM-34 using parameters to control load balancing, displaying user profile, (M) SYSMAN, SM-74 V5.5 New Features, B-55 displaying wait time for node response, (M) SYSMAN, SM-75 WRITE ACTIVE command, (M) Setting Up VMS, 6-16establishing the software environment, Dependability Handbook, 9-18 System hang, (P) System Dump Analyzer, SDA-28 System help executing DCL commands, (M) SYSMAN, library, (P) Librarian, LIB-8 SM-52System help files, (U) DCL Dictionary, DCL1-231 how commands execute, (M) SYSMAN, SM-4 System image, (P) Linker, 6-2, LINK-19 image activation, (P) File Applications, 5-5 contents, (P) Linker, 6-2; (P) System Dump limiting response time, (M) SYSMAN, SM-71 Analyzer, SDA-60, SDA-104 local and nonlocal, (M) SYSMAN, SM-3 creating, (U) DCL Dictionary, DCL1-389 maintaining disk quotas memory allocation for, (P) Linker, 6-2 See Disk quota output of linker, (P) Linker, 2-6 minimizing human error, Dependability System information Handbook, 9-12 See Timer, statistics modifying user profile, (M) SYSMAN, SM-70 SYSTEM keyword, (P) VAXTPU, 7-480 parameters System-level access control, (M) Networking, 2-40 See System parameters System libraries production schedulers, Dependability decompressing, (M) Performance Management, Handbook, 9-12 1 - 11responsibilities, (M) System Management Intro, System loadable image 7-4; (M) Networking, 1-15 adding, (M) SYSMAN, SM-12, SM-92 restarting batch jobs, Dependability Handbook, removing, (M) SYSMAN, SM-12, SM-94 9 - 24System logical name table, (P) System Services security policies, Dependability Handbook, Intro, 6–6 canceling entries, (U) DCL Dictionary, setting system time, (M) SYSMAN, SM-31 DCL1-106 setting time, (M) SYSMAN, SM-10 default contents, (U) DCL Concepts, 4-7 setting wait time for node response, (M) definition, (U) Using VMS, 4-7; (U) DCL SYSMAN, SM-71 Concepts, 4-7 startup procedures

System management startup procedures (cont'd) See Startup database techniques, Dependability Handbook, 9-1 VAX PSI, (M) Networking, 1-15, 5-4 System management environment See Management environment System Management Utility (SYSMAN) See also SYSMAN Utility establishing disk quotas with, (M) Maintaining VMS, 4-2used by AUTOGEN, V5.5 Release Notes, 2-4 System manager, (P) File Def Language, FDL-16 controlling proxy accounts at local node, (M) DECnet-VAX Guide, 3-34 coordinating with other networks, (M) DECnet-VAX Guide, 3-37 establishing DECnet-VAX configuration database, (M) DECnet-VAX Guide, 3-12, 3 - 31establishing dynamic asynchronous connection, (M) DECnet-VAX Guide, 3-24 establishing static asynchronous connection, (M) DECnet-VAX Guide, 3-19 maintaining password security at local node, (M) DECnet-VAX Guide, 3-34 network responsibilities, (M) DECnet-VAX Guide, 2-26 to 2-27 providing network security, (M) DECnet-VAX Guide, 3-34 to 3-37 using NETCONFIG.COM, (M) DECnet-VAX Guide, 3-13System map, (P) System Dump Analyzer, SDA-15 System Marketing Model See SMM System memory transferring from the LICENSE database, License Management, LMF-19 System message routines global symbols, (P) System Dump Analyzer, SDA-61 System messages, V5.5 New Features, 4–2 accessing with online help, V5.5 New Features, B-44decompressing help library, V5.5 New Features, facilities with new or modified messages, V5.5 New Features, 4-1 System object default access for, V5.5 New Features, D-2 definition, (U) DCL Concepts, 8-1 security for, (M) System Management Intro, System overview statistics, (M) Monitor, MON-85 System ownership category, (U) Using VMS, 7-3 System page

System page (cont'd) locking in memory, (P) Device Support (A), E-16 System page table (SPT) displaying, (P) System Dump Analyzer, SDA-23, SDA-111 in system dump file, (P) System Dump Analyzer, SDA-2, SDA-7 System page-table entry allocating, (P) Device Support (A), 16-18, E-7; (P) Device Support (B), 3-107 allocating permanent, (P) Device Support (A), 6-2; (P) Device Support (B), 1-33, 1-79, 2-21, 3-79, 3-80 deallocating, (P) Device Support (B), 3-108 System paging file as dump file, (P) System Dump Analyzer, SDA-3 releasing blocks containing a crash dump, (P) System Dump Analyzer, SDA-36 System parameters, (P) File Applications, 1–16 ACP, (M) System Generation, A-5 to A-8 ACP cache parameters, (M) Maintaining VMS, 3 - 9ACP\_DINDXCACHE, (M) Maintaining VMS, 2 - 6categories, (M) System Generation, A-1 checking, (M) SYSMAN, SM-59 description, V5.5 New Features, D-2 descriptions, (M) System Generation, A-5 to disabling checking, (M) SYSMAN, SM-58 displaying, (M) SYSMAN, SM-10, SM-62 bus adapter, V5.5 New Features, B-59, B-60, B-61 DUMPBUG, (M) Maintaining VMS, 6-15 dynamic, (M) Setting Up VMS, 6-15 ERRORLOGBUFFERS, (M) Maintaining VMS, 6 - 15LGI, (M) System Generation, A-14 to A-15 manipulating, (M) SYSMAN, SM-10, SM-66 modifying, (M) Setting Up VMS, 6-14, 6-15 modifying dynamic, (M) SYSMAN, SM-10, SM-67 MVTIMEOUT, (M) Maintaining VMS, 3-12 PQL, (M) System Generation, A-23 to A-26 SCS, (M) System Generation, A-29 to A-30 setting, (M) SYSMAN, SM-10, SM-60; (M) System Generation, SGN-26 showing, (M) System Generation, SGN-36 summary, (M) System Generation, A-1 TAPE\_MVTIMEOUT, (M) Maintaining VMS, 3-12TTY, (M) System Generation, A-33 to A-37 used at bootstrap time, (M) Setting Up VMS, VIRTUALPAGECNT, (M) Maintaining VMS, 5 - 30

System parameters (cont'd) System routine documentation work area, (M) SYSMAN, SM-66, SM-67 writing contents of, (M) SYSMAN, SM-67 System password, (M) Security, 3-7, 5-15, 5-16; (M) Authorize, AUTH-41 as cause of login failures, (M) Security, 3-15 disadvantages, (M) Security, 5-16 guidelines, (M) Security, 5-16 minimum length requirement, (M) Security, recommended change frequency, (M) Security, 5 - 18where stored, (M) Security, 5-16 System PCB (process control block) displaying, (P) System Dump Analyzer, SDA-128 System performance displaying availability and use of resources, (U) DCL Dictionary, DCL2-292 System-permanent logical name, (U) Using VMS, System privilege, (U) Files and Devices, 2-1 System process, (P) System Dump Analyzer, SDA-73displaying list, (U) DCL Dictionary, DCL2-322 System programs and ACL applications, (M) Security, 5-40 SYSTEM protection code, (P) File Def Language, Systems /SYSTEM qualifier, (M) Mount, MOUNT-40; (P) Debugger, 3-12, CD-128, CD-187, CD-260; (P) Linker, 2-6, LINK-19; (P) System Dump Analyzer, SDA-52, SDA-73, SDA-111, SDA-115, SDA-128 in .FACILITY directive, (P) Message, MSG-18 System region examining, (P) System Dump Analyzer, **SDA-52** System resources, (P) Modular Procedures, 2-12 See also Resources accessing, (P) Device Support (B), 2-47 to 2-48 evaluating and improving, (M) Performance Management, 3-9 networking activity, (M) DECnet-VAX Guide, 4 - 7System rights database definition, (U) DCL Concepts, 8-2 System routine documentation, (P) Routines Intro, arguments heading, (P) Routines Intro, 1-7 access entry, (P) Routines Intro, 1-9 mechanism entry, (P) Routines Intro, 1-10 text entry, (P) Routines Intro, 1-11 type entry, (P) Routines Intro, 1-8 VMS Usage entry, (P) Routines Intro, 1-7 condition values returned, (P) Routines Intro, 1 - 12returns, (P) Routines Intro, 1-12, 1-14

condition values returned (cont'd) returns in I/O status block, (P) Routines Intro, 1-14 returns in mailbox, (P) Routines Intro, 1 - 14returns signaled, (P) Routines Intro, 1-15 description of, (P) Routines Intro, 1-1 format heading, (P) Routines Intro, 1-2 explanatory text, (P) Routines Intro, 1-4 JSB call format, (P) Routines Intro, 1-4 procedure call format, (P) Routines Intro, main headings, (P) Routines Intro, 1-1 returns heading, (P) Routines Intro, 1-5 condition values, (P) Routines Intro, 1-5 reigister data, (P) Routines Intro, 1-6 routine name heading, (P) Routines Intro, 1-1 routine overview heading, (P) Routines Intro, 1-1 System routines, (P) Programming Resources, 1-22 to 1-24 system services asynchronous, (P) Programming Resources, synchronous, (P) Programming Resources, System routine template, (P) Routines Intro, 1-1 communication between, (P) Programming Resources, 3-26 SYSTEMS class adding or restoring, (M) Show Cluster, SHCL-48 fields belonging to, (M) Show Cluster, SHCL-43 removing, (M) Show Cluster, SHCL-71 Systems communications services database See SCS window System service, V5.5 New Features, C-23; (P) Programming Resources, 1–29; (P) Modular Procedures, 3-11, A-2 Abort Transaction, (P) System Services Ref. SYS-3 Abort Transaction and Wait, (P) System Services Ref, SYS-7 Adjust Outer Mode Stack Pointer, (P) System Services Ref. SYS-14 Adjust Working Set Limit, (P) System Services Ref, SYS-17 checking completion status of, (P) System Services Ref, SYS-637 Create Virtual Address Space, (P) System Services Ref. SYS-114 Delete Global Section, (P) System Services Ref. SYS-158 Delete Virtual Address Space, (P) System Services Ref, SYS-147

```
System service (cont'd)
```

- End Transaction, (P) System Services Ref, SYS-196
- End Transaction and Wait, (P) System Services Ref, SYS-201
- error messages, *V5.5 Release Notes*, 3–43 executing
  - asynchronously, (P) System Services Intro, 2–11
  - synchronously, (P) System Services Intro, 2-11
- Expand Program/Control Region, (P) System Services Ref, SYS-218
- Format Security Audit Event Message, (P) System Services Ref, SYS-262
- Hash Password, (P) System Services Ref, SYS-399
- Initialize Volume, (P) System Services Intro, 7-24; (P) System Services Ref, SYS-407
- loading site-specific, (P) System Services Intro, C-1
- Lock Pages in Memory, (P) System Services Ref. SYS-420
- Lock Pages in Working Set, (P) System Services Ref. SYS-422
- MACRO, (P) System Services Intro, 2–1, 2–5 Map Global Section, (P) System Services Ref, SYS–425
- obtaining information about processes, (P)
  System Services Intro, 9–1
- Purge Working Set, (P) System Services Ref, SYS-473
- Release Vector Processor, (P) System Services Ref, SYS-491
- Restore Vector Processor Exception State, (P) System Services Ref. SYS-496
- Restore Vector State, (P) System Services Ref, SYS-498
- return status, (P) Programming Resources, 9–3 Save Vector Processor Exception State, (P) System Services Ref, SYS–507
- Set Process Swap Mode, (P) System Services Ref, SYS-542
- Set Protection on Pages, (P) System Services Ref, SYS-529
- Set Stack Limits, (P) System Services Ref, SYS-540
- $\begin{array}{ll} {\bf Start\ Transaction},\ \ (P)\ System\ Services\ Ref,\\ {\bf SYS-629} \end{array}$
- Start Transaction and Wait, (P) System Services Ref, SYS-633
- SYS\$GETQUI, V5.5 Release Notes, 3–44
- SYS\$GETQUI and SYS\$SNDJBC, *V5.5 New Features*, 12–1
- SYS\$GETSYI, V5.5 Release Notes, 3–44 to 3–46
- transaction management services, *V5.5 New Features*, B–39

- System service (cont'd)
  - Unlock Pages from Memory, (P) System Services Ref, SYS-651
  - Unlock Pages from Working Set, (P) System Services Ref, SYS-653
  - Unwind Call Stack, (P) System Services Ref, SYS-655
  - Update Section File on Disk, (P) System Services Ref, SYS-657
  - used to access remote files, (M) DECnet-VAX Guide, 2–12
- what is available, (P) Modular Procedures, 1–8 System service access, (P) RTL Library, 2–1, 2–2 System convice cell, (M) Naturaling, 1, 22, 8, 15
- System service call, (M) Networking, 1–22, 8–15, 8–16, 8–25
  - summary for nontransparent use, (M) Networking, 8–26, 8–34
  - summary for transparent use, (M) Networking, 8-18, 8-21
- System service dispatcher
  - role in servicing I/O request, (P) Device Support (A), 4-1
- System service exception, (P) RMS, 2-6
- System service exception generation disabling, (P) RMS, 2-6
- System shutdown
  - changes, V5.5 Release Notes, 2-50
- System space
  - base address, (P) System Dump Analyzer, SDA-14
  - SET BREAK command, (P) Debugger, CD-128 SET STEP command, (P) Debugger, CD-176
  - SET TRACE command, (P) Debugger, CD-187 STEP command, (P) Debugger, CD-260
- System space operator (G), (P) System Dump Analyzer, SDA-12
- System space prefix symbol, (P) Delta/XDelta, DELTA-9
- System spin lock, (P) Device Support (A), 3–13 System startup
  - changes, V5.5 Release Notes, 2-49
  - mounting of queue file disk, V5.5 Release Notes, 2–10; V5.5 New Features, 5–4
- "System" string constant parameter to GET\_INFO,
  (P) VAXTPU, 7–175
- System symbol table, (P) Linker, LINK-27; (P) System Dump Analyzer, SDA-6, SDA-13 linking against, V5.5 Release Notes, 3-1
- System time, (P) Programming Resources, 3–23; (P) Device Support (A), 3–8, 3–14, E–13; (P) Device Support (B), 3–69
  - changing, (U) DCL Dictionary, DCL2-234 displaying, (M) SYSMAN, SM-34
  - reading, (P) Device Support (A), E-15; (P) Device Support (B), 2-52
  - setting, (M) SYSMAN, SM-10, SM-31; (P) System Services Ref, SYS-517

Tab System time quadword examining, (P) System Dump Analyzer, Ctrl/I, (P) I/O User's I, 8-6 establishing position of, (U) EDT Ref, EDT-30 SDA-52System timer preset setting, (U) EDT Ref, EDT-103 preset value, (U) EDT Ref, EDT-315 canceling, (P) Programming Resources, 4-12 setting, (P) Programming Resources, 4-11 setting, (U) DSR Ref, 2-122 setting level count, (U) EDT Ref, EDT-34, System tuning automated technique for running AUTOGEN, EDT-35 V5.5 New Features, B-52 terminal mechanical, (P) I/O User's I, 8-21 SYSTEM user, (M) Security, 4-4 terminal tab stops, (P) I/O User's I, 8-35 TAB System user authorization file See also Formatting, text See SYSUAF.DAT keypad mode, (U) EDT Ref, EDT-103 SYSTEM user category TAB ADJUST command, (U) EDT Ref, EDT-249 accessing magnetic tape, (M) Security, 4-6 See also Tabbing functions system access id data type, (P) Routines Intro, Tabbing functions A-12t Ctrl/A, (U) EDT Ref, EDT-30 SYSTEM PRIMITIVES.EXE Ctrl/C, (U) EDT Ref, EDT-32 global symbols, (P) System Dump Analyzer, Ctrl/D, (U) EDT Ref, EDT-34 SDA-61 Ctrl/E, (U) EDT Ref, EDT-35 SYSTEM\_SYNCHRONIZATION.EXE Ctrl/H, (U) EDT Ref, EDT-22 global symbols, (P) System Dump Analyzer, Ctrl/I, (U) EDT Ref, EDT-103 SDA-61 Ctrl/T, (U) EDT Ref, EDT-45 SYSTEST account GOLD/A, (U) EDT Ref, EDT-30 initial modification, (M) Setting Up VMS, 4-5 GOLD/D, (U) EDT Ref, EDT-34 user authorization file entry, (M) Setting Up GOLD/E, (U) EDT Ref, EDT-35 VMS, 4-4GOLD/T, (U) EDT Ref, EDT-45 SYSUAF.DAT, (U) Using VMS, 7-1; (M) System SET TAB, (U) EDT Ref, EDT-30, EDT-196 Management Intro, 2-2 SHOW TAB, (U) EDT Ref, EDT-230 and rights database, (M) Security, 5-5 TAB, (U) EDT Ref, EDT-103, EDT-315 creating, (M) Authorize, AUTH-1 TAB ADJUST, (U) EDT Ref, EDT-249 creating common version, (M) VAXcluster, 4-12 TADJ (tab adjust), (U) EDT Ref, EDT-317 default directory entry, (M) Authorize, TC (tab compute), (U) EDT Ref, EDT-318 AUTH-14 TD (tab decrement), (U) EDT Ref, EDT-320 defining logical name for, (M) VAXcluster, 4-13 TI (tab increment), (U) EDT Ref, EDT-323 displaying records in, (M) Authorize, AUTH-49 TAB command, (U) EVE Ref, EVE-236 to effect of changes on NETPROXY.DAT, (M) EVE-237 Security, 8-16 nokeypad mode, (U) EDT Ref, EDT-315 merging, (M) VAXcluster, B-1 modifying, (M) Authorize, AUTH-1 See also Tabbing functions normal protection, (M) Security, 5-20 Tab key, (U) Using VMS, 1-18; (U) DCL printing listing of, (M) VAXcluster, B-1 Concepts, 2-5 recreating, (M) Authorize, AUTH-10 formatting text with (EVE), (U) Text renaming records, (M) Authorize, AUTH-45 Processing, 1–39 setting up, (M) VAXcluster, 4-12 Tab key command, (P) Delta/XDelta, DELTA-24 sharing, (M) VAXcluster, 4-12 TAB keypad mode SYS\_LOADABLE commands, (M) SYSMAN, See Formatting, text SM-12Table See Command table T Table of contents creating, (U) DCL Dictionary, DCL2-73; (U) TA90E tape drive DSR Ref, 2-33 support for, V5.5 Release Notes, 2-52; (U) creating with DSR, (U) Text Processing, 3-48 DCL Dictionary, DCL1-246, DCL2-177 formatting, (U) DSR Ref, 2-107, 5-1, A-4 using BACKUP command, V5.5 Release Notes, identifying current version, (U) DSR Ref. 5-4 2 - 53producing, (U) DSR Ref, 5-1 using /MEDIA\_FORMAT qualifier, V5.5 producing with DSR, (U) Using VMS, 9-17 Release Notes, 2-52; (U) DCL Dictionary,

DCL1-246, DCL2-177

mil co	Tape (cont'd)
Table of Contents Utility, (U) DSR Ref, 5-1	establishing operational status for, (U) DCL
features of, (U) DSR Ref, 5–1	Dictionary, DCL2–123
qualifiers, (U) DSR Ref, 5–3 /TABLE qualifier, (P) Command Def, CDU-44	HSC, (M) VAXcluster, 5-1, 5-2
Tables	local, (M) VAXcluster, 5-2
ASCII, (M) Terminal Fallback, TFU-18	managing, (M) VAXcluster, 5-1
enabling, (M) Terminal Fallback, TFU-24	modifying RMS defaults for file operations, (U)
establishing default, (M) Terminal Fallback,	DCL Dictionary, DCL2-214
TFU-20	restricted access, (M) VAXcluster, 5-1
in SYS\$SYSTEM:TFF\$MASTER.DAT, (M)	serving, (M) VAXcluster, 5-1
Terminal Fallback, TFU-7	TMSCP-served, $(M)$ VAXcluster, 5-1
LATIN_1, (M) Terminal Fallback, TFU-18	Tape class driver, (M) VAXcluster, 1-5
producing a brief directory list of, (M) Terminal	disabling the loading of, $(P) I/O User's I$ ,
$Fallback, { m TFU-}15$	11–10; (P) Device Support (A), 17–31
setting system default, (M) Terminal Fallback,	Tape commands
TFU-9	MOUNT, (M) Maintaining VMS, 3–3, 3–4
Tab modes, (U) EVE Ref, EVE-210, EVE-236	/COMMENT qualifier, (M) Maintaining
Tab stops, (U) EVE Ref, EVE-210	VMS, 3–3
in source statement, (P) MACRO, 2-1	REPLY /ABORT qualifier, (M) Maintaining VMS,
.TAB STOPS command, (U) Text Processing, 3–12;	3–7
(U) DSR Ref. 2–122	/BLANK_TAPE qualifier, (M) Maintaining
Tab value, (U) EDT Ref, EDT-230	VMS, 3-6
TAB_STOPS keyword used with SET, (P) VAXTPU, 7–481	/INITIALIZE_TAPE qualifier, (M)
"Tab_stops" string constant parameter to	Maintaining VMS, 3-6
GET_INFO, (P) VAXTPU, 7–175	/TO qualifier, (M) Maintaining VMS, 3-5,
TADJ (tab adjust) command, (U) EDT Ref,	3-6, 3-7, 3-8
EDT-317	Tape driver, (P) Device Support (B), 1-74, 4-13
See also Tabbing functions	using local tape UCB extension, (P) Device
Tag sort, (U) Using VMS, 1-39	Support (B), 1–69, 1–81 to 1–82
reasons for selecting, (U) Sort/Merge,	Tape initializing
SORT-29	using REPLY/BLANK_TAPE, (U) DCL
specifying, (U) Sort/Merge, SORT-70	Dictionary, DCL2-40
Tailoring the configuration database, (M)	using REPLY/INITIALIZE_TAPE, (U) DCL
Networking, 5-7	Dictionary, DCL2-40
Tampering with system file	Tape label processing, (M) Backup, BCK-8
how to detect, (M) Security, 7-4	Tape mark, (U) Files and Devices, B-3; (P) I/O
Tangent, (P) RTL Math, MTH-104, MTH-106,	<i>User's I</i> , 6–17, 6–20 Tape marker
MTH-139, MTH-141	BOT, (U) Files and Devices, B-3
hyperbolic, (P) RTL Math, MTH-108, MTH-143	EOT, (U) Files and Devices, B-3
Tape	Tape processing
	run-time options, (P) File Applications, 9–13 to
See also Dual-pathed tape, Dual-ported tape	9–14
See also Magnetic tape	Tape server, V5.5 New Features, 20-1
See also Tape volume	Tape support
See Magnetic tape	for ANSI initialized magnetic tapes, V5.5
allocation class, (M) VAXcluster, 5-8	$Release\ Notes,\ 1–20$
cluster-accessible, V5.5 New Features, 7–1;	new, V5.5 New Features, A–8
(M) VAXcluster, 5–1	Tape volume
disabling operator status, (U) DCL Dictionary,	See also Volume
DCL2-40	accessing, (M) System Management Intro, 4-2
DSA, (M) VAXcluster, 5–5	automatic volume labeling (AVL), (M)
DSA controller, (M) VAXcluster, 5–2	Maintaining VMS, 3–5
DSSI, (M) VAXcluster, 5-1 dual-pathed, (M) VAXcluster, 5-1	automatic volume recognition (AVR), (M)
enabling operator status, (U) DCL Dictionary,	Maintaining VMS, 3–5
DCL2-40	end of tape (EOT) marker
	when reached, (M) Maintaining VMS, 3-5

Tape volume (cont'd)	Task (cont'd)
ensuring correct volume is mounted, (M)	source, (M) Networking, 8-14
Maintaining VMS, 3–6	specification, (M) Networking, 1-24
file specification, (U) DCL Concepts, 3–16	specification for task, (M) Networking, 1-25
identifying in MOUNT command, (M)	specification over the network, (M) Networking,
Maintaining VMS, 3–6	1–25
identifying in REPLY command, (M)	specification string, (M) Networking, 1-25, 8-9,
Maintaining VMS, 3–6	8–17, 8–30
initializing, (M) Maintaining VMS, 3-6	target, (M) Networking, 8-14, 8-23
loading, (M) Maintaining VMS, 3-4	%TASK
monitoring operations, (M) Maintaining VMS,	See Task ID
6–7	Task execution
mounting, (M) Maintaining VMS, 3-4; (P)	on remote nodes, (M) DECnet-VAX Guide, 2-12
System Services Intro, 7–22	Task ID, (P) Debugger, 12-6, 12-12, 12-14,
mounting volume sets, (M) Maintaining VMS,	12–15, 12–19
3–5	Tasking (multithread) program
mounting with automatic switching, (M)	active task, (P) Debugger, 12-10
Maintaining VMS, 3–5	comparison of task and DECthreads
mounting without automatic switching, (M)	terminology, (P) Debugger, 12–2
Maintaining VMS, 3–5	controlling and monitoring execution, (P)
unformatted	Debugger, 12–24
writing to, (M) Maintaining VMS, 3-6	controlling task switching, (P) Debugger, 12–23
volume checking, (M) Maintaining VMS, 3–6	deadlock condition, (P) Debugger, 12-30
if failed, (M) Maintaining VMS, 3-6	debugger support, V5.5 New Features, 14-1
write-locking, (M) Maintaining VMS, 3-5	debugging, (P) Debugger, 12–1
write rings, (M) Maintaining VMS, 3-5	with DECwindows, (P) Debugger, 1–28
TAPE_ALLOCLASS, V5.5 New Features, 7–1,	environment task, (P) Debugger, 12-6
7–3; (M) VAXcluster, 5–8, A–2	event facility, (P) Debugger, 12–27
TAPE_EXPIRATION qualifier, (M) Backup,	eventpoints, (P) Debugger, 12-24
BCK-10, BCK-89	monitoring events, (P) Debugger, 12-27
TAPE_MVTIMEOUT parameter, (M) System	null task, (P) Debugger, 12–13
Generation, A-32; (M) Maintaining VMS,	obtaining information about, (P) Debugger,
3–12	12–15
Target, (P) Device Support (A), 17-2	obtaining priority of task or thread, (P)
enabling selection from, (P) Device Support (A),	$Debugger,\ 12-15,\ 12-19$
17–28 to 17–30; (P) Device Support (B),	predefined breakpoint, (P) Debugger, 12–29
2–70, 2–73 to 2–90	sample Ada program for debugging, (P)
TARGET attribute, (P) File Def Language,	$Debugger,12 ext{}6$
FDL-38	sample C program for debugging, (P) Debugger,
Target-initiated downline load, (M) Networking,	12–2
4–2	SET EVENT_FACILITY command, (P)
Target mode	Debugger, 12–28, CD–136
See AEN	SET TASK command, (P) Debugger, 12–22,
Target node, (M) Networking, 4-1	CD-178
Target node name, (M) LATCP, LAT-57	setting breakpoint, (P) Debugger, 12-24
Target port name, (M) LATCP, LAT-57	setting priority of task or thread, (P) Debugger,
Target service name, (M) LATCP, LAT-57	12–22, 12–30
Target task, (M) Networking, 8–12	setting time-slice value, (P) Debugger, 12–23
Task, (P) Debugger, 12–1	setting tracepoint, (P) Debugger, 12–24
See also Tasking (multithread) program	setting watchpoint, (P) Debugger, 12–24
declaring for network, (M) Networking, 8-8	SHOW EVENT_FACILITY command, (P)
definition, (M) Networking, 1–21	Debugger, 12–28, CD–215
downline load, (M) Networking, 4-20	SHOW TASK command, (P) Debugger, 12–15,
general purpose, (M) Networking, 4-22	CD-246
identifier in specification, (M) Networking,	specifying task body, (P) Debugger, 12–12
1–25	specifying tasks or threads, (P) Debugger,
installation, (M) Networking, 4-22	12–10
remote, $(M)$ DECnet-VAX Guide, 2-14	stack checking, (P) Debugger, 12–31

Tasking (multithread) program (cont'd) Telephone line (cont'd) state of task or thread, (P) Debugger, 12-15, leased, (M) DECnet-VAX Guide, 1-7 12 - 19Telephone Utility substate of task or thread, (P) Debugger, See Phone Utility 12-15, 12-19 TELL command, (M) Network Control Program, task built-in symbols, (P) Debugger, 12-13 NCP-175 task event, (P) Debugger, 12-27 TELL prefix task ID, (P) Debugger, 12-6, 12-12, 12-14, description, (M) Networking, 3-7 12-15, 12-19 for NCP command SHOW, (M) DECnet-VAX task object, (P) Debugger, 12-11 Guide, 4-3 visible task, (P) Debugger, 12–10 Temperature, Dependability Handbook, 5-4 TASK object Template class driver, (P) Device Support (A), restricting default access, V5.5 New Features, 17 - 9D-2listing of, (P) Device Support (A), B-1 to B-35 /TASK qualifier, (P) Debugger, 12-12, CD-60, Template device, (P) Device Support (A), 11–12 CD-84 Template for a device driver, (P) Device Support Task specification string, (M) DECnet-VAX Guide, (A), A-1 to A-10 Template UCB, (P) Device Support (B), 1-78 on a network, (U) DCL Concepts, 3-3 TEMPORARY attribute, (P) File Def Language, Task state, (P) Debugger, 12-15, 12-19 FDL-24 Task substate, (P) Debugger, 12-15, 12-19 Temporary connection Task switching, (P) Debugger, 12-9, 12-23, 12-26 on network, (M) DECnet-VAX Guide, 3-4 Task-to-task communication, (M) DECnet-VAX Temporary defaults in an input file list, (U) DCL Guide, 2-12; (M) Networking, 1-3, 1-21, 8-1, Concepts, 3-16 8-16, 8-25 Temporary file, (P) Convert, CONV-27; (P) File nontransparent, (M) DECnet-VAX Guide, 2-14; Def Language, FDL-19, FDL-20 (M) Networking, 8-7, 8-8, 8-25 Temporary file delete option nontransparent MACRO example, (M) See FAB\$V\_TMD option Networking, 8-49 Temporary file option transparent, (M) DECnet-VAX Guide, 2-14; See FAB\$V TMP option (M) Networking, 8-1, 8-16 Temporary mailbox. (P) I/O User's I, 7-4 transparent FORTRAN example, (M) Temporary option, (P) File Applications, 4–27 Networking, 8–44 transparent MACRO example, (M) Networking, delete option, (P) File Applications, 4-27 /TEMPORARY qualifier, (P) Debugger, CD-128, 8 - 46\$TASK\_BODY, (P) Debugger, 12-12, 12-25 CD-187, CD-197 TB (translation buffer) TEMPORARY secondary attribute, (P) File invalidating, (P) Device Support (A), E-15; (P) Applications, 4–27 Device Support (B), 2-41 to 2-42 Terminal, (P) Device Support (B), 1–74, 1–76 vector, (P) MACRO, 10-7, 10-8, 10-20, 10-32, See also SET TERMINAL command 10-34, 10-41, 10-47 See also SHOW TERMINAL command TBIA (TB Invalidate All) instruction, (P) MACRO, See also Terminal class driver 10 - 47See also Terminal controller TBIS (TB Invalidate Single) instruction, (P) See also Terminal port driver MACRO, 10-47 See also Terminal UCB extension TC (tab compute) command, (U) EDT Ref, ANSI CRT terminal, (P) I/O User's I, 8-22 EDT-318 autobaud detection, (P) I/O User's I, 8-19, See also Tabbing functions TCB (Trusted Computing Base), (M) Security, D-1 automatic switching of line, (M) DECnet-VAX TD (tab decrement) command, (U) EDT Ref, Guide, 3-26EDT-320 baud rate, (P) I/O User's I, 8-19, 8-22, 8-40 See also Tabbing functions behavior, (P) VAXTPU, C-1 Teamwork, Dependability Handbook, 3-19 bell (Ctrl/G), (P) I/O User's I, 8-9 TECO description, (U) DCL Dictionary, broadcast message, (P) I/O User's I, 8-18, DCL1-186 8-21, 8-23, 8-46 TEF option, (P) File Def Language, FDL-25 carriage control, (P) I/O User's I, 8-36 Telephone line, (M) DECnet-VAX Guide, 1-2, 1-10 characteristic dialup, (M) DECnet-VAX Guide, 1-7, 3-18 See Terminal characteristic

Terminal (cont'd) Terminal (cont'd) command line editing, (P) I/O User's I, 8-3, for debugger input/output, separate, (P) Debugger, 9-5, CD-150 command recall (Ctrl/B), (P) I/O User's I, 8-3, using DECterm window, (P) Debugger, console, (M) System Management Intro, 1-2 form feed, (P) I/O User's I, 8-21, 8-35 frame size, (P) I/O User's I, 8-41 control and data signals, (P) I/O User's I, 8-16 function codes, (P) I/O User's I, 8–26, A–8 control characters, (P) I/O User's I, 8-4 to 8-6, 8-9, 8-27 function modifiers numeric values, (P) I/O User's I, B-1 See also Terminal, item codes controlling access through system password, IO\$M BRDCST, (P) I/O User's I, 8-46, (M) Security, 5-15 control sequences, (P) I/O User's I, 8-8IO\$M\_BREAKTHRU, (P) I/O User's I, cursor movement, (P) I/O User's I, 8-3, 8-5, 8-10, 8-35  $IO$M_CANCTRLO$ , (P) I/O User's I, 8–5, 8-22DEC\_CRT2, (P) VAXTPU, C-3 default characteristics. (U) DCL Dictionary. IO\$M\_CTRLCAST, (P) I/O User's I, 8-42 IO\$M\_CTRLYAST, (P) I/O User's I, 8-5, DCL1-392 See LOGIN Procedure command 8-13, 8-42 delete character, (P) I/O User's I, 8-3 IO\$M\_CVTLOW, (P) I/O User's I, 8-27 delete line (Ctrl/U), (P) I/O User's I, 8-5, 8-27 IO\$M DSABLMBX, (P) I/O User's I, 8-27 detached, (P) Device Support (B), 1-75 IO\$M\_ENABLMBX, (P) I/O User's I, 8-35 determining type, (M) Setting Up VMS, 6-21 IO\$M ESCAPE, (P) I/O User's I, 8–7, device characteristics, (P) I/O User's I, 8-20 categories, (P) I/O User's I, 8-25 IO\$M\_EXTEND, (P) I/O User's I, 8-27, changing, (P) I/O User's I, 8–42 extended, (P) I/O User's I, 8-22 IO\$M\_HANGUP, (P) I/O User's I, 8-42 dial-up  $IO$M_INCLUDE$ , (P) I/O User's I, 8–19, characteristic, (P) I/O User's I, 8-22 8-43, 8-46 lines, (P) I/O User's I, 8–13, 8–23, 8–42 IO\$M LOOP, (P) I/O User's I, 8-45 support, (P) I/O User's I, 8–13 IO\$M\_LT\_CONNECT, (P) I/O User's I, Digital CRT terminal, (P) I/O User's I, 8-23 discard output (Ctrl/O), (P) I/O User's I, 8-5, IO\$M LT\_DISCON, (P) I/O User's I, 8-49 IO\$M\_LT\_MAP\_PORT, (P) I/O User's I, 8-27, 8-35 display P1 parameters, (P) I/O User's I, 8-50 stopping and starting, (U) Using VMS, 1-19, 1-23 IO\$M\_LT\_RATING, (P) I/O User's I, 8-49 IO\$M\_MAINT, (P) I/O User's I, 8-44, displaying characteristics of, (U) DCL Dictionary, DCL2-326 IO\$M\_NOECHO, (P) I/O User's I, 8-9, file at, (U) DCL Dictionary, DCL2-389 8-10, 8-24, 8-27 driver, (P) I/O User's I, 8–1 IO\$M\_NOFILTR, (P) I/O User's I, 8-27 duplex modes, (P) I/O User's I, 8–10, 8–13 IO\$M NOFORMAT, (P) I/O User's I, 8-11, enable Ctrl/C AST, (P) I/O User's I, 8-42 8-35, 8-45 enable Ctrl/Y AST, (P) I/O User's I, 8-42 IO\$M OUTBAND, (P) I/O User's I, 8-46 escape sequences, (P) I/O User's I, 8-7, 8-57 IO\$M PURGE, (P) I/O User's I, 8-27 ANSI, (P) I/O User's I, B-9 IO\$M\_RD\_MODEM, (P) I/O User's I, 8-54 IO\$M REFRESH, (P) I/O User's I, 8-36 Digital-private, (P) I/O User's I, B-9 IO\$M SET\_MODEM, (P) I/O User's I, overflow size (item code), (P) I/O User's I, establishing as spooled, (U) DCL Dictionary, IO\$M TIMED, (P) I/O User's I, 8-27 DCL2-123 IO\$M\_TRMNOECHO, (P) I/O User's I, extended characteristics, (P) I/O User's I, 8-22 8 - 28 $IO$M_TT_ABORT$ , (P) I/O User's I, 8–19, failover, Dependability Handbook, 8-48, 8-53 fallback conversion, (P) I/O User's I, 8-11, 8-24, 8-42 IO\$M\_TYPEAHDCNT, (P) I/O User's I, features, (P) I/O User's I, 8–2 IO\$M\_UNLOOP, (P) I/O User's I, 8-45

erminal (cont'd)	Terminal
hang up, (P) I/O User's I, 8-13, 8-17, 8-18,	modem (cont'd)
8–23, 8–24, 8–42, 8–52	protocol, $(P) I/O User$ 's $I, 8-14$
hardcopy, (U) VMS Intro, 1–1	sense signals, (P) I/O User's I, 8-54
logout considerations, (M) Security, 3-21	signal control, (P) I/O User's I, 8–13
I/O	modem signal control, (P) I/O User's I, 8–13
in command procedure, (U) Using VMS,	modifying characteristics of, (U) DCL
6–10, 6–12	Dictionary, DCL2-221
I/O functions, (P) Device Support (B), 1–40	no type-ahead, $(P) I/O User$ 's $I$ , 8–21
CTDRIVER, (P) I/O User's I, 8-35	operator, (M) System Management Intro, 1-2;
IO\$_READLBLK, (P) I/O User's I, 8-26	(M) Maintaining VMS, 6-8; (M) Security,
$IO\$_READPROMPT$ , (P) $I/O$ User's $I$ ,	6–12
8–26, 8–27	out-of-band
IO\$_READVBLK, (P) I/O User's I, 8-26	See also Out-of-band AST
IO\$_SENSECHAR, (P) I/O User's I, 8-53	characters, $(P) I/O User's I$ , 8–19
IO\$_SENSEMODE, (P) I/O User's I, 8-53	output
IO\$_SETCHAR, (P) I/O User's I, 8-38	CTDRIVER, (P) I/O User's I, 8–11
$IO\$\_SETMODE$ , (P) I/O User's I, 8–38	RTPAD, $(P) I/O User's I$ , 8–11
IO\$_TTY_PORT, (P) I/O User's I, 8-49	SET HOST, (P) I/O User's I, 8-11
IO\$_WRITELBLK, (P) I/O User's I, 8-34	output formatting, (P) I/O User's I, 8-11, 8-25
IO\$_WRITEPBLK, (P) I/O User's I, 8-34	output processing, (P) I/O User's I, 8–10
IO\$_WRITEVBLK, (P) I/O User's I, 8-34	page length and width, (P) I/O User's I, 8-40,
I/O status block, (P) I/O User's I, 8-56	8–53
initiate login, (P) I/O User's I, 8-9	parity flag, (P) I/O User's I, 8-41
input processing, (P) I/O User's I, 8-3	pasthru mode, (P) I/O User's I, 8-9, 8-11,
insert/overstrike (Ctrl/A), (P) I/O User's I, 8-3,	8-24, 8-27
8–6	port, (M) DECnet-VAX Guide, 3-25
interrupt (Ctrl/Y), (P) I/O User's I, 8-5	process preservation, (P) I/O User's I, 8-17
item codes, (P) I/O User's I, 8–30 to 8–33	programming examples, (P) I/O User's I, 8–59
itemlist read, (P) I/O User's I, 8-29	protection, (U) Using VMS, 7-12; (U) Files
example, $(P) I/O User's I$ , 8–70	and Devices, 2–14
item codes, (P) I/O User's I, 8–30 to 8–33	protocol, (P) $I/O$ User's $I$ , 8–14
item descriptor, (P) I/O User's I, 8-30	read function, $(P) I/O User's I$ , 8–26
LAT, (M) Setting Up VMS, 6-21	arguments, (P) I/O User's I, 8–26
LAT line, (P) I/O User's I, 8–1	function modifiers, (P) I/O User's I, 8–27
LAT port driver, (P) I/O User's I, 8-48	itemlist read, $(P) I/O User$ 's $I$ , 8–29
application services creation, $(P) I/O$	terminating, (P) I/O User's I, 8–26
User's I, 8–51	terminators, $(P) I/O User's I$ , 8–28
example, $(P) I/O User$ 's $I$ , 8–74	with timeout, (P) I/O User's I, 8–26, 8–27
I/O functions, (P) I/O User's I, 8–49	read verify, (P) I/O User's I, 8-6, 8-33
LAT rejection codes, (P) I/O User's I, 8–58	example, (P) I/O User's I, 8-70
limiting access, (M) Security, 5–30	receive speed, (P) I/O User's I, 8–40
line editing, (P) I/O User's I, 8–3, 8–23	redirected, (P) Device Support (B), 1-75
See also Terminal, item codes	redisplay data (Ctrl/R), (P) I/O User's I, 8-6,
· · · · · · · · · · · · · · · · · · ·	8–27
line feed, (P) I/O User's I, 8–35	ReGIS graphics, (P) I/O User's I, 8–24
line terminators, (P) I/O User's I, 8–9 logout considerations, (M) Security, 3–20	restart data (Ctrl/Q), (P) I/O User's I, 8-6
— · · · · · · · · · · · · · · · · · · ·	restoring width, (P) VAXTPU, A-5
mailbox, (P) I/O User's I, 8–17, 8–35	sending message to, (U) DCL Dictionary,
message format, (P) I/O User's I, 8–18	DCL2–38
message types, (P) I/O User's I, 8–18	sense characteristics function, $(P) I/O User's I$
managing terminal parameters with, (M)	8–53
Terminal Fallback, TFU-10	sense mode function, (P) I/O User's I, 8-53
manual switching of line, (M) DECnet-VAX	serial line multiplexer, (P) I/O User's I, 8–1
Guide, 3–26	serial line multiplexer, (F) 1/O Oser's 1, 8–1 session
modem	auditing, (M) Security, 6–21
characteristic, (P) I/O User's I, 8–21	set characteristics function, $(P) I/O User's I$ ,
control signals, (P) I/O User's I, 8–16	8–38
data signals, $(P) I/O User's I$ , 8–16	0-90

Terminal	Terminal (cont'd)
set characteristics function (cont'd)	virtual, (U) DCL Dictionary, DCL1-60,
arguments, $(P) I/O User's I, 8-39$	DCL1-168; $(M)$ Security, 3-5; $(M)$
set mode function, (P) I/O User's I, 8-38	DECnet-VAX Guide, 3-24
arguments, $(P) I/O User's I$ , 8–39	See also Virtual terminal
SET TERMINAL DCL command, (P) I/O	width
User's I, 8–4, 8–19, 8–25	restoring, (P) VAXTPU, A-5
setting, (M) Setting Up VMS, 2-9; (P)	write breakthrough function, $(P) I/O User's I$ ,
VAXTPU, C-1 to C-3	8–36
AUTO_REPEAT, (P) VAXTPU, C-2	write function, (P) I/O User's I, 8-34
auxiliary keypad, (P) VAXTPU, C-2	carriage control, (P) I/O User's I, 8–36
132 columns, (P) VAXTPU, C-2 control sequence introducer, (P) VAXTPU,	function modifiers, (P) I/O User's I, 8–35
C-2	XON/XOFF control, (P) I/O User's I, 8-24
CSI, (P) VAXTPU, C-2	Terminal attributes changing repeat feature, (U) EDT Ref,
cursor, (P) VAXTPU, C-2	EDT-189
DEC_CRT, (P) VAXTPU, C-2	changing terminal type, (U) EDT Ref, EDT-198
edit mode, (P) VAXTPU, C-2	displaying, (U) EDT Ref, EDT-206, EDT-224,
eightbit characters, (P) VAXTPU, C-2	EDT-225
scrolling, (P) VAXTPU, C-3	displaying prompt settings, (U) EDT Ref,
video attributes, (P) VAXTPU, C-3	EDT-223
wrap, (P) VAXTPU, C-4	displaying terminal settings, (U) EDT Ref,
setting default characteristics for, (M) Terminal	EDT-232
Fallback, TFU-10	preventing keypad key repetition, (U) EDT Ref
site-specific startup, (M) Setting Up VMS, 2-9	EDT-171
SIXEL graphics, (P) I/O User's I, 8-24	redefining prompt string, (U) EDT Ref,
special operating modes, (P) I/O User's I, 8–10 specifying type, (M) Terminal Fallback,	EDT-186
TFU-24	SHOW PROMPT, (U) EDT Ref, EDT-223
status (Ctrl/T), (P) I/O User's I, 8–6	SHOW QUIET, (U) EDT Ref, EDT-224 SHOW REPEAT, (U) EDT Ref, EDT-225
status returns, $(P) I/O User's I$ , A-9	SHOW TERMINAL, (U) EDT Ref, EDT-232
stop data (Ctrl/S), (P) I/O User's I, 8-6	silencing terminal bell, (U) EDT Ref, EDT-188
support, (P) VAXTPU, C-1	suppressing summary information, (U) EDT
supported devices, (P) I/O User's I, 8-1	Ref, EDT-195
support for SET and SHOW TERMINAL	Terminal baud rate
commands, (P) RTL Screen Management,	lowering, (M) Performance Management, 5-16
5–24	Terminal characteristic, (P) Programming
SYS\$GETDVI returns, (P) I/O User's I, 8–20	Resources, 7–51
system password, (P) I/O User's I, 8–24	ANSI CRT, (P) I/O User's I, 8–22
system password requirement for, (M) Security, 3–7	ASCII (8-bit) code, (P) I/O User's I, 8–21
tab	baud rate, (P) I/O User's I, 8-22
Ctrl/I, (P) I/O User's I, 8–6	block mode, (P) I/O User's I, 8–23 dial-up line, (P) I/O User's I, 8–23
mechanical, $(P) I/O User's I$ , 8–21	dial-up terminal, $(P) I/O User's I$ , 8–23
stops, (P) I/O User's I, 8–35	Digital CRT, (P) I/O User's I, 8–23
terminator mask, (P) I/O User's I, 8-28, 8-29	DMA mode, (P) I/O User's I, 8-23
time (Ctrl/T), (P) I/O User's I, 8-6	edit, (P) I/O User's I, 8-23
transmit speed, (P) I/O User's I, 8-40	extended characteristics, (P) I/O User's I, 8-22
TTY_DIALTYPE SYSGEN parameter, $(P) I/O$	local echo, (P) I/O User's I, 8-24
User's I, 8–13, 8–14, 8–16	modem, (P) I/O User's I, 8-21
type-ahead, (P) I/O User's I, 8-8, 8-17, 8-21,	modify hang up, (P) I/O User's I, 8–24
8–54	no echo, $(P) I/O User$ 's $I$ , 8–21
alternate buffer, (P) I/O User's I, 8-22	no type-ahead, (P) I/O User's I, 8-21
unsolicited data, (P) I/O User's I, 8–17	pasthru mode, (P) I/O User's I, 8-24
usage restrictions, $(M)$ Security, 5–29 video display, $(U)$ VMS Intro, 1–1	ReGIS graphics, (P) I/O User's I, 8–24
video display, (O) VIVIS IIIIO, 1-1	remote terminal, (P) I/O User's I, 8-22
	secure, (P) I/O User's I, 8-24
	set speed, $(P) I/O User's I, 8-24$

Terminal characteristic (cont'd) SIXEL graphics, (P) I/O User's I, 8-24 system password, (P) I/O User's I, 8-24 XON/XOFF, (P) I/O User's I, 8-24 Terminal class driver, (P) Device Support (A), 18-1 to 18-23 See also Class driver binding to port driver, (P) Device Support (A), 18-9 to 18-10; (P) Device Support (B), 2-8 service routines, (P) Device Support (A), 18–19 to 18-23 structure, (P) Device Support (A), 18-7 Terminal concentrator effects on login, (M) Security, 3-2 Terminal connection to remote console, (M) Networking, 4-24 Terminal controller, (P) Device Support (B), 1–21 Terminal device record-processing option, (P) RMS, 7-18 Terminal device width, (P) Programming Resources, 7-6 Terminal display stopping and starting, (U) DCL Concepts, 2-7 Terminal echo, (P) Programming Resources, 7-40 disabling, (P) Programming Resources, 7-41 TERMINAL/ECHO command, (M) System Generation, SGN-42 Terminal emulator, (M) DECnet-VAX Guide, 3-25; (M) Networking, 1-10, 2-16; (P) VAXTPU, 6-4See also Terminal creating, (U) DCL Dictionary, DCL1-97 Terminal extended address block See XABTRM block Terminal fallback purpose of, (M) Terminal Fallback, TFU-2 Terminal Fallback Facility (TFF), (M) Terminal Fallback, TFU-1 See also Terminal Fallback Utility Terminal Fallback Utility (TFU) and SYSGEN, (M) Terminal Fallback, TFU-6 and SYSTARTUP\_V5.COM, (M) Terminal Fallback, TFU-6 and system resources, (M) Terminal Fallback, TFU-8 choosing TFF tables with, (M) Terminal Fallback, TFU-8 commands, (M) Terminal Fallback, TFU-13 to TFU-32 privileges needed to use, (M) Terminal Fallback, TFU-10 exiting, (M) Terminal Fallback, TFU-12

getting information about, (M) Terminal

installing, (M) Terminal Fallback, TFU-6 invoking, (M) Terminal Fallback, TFU-9,

Fallback, TFU-17

TFU-12

Terminal Fallback Utility (TFU) (cont'd) loading tables with, (M) Terminal Fallback, TFU-7 managing terminal parameters with, (M) Terminal Fallback, TFU-10 master character conversion library for, (M) Terminal Fallback, TFU-7 overview, (M) Terminal Fallback, TFU-1 resuming TFF intervention, (M) Terminal Fallback, TFU-24 setting up, (M) Terminal Fallback, TFU-6, TFU-9 suspending TFF intervention, (M) Terminal Fallback, TFU-24 system default tables for, (M) Terminal Fallback, TFU-9 TFF\$STARTUP.COM, (M) Terminal Fallback, TFU-6 Terminal I/O, (P) Modular Procedures, 2-17 example, (P) System Services Intro, 7-18 reducing interrupts, (M) Performance Management, 5–15 Terminal key defining for SDA, (P) System Dump Analyzer, SDA-43 Terminal line asynchronous DECnet, (M) DECnet-VAX Guide, 3-18 conversion to DECnet line, (M) Networking, 1-10, 2-15, 5-7Terminal operation improper handling, (M) Performance Management, 4-31 in relation to CPU limitation, (M) Performance Management, 4-31 in relation to I/O limitation, (M) Performance Management, 4-31 Terminal port driver, (P) Device Support (A), 18-1 to 18-23; (P) Device Support (B), 2-7 aborting output activity in, (P) Device Support (A), 18–16 binding to class driver, (P) Device Support (A), 18-9 to 18-10; (P) Device Support (B), 2-8 canceling I/O request in, (P) Device Support (A), 18–17 control flags, (P) Device Support (B), 1-89 detecting an error on terminal line in, (P) Device Support (A), 18–22 disconnecting a process from a terminal in, (P) Device Support (A), 18–19 forking in, (P) Device Support (A), 18-14, implementing modem functions in, (P) Device Support (A), 18–15 initiate routines, (P) Device Support (A), 18-13 managing data set state transitions in, (P) Device Support (A), 18–20

Terminal port driver (cont'd) Terminating (cont'd) obtaining characters for output in, (P) Device dynamic asynchronous link, (M) DECnet-VAX Support (A), 18-20 Guide, 3-27 passing input characters to class driver from, Terminating access to PPL\$, (P) RTL Parallel (P) Device Support (A), 18-21 Processing, 2-2 resuming stopped output in, (P) Device Support /TERMINATING qualifier, (P) Debugger, 10-12, (A), 18–17 CD-18, CD-31, CD-129, CD-187 service routines, (P) Device Support (A), 18-16 Terminating signals, (P) DECthreads, A-4 Termination to 18-18 debugging session, (P) Debugger, 3-4, 10-8, starting output on an inactive line in, (P) CD-90, CD-106 Device Support (A), 18–16 startup routines, (P) Device Support (A), 18-12 with DECwindows, (P) Debugger, 1-20 execution of handlers at, (P) Debugger, 9-15 to 18-13 stopping output in, (P) Device Support (A), multiprocess program, (P) Debugger, 10-8, 18 - 1710-9, 10-12 structure, (P) Device Support (A), 18-7 of command procedure, (U) DCL Dictionary, using input flow control character in, (P) DCL1-222 Device Support (A), 18-17, 18-18 of GOSUB subroutine, (U) DCL Dictionary, /TERMINAL qualifier, (M) Accounting, ACC-34 DCL2-49 Terminal queue, (M) Maintaining VMS, 5-4 of terminal session, (U) DCL Dictionary, definition, (U) Using VMS, 2-18 DCL1-396 Terminal read operation waiting for, (P) DECthreads, cma-107, RAB\$L\_ROP field options, (P) RMS, 18-2 pthread-63 Terminal requirements, (U) Phone, PHONE-3 Termination mailbox, (P) System Services Intro, 7-34, 8-18 Terminal screen size Termination message, (U) DSR Ref, 4-15 See Screen size format, (P) System Services Ref, SYS-108 Terminal server, V5.5 New Features, 9-8; (M) Termination of a thread Security, 5-15; (M) DECnet-VAX Guide, 1-7 error, (P) DECthreads, cma-95, cma-100, defined, V5.5 New Features, 9-5 pthread-47 on Ethernet, (M) Networking, 1-12 events that cause, (P) DECthreads, cma-95, on LAT, (M) Networking, A-10 pthread-47 on VMS system, (M) LATCP, LAT-1 normal, (P) DECthreads, cma-95, cma-101, Terminal session pthread-47, pthread-54 logging in, (U) DCL Dictionary, DCL1-392 premature successful completion, (P) logging out, (U) DCL Dictionary, DCL1-396 DECthreads, cma-101, pthread-54 Terminal settings without raising an exception, (P) DECthreads, See also SHOW TERMINAL command cma-100 hardcopy, (U) EDT Ref, EDT-123, EDT-232 without returning from start routine, (P) VT100-series, (U) EDT Ref, EDT-232 DECthreads, cma-101, pthread-54 Terminal support, (P) VAXTPU, 1-8 Termination of subordinate abnormally Terminal timeout, (P) Programming Resources, notification of, (P) RTL Parallel Processing, 2-3 Terminator, (U) Text Processing, 3-3; (P) RTL Terminal UCB extension, (P) Device Support (A), Screen Management, 3-3 18-2 to 18-3; (P) Device Support (B), 1-69, See also Input/output 1-84 to 1-91 codes, (P) RTL Screen Management, 3-4 initializing, (P) Device Support (A), 18-22 echo, (P) Programming Resources, 7-24 remote, (P) Device Support (B), 1-75 file, (P) Programming Resources, 7-54 /TERMINATE qualifier, (P) Debugger, 8-8, record, (P) Programming Resources, 7-53 CD-50; (P) System Dump Analyzer, SDA-45 Terminator character bit mask, (P) I/O User's I, Terminating a remote session, (M) DECnet-VAX Guide, 3-3 Terminator variations, (P) File Applications, 3–10 a session, (M) Analyze/Disk, ADSK-4 Term in MACRO statement, (P) MACRO, 3-9 commands, (U) DSR Ref, 1-3 TERMTABLE.EXE, (P) RTL Screen Management, **DELTA** 5-1, 5-17 See Exiting creating, (P) RTL Screen Management, 5-22 DELTA/XDELTA commands, (P) Delta/XDelta,

DELTA-27

Text (cont'd) TERMTABLE.TXT. (P) RTL Screen Management, underlining with DSR, (U) Text Processing, 5-1, 5-17 3 - 46Tertiary loader, (M) Networking, 4-3, 4-13 Text back-end converter Test processing options in, (U) DCL Dictionary, See also DTS test DCL1-67 circuit loopback, (M) Networking, 7-6, 7-9 Text editor controller loopback, (M) Networking, 7-8 creating command procedure with, (P) Patch, Ethernet loopback, (M) Networking, 7-9 PAT-5 local loopback, (M) Networking, 7-6 EVE, (U) DCL Dictionary, DCL1-189 local-to-remote, (M) Networking, 7-4 to create FDL files, (P) File Def Language, loopback, (M) DECnet-VAX Guide, 4-7 FDL-42 node-level, (M) Networking, 7-1 VAXTPU, (U) DCL Dictionary, DCL1-189 remote loopback, (M) Networking, 7-2 Text entry software loopback, (M) Networking, 7-7 X.25, (M) Networking, 7-13 See Explanatory text Test and set instructions, (P) Modular Procedures, Text file 3 - 23formatting Testing See DSR application dependability, Dependability Text formatting, (U) DSR Ref, 1-1, A-2 Handbook, 8-25 to 8-27 centering text, (U) DSR Ref, 2-11 competency of personnel, Dependability discarding blank lines, (U) DSR Ref, 2-73 Handbook, 3-16 dividing into sections, (U) DSR Ref, A-3 DECnet-VAX hardware and software with emphasizing, (U) DSR Ref, A-3 UETP, (M) DECnet-VAX Guide, 3-29 example for software dependability, Dependability AUTOTABLE, (U) DSR Ref, 2-7 Handbook, 3-12 filling lines, (U) DSR Ref, 2-39 network, (M) Networking, 7-1 filling text, (U) DSR Ref, A-2 procedures, Dependability Handbook, 1-5 footnotes, (U) DSR Ref, 2-58 the value of an expression, (U) DCL Dictionary, hyphenation, (U) DSR Ref, 3-11 DCL1-237 indentation, (U) DSR Ref, 2-69, 5-4 Testing new procedures, (P) Modular Procedures, inserting blank lines, (U) DSR Ref, 2-9 4-1 inserting footnotes, (U) DSR Ref, A-3 black box, (P) Modular Procedures, 4-2 inserting notes, (U) DSR Ref, A-3 integration, (P) Modular Procedures, 4-1, 4-5 justifying, (U) DSR Ref, 2-3, 2-71, A-2 language independence, (P) Modular keeping blank lines, (U) DSR Ref, 2-73 Procedures, 4-1, 4-4 line breaks, (U) DSR Ref, 2-44, 3-7 modularity, (P) Modular Procedures, 4-1 lines per page, (U) DSR Ref, 6-7 reentrancy, (P) Modular Procedures, 4-6 literal output, (U) DSR Ref, 2-83 regression, (P) Modular Procedures, 6-1 option words, (U) DSR Ref, 4-9 unit, (P) Modular Procedures, 4-1 space between words, (U) DSR Ref, 3-16 white box, (P) Modular Procedures, 4-3 spaces for figures, (U) DSR Ref, 2-36 Testing spooled output devices, (M) Maintaining spacing between lines, (U) DSR Ref, 2-115, VMS, 5-53 2 - 116.TEST PAGE command, (U) DSR Ref, 2-124 spacing between words, (U) DSR Ref, 2-53 Text with DSR, (U) Using VMS, 9-1 analyzing wrapping lines, (U) DSR Ref, 2-84 in object file, (U) DCL Dictionary, TEXT keyword, (P) VAXTPU, 7-483 DCL1-29 Text library, (P) Programming Resources, 1–18; boldfacing with DSR, (U) Text Processing, 3-46 (P) Librarian, LIB-1 compression of, (P) Utility Routines, DCX-1 character case in, (P) Librarian, LIB-2 deleting with EDT, (U) Text Processing, 2-14 Text manipulation filling (DSR), (U) Text Processing, 3-14 built-in procedures formatting into chapters using DSR, (U) Text APPEND LINE, (P) VAXTPU, 7–28 Processing, 3-33 BEGINNING\_OF, (P) VAXTPU, 7-37 indenting (DSR), (U) Text Processing, 3-19 CHANGE\_CASE, (P) VAXTPU, 7-44 justifying (DSR), (U) Text Processing, 3-14 COPY\_TEXT, (P) VAXTPU, 7-53 organizing into sections using DSR, (U) Text CREATE\_BUFFER, (P) VAXTPU, 7-58 Processing, 3-29

Text manipulation	Third-party SCSI class driver (cont'd)
built-in procedures (cont'd)	data definitions, (P) Device Support (A), 17-24
EDIT, (P) VAXTPU, 7-111	debugging, (P) Device Support (A), 17-31 to
END_OF, (P) VAXTPU, 7-115	17–43
ERASE, (P) VAXTPU, 7-117	driver prologue table, (P) Device Support (A),
ERASE_CHARACTER, (P) VAXTPU,	17–25
7–119	error logging, (P) Device Support (A), 17-20 to
ERASE_LINE, (P) VAXTPU, 7–121	17–22
FILE_PARSE, (P) VAXTPU, 7–140	loading, (P) Device Support (A), 17–30
FILE_SEARCH, (P) VAXTPU, 7–143	maintaining local context of, (P) Device
FILL, (P) VAXTPU, 7–146	Support (A), 17–19 to 17–20
MOVE_TEXT, (P) VAXTPU, 7–280	receiving notification of asynchronous events
READ_FILE, (P) VAXTPU, 7–297	on target, (P) Device Support (A), 17-28 to
SEARCH, (P) VAXTPU, 7-327	17–30; (P) Device Support (B), 2–70, 2–73
SEARCH_QUIETLY, (P) VAXTPU, 7–332	to 2–90
SELECT, (P) VAXTPU, 7-337	register dumping routine of, (P) Device Support
SELECT_RANGE, (P) VAXTPU, 7–340	(A), 17–21, 17–28
SPLIT_LINE, (P) VAXTPU, 7–518	start-I/O routine of, (P) Device Support (A),
TRANSLATE, (P) VAXTPU, 7–526	17–27 to 17–28
WRITE_FILE, (P) VAXTPU, 7–543	unit initialization routine of, (P) Device
Text processing, (U) DSR Ref, 1–1; (P)	Support (A), 17–26 to 17–27
Programming Resources, 1–3	writing, (P) Device Support (A), 17-1 to 17-43
EVE editor, (P) Programming Resources, 1–5	THIS_CATCH exception, (P) DECthreads, 4-7
Text processing routines	Thrashing
See VAXTPU routines	magnetic tape, (P) $I/O$ User's $I$ , 6–10
TEXT qualifier, (P) Librarian, LIB-44; (P)	Thread
Message, MSG-14	See also Multithreaded programming
Text spacing	See also Tasking (multithread) program
changing, (U) DSR Ref, 2–116	alerting, (P) DECthreads, 2–19
horizontal, $(U)$ DSR Ref, A-2	canceling, (P) DECthreads, 2–19, pthread–23
lines, (U) DSR Ref, 2–84	asynchronous cancelability, (P)
vertical, $(U)$ DSR Ref, A-2	DECthreads, 2–20
"Text" string constant parameter to GET_INFO,	general cancelability, (P) DECthreads,
(P) VAXTPU, 7–225	2–19
Textual operator, (P) MACRO, 3-12	creating, (P) DECthreads, 2–1, cma–95,
TFF	pthread-47
See Terminal Fallback Facility	debugger support, V5.5 New Features, 14-1
TFF\$STARTUP.COM, (M) Terminal Fallback,	definition of, (P) DECthreads, 1–1
TFU-6	delaying execution of, (P) DECthreads, cma-61
TFF tables, (M) Terminal Fallback, TFU-8	pthread-50
T field in symbolic offset	deleting, (P) DECthreads, 2-3, cma-98,
for specifying varying field length, $(P)$ $RMS$ ,	pthread-52 error termination, (P) DECthreads, cma-95,
2–3	cma-100, pthread-47
TFU	events that cause termination, (P) DECthreads
See Terminal Fallback Utility	cma-95, pthread-47
TGSEL (toggle select) command, (U) EDT Ref,	initializing, (P) DECthreads, cma-67
EDT-322	nonreentrant routines (avoiding), (P)
THEN keyword	DECthreads, 1–8
and IF command, (U) DCL Dictionary,	normal termination, (P) DECthreads, cma-95,
DCL1-237	cma-101, pthread-47, pthread-54
%THEN lexical keyword, (P) VAXTPU, 3–36	obtaining current priority of, (P) DECthreads,
ThinWire Ethernet, (M) DECnet-VAX Guide, 1-6,	cma-102, pthread-57
3–5	obtaining current scheduling policy of, (P)
Third-party SCSI class driver	DECthreads, cma-104, pthread-59
cancel-I/O routine of, (P) Device Support (A),	obtaining handle of, (P) DECthreads, cma-106
17–28	obtaining identifier of, (P) DECthreads,
components, (P) Device Support (A), 17–24 to 17–28	pthread-90
11 40	

Thread (cont'd) Throughput (default) scheduling, (P) DECthreads, per-thread context of, (P) DECthreads, cma-69, 2-6pthread-65 TI (tab increment) command, (U) EDT Ref, reentrant code necessary, (P) DECthreads, 1-5 EDT-323 releasing processor, (P) DECthreads, cma-118, See also Tabbing functions pthread-106 Tightly coupled system kernels, Dependability scheduling, (P) DECthreads, 2-20 Handbook, 4-6 inherit scheduling attribute, (P) Time, (P) Programming Resources, 3-23 DECthreads, 2-8 See also Absolute time scheduling policy attribute, (P) See also Combination time DECthreads, 2-6 See also Current scheduling priority attribute, (P) See also Delta time DECthreads, 2-7 absolute, (P) System Services Intro, 10-2 setting current priority of, (P) DECthreads, adding interval to current time, (P) cma-109, pthread-95 DECthreads, cma-114, pthread-55 setting current scheduling policy and priority of, changing system, (U) DCL Dictionary, (P) DECthreads, cma-111, pthread-98 DCL2-234 starting, (P) DECthreads, 2-1 conversion, (P) System Services Intro, 10-1 states, (P) DECthreads, 1-4 converting ASCII to binary, (P) System terminating, (P) DECthreads, 2-1, cma-93 Services Intro, 10-3 error termination, (P) DECthreads, 2-3 converting binary to ASCII string, (P) System normal termination, (P) DECthreads, 2-2 Services Ref, SYS-26 waiting for a mutex, (P) DECthreads, cma-81, converting binary to numeric, (P) System pthread-82 Services Ref, SYS-455 waiting for another to terminate, (P) CPU quota for created process, (U) DCL DECthreads, 2-3 Dictionary, DCL2-60 waiting for the termination of, (P) DECthreads, CPU used by current process, (U) DCL cma-107, pthread-63 Dictionary, DCL2-319 waking, (P) DECthreads, cma-43, cma-49, delta, (P) System Services Intro, 10-2 cma-51, pthread-33, pthread-40 displaying, (U) DCL Dictionary, DCL2-328; yielding processor to another thread, (P) (M) SYSMAN, SM-34 DECthreads, cma-118, pthread-106 getting current system, (P) System Services Thread attributes, (P) DECthreads, 2-5 Intro, 10-2; (P) System Services Ref, Thread attributes object SYS-382 creating, (P) DECthreads, pthread-3 inserting with FAO, (P) VAXTPU, 7-138 deleting, (P) DECthreads, pthread-5 inserting with MESSAGE, (P) VAXTPU, 7-268 Thread creation inserting with MESSAGE\_TEXT, (P) VAXTPU, guardsize attribute, (P) DECthreads, cma-19, 7 - 271internal format, (P) Programming Resources, inherit scheduling attribute, (P) DECthreads, cma-21, cma-33, pthread-7, pthread-15 numeric and ASCII, (P) System Services Intro, priority attribute, (P) DECthreads, cma-25, 10 - 7cma-37, pthread-9, pthread-17 obtaining scheduling policy attribute, (P) DECthreads, using SYS\$ASCTIM, (P) Programming cma-27, cma-39, pthread-11, pthread-19 Resources, 3-24stacksize attribute, (P) DECthreads, cma-29, using SYS\$BINTIM, (P) Programming cma-41, pthread-13, pthread-21 Resources, 3-24Thread-reentrant code using SYS\$FAO, (P) Programming definition of, (P) DECthreads, 3-2 Resources, 3-24 Thread-safe code using SYS\$GETTIM, (P) Programming definition of, (P) DECthreads, 3-1 Resources, 3-24Threads of execution, (P) Modular Procedures, obtaining expiration, (P) DECthreads, 3 - 19cma-114, pthread-55 Thread-specific data, (P) DECthreads, 2-18 reading system, (P) Device Support (B), 2-52 using to avoid nonreentrant software, (P) setting system, (M) SYSMAN, SM-10, SM-31; DECthreads, 3–3 (P) System Services Intro, 10-8; (P) System Throughput Services Ref, SYS-517 defined, Dependability Handbook, Glossary-5

Time (cont'd) Timeout field specifying absolute, (U) DCL Concepts, 1-14 See RAB\$B\_TMO field specifying absolute and delta combinations, (U) Timeout handling routine, (P) Device Support (A), DCL Concepts, 1-16 1-4, 3-8, 9-4, 10-4 to 10-7, 11-8; (P) Device specifying absolute and delta date and time Support (B), 2-104, 4-5 combinations, (U) Using VMS, 1-16 aborting an I/O request in, (P) Device Support specifying absolute date and time, (U) Using (A), 10–6 VMS, 1-15 address, (P) Device Support (A), 8-7, 10-1; (P) specifying delta, (U) DCL Concepts, 1-15 Device Support (B), 4-19 specifying delta date and time, (U) Using VMS, context, (P) Device Support (A), 10-4; (P) Device Support (B), 4-19 system format, (P) System Services Intro, 10-2 entry point, (P) Device Support (B), 4-19 updating in a cluster, (M) SYSMAN, SM-32 exit method, (P) Device Support (B), 4-20 \$\$Time, (U) DSR Ref, 3-18 functions, (P) Device Support (A), 10-5; (P) TIMEDWAIT macro, (P) Device Support (B), 2-92 Device Support (B), 4-20 to 2-93 input, (P) Device Support (B), 4-20 See also TIMEWAIT macro register usage, (P) Device Support (B), 4-19 example, (P) Device Support (B), 2-93 retrying an I/O operation in, (P) Device "Timed\_message" string constant parameter to Support (A), 10-5 to 10-6 GET\_INFO, (P) VAXTPU, 7-207 synchronization requirements, (P) Device Time manipulation, (P) Programming Resources, Support (A), 3-22, E-12; (P) Device 3 - 24Support (B), 4-19 converting, (P) Programming Resources, 3-24 Timeout interval, (P) Device Support (B), 2-104 formatting, (P) Programming Resources, 3-24 specifying, (P) Device Support (A), 10-4 using LIB\$ADDX, (P) Programming Resources, Timeout option See RAB\$V\_TMO option using LIB\$ADD\_TIME, (P) Programming Timeout period, (M) SYSMAN, SM-4 Resources, 3-24 displaying, (M) SYSMAN, SM-75 using LIB\$DAY, (P) Programming Resources, setting, (M) SYSMAN, SM-71 3 - 25using LIB\$MULT\_DELTA\_TIME, (P) count of network, (M) DECnet-VAX Guide, 4-3 Programming Resources, 3-24 TIMEOUT\_ENABLE attribute, (P) File Def using LIB\$SUBX, (P) Programming Resources, Language, FDL-13 3 - 24TIMEOUT\_PERIOD attribute, (P) File Def using LIB\$SUB\_TIME, (P) Programming Language, FDL-13 Resources, 3-24 TIMEOUT\_PERIOD secondary attribute, (P) File Time-of-day restrictions Applications, 7–12 for login, (M) Security, 3-16 TIMEPROMPTWAIT parameter, (M) System Timeout, (P) Device Support (B), 1-78, 2-104 Generation, A-32 caused by power failure recovery procedure, (P) /TIME qualifier, (P) System Dump Analyzer, Device Support (A), 10-5 SDA-52detecting, (P) Device Support (B), 1-79 Timer disabling, (P) Device Support (A), 4-17, 10-1; See also Interval clock (P) Device Support (B), 2-43, 3-30 See also Software timer due time, (P) Device Support (B), 1-79 babble, (M) Networking, 3-44 expected, (P) Device Support (B), 1-77, 3-105 broadcast routing, (M) Networking, 3-72 for SCSI device, (P) I/O User's I, 11-8, 11-14; call, (M) Networking, 3-31 (P) Device Support (A), 17–11, 17–12; (P) clear, (M) Networking, 3-32 Device Support (B), 2-89 counter, (M) Networking, 3-27 logging, (P) Device Support (A), 10-6, 11-10 dead, (M) Networking, 3-59 mount verification, (M) Maintaining VMS, deallocating, (P) Programming Resources, 3-21 3 - 12delay, (M) Networking, 3-59 OPCOM message, (M) Maintaining VMS, for circuits, (M) LATCP, LAT-28 hello, (M) Networking, 3-41 shadow set member (SHADOW MBR TMO), inactivity, (M) Networking, 2-31, 3-75 V5.5 New Features, 8-1 incoming, (M) Networking, 2-31, 3-74 Timeout enable bit initializing, (P) Programming Resources, 3-20 See UCB\$V\_TIM

Timer (cont'd)	TIMVCFAIL parameter, (M) VAXcluster, A-2
keepalive, (M) LATCP, LAT-31	TITLE attribute, (P) File Def Language, FDL-2
line, (M) Networking, 3-58	FDL-39
logical link, (M) Networking, 2–31	Title bar widget, (P) VAXTPU, 4–16
multicast, (M) LATCP, LAT-31	TITLE command, (U) Text Processing, 3-37,
obtaining statistics, (P) Programming	3–38, 3–42; (U) DSR Ref, 2–125
Resources, 3-20, 3-21	TITLE directive, (P) Programming Resources,
outgoing, (M) Networking, 2-31, 3-74	9–9; (P) MACRO, 6–95
recall, (M) Networking, 3-49	Title directive (.TITLE)
reset, $(M)$ Networking, 3–32	in message source file, (P) Message, MSG-7,
restart, (M) Networking, 3–33	MSG-28
retransmit, $(M)$ Networking, 3–59, 3–62	Title listing control directive
routing, (M) Networking, 2-30, 3-72	(.TITLE), (P) MACRO, 6–95
scheduling, (M) Networking, 3–59	/TITLE qualifier, (M) Accounting, ACC-35
service, $(M)$ Networking, 3–59	TLK image, (M) Networking, 4-20
setting, (P) System Services Ref, SYS-519	TLZ04 tape drive
statistics	performance, V5.5 Release Notes, 1–20
buffer input/output, (P) Programming	TLZ04 tape driver, V5.5 Release Notes, 2-53
Resources, 3-20	/TMASK qualifier, (P) Debugger, 11-13, CD-84
CPU time, (P) Programming Resources,	TMD option, (P) File Def Language, FDL-24
3–20	TMO option, (P) File Def Language, FDL-13
direct input/output, (P) Programming	TMPMBX privilege, (M) Setting Up VMS, 5-18;
Resources, 3–20	(M) Security, A-10; (M) Networking, 2-41
elapsed time, (P) Programming Resources,	for network operations, (M) DECnet-VAX
3–20	Guide, 2–2, 3–2, 3–9
page fault, (P) Programming Resources,	TMP option, (P) File Def Language, FDL-20
3–20	TMSCP (tape mass storage control protocol)
stream, (M) Networking, 3-59	server, V5.5 New Features, 7-1
transmit, (M) Networking, 3-44	TMSCP SDA symbol, V5.5 New Features, 20–1
FIMER keyword, (P) VAXTPU, 7–486	TMSCP server, V5.5 New Features, 7-1; (M)
Fimer queue, (P) Device Support (A), 3–14, E–13;	VAXcluster, 1–5
(P) Device Support (B), 3–29, 3–48	and cluster-accessible tapes, (M) VAXcluster,
Timer queue element	5–2
See TQE	initializing, (M) VAXcluster, 5–3
Timer queue entry limit	loading, (M) VAXcluster, 5-3
See TQELM	TMSCP server code
Timer request, (P) System Services Intro, 10–4	base address, V5.5 New Features, 20–1
canceling, (P) System Services Intro, 10-6; (P)	TMSCP_LOAD parameter, V5.5 New Features,
System Services Ref, SYS-51	7-1; (M) VAXcluster, $5-3$ , $A-2$
FIMER spin lock, (P) Device Support (A), 3-8,	Tools
3-13, E-13; (P) Device Support (B), 3-29,	environment, Dependability Handbook, 5-8
3–48	for network monitoring, (M) DECnet-VAX
l'imeslice	Guide, 4–1
definition of, (P) DECthreads, 2-6	Tools to aid in application development, (P)
Fime-slicing	Modular Procedures, 1–12
between processes, (M) Performance	TOP command, (U) Using VMS, 8-9, 8-57; (U)
Management, 4-35	EDT Ref, EDT-105, EDT-325; (U) EVE Ref
Time-stamps, V5.5 New Features, 3-5	EVE-238; (P) File Applications, 10-12; (P)
FIMEWAIT macro, (P) Device Support (B), 2–94	$Analyze/RMS\_File, ARMS\_34$
See also TIMEDWAIT macro	See also Cursor movement
example, (P) Device Support (B), 2-95	See also Moving text
ime_name data type, (P) Routines Intro, A-12t	moving the cursor with (EVE), (U) Text
TIME_SLICE qualifier, (P) Debugger, 12–23,	Processing, 1–10
CD-179, CD-247	Topic specifier
TIMOUT processor state, (P) Device Support (B),	with HELP, (U) EDT Ref, EDT-145
1–16	TOP keypad function
	EDT, (U) Text Processing, 2-10

Top-level directory

See also User file directory

definition, (U) DCL Concepts, 3-7

Top-level directory file, (U) Using VMS, 2–1, 2–6 Topology

of a multiple-area network, (M) Networking, 1-19

of a single-area network, (M) Networking, 1–19 /TOP qualifier, (P) Debugger, CD-113

TOPS-10 node, (M) Networking, 9-18

TOPS-20 node, (M) Networking, 9-21

Top specifier

with SET CURSOR, (U) EDT Ref, EDT-175 TO qualifier

for COPY KNOWN NODES command, (M)
Networking, 3-24

Total buckets reclaimed, (P) Convert, CONV-24 Total buckets scanned, (P) Convert, CONV-24 Total exception records, (P) Convert, CONV-24

Total key size field

See XAB\$B\_TKS field

Total records processed, (P) Convert, CONV-24 Total valid records, (P) Convert, CONV-24

TP monitor

See Transaction-processing monitor TPT option, (P) File Def Language, FDL-13 TPU

See VAXTPU

TPU\$CLEANUP routine, (P) Utility Routines, TPU-26

TPU\$CLIPARSE routine, (P) Utility Routines, TPU-29

TPU\$CLOSE\_TERMINAL routine, (P) Utility Routines, TPU-30

TPU\$COMMAND.TPU file, (U) EVE Ref, 1–8 TPU\$COMMAND logical name, (U) DCL Dictionary, DCL1–191; (U) EVE Ref, 1–8; (P) VAXTPU, 4–21, 5–6

TPU\$CONTROL routine, (P) Utility Routines, TPU-31

TPU\$DEBUG logical name, (U) DCL Dictionary, DCL1–193; (U) EVE Ref, 1–10; (P) VAXTPU, 5–8

TPU\$DISPLAY\_MANAGER logical name, (U) DCL Dictionary, DCL1–193; (U) EVE Ref, 1–10

TPU\$EDIT routine, (P) Utility Routines, TPU-32 TPU\$EXECUTE\_COMMAND routine, (P) Utility Routines, TPU-34

TPU\$EXECUTE\_INIFILE routine, (P) Utility Routines, TPU-35

TPU\$FILEIO routine, (P) Utility Routines, TPU-37

TPU\$HANDLER routine, (P) Utility Routines, TPU-41

TPU\$INITIALIZE routine, (P) Utility Routines, TPU-43

TPU\$INIT\_PROCEDURE procedure, (P) VAXTPU, 4-22, 4-28

TPU\$JOURNAL logical name, (U) DCL Dictionary, DCL1-196; (U) EVE Ref, 1-21

TPU\$K\_DISJOINT constant, (P) VAXTPU, 7–198, 7–368

TPU\$K\_INVISIBLE constant, (P) VAXTPU, 7–198, 7–368

TPU\$K\_OFF\_LEFT constant, (P) VAXTPU, 7–198, 7–368

TPU\$K\_OFF\_RIGHT constant, (P) VAXTPU, 7-198, 7-368

TPU\$K\_UNMAPPED constant, (P) VAXTPU, 7–198, 7–368

TPU\$LOCAL\_INIT procedure, (P) VAXTPU, 4–29 TPU\$LOCAL\_INIT\_PROCEDURE procedure, (P) VAXTPU, 4–23

TPU\$MESSAGE routine, (P) Utility Routines, TPU-48

TPU\$PARSEINFO routine, (P) Utility Routines, TPU-49

TPU\$SECTION logical name, (U) DCL Dictionary, DCL1–200; (U) EVE Ref, 1–16, 1–24; (P) VAXTPU, 4–21, 4–27, 5–16

TPU\$STACKOVER status

correcting, (P) VAXTPU, 4-2

TPU\$TPU routine, (P) Utility Routines, TPU-50 TPU\$WIDGET\_INTEGER\_CALLBACK callback routine, (P) VAXTPU, 4-9, 4-10

TPU\$WIDGET\_STRING\_CALLBACK callback routine, (P) VAXTPU, 4–9, 4–10

TPU\$WORK logical name, (U) DCL Dictionary, DCL1-202; (U) EVE Ref, 1-19

TPU\$X\_MESSAGE\_BUFFER variable, (P) VAXTPU, 4-29

TPU $X_SHOW_BUFFER$  variable, (P) VAXTPU, 4–29

TPU\$X\_SHOW\_WINDOW variable, (P) VAXTPU, 4–29

TPU\$\_UNKLEXICAL error message, (P) VAXTPU, 3-38

TPU command, (U) Using VMS, 8-45; (U) EVE Ref, EVE-239; (P) VAXTPU, 4-19 EVE editor, (U) Text Processing, 1-68

TPU debugger, (P) VAXTPU, 4-33 to 4-37 ATTACH command, (P) VAXTPU, 4-36 CANCEL BREAKPOINT command, (P) VAXTPU, 4-36

DEBUGON procedure, (P) VAXTPU, 4–35 DEPOSIT command, (P) VAXTPU, 4–36 DISPLAY SOURCE command, (P) VAXTPU,

EXAMINE command, (P) VAXTPU, 4–36 GO command, (P) VAXTPU, 4–34, 4–36 HELP command, (P) VAXTPU, 4–36 invoking, (P) VAXTPU, 4–33

TPU debugger (cont'd)	Tracepoint (cont d)
QUIT command, (P) VAXTPU, 4-36	on termination (image exit), (P) Debugger,
SCROLL command, (P) VAXTPU, 4–37	10–12
SET BREAKPOINT command, (P) VAXTPU,	on vector instruction, (P) Debugger, 11–3
4-34, 4-37	predefined, (P) Debugger, 10–12
SET WINDOW command, (P) VAXTPU, 4-37	setting, (P) Debugger, 3–9, CD–183
SHIFT command, (P) VAXTPU, 4-37	source display at, (P) Debugger, 6-7
SHOW BREAKPOINTS command, (P)	WHEN clause, (P) Debugger, 3-13
<i>VAXTPU</i> , 4–37	with DECwindows, (P) Debugger, 1-23
SPAWN command, (P) VAXTPU, 4-37	Trace trap enable (T), (P) MACRO, 8-15
STEP command, (P) VAXTPU, 4–35, 4–37	Tracing routing path
TPU command, (P) VAXTPU, 4-37	with NCP command prefix TELL, (M)
TPU editor	DECnet-VAX Guide, 4-14
as default MAIL editor, (U) Using VMS, 1–35	Track, (P) File Applications, 1–5
TP_SERVER process	size, (P) File Applications, 3–13
disabling, V5.5 New Features, B-34, B-69	Tradeoffs
TQE\$B_RQTYPE, (P) Device Support (B), 3–48	application software performance,
TQE\$Q_TIME, (P) Device Support (B), 3-29	$Dependability\ Handbook,\ 4 ext{}17$
TQE (timer queue element)	circuit level, Dependability Handbook, 4-4
calling a driver from, (P) Device Support (A),	constraints to achieving dependability,
E-15	Dependability Handbook, 4–1
expiration time, (P) Device Support (A), 3-8;	cost considerations, Dependability Handbook,
(P) Device Support (B), 3-29	4–21
inserting in timer queue, (P) Device Support	hardware subsystem, Dependability Handbook
(B), 3–29	4–5
removing in timer queue, (P) Device Support	implementing improvements, Dependability
(B), 3–48	Handbook, 4–18
TQELM (timer queue entry limit), (M) Setting Up	independently recoverable system kernels,
VMS, 5-6; (M) Networking, 5-38	Dependability Handbook, 4–8
TQELM (timer queue entry limit) quota	networking, Dependability Handbook, 4–14
effect of canceling timer request, (P) System	operating system performance, Dependability
Services Ref, SYS-52	Handbook, 4-16
Traceback, (P) MACRO, 6-23	performance, Dependability Handbook, 4-4
as security hazard, (M) Security, 5-34	personnel productivity, Dependability
compiler option, (P) Debugger, 5–3	Handbook,4–17
link option, (P) Debugger, 5-4	system kernel level, Dependability Handbook,
SHOW CALLS display, (P) Debugger, 2-13	4–6
Traceback handler, (P) Programming Resources,	vendor, Dependability Handbook, 4-20
9-5, 9-13	Traffic
TRACEBACK keyword, (P) VAXTPU, 7-488	count of user data, (M) DECnet-VAX Guide,
/TRACEBACK qualifier, (P) Debugger, 3-3, 5-4,	4–3
5–5; (P) Linker, LINK–20	Trailer label, (U) Files and Devices, 1-7, B-3,
shareable image, (P) Debugger, 5–13	B-16
"Traceback" string constant parameter to	Trailer page, (M) Maintaining VMS, 5-32
GET_INFO, (P) VAXTPU, 7–207	file, (M) Maintaining VMS, 5-36
·	
Tracepoint	job, (M) Maintaining VMS, 5–36
canceling, (P) Debugger, 3-15, CD-30	Trailing numeric string
defined, (P) Debugger, 3–9	data type, (P) MACRO, 8-8
delayed triggering of, (P) Debugger, 3–13,	Training
CD-184	environment for, Dependability Handbook, 5-7
displaying, (P) Debugger, CD-250	lights out data center, Dependability
DO clause, (P) Debugger, 3-13	$Handbook,\ 11-7$
exception, (P) Debugger, 9-10, CD-183	personnel, Dependability Handbook, 1-5, 3-16
in tasking (multithread) program, (P)	software programmers, Dependability
Debugger, 12–24	Handbook, 3-13
on activation (multiprocess program), (P)	Training of user
Debugger, 10–12	importance to security, (M) Security, 5–37
on task event, (P) Debugger, 12–27	

Transaction overview, Dependability Handbook, 8-48 aborting, V5.5 New Features, B-36, B-40; (P) productivity tools, Dependability Handbook, System Services Intro, 14-2; (P) System Services Ref, SYS-3, SYS-5, SYS-7; VAX ACMS, Dependability Handbook, 8-50 Dependability Handbook, 8-15 Transaction sequence number abort reason codes, *V5.5 New Features*, 16–1; (P) System Services Ref, SYS-4, SYS-5, See TSN SYS-197 /TRANSACTIONS qualifier atomic, V5.5 New Features, B-35; in SHOW PROCESS SDA command, V5.5 New Dependability Handbook, 8-13 Features, 20-4committing, V5.5 New Features, B-36, B-40; Transaction states, V5.5 New Features, B-86 (P) System Services Intro, 14-2; (P) System transaction id data type, (P) Routines Intro, Services Ref. SYS-196, SYS-198, SYS-201; A-12tDependability Handbook, 8-15 TRANSACTION ID data type, V5.5 New completing, (P) System Services Intro, 14-4 Features, B-40 current, (P) System Services Ref, SYS-631 Transfer address, (P) Debugger, 3-1, 9-7 examples, V5.5 New Features, B-34; .TRANSFER directive, (P) Linker, 4-8; (P) Dependability Handbook, 8–12 *MACRO*, 6–96 forgetting, V5.5 New Features, B-90 Transfer from disk volumes, (P) File Def monitoring, V5.5 New Features, B-95, B-100 Language, FDL-23 participants, V5.5 New Features, B-36, B-39, Transfer modes B-74; (P) System Services Intro, 14-2; EXCHANGE/NETWORK command, V5.5 (P) System Services Ref, SYS-5, SYS-198; New Features, E-15; (U) DCL Dictionary, Dependability Handbook, 8-15 DCL1-215 starting, (P) System Services Ref, SYS-629, Transferring SYS-631, SYS-633 files over the network, (M) DECnet-VAX Guide, states, V5.5 New Features, B-39, B-74; (P) System Services Intro, 14-2 records over the network, (M) DECnet-VAX timeouts, V5.5 New Features, 16-2 Guide, 2-9 Transaction identifier (TID), V5.5 New Features, Transfers, far-end DR device (DR32), (P) I/O B-39, B-74; (P) System Services Intro, 14-3; *User's II*, 4–3 (P) System Services Ref, SYS-4, SYS-198, Transfer vector, (P) Programming Resources, 5-3 SYS-629, SYS-630, SYS-631, SYS-633 See also Shareable image Transaction log file, V5.5 New Features, B-38, advantage of, (P) Linker, 4-6 B-66; Dependability Handbook, 8-17 changing, (P) Modular Procedures, 6-6 creating, V5.5 New Features, B-69, B-77, B-78 coded for procedure call, (P) Linker, 4-8 determining location, V5.5 New Features, B-67 coded for subroutine call, (P) Linker, 4-8 dumping, V5.5 New Features, B-80 compiling, (P) Programming Resources, 5-6 estimating file size, V5.5 New Features, B-69 creating, (P) Programming Resources, 5-6; (P) format Modular Procedures, 5–5; (P) Linker, 4–7 description, V5.5 New Features, B-73 deleting, (P) Programming Resources, 5-4 sample display, V5.5 New Features, B-74 example. (P) Linker, 1-10 placing in alternate location, V5.5 New for upward compatibility, (P) Linker, 1-11, 4-9 Features, B-73 placement of, (P) Programming Resources, 5-3 repairing, V5.5 New Features, B-85 purpose of, (P) Linker, 4-5 resizing, V5.5 New Features, B-72 reasons for using, (P) Programming Resources, showing, V5.5 New Features, B-93 5-4Transaction management, (P) System Services recommended length of, (P) Linker, 4-7 Intro, 14-1 updating, (P) Modular Procedures, 6-3 Transaction manager, V5.5 New Features, B-36; /TRANSFER MODE qualifier (P) System Services Intro, 14-2; Dependability EXCHANGE/NETWORK command, V5.5 New Handbook, 8-15 Features, E-19 Transaction processing, V5.5 New Features, B-34; Transition time Dependability Handbook, 8-12 defined, Dependability Handbook, Glossary-5 environment, Dependability Handbook, 3-12 TRANSLATE built-in procedure, (P) VAXTPU,

7-526 to 7-529

Transaction-processing monitor (cont'd)

8-49

Transaction-processing monitor

assist dependability, Dependability Handbook,

Translation	Tributary (cont'd)
logical to physical, (P) I/O User's I, 3–18	control, (M) Networking, 3-42, 3-43
of addresses to symbols, (P) Patch, PAT-13	TRIBUTARY parameter, (M) Networking, 3-35
of symbols to addresses, (P) Patch, PAT-13	TRIGGER command, (M) Networking, 4-2, 4-8
Translation buffer	PHYSICAL ADDRESS parameter, (M)
See TB	Networking, 4–8
invalidating, (P) Device Support (A), E-15; (P)	SERVICE PASSWORD parameter, $(M)$
Device Support (B), 2-41 to 2-42	Networking, 4–9
Translation mode card	Trigger message, (M) Networking, 4-2
026 punch mode, (P) I/O User's I, 2–2	TRIGGER NODE command, (M) Network Control
029 punch mode, (P) I/O User's I, 2–2	Program, NCP-177
Translation modes	Trigger operation
card reader, (M) Maintaining VMS, 5-95	bootstrap ROM, (M) Networking, 4-5
/TRANSLATION_ATTRIBUTES qualifier, (P) File	primary bootstrap, (M) Networking, 4-5
Applications, 5-7, 6-15	primary loader, (M) Networking, 4-2
Transmit channel	TRIGGER command, (M) Networking, 4-8
selection, (M) VAXcluster, G-1	TRIGGER VIA command, (M) Networking, 4-17;
Transmit password, (M) Networking, 2–39	(M) Network Control Program, NCP-179
in network operations, (M) DECnet-VAX Guide,	Trimming, V5.5 New Features, A-7
3–20	TRM\$M_TM_ESCAPE, (P) Programming
TRANSMIT PIPELINE parameter, (M)	Resources, 7–25
Networking, 3–60	TRM\$M_TM_NOECHO, (P) Programming
Transmit timer, (M) Networking, 3-44	Resources, 7–25
Transparent	TRM\$M_TM_TRMNOECHO, (P) Programming
communication, (M) Networking, 1-23, 8-1	Resources, 7-24
user network operations, (M) Networking, 1-21	Trojan horse, (M) Security, 4–44
Transparent failover	precautions against, (M) Security, 5-41
defined, Dependability Handbook, Glossary-5	Troubleshooting
Transparent network file access	See also LAVC\$FAILURE_ANALYSIS.MAR
providing with DFS, Dependability Handbook,	adding or deleting a device control library
7–22	module, (M) Maintaining VMS, 5–92
Transparent task-to-task communication, (M)	analyzing VAXport error log entries, (M)
DECnet-VAX Guide, 2–14	VAXcluster, C-15
Trap	autostart queues, (M) Maintaining VMS, 5-90
arithmetic, (P) MACRO, E-1	CLUEXIT bugcheck, (M) VAXcluster, C-8
arithmetic type code, (P) MACRO, E-1	error log entries for CI and LAN ports, (M)
change mode, (P) MACRO, E-8	VAXcluster, C-21
decimal	failure of computer to boot, (M) VAXcluster, 7–33, C-1
string overflow, (P) MACRO, E–3 decimal overflow, (P) MACRO, 8–16	failure of computer to join the cluster, $(M)$
divide by zero, (P) MACRO, 8–16	VAXcluster, C-1, C-6
floating	failure of startup procedure to complete, $(M)$
divide-by-zero, (P) MACRO, E-2	VAXcluster, C-6
overflow, $(P)$ MACRO, $E-2$	general printer problems, (M) Maintaining
underflow, (P) MACRO, E-3	VMS, 5–87
integer	hang condition, (M) VAXcluster, C-7
divide-by-zero, (P) MACRO, E-2	holding jobs, (M) Maintaining VMS, 5–88
overflow, (P) MACRO, E-2	jobs that will not execute, (M) Maintaining
integer overflow, (P) MACRO, 8–15	VMS, 5–88
subscript-range, (P) MACRO, E-3	jobs with characteristic mismatch, (M)
trace, (P) MACRO, 8–15	Maintaining VMS, 5–89
Tree structure, (P) File Applications, 10–11	local area VAXcluster network failure analysis,
of indexed file, (P) File Applications, 10–19	(M) VAXcluster, C-7, E-3
of relative file, (P) File Applications, 10-16	loss of quorum, (M) VAXcluster, C-7
of sequential file, (P) File Applications, 10–12	network components, (M) VAXcluster, E-3
Tributary, (M) Networking, 1-8, 2-9	network problems, (M) DECnet-VAX Guide,
address, (M) Networking, 2-9	2–27, 4–10 to 4–17
circuit timers, (M) Networking, 3-44	OPA0 error messages, (M) VAXcluster, C-28

Troubleshooting (cont'd) pending jobs, (M) Maintaining VMS, 5-88 print jobs with stock mismatch, (M) Maintaining VMS, 5-89 problems deleting a queue, form, or characteristic, (M) Maintaining VMS, 5-91 queue manager, (M) Maintaining VMS, 5-85 queue problems, (M) Maintaining VMS, 5-85 repairing CI cables, (M) VAXcluster, C-14 shared resource is inaccessible, (M) VAXcluster, stalled output queue, (M) Maintaining VMS, 5 - 90system failure, (M) Maintaining VMS, 6-1 using dump file for, (M) Maintaining VMS, 6-1 VAXport device problem, (M) VAXcluster, C-9 verifying CI cable connections, (M) VAXcluster, verifying CI port, (M) VAXcluster, C-11 True expression and IF command, (U) DCL Dictionary, DCL1-237 TRUE logical value, (P) File Def Language, FDL-2 Truncate at end-of-file option See FAB\$V\_TEF option TRUNCATE attribute, (P) File Def Language, FDL-3 Truncate-on-put option See also RAB\$V\_TPT option access requirement, (P) File Applications, 7-7 Truncate option See FAB\$V TRN option /TRUNCATE qualifier. (M) Backup, BCK-90: (P) Convert, CONV-3, CONV-26 TRUNCATE secondary attribute, (P) File Applications, 7–3 Truncate service, (P) File Applications, 8–5; (P) RMS, RMS-97 condition values, (P) RMS, RMS-98 See also Completion status code control block input fields, (P) RMS, RMS-98 control block output fields, (P) RMS, RMS-98 effect on next-record position, (P) File Applications, 8-16 use restriction, (P) RMS, RMS-97 Truncate subfunction, (P) I/O User's I, 1–13 TRUNCATE\_ON\_CLOSE attribute, (P) File Def Language, FDL-25 TRUNCATE\_ON\_PUT attribute, (P) File Def Language, FDL-13 Truncation of floating-point value, (P) RTL Math, Truncation of records, (P) Convert, CONV-3 **Trusted Computing Base** 

restriction, (P) DECthreads, B-1 TSN used by Rdb/VMS, Dependability Handbook, 8-35 TSTB (Test Byte) instruction, (P) MACRO, 9-31 TSTD (Test D\_floating) instruction, (P) MACRO, 9 - 125TSTF (Test F\_floating) instruction, (P) MACRO, 9 - 125TSTG (Test G\_floating) instruction, (P) MACRO, 9 - 125TSTH (Test H\_floating) instruction, (P) MACRO, 9 - 125TSTL (Test Long) instruction, (P) MACRO, 9-31 TSTW (Test Word) instruction, (P) MACRO, 9-31 TT, (U) DCL Concepts, 4-5 TTDRIVER.EXE, (P) Device Support (A), 18-1 TTY\$V\_PC\_NOTIME, (P) Device Support (A), 18 - 16TTY\$V\_PC\_PORTFDT, (P) Device Support (A), 18 - 14TTY\$V\_TP\_ABORT, (P) Device Support (A), 18 - 18\$TTYDEFS macro, (P) Device Support (A), 18-2 \$TTYMACS macro, (P) Device Support (A), 18-12; (P) Device Support (B), 2-7, 2-8, 2-98, 2-99, 2 - 100\$TTYMDMDEF macro, (P) Device Support (A), 18 - 20\$TTYMODEMDEF macro, (P) Device Support (A), 18 - 13TTY system parameters See System parameters \$TTYUCBDEF macro, (P) Device Support (B), 1 - 69TTY\_DEFCHAR2 parameter disabling virtual terminals, (M) Security, 5-22 enabling system passwords for remote login, (M) Security, 5-15 TTY\_DEFPROT parameter, (M) Security, 5-29 TTY\_OWNER parameter, (M) Security, 5-29 TTY\_TIMEOUT parameter setting reconnection time, (M) Security, 5-22 TT\_CANCEL\_CONTROL\_O attribute, (P) File Def Language, FDL-14 TT\_PROMPT attribute, (P) File Def Language, FDL-14 TT\_PURGE\_TYPE\_AHEAD attribute, (P) File Def Language, FDL-14 TT\_READ\_NOECHO attribute, (P) File Def Language, FDL-14 TT\_READ\_NOFILTER attribute, (P) File Def Language, FDL-14 TT\_UPCASE\_INPUT attribute, (P) File Def Language, FDL-14

TRY/ENDTRY block

See TCB

Type (cont'd) TU58 console bootstrap procedures, V5.5 Release vector register, (P) Debugger, 11-6 Notes, 3-48; (P) Delta/XDelta, DELTA-6 Type-ahead TU58 magnetic tape See Terminal, type-ahead See Disk Type-ahead buffer, (P) Programming Resources, Tuning, (P) File Applications, 3–3, 10–26 deciding when to stop, (M) Performance TYPE attribute, (P) File Def Language, FDL-28, Management, 1-10 FDL-29, FDL-30 definition, (M) System Management Intro, 5-5; TYPE clause (M) Performance Management, 1-8 definition of value types, (P) Command Def, evaluating success, (M) System Management CDU-6 Intro, 5-6; (M) Performance Management, for VALUE clause, (P) Command Def, CDU-24, 1-9 CDU-26, CDU-33, CDU-34 indexed files, (P) File Applications, 3-15 with VALUE clause, (P) Command Def, predicting when required, (M) System CDU-29 Management Intro, 5-6; (M) Performance Type code field in allocation XAB Management, 1-9 See XAB\$B COD field relative files, (P) File Applications, 3–12 sequential files, (P) File Applications, 3-9, Type code field in date and time XAB See XAB\$B\_COD field the network, (M) DECnet-VAX Guide, 2-27 Type code field in file header characteristics XAB VMS systems for network use, (M)See XAB\$B\_COD field DECnet-VAX Guide, 3-9 Type code field in item list XAB Turnkey account See XAB\$B\_COD field See Captive account Type code field in key XAB Two-phase commit protocol, V5.5 New Features, See XAB\$B COD field B-35, B-39; (P) System Services Intro, 14-4; Type code field in protection XAB Dependability Handbook, 8-11 to 8-17 DECdtm services See XAB\$B COD field use with ACMS, Dependability Handbook, Type code field in revision date and time XAB 8-49 See XAB\$B\_COD field use with Rdb/VMS, Dependability Type code field in summary XAB Handbook, 8-39 See XAB\$B\_COD field TWO WINDOWS command, (U) Using VMS, Type code field in terminal XAB 8–35; (U) EVE Ref, EVE–240 See XAB\$B\_COD field in window environment (EVE), (U) Text TYPE command, (U) VMS Intro, 2-5; (U) Using Processing, 1-56 VMS, 6-12; (U) Command Procedures, 3-15; Type (U) DCL Dictionary, DCL2-389 to DCL2-394; See also Built-in value type (U) EDT Ref, EDT-251; (M) Exchange, address expression, (P) Debugger, 4-4, 4-23 EXCH-41 to EXCH-42; (P) Debugger, 6-3, array, (P) Debugger, 4–16 7-6, CD-266 ASCII string, (P) Debugger, 4–15, 4–26 See also Displaying text compiler generated, (P) Debugger, 4-4, 4-14 and wildcard characters, (U) Using VMS, 2-15 conversion, numeric, (P) Debugger, 4-7 displaying files with, (U) Using VMS, 2-15 current, (P) Debugger, 4-23, CD-191, CD-252 EDT editor, (U) Text Processing, 2-25 displaying, (P) Debugger, CD-252 executing command procedure on remote node integer, (P) Debugger, 4-14, 4-25 with, (U) Using VMS, 6-2 override, (P) Debugger, 4-24, CD-191 foreign volumes, (U) Files and Devices, 5-10 pointer, (P) Debugger, 4-18 magnetic tape, (U) Files and Devices, 4-18 real, (P) Debugger, 4-14 using over network, (M) DECnet-VAX Guide, record, (P) Debugger, 4-17 scalar, (P) Debugger, 4-14 using to execute command procedure on remote SET TYPE command, (P) Debugger, 4-23, node, (U) Command Procedures, 1-6 CD-191 using to execute remote command procedure, symbolic address expression, (P) Debugger, 4-4 (M) DECnet-VAX Guide, 2-14 /TYPE qualifier, (P) Debugger, 4-26, CD-60, Type entry, (P) Routines Intro, 1-8 CD-85, CD-243 VAX instruction, (P) Debugger, 4–18

"Type" GET\_INFO request\_string, (P) VAXTPU, UAFALTERNATE parameter, (M) System 7 - 165Generation, A-37 TYPE keyword UAF parameter with FILE\_PARSE, (P) VAXTPU, 7-141 changes for volume shadowing Phase II, V5.5 with FILE\_SEARCH, (P) VAXTPU, 7-144 Release Notes, 2-77 Type override, (P) Debugger, 4-24, CD-33, UAF record CD-192, CD-252 creating multiple default, (M) Setting Up VMS, TYPE parameter 4 - 22for executor node, (M) Networking, 3-65 UAI\$V\_CAPTIVE symbol (STARLET), V5.5 for GROUP, (M) Networking, 3-34 Release Notes, 2-45 for PVC, (M) Networking, 3-47 UAI\$V\_RESTRICTED symbol (STARLET), V5.5 /TYPE qualifier, (M) Accounting, ACC-36; (P) Release Notes, 2-45 Debugger, 4-26, CD-60, CD-85, CD-243; (P) UBA (UNIBUS adapter), (P) Device Support (A), System Dump Analyzer, SDA-56, SDA-119 1-11 Types of libraries, (P) Librarian, LIB-1 See also UNIBUS adapter TYPE WHOLE command UBI (UNIBUS interface), (P) Device Support (A), EDT editor, (U) Text Processing, 2-22 1 - 11TZK10 tape cartridge drive, V5.5 New Features, See also UNIBUS adapter UBMAPEXCED bugcheck, V5.5 New Features, A-26, A-31; (P) Device Support (B), 3-74, U UCB\$B\_DEVCLASS, (P) Device Support (A), 6-3, UAF (user authorization file), (M) System 17-21, 17-25; (P) Device Support (B), 2-25, Management Intro, 2-3, 3-1; (M) SYSMAN, SM-5; (M) Networking, 8-13 UCB\$B\_DEVTYPE, (P) Device Support (A), 6-3, 17-21, 17-25; (P) Device Support (B), 2-25, See also System user authorization file and detached process, (U) DCL Dictionary, UCB\$B\_DIPL, (P) Device Support (A), 3-6, 6-2, DCL2-56 and login procedure, (U) Using VMS, 1-1 10-4; (P) Device Support (B), 2-25 UCB\$B\_ERTCNT, (P) Device Support (A), 10-3; and privileges, (M) Security, 5-32 (P) Device Support (B), 3-69, 3-94 and process characteristics, (U) Using VMS, UCB\$B\_FIPL, (P) Device Support (B), 1-73, 2-33 1-3, 7-1and the Authorize Utility, (U) Using VMS, 7-1 UCB\$B\_FLCK, (P) Device Support (A), 3-6, 6-2, assigning UIC in, (M) System Management 10-1; (P) Device Support (B), 2-25, 2-33 initializing, (P) Device Support (A), E-8 Intro, 3-2creation of default nonprivileged DECnet UCB\$B\_SLAVE, (P) Device Support (A), 15-12 to account, (M) Networking, 5-1 15 - 13defining access to system objects with, (M) UCB\$B\_SLAVE+1, (P) Device Support (A), 15–12 System Management Intro, 3-1 to 15-13 UCB\$B\_TP\_STAT, (P) Device Support (A), 18-18 definition, (U) Using VMS, 7-1 flags, V5.5 Release Notes, 2-44 UCB\$B\_TT\_DEPARI, (P) Device Support (A), general maintenance, (M) Setting Up VMS, 4-4 18 - 22getting information about, (P) System Services UCB\$B\_TT\_DETYPE, (P) Device Support (A), Ref, SYS-383 18 - 22initial contents, (M) Setting Up VMS, 4-4 UCB\$B\_TT\_MAINT, (P) Device Support (A), initial modification, (M) Setting Up VMS, 4-5 18 - 15UCB\$B\_TT\_OUTYPE, (P) Device Support (A), login check, (M) Setting Up VMS, 4-27 18-16, 18-21, 18-22, 18-23 modifications and security audit, (M) Security, 4-41, UCB\$B\_TT\_PARITY, (P) Device Support (A), 18-15, 18-22 modifying, (P) System Services Ref, SYS-544 UCB\$L\_AFFINITY, (P) Device Support (B), 3-71 modifying user data area, (M) Security, B-1 UCB\$L\_CRB, (P) Device Support (A), 11-5, 15-13 network proxy, (M) Setting Up VMS, 4-20 UCB\$L\_DDB, (P) Device Support (A), 4-8

UCB\$L\_DDT, (P) Device Support (A), 18-9

11-9; (P) Device Support (B), 2-25 UCB\$L\_DLCK, (P) Device Support (A), 3-22

UCB\$L\_DEVCHAR, (P) Device Support (A), 6-3,

privileges, (M) Setting Up VMS, 5-8

resource limits, (M) Setting Up VMS, 5-1 SYSUAF.DAT, (M) System Management Intro,

user priorities, (M) Setting Up VMS, 5-7

```
UCB$L_DUETIM, (P) Device Support (A), 4–16, 8–7, 10–5; (P) Device Support (B), 3–104, 3–105
```

- UCB\$L\_EMB, (P) Device Support (A), 10-3; (P) Device Support (B), 3-8
- UCB\$L\_FPC, (P) Device Support (A), 4–16, 4–17, 9–4, 10–1, 10–4
- UCB\$L\_FR3, (P) Device Support (A), 4–16, 4–17, 9–4, 10–1, 10–4
- UCB\$L\_FR4, (P) Device Support (A), 4–16, 4–17, 9–4, 10–1, 10–4
- UCB\$L\_IOQFL, (P) Device Support (A), 10-3, E-14; (P) Device Support (B), 3-28
- UCB\$L\_IRP, (P) Device Support (A), 4–5, 10–3; (P) Device Support (B), 3–71
- UCB\$L\_LINK, (P) Device Support (A), 11–5 UCB\$L\_MAXBCNT, (P) Device Support (A), 17–14, 17–26
- UCB\$L\_OPCNT, (P) Device Support (B), 3-5, 3-24, 3-94
  - adjusted by IOC\$REQCOM, (P) Device Support (B), 3-95
- UCB\$L\_ORB, (P) Device Support (B), 1–44 UCB\$L\_PDT, (P) Device Support (A), 17–26 UCB\$L\_SCDT, (P) Device Support (A), 17–26 UCB\$L\_STS, (P) Device Support (A), 2–4, 8–5,
- UCB\$L\_SVAPTE, (P) Device Support (A), 4–5, 8–2, 14–22, 15–3, 15–14, 16–19; (P) Device Support (B), 1–40, 3–71, 3–79
- UCB\$L\_SVPN, (P) Device Support (B), 2–21, 3–67, 3–79
- UCB\$L\_TT\_CLASS, (P) Device Support (A), 18-9; (P) Device Support (B), 2-8
- UCB\$L\_TT\_GETNXT, (P) Device Support (A), 18-9
- UCB\$L\_TT\_LOGUCB, (P) Device Support (A), 18-22
- UCB\$L\_TT\_OUTADR, (P) Device Support (A), 18–16, 18–21, 18–22
- UCB\$L\_TT\_PORT, (P) Device Support (A), 18–9; (P) Device Support (B), 2–8
- UCB\$L\_TT\_PUTNXT, (P) Device Support (A), 18–9
- UCB\$L\_TT\_RTIMOU, (P) Device Support (A), 18–22
- UCB\$L\_TT\_WFLINK, (P) Device Support (A), 18–22
- UCB\$Q\_DEVDEPEND, (P) Device Support (A), 6-3; (P) Device Support (B), 3-49, 3-51
- UCB\$V\_BSY, (P) Device Support (A), 2-4, 4-5, 7-5, 10-4, 11-8; (P) Device Support (B), 3-28, 3-68, 4-5
- UCB\$V\_CANCEL, (P) Device Support (A), 10-6, 10-7, 11-8; (P) Device Support (B), 3-68, 3-71, 4-5
- UCB\$V\_DELMBX, (P) Device Support (A), 18–13

- UCB\$V\_ECC, (P) Device Support (B), 3–67 UCB\$V\_ERLOGIP, (P) Device Support (A), 10–3, 11–10; (P) Device Support (B), 3–8, 3–95
- UCB\$V\_INT, (P) Device Support (A), 8-7, 9-3, 9-7, 10-4, 15-10, 18-16
- UCB\$V\_JOB, (P) Device Support (A), 9–6, 9–7, 9–8
- UCB\$V\_ONLINE, (P) Device Support (A), 9–8, 11–2, 11–3, 16–13; (P) Device Support (B), 1–36
- UCB\$V\_POWER, (P) Device Support (A), 8-5, 10-5, 11-1, 17-26, 18-13
- UCB\$V\_TEMPLATE, (P) Device Support (B), 4–6 UCB\$V\_TIM, (P) Device Support (A), 8–7, 10–1, 10–4; (P) Device Support (B), 2–43, 3–30, 3–104
- UCB\$V\_TIMOUT, (P) Device Support (A), 10-4; (P) Device Support (B), 3-71, 3-104
- UCB\$V\_VALID, (P) Device Support (A), 9–8 UCB\$W\_BCNT, (P) Device Support (A), 8–2,
- 14–19, 14–22, 15–3, 15–4, 15–14, 16–19; (P) Device Support (B), 1–41, 1–79, 3–64, 3–66, 3–71
- UCB\$W\_BOFF, (P) Device Support (A), 8–2, 14–19, 14–21, 14–22, 14–23, 15–3, 15–4, 15–14, 16–19; (P) Device Support (B), 1–41, 1–79, 3–64, 3–66, 3–71
- UCB\$W\_BUFQUO
- in mailbox UCB, (P) Device Support (B), 3-61 UCB\$W\_DEVBUFSIZ, (P) Device Support (A), 6-3; (P) Device Support (B), 3-51
- in mailbox UCB, (P) Device Support (B), 3-61 UCB\$W\_DEVSTS, (P) Device Support (A), 10-3
- UCB\$W\_EC1, (P) Device Support (B), 3-67
- UCB\$W\_EC2, (P) Device Support (B), 3-67
- UCB\$W\_ERRCNT, (P) Device Support (A), 11–10; (P) Device Support (B), 3–8
- UCB\$W\_QLEN, (P) Device Support (B), 3-28
- UCB\$W\_REFC, (P) Device Support (A), 9-6, 9-7, 11-6, 11-7; (P) Device Support (B), 4-4
- UCB\$W\_STS, (P) Device Support (A), 17–26 UCB\$W\_TT\_CURSOR, (P) Device Support (A), 18–22
- UCB\$W\_TT\_DESPEE, (P) Device Support (A), 18–22
- UCB\$W\_TT\_HOLD, (P) Device Support (A), 18–22 UCB\$W\_TT\_OUTLEN, (P) Device Support (A), 18–16, 18–21, 18–22
- UCB\$W\_TT\_PRTCTL, (P) Device Support (A), 18-14, 18-16
- UCB\$W\_TT\_SPEED, (P) Device Support (A), 18–15, 18–22
- UCB\$W\_UNIT, (P) Device Support (A), 15–12 UCB (unit control block), (P) System Dump Analyzer, SDA-87; (P) Device Support (A), 1–5, 3–5, 4–5; (P) Device Support (B), 1–12, 1–68 to 1–91
  - See also SCSI device UCB

UFD (user file directory) (cont'd) UCB (unit control block) (cont'd) See also SCSI port UCB See also Top-level directory address, (P) Device Support (A), 8-7, 11-5 contents of, (U) Using VMS, 2-6 definition, (U) DCL Concepts, 3-7 as fork block, (P) Device Support (A), 8-7 as template, (P) Device Support (B), 1-78 location of, (U) Using VMS, 2-8 cloned, (P) Device Support (B), 1-31, 1-78 UFO (user-file open), (P) Programming Resources, creation, (P) Device Support (A), 11-4, 12-4, 12-21, 15-7; (P) Device Support (B), 1-37, UFO (user-file open) option, (P) File Def Language, FDL-25 dual-path extension, (P) Device Support (B), See also FAB\$V\_UFO option 1-69 UIC (user identification code), (U) VMS Intro, error log extension, (P) Device Support (A), 2-8; (M) SYSMAN, SM-38; (M) VAXcluster, 11-9; (P) Device Support (B), 1-69, 1-80 to B-1; (P) Routines Intro, A-11t, A-12t; (P) File Applications, 1–10; (P) File Def extending, (P) Device Support (B), 1-69 to 1-70 Language, FDL-22 initializing, (P) Device Support (A), 11-3 alphanumeric, (U) Using VMS, 7-2; (M) local disk extension, (P) Device Support (A), System Management Intro, 3-2 11-9; (P) Device Support (B), 1-69, 1-82 to internal handling, (M) Security, 5-5 1-84, 3-9, 3-67 alphanumeric format, (U) DCL Concepts, 8-2 local tape extension, (P) Device Support (A), and process context, (U) Using VMS, 3-3 11-9; (P) Device Support (B), 1-69, 1-81 to assigning, (M) System Management Intro, 3-2 1-82, 3-9 changing default, (U) DCL Dictionary, logical, (P) Device Support (B), 1-87 DCL2-236 number to be created, (P) Device Support (A), components of, (M) System Management Intro, physical, (P) Device Support (B), 1-86 default protection, (U) Using VMS, 7-10; (U) reference count, (P) Device Support (B), 1-78 Files and Devices, 2-8 remote terminal extension, (P) Device Support delimiting in control block fields, (P) RMS, 3-7 (B), 1-75examples, (U) DCL Concepts, 8-2 size, (P) Device Support (B), 1-33, 1-69 to file protection based upon, (M) System 1-70, 1-72, 2-22 Management Intro, 3-2 storing data in, (P) Device Support (A), 4-5, format, (U) Files and Devices, 2-1; (M) 5-2Security, 4-3 synchronizing access to, (P) Device Support (A), group number, (M) System Management Intro, 2-4, 3-5, 3-6, 3-16 terminal extension, (P) Device Support (A), in a directory name, (U) DCL Concepts, 3-9 18-2 to 18-3; (P) Device Support (B), 1-69, member component, (U) Using VMS, 7-3 1-84 to 1-91 member number, (M) System Management \$UCBDEF macro, (P) Device Support (B), 1-69 Intro, 3-2; (M) Setting Up VMS, 4-17 UDA50 disk adapter, (P) I/O User's I, 3-3 numeric, (U) Using VMS, 7-2; (M) System UDABURSTRATE parameter, (M) System Management Intro, 3-2 Generation, A-37 numeric format, (U) DCL Concepts, 8-1 UETP (User Environment Test Package), (M) object, (U) Using VMS, 7-3 Networking, 5-6, 6-2 process, (U) Using VMS, 7-3 creating command procedure to run, (M) protection, (U) Using VMS, 7-2; (M) System VAXcluster, 7-40 Management Intro, 3-2 running in large cluster, (M) VAXcluster, 7-39 relationships between process and object, (M) specifying values for LOAD phase, (M) System Management Intro, 3-3 VAXcluster, 7-40 role in security, (M) Security, 2-3 testing the DECnet connection, V5.5 New specification, (U) Files and Devices, 3-14 Features, D-2 specifying, (M) Mount, MOUNT-31 using to test DECnet-VAX hardware and specifying for directory, (U) DCL Dictionary, software, (M) DECnet-VAX Guide, 3-29 DCL1-89 UETP Load Phase Failure in Vector Processing specifying for files, (U) DCL Dictionary, Systems, V5.5 Release Notes, 2-53 DCL1-85 UFD (user file directory), (U) Using VMS, 2-1; syntax, (M) Security, 4-3 (M) Analyze/Disk, A-1 translation and storage, (M) Security, 4-4 See also Directory structure uniqueness requirement, (M) Security, 4-4

UIC (user identification code) Unaligned bit string with bounds descriptor, (P) uniqueness requirement (cont'd) Routines Intro, 2-42 for VAXcluster, (M) Security, 9-2 UNANCHOR keyword, (P) VAXTPU, 7-530 to UIC-based protection, (U) Files and Devices, 2-1, 2-12; (M) Security, 4-1; (P) File with SEARCH\_QUIETLY, (P) VAXTPU, 7-333 Applications, 4-21 Unary operator, (P) System Dump Analyzer. See also Access type SDA-12; (P) MACRO, 3-10 summary, (P) MACRO, C-7 See also Protection code Unattended system See also User category memory dump, (M) Networking, 4-17 changing, (M) Security, 4-12 default, (U) Files and Devices, 2-8 slave, (M) Networking, 4-17 UNBIND command, (M) LADCP, LADCP-10 defined, (M) Security, 2-4 Unbound code definition, (U) DCL Concepts, 8-1 use of local variables in, (P) VAXTPU, 3-34 introduction to, (M) Security, 4-1 UNDC (undelete character) command, (U) EDT to bypass, (U) Files and Devices, 2-3 Ref, EDT-326 user categories, (U) DCL Concepts, 8-3 uic data type, (P) Routines Intro, A-12t See also Restoring deleted text UIC directory specification UND C keypad function definition, (U) DCL Concepts, 3-9 EDT, (U) Using VMS, 8-59; (U) Text format in a file specification, (U) DCL Processing, 2–14; (U) EDT Ref, EDT-106 Concepts, 3-9 See also Restoring deleted text rules for entering, (U) DCL Concepts, 3-9 UNDEFINED format, (P) File Def Language, translating to named format, (U) DCL FDL-35 Concepts, 3-10 Undefined record format option wildcards, (U) DCL Concepts, 3-21 See FAB\$C UDF option UIC identifier, (M) Security, 4-19, 4-20 UNDEFINED results, (P) MACRO, 7-1 deleted Undefined symbol, (U) DCL Concepts, 7-7 recognizing, (M) Security, 5-7 UNDEFINED\_KEY keyword, (P) VAXTPU, 7-490 **UIC** protection "Undefined\_key" string constant parameter to of public volumes, (M) Maintaining VMS, 2-2 GET\_INFO, (P) VAXTPU, 7-204 of queues, (M) Maintaining VMS, 5-21 UNDEFINE KEY command, (U) Using VMS, /UIC qualifier, (M) Accounting, ACC-37 8-40; (U) EVE Ref, EVE-241 UIC [0,0], (M) SYSMAN, SM-9 EVE editor, (U) Text Processing, 1-61 UIF option, (P) File Def Language, FDL-14 UNDEFINE MENU ENTRY command, (U) EVE UIL compiler, V5.5 Release Notes, 3-16 Ref, EVE-242 valid tables changes, V5.5 Release Notes, 3-16 UNDEFINE\_KEY built-in procedure, (P) ULK option, (P) File Def Language, FDL-11 VAXTPU, 7-532 to 7-533 \$ULKPAG, (P) System Services Ref, SYS-651 Underflow detection, (P) RTL Math, 2-9 ULTRIX node, (M) Networking, 9-27 Underline flag **ULTRIX** system default, (U) DSR Ref, 3-19 in network operations, (M) DECnet-VAX Guide, pairing, (U) DSR Ref, 3-19 recognizing, (U) DSR Ref, 2-56 ULTRIX wildcards, (U) EVE Ref, EVE-215, with DSR, (U) Text Processing, 3-46 EVE-247, EVE-248 UNDERLINE keyword \$ULWSET, (P) System Services Ref, SYS-653 with MARK, (P) VAXTPU, 7-261 with SELECT, (P) VAXTPU, 7-337 Ethernet circuit device, (M) Networking, 2-11 with SET (PROMPT\_AREA), (P) VAXTPU, Ethernet line device, (M) Networking, 2-20 7 - 446loopback test, (M) Networking, 7-9 with SET (STATUS\_LINE), (P) VAXTPU, UNA circuit 7 - 476change in default cost, V5.5 Release Notes, with SET (VIDEO), (P) VAXTPU, 7-492 /UNDERLINE qualifier, (U) DSR Ref. 4-25, 5-6 Unaligned bit array descriptor, (P) Routines Intro, "Underline status" string constant parameter to GET\_INFO, (P) VAXTPU, 7-225 Unaligned bit string descriptor, (P) Routines "Underline\_video" string constant parameter to Intro, 2-37 GET\_INFO, (P) VAXTPU, 7-225

UNIBUS adapter (cont'd) Underlining, (U) DSR Ref, 2-34, 3-19 synchronizing access to, (P) Device Support (A), See also Emphasizing text 14 - 2example, (U) DSR Ref, 3-19 Uninterrupted service in table of contents, (U) DSR Ref, 5-6 defined, Dependability Handbook, Glossary-6 UNDL (undelete line) command, (U) EDT Ref. Uninterruptible power systems EDT-327 See UPS See also Restoring deleted text UND L keypad function Uniprocessing device driver converting to multiprocessing device driver, (P) EDT, (U) Using VMS, 8-61; (U) Text Processing, 2-14; (U) EDT Ref, EDT-107 Device Support (A), E-8 to E-20 incompatibility with multiprocessing device See also Restoring deleted text driver, (P) Device Support (A), 12-13, E-3 UNDW (undelete word) command, (U) EDT Ref, Uniprocessing environment EDT-329 contrasted with multiprocessing environment, See also Restoring deleted text (P) Device Support (A), 3-11, E-1 UND W keypad function Uniprocessing synchronization image, (P) Device EDT, (U) Using VMS, 8-60; (U) Text Support (A), 13-28 Processing, 2–14; (U) EDT Ref, EDT-109 loading, (P) Device Support (A), E-2 See also Restoring deleted text Ungrab routine See License units global selection Unit control block fetching, (P) VAXTPU, 7-202 See SCSI device UCB specifying, (P) VAXTPU, 7-389 See SCSI port UCB input focus fetching, (P) VAXTPU, 7-202 See UCB specifying, (P) VAXTPU, 7-402 Unit delivery routine, (P) Device Support (B), 1-2 **UNIBUS** address, (P) Device Support (A), 6-2, 12-21; accomplishing a DMA transfer on, (P) Device (P) Device Support (B), 1-34, 2-22, 4-21 Support (A), 14-15 to 14-26 context, (P) Device Support (A), 12-21; (P) address size, (P) Device Support (A), 14-6 Device Support (B), 4-21 devices, (M) Networking, 5-40 entry point, (P) Device Support (B), 4-21 example of driver designed for, (P) Device exit method, (P) Device Support (B), 4-21 Support (A), C-1 to C-29, D-1 to D-26 functions, (P) Device Support (A), 12-21; (P) example of read operation, (P) Device Support Device Support (B), 4-21 (A), 14–12 to 14–13, 14–14 input, (P) Device Support (B), 4-21 example of write operation, (P) Device Support output, (P) Device Support (A), 12-21 (A), 14–12, 14–15 register usage, (P) Device Support (B), 4-21 I/O address space, (P) Device Support (A), synchronization requirements, (P) Device 19-1, 19-4, 19-7 Support (B), 4-21 I/O space, (P) Device Support (A), 14-4 Unit initialization routine, (P) Device Support (A), map registers, (M) Networking, 5-40 1-3, 11-1 to 11-6, 12-4 power failure, (P) Device Support (A), 19-7 address, (P) Device Support (A), 4-6, 6-3, 6-4, UNIBUS adapter, (P) Device Support (A), 1-11, 11-1, 14-30; (P) Device Support (B), 1-26, 1-30, 2-26, 4-22 error interrupt from, (P) Device Support (A), allocating controller data channel in, (P) Device 13-22, 19-7 Support (A), 8-4, 10-2 functions, (P) Device Support (A), 14-1 to allocating permanent buffered data path in, (P) 14 - 15Device Support (A), 14–18 interrupt service routine, (P) Device Support allocating permanent map registers in, (P) (A), 14–29 Device Support (A), 14-20 to 14-21 nexus value of, (P) Device Support (A), 12-5 context, (P) Device Support (A), 11-1, 11-3; obtaining resources of, (P) Device Support (A), (P) Device Support (B), 4-22 14 - 16entry point, (P) Device Support (B), 4-22 prefetch function, (P) Device Support (A), exit method, (P) Device Support (B), 4-23 14-12, 14-13 for connect to interrupt facility, (P) Device registers, (P) Device Support (A), 14-15 Support (A), 19-10, 19-15 scatter-gather map, (P) Device Support (A), for generic VAXBI device, (P) Device Support 14-4 to 14-7 (A), 16–12, 16–22

Unit initialization routine (cont'd) UNIX signals (cont'd) forking in, (P) Device Support (A), 3-24, 11-6 SIGSTOP, (P) DECthreads, A-5 SIGTRAP, (P) DECthreads, A-5 for MASSBUS device, (P) Device Support (A), 11-5, 15-12 to 15-13; (P) Device Support SIGTSTP, (P) DECthreads, A-5 (B), 1–26 Unknown entries, (M) Error Log, ERR-2 for terminal port driver, (P) Device Support Unknown opcode error, (M) VAXcluster, C-25 (A), 18-9, 18-12 UNLOAD command, License Management, functions, (P) Device Support (A), 11-3; (P) LMF-100 to LMF-101 Device Support (B), 4-23 restricting access with, License Management, input, (P) Device Support (A), 11-3; (P) Device LMF-21 Support (B), 4-23 Unload function of CONINTERR.EXE, (P) Device Support (A), disk, (P) I/O User's I, 3-32 magnetic tape, (P) I/O User's I, 6-22 19 - 15of terminal port driver, (P) Device Support (B), Unloading device with DISMOUNT command, (U) DCL of third-party SCSI class driver, (P) Device Dictionary, DCL1-172 Support (A), 17-26 to 17-27 /UNLOAD qualifier, (M) Mount, MOUNT-41 register usage, (P) Device Support (B), 4-22 UNLOAD TABLE command, (M) Terminal synchronization requirements, (P) Device Fallback, TFU-10, TFU-32 Support (A), E-11 to E-12; (P) Device UNLOCK command, (U) DCL Dictionary, Support (B), 4-22 DCL2-395 Unlocking a global mutex, (P) DECthreads, Unit number, (U) VMS Intro, 3-4 Unit number field cma-116, pthread-104 default value, (U) Using VMS, 2-10; (U) DCL Unlocking a mutex, (P) DECthreads, cma-85, Concepts, 3-6 pthread-86 definition, (U) Using VMS, 2-9; (U) DCL Unlocking files, (U) DCL Dictionary, DCL2-395 UNLOCK macro, (P) Device Support (A), 3-10, Concepts, 3-4 Unit record device E-4; (P) Device Support (B), 2-96, 3-114, definition, (U) Using VMS, 2-8; (U) DCL UNLOCK\_SYSTEM\_PAGES macro, (P) Device Concepts, 3-4 Unit testing, (P) Modular Procedures, 4-1 Support (B), 2–97 black box, (P) Modular Procedures, 4-2 UNMANAGE\_WIDGET built-in procedure, (P) white box, (P) Modular Procedures, 4-3 VAXTPU, 7-534 UNMAP built-in procedure, (P) VAXTPU, 7-536 UNIVERSAL option to 7-537 See Linker Utility UNMARK command, (U) Mail, MAIL-59 Universal symbol, (P) Programming Resources, UNMODIFIABLE keyword 5-5; (P) Linker, 1-5, 2-2, 2-8; (P) Patch, SET BUFFER command (EVE), (U) Text PAT-8, PAT-9 Processing, 1-50 See also Symbol Unmodifiable record, (P) VAXTPU, 7-448 declaring, (P) Patch, PAT-8 determining if present, (P) VAXTPU, 7-175, designation of, (P) Linker, 1-9, 2-8, 3-12 7-186, 7-193 in shareable image creation, (P) Linker, 1-11, preventing or allowing erasing of, (P) VAXTPU, 4-10 7 - 375reason for, (P) Linker, 2-8 sensing erasable state, (P) VAXTPU, 7-169 referencing in a shareable image, (P) Patch, "Unmodifiable\_records" string constant parameter PAT-8, PAT-9 to GET\_INFO, (P) VAXTPU, 7-175, 7-186, resolving, (P) Programming Resources, 5-5 UNIX services UNPREDICTABLE results, (P) MACRO, 7-1 atfork(), (P) DECthreads, A-2 Unsegmented key, (P) File Def Language, FDL-28 calling, (P) DECthreads, A-1 Unsolicited interrupt fork(), (P) DECthreads, A-2 See Device interrupt jacket routines for, (P) DECthreads, A-1 Unsolicited interrupt service routine, (P) Device UNIX signals Support (A), 9-5, 15-16; (P) Device Support installing signal handlers for, (P) DECthreads, (B), 1–30 A-5address, (P) Device Support (A), 6-4; (P) SIGINT, (P) DECthreads, A-4 Device Support (B), 4-24 SIGKILL, (P) DECthreads, A-5 SIGQUIT, (P) DECthreads, A-5 context, (P) Device Support (B), 4-24

Unsolicited interrupt service routine (cont'd) entry point, (P) Device Support (B), 4-24 exit method, (P) Device Support (B), 4-24 input, (P) Device Support (B), 4-24 register usage, (P) Device Support (B), 4-24 synchronization requirements, (P) Device Support (B), 4-24 UNSPECIFIED data type, (P) VAXTPU, 2-24 Unsupported terminals, (P) VAXTPU, 2-29 UNSUPRTCPU bugcheck, (P) Device Support (B), 2 - 10\$UNWIND, (P) System Services Ref, SYS-655 Unwind condition handler, (P) Programming Resources, 9-18 Up arrow key, (U) DCL Concepts, 2-7 keypad mode, (U) EDT Ref, EDT-111 moving cursor with, (U) Text Processing, 1-8 nokeypad mode, (U) EDT Ref, EDT-331 See also Cursor movement recalling commands with, (U) Using VMS, 1-18, 1-21; (U) DCL Concepts, 2-6 UP command, (P) File Applications, 10-12; (P) Analyze / RMS\_File, ARMS-35 Update VMS operating system software, (M) System Management Intro, 1-5 Update access, (U) Files and Devices, 4-19 UPDATE attribute, (P) File Def Language, FDL-3, FDL-37 UPDATE built-in procedure, (P) VAXTPU, 6-9, 7-538 to 7-539 compared with REFRESH, (P) VAXTPU, 7-538 UPDATE command, (P) Patch, PAT-2, PAT-6, PAT-30, PAT-89 Update file, (P) SUMSLP, SUM-1 Update-if option, (P) File Applications, 8-4 See also RAB\$V\_UIF option Update operation, (P) File Applications, 3-9 /UPDATE qualifier, (P) Patch, PAT-33 to PAT-35; (P) SUMSLP, SUM-20 UPDATE secondary attribute, (P) File Applications, 7-3, 7-4 Update service, (P) File Applications, 8-1, 8-4; (P) RMS, RMS-99, RMS-100 comparing with Put service for stream format files, (P) RMS, RMS-100 condition values, (P) RMS, RMS-101 control block input fields, (P) RMS, RMS-100 control block output fields, (P) RMS, RMS-101 high-level language equivalents, (P) File Applications, 8-1 invoking, (P) RMS, 5–11 program example, (P) RMS, 4-20 requirements for using, (P) RMS, RMS-100 run-time options, (P) File Applications, 9–19 to using with indexed files, (P) RMS, RMS-100

Update sharing option See FAB\$V UPD option "Update" string constant parameter to GET\_INFO, (P) VAXTPU, 7-208 UPDATE\_IF attribute, (P) File Def Language, FDL-14 UPDATE IF secondary attribute, (P) File Applications, 8–8 Updating windows, (P) VAXTPU, 2-29 UPD option, (P) File Def Language, FDL-3, FDL-37 Upgraded systems, (M) VAXcluster, 4-4 Upgrading VMS systems VAX station 8000 unsupported, V5.5 Release Notes, 2-58 UPI option, (P) File Def Language, FDL-37 Upline memory dump, (M) DECnet-VAX Guide, 2 - 27definition, (M) Networking, 4-17 over Ethernet, (M) Networking, 4–18 procedures, (M) Networking, 4-17 requirements, (M) Networking, 4-19 RSX-11S operating system, (M) Networking, 4 - 17UPPERCASE command, (U) Using VMS, 8-30 EVE editor, (U) Text Processing, 1-46 Uppercase flag, (U) DSR Ref, 3-20 default, (U) DSR Ref, 3-20 pairing, (U) DSR Ref, 3-20 recognizing, (U) DSR Ref. 2-57 UPPERCASE WORD command, (U) Using VMS,  $8\text{--}36; \ (U) \ EVE \ Ref, \ EVE\text{--}243$ formatting text with (EVE), (U) Text Processing, 1-41 using with search string (EVE), (U) Text Processing, 1-20 /UP qualifier, (P) Debugger, CD-95, CD-105, CD-113 UPS (uninterruptable power systems) VAXft built-in use of, Dependability Handbook, Upward compatibility, (P) Modular Procedures, 6-1, A-7 Usage count DIRECTORY/SIZE command, (M) SYSMAN, DISKQUOTA display, (M) SYSMAN, SM-9 updating, (M) SYSMAN, SM-47 Usage counts reconstructing, Obsolete Features, 4-13 USAGE parameter for DLM circuit, (M) Networking, 3-50 for PVC, (M) Networking, 3-47 /USAGE qualifier, (M) Analyze/Disk, ADSK-10 Use Bitmap Widths toggle button, V5.5 New Features, B-47

USE command, (M) SYSMAN, SM-8; (M) System Generation, SGN-43; Obsolete Features, 4-16	User authorization file See UAF
Use Comments toggle button, V5.5 New Features,	User buffer
B-47	address, (P) File Applications, 9–17
Use Fake Trays toggle button, V5.5 New Features,	size, (P) File Applications, 9–17
B-48	User category, (M) Security, 4-4
User	definition, (U) DCL Concepts, 8-3
analyzing dependability needs of,	group, (U) DCL Concepts, 8-3
Dependability Handbook, 2–1	omission from protection code, (M) Security,
capturing user requests in queues,	4–6
Dependability Handbook, 8–55	owner, (U) DCL Concepts, 8-3
categories, (M) Security, 4-1	sequence in which checked, (M) Security, 4-7
defining password, (M) Security, 3-6	system, (U) DCL Concepts, 8-3
displaying	types of access, (U) Files and Devices, 2-2
disk quota, (U) DCL Dictionary, DCL2-317	world, (U) DCL Concepts, 8-3
interactive terminal name, (U) DCL	User classification, (P) File Def Language,
Dictionary, DCL2-331	FDL-23
process identification code (PID), (U) DCL	User context field
Dictionary, DCL2-331	See RAB\$L_CTX field
users on system, (U) DCL Dictionary,	USERD1 parameter, (M) System Generation,
DCL2-331	A-37
granting privilege, (M) Security, 5–32	USERD2 parameter, (M) System Generation,
handling requests from, (M) Maintaining VMS,	A-37
3–1	User default library
interface to network, (M) Networking, 1-21	object module, (P) Linker, 6-14
interfacing through forms, Dependability	shareable image, (P) Linker, 6–14
Handbook,8–47	User-defined condition code
introduction to system, (M) Security, 5-37	signaling, (P) Programming Resources, 9–10
network operations, (M) Networking, 8-1	User-defined keys, (U) EDT Ref, EDT-131
recording name on disk volume, (U) DCL	User-defined local label, (P) MACRO, 3–7
Dictionary, DCL2-242	range, (P) MACRO, 3-7
restricting login hours for, (M) System	User-defined logical name tables, (P) System
Management Intro, 5-5	Services Intro, 6–6
restricting number of users, (M) System	User-defined object, (M) Networking, 2-31
Management Intro, 5-4	User-defined patch area
security, (M) Security, 3-1	accessing with SET PATCH_AREA, (P) Patch
transparent network operations, (M)	PAT-80
Networking, 1–21	creating and accessing, (P) Patch, PAT-19
USER3 parameter, (M) System Generation, A-37	default size, (P) Patch, PAT-81
USER4 parameter, (M) System Generation, A-37	resetting, (P) Patch, PAT-19, PAT-43
User accounts, (M) Security, 5-1, 5-39	terminating use of, (P) Patch, PAT-19
altering, (M) Authorize, AUTH-36	when to use, (P) Patch, PAT-19
comparing, (M) VAXcluster, B-1	User-defined sequence
coordinating, (M) VAXcluster, 4-12, B-1	defining, (U) Sort/Merge, SORT-53
creating, (M) Authorize, AUTH-14	User-defined symbol, (P) Patch, PAT-5; (P)
deleting, (M) Setting Up VMS, 4-23; (M)  Authorize, AUTH-42	MACRO, 3–5, 3–6 User directory
disabling, (M) Setting Up VMS, 4–25	creating, (M) Authorize, AUTH-14
group UIC, (M) VAXcluster, B-1	User-entered reply
in UAF, (U) Using VMS, 7-1	as used in example for selecting key path, (P)
maintaining, (M) Setting Up VMS, 4-22	RMS, 4-12
restricting use, (M) Setting Up VMS, 4-25	User environment
setting up, (M) Setting Up VMS, 4-25	common-environment cluster, (M) VAXcluster
User-action routine, (P) Modular Procedures, 2–7	4–1
interface, (P) Modular Procedures, 3–11	creating common-environment cluster, $(M)$
optional, (P) Modular Procedures, 3–11	VAXcluster, 4–10
passing, (P) Modular Procedures, 3–11	defining, (M) VAXcluster, 4–12

User environment (cont'd) User probing multiple-environment cluster, (M) VAXcluster, as security problem, (M) Security, 1-1 User procedure, (P) RTL Intro, 3-1 User Environment Test Package User process interlock option See UETP See FAB\$V UPI option User EOT mode, correction. V5.5 Release Notes, User profile, (U) Mail, MAIL-14 User prompt string User file directory program example, (P) RMS, 4-16 See UFD /USER qualifier, (M) Accounting, ACC-38; (P) User-file open Debugger, CD-15, CD-18, CD-31, CD-207, See UFO CD-250; (P) System Dump Analyzer, User files SDA-157 on public volumes, (M) Maintaining VMS, 2-1 User record, (U) Mail, MAIL-72 placement, (M) Maintaining VMS, 2-2 User record buffer address field User group See RAB\$L UBF field See BCUG, CUG, and X.25 User record buffer size field See RAB\$W\_USZ field User identification code User request See UIC User identification code field See also Operator function See XAB\$L\_UIC field monitoring, (M) Maintaining VMS, 6-7 User interface CSR space OPCOM message, (M) Maintaining VMS, 3-2 enabling interrupts from, (P) Device Support if operator terminals are disabled, (M) (A), 16–16 Maintaining VMS, 3-3 responding to, (M) Maintaining VMS, 3-4 User Interface Language Compiler User requests See UIL compiler responding to, (U) DCL Dictionary, DCL2-39 User irresponsibility User resources, (M) Setting Up VMS, 5-1 as security problem, (M) Security, 1-1 User rights training as antidote, (M) Security, 5-37 displaying, (M) Security, 5-7 User library User-specified job retention creating, (P) Linker, 1-5 changing, (M) Maintaining VMS, 5-81 help, (U) DCL Dictionary, DCL1-234 PRINT/RETAIN command, V5.5 New Features, /USERLIBRARY qualifier, (P) Linker, 2-4, 3-3 LINK-21 SET ENTRY/RETAIN command, V5.5 New User messages Features, 3-3 accounting, (M) Maintaining VMS, 6-2 SUBMIT/RETAIN command, V5.5 New User mode Features, 3-3 See Access mode User stack User-mode (PSL\$C\_USER) constant displaying contents, (P) System Dump for FAB\$V\_CHAN\_MODE, (P) RMS, 5-5 Analyzer, SDA-157 User-mode assignments, (U) Command User stack pointer, (P) System Dump Analyzer, Procedures, 3-6 SDA-14User name, (U) VMS Intro, 1-1 User training, (M) Security, 5-37 as identifier, (M) Security, 4-20 User window revealed at logout, (M) Security, 3-21 in EVE editor, (P) VAXTPU, 4-16 role in security, (M) Security, 2-3 User-written programs and procedures specifying at login, (U) DCL Dictionary, default access for, V5.5 New Features, D-2 DCL1-392 User-written system service, (P) System Services User number, (P) File Def Language, FDL-22 Intro, A-1 User-open routine, (P) Programming Resources, User-written VAXTPU routines 8-58 See VAXTPU routines User password user\_arg data type, (P) Routines Intro, A-13t setting, (U) DCL Dictionary, DCL2-184 USER\_FILE\_OPEN attribute, (P) File Def User penetration Language, FDL-25 as security problem, (M) Security, 1-2 USER\_FILE\_OPEN secondary attribute, (P) File User privilege, (P) System Services Intro, 2-2 Applications, 7–4

Utility routines (cont'd) USER\_INTERLOCK, (P) File Applications, 7-4, defined, (P) Utility Routines, 1-1 7-7; (P) File Def Language, FDL-37 forming the VAXTPU callable interface, (P) /USER\_MODE qualifier *VAXTPU*, 4–1, 7–41 redefining SYS\$INPUT with, (U) Using VMS, 4 - 18redefining SYS\$OUTPUT with, (U) Using VMS, 4-18 VADD (Vector Floating Add) instruction, (P) with DEFINE command, (U) Command MACRO, 10-70 Procedures, 3-6 VADDL (Vector Integer Add) instruction, (P) /USER\_VALUE qualifier MACRO, 10-57 in message definition, (P) Message, MSG-22 VAER (Vector Arithmetic Exception Register), (P) /USE\_CLAUSE qualifier, (P) Debugger, CD-244 MACRO, 10-6 Using banner pages, (M) Maintaining VMS, 5-31 %VAL, (P) Debugger, CD-10 Using characteristics with queues, (M) VALIDATE QUEUE command, (P) System Dump Maintaining VMS, 5–25 Analyzer, SDA-164 Using DECnet cluster alias, Dependability Validation of users, (M) SYSMAN, SM-5 Handbook, 7-19 Validity rules, (P) File Def Language, FDL-39, Using entry and display modes, (P) Patch, PAT-14 FDL-40 Using FDDI as VAXcluster interconnect, Value Dependability Handbook, 7–16 See also Built-in value type Using forms with queues, (M) Maintaining VMS, assigning to widget resources, (P) VAXTPU, 5 - 404-10, 7-494 Using patch area, (P) Patch, PAT-17 DCL syntax line, (U) DCL Concepts, 1-3 Using procedure libraries, (P) Modular definition, (U) Using VMS, 1-9; (U) DCL Procedures, 5-11 Concepts, 1-3 USING qualifier how to define, (P) Command Def, CDU-6 to for COPY KNOWN NODES command, (M) CDU-8 Networking, 3-24 in DCL command line, (U) Using VMS, 1-8 Using symbols, (P) Patch, PAT-7 symbol for last displayed value, (P) Using the Patch Utility, (P) Patch, PAT-1 Delta/XDelta, DELTA-9 USP symbol, (P) System Dump Analyzer, SDA-14 test in expression, (U) DCL Dictionary, Utility DCL1-237 See also entries for each utility VALUE clause definition, (U) VMS Intro, 1-9 for defining parameters, qualifiers, keywords, indexing, (U) DSR Ref, 6-1 (P) Command Def, CDU-6 invoking, (U) VMS Intro, 1-9 for PARAMETER clause, (P) Command Def, invoking from a program, (P) Programming CDU-24, CDU-32 Resources, 1-24 for QUALIFIER clause, (P) Command Def, mail, (U) VMS Intro, 1-10 CDU-25, CDU-34 phone, (U) VMS Intro, 1-15 /VALUE qualifier, (P) Debugger, 8-6, CD-47 prompt, (U) VMS Intro, 1-9 Variable system management summary, (M) System as override type, (P) Debugger, 4-26 Management Intro, 1-3 buffer, (P) VAXTPU, 2-4 Table of Contents, (U) DSR Ref, 5–1 definition, (U) Command Procedures, 2-1 Utility routines, (P) Programming Resources, depositing into, (P) Debugger, 4-3, 4-14 1-34; (P) Modular Procedures, 1-10 with DECwindows, (P) Debugger, 1-24 See ACL Editor routine examining, (P) Debugger, 4-2, 4-14 See CLI routine with DECwindows, (P) Debugger, 1-24 See CONV routine global, (P) VAXTPU, 3-4 See DCX routines global section, (P) Debugger, 10-15 See EDT routines initialized, (P) Debugger, 4-1 See FDL routine initializing, (P) VAXTPU, 2-24 See LBR routines local, (P) VAXTPU, 3-4, 3-20, 3-34 See PSM routines nonstatic, (P) Debugger, 3-17, 4-1 See SMB routines with DECwindows, (P) Debugger, 1-24 See SOR routines optimized code, (P) Debugger, 9-1 See VAXTPU routines

Variable (cont'd) /VARIANT qualifier, (U) DSR Ref, 2-126, 4-26 recommended naming conventions, (P) Varying character string data type, (P) Routines *VAXTPU*, 4–31 Intro, 2-21 register, (P) Debugger, 3-17, 4-1 Varying length string, (P) RTL String with DECwindows, (P) Debugger, 1-24 Manipulation, 2-1, 2-2, 2-3, STR-9, STR-24, selecting from DECwindows window, (P) STR-68 Debugger, 1-22 Varying string array descriptor, (P) Routines stack local, (P) Debugger, 3-17, 4-1 Intro, 2-35 with DECwindows, (P) Debugger, 1-24 Varying string descriptor, (P) Routines Intro, 2-34 static, (P) Debugger, 3-17 varying\_arg data type, (P) Routines Intro, A-13t uninitialized, (P) Debugger, 3-21 MicroVAX 3100-series computer watchpoint, (P) Debugger, 3-15, 10-15 boot procedure for XDELTA, V5.5 Release with DECwindows, (P) Debugger, 1-24 Notes, 3-54 Variable bit base address access type, (P) VAX 6000 computer MACRO, 8-17 boot procedure for XDELTA, V5.5 Release Variable buffer descriptor, (P) Routines Intro, Notes, 3-50 2 - 25requesting interrupt, V5.5 Release Notes, 3-55 .VARIABLE command. (U) DSR Ref. 2–126, A–5 VAX station 3100-series computer example, (U) DSR Ref, 2-126 boot procedure for XDELTA, V5.5 Release VARIABLE declaration, (P) VAXTPU, 3-36 Notes, 3-54 VARIABLE format, (P) File Def Language, VAX-11/730 computer FDL-35 boot procedure for XDELTA, V5.5 Release Variable-length bit field Notes, 3-48 bytes referenced, (P) MACRO, 8-7 requesting interrupt, V5.5 Release Notes, 3-55 data type. (P) MACRO, 8-6 VAX-11/750 computer Variable-length bit field instructions, (P) MACRO, boot procedure for XDELTA, V5.5 Release 9 - 36Notes, 3-49 Variable-length bit field routine, (P) RTL Library, boot procedure for XDELTA with TU58 console, V5.5 Release Notes, 3-49 Variable-length format option requesting interrupt, V5.5 Release Notes, 3-55 See FAB\$C\_VAR option VAX-11/780 computer Variable-length record, (U) Files and Devices, boot procedure for XDELTA, V5.5 Release B-14; (P) File Def Language, FDL-35 Notes, 3-50 guidelines for specifying, (P) RMS, 5-21 requesting interrupt, V5.5 Release Notes, 3-55 specifying, (U) Sort/Merge, SORT-43 VAX-11/785 computer with D format, (P) File Applications, 2-9 boot procedure for XDELTA, V5.5 Release with V format, (P) File Applications, 2-9 Notes, 3-50 Variable name requesting interrupt, V5.5 Release Notes, 3-55 address expression, (P) Debugger, 4-7 VAX-11/725 computer bootstrap procedure for XDELTA, (P) with DECwindows, (P) Debugger, 1-22 DEPOSIT command, (P) Debugger, 4-3 Delta/XDelta, DELTA-6 EXAMINE command, (P) Debugger, 4-2 inducing a crash, (P) System Dump Analyzer, language expression, (P) Debugger, 4-6 SDA-31 selecting from DECwindows window, (P) requesting interrupt, (P) Delta/XDelta, Debugger, 1–22 DELTA-7 SET WATCH command, (P) Debugger, 3–15 VAX-11/730 computer VARIABLE option bootstrap procedure for XDELTA, (P) record format, (M) Exchange, EXCH-8 Delta/XDelta, DELTA-6 VARIABLES keyword inducing a crash, (P) System Dump Analyzer, with EXPAND\_NAME, (P) VAXTPU, 7-135 SDA-31 Variable with fixed-length control field requesting interrupt, (P) Delta/XDelta, DELTA-7 VAX-11/750 computer Variable with fixed-length control records booting with XDELTA from, (P) Delta/XDelta, specifying, (U) Sort/Merge, SORT-43 DELTA-5 Variant name bootstrap procedure for XDELTA with TU58 restrictions, (U) DSR Ref, 4-26 console, (P) Delta/XDelta, DELTA-6

syntax, (U) DSR Ref. 4-26

VAX-11/750 computer (cont'd)

inducing a crash, (P) System Dump Analyzer, SDA-31

requesting interrupt, (P) Delta/XDelta, DELTA-7

VAX-11/780 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-4

inducing a crash, (P) System Dump Analyzer, SDA-30

requesting interrupt, (P) Delta/XDelta, DELTA-6

VAX-11/782 computer

tuning, (M) Performance Management, 4-25

VAX-11/785 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-4

inducing a crash, (P) System Dump Analyzer, SDA-30

requesting interrupt, (P) Delta/XDelta, DELTA-6

VAX 3100 Model 76

AUTOGEN operations, V5.5 Release Notes, 2-60

VAX 4000 Model 300 computer

boot procedure for XDELTA, V5.5 Release Notes, 3-49

requesting interrupt, V5.5 Release Notes, 3–55 VAX 6000

console tapes and tape serving devices, V5.5 Release Notes, 2-60

Model 500 configuration of CPUs, V5.5 Release Notes, 2–62

VAX 6200 computer

inducing a crash, (P) System Dump Analyzer, SDA-29

VAX 8000-series systems

SET TIME/CLUSTER command, V5.5 Release Notes, 2–63

SET TIME command, V5.5 Release Notes, 2–63 VAXBI restriction, V5.5 Release Notes, 2–64

VAX 8200 computer booting with XDELTA from, (P) Delta/XDelta,

DELTA-4
boot procedure for XDELTA, V5.5 Release
Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7

VAX 8230 computer

inducing a crash, (P) System Dump Analyzer, SDA-29

VAX 8250 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-4

boot procedure for XDELTA, V5.5 Release Notes, 3-51

VAX 8250 computer (cont'd)

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7

VAX 8300 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-4

boot procedure for XDELTA, V5.5 Release Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7

VAX 8350 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-4

boot procedure for XDELTA, V5.5 Release Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7

VAX 8530 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-2

boot procedure for XDELTA, V5.5 Release Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-6

VAX 8550 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-2

boot procedure for XDELTA, V5.5 Release Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3–55; (P) Delta/XDelta, DELTA-6

VAX 8600 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-3

boot procedure for XDELTA, V5.5 Release Notes, 3–52

inducing a crash, (P) System Dump Analyzer, SDA-30

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-6

VAX 8650 computer

booting with XDELTA from, (P) Delta/XDelta, DELTA-3

boot procedure for XDELTA, V5.5 Release Notes, 3-52

inducing a crash, (P) System Dump Analyzer, SDA-30

VAX 8650 computer (cont'd)

requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-6

VAX 8700 computer

See also VAX 8810

booting with XDELTA from, (P) Delta/XDelta, DELTA-2

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, (P) Delta/XDelta, DELTA-6

VAX 8800 computer

See also VAX 8820-N

booting with XDELTA from, (P) Delta/XDelta, DELTA-2

deadlock situation, V5.5 Release Notes, 2–63 inducing a crash, (P) System Dump Analyzer, SDA–29

requesting interrupt, (P) Delta/XDelta, DELTA-6

VAX 8810 computer

boot procedure for XDELTA, V5.5 Release Notes, 3-51

requesting interrupt, V5.5 Release Notes, 3-55 VAX 8820 computer

boot procedure for XDELTA, V5.5 Release Notes, 3-51

requesting interrupt, *V5.5 Release Notes*, 3–55 VAX 8820-N computer

boot procedure for XDELTA, V5.5 Release Notes, 3-51

requesting interrupt, *V5.5 Release Notes*, 3–55 VAX 8830 computer

boot procedure for XDELTA, V5.5 Release Notes, 3-51

inducing a crash, (P) System Dump Analyzer, SDA-29

requesting interrupt, V5.5 Release Notes, 3-55 VAX 8840 computer

boot procedure for XDELTA, V5.5 Release Notes, 3-51

requesting interrupt, V5.5 Release Notes, 3–55 VAX 8850 computer

inducing a crash, (P) System Dump Analyzer, SDA-29

VAX 9000 computer

AUTOGEN parameter calculations for, V5.5 Release Notes, 2-64

BI device driver requirement, V5.5 Release Notes, 3–30

boot procedure for XDELTA, V5.5 Release Notes, 3-53

bus architecture, (P) Device Support (A), 1–16 hardware, (P) Device Support (A), 1–16 I/O address space, (P) Device Support (A), 16–5 requesting interrupt, V5.5 Release Notes, 3–55

VAX ACMS

See ACMS

VAX Ada, (P) Programming Resources, 1-5
Ada data type declaration, (P) Routines Intro,
A-13

Ada implementation table, (P) Routines Intro, A-13

CLOSE procedures change, V5.5 Release Notes, 3–31

restrictions, V5.5 Release Notes, 3–32 special considerations, (P) RTL Parallel Processing, 5–6

VAX Ada Run-Time Library, V5.5 New Features, A-2, A-61

release notes for, V5.5 Release Notes, 3-30

VAX APL, (P) Programming Resources, 1-6 APL data type declaration, (P) Routines Intro, A-15

APL implementation table, (P) Routines Intro, A-15

VAX Application Control and Management System See ACMS

VAX BASIC, (P) Programming Resources, 1-6 BASIC data type declaration, (P) Routines Intro, A-18

BASIC implementation table, (P) Routines Intro, A-18

INKEY\$ function change, V5.5 Release Notes, 3-2

USEROPEN routine, (P) File Applications, 5–10, 9–5

VAXBI bus, (P) Device Support (A), 1–13 address, (P) Device Support (A), 16–2 to 16–5 arbitration mode of, (P) Device Support (A), 16–25

DEBNI Ethernet/802 controller support, V5.5 Release Notes, 2-25

displaying bus assignments, (P) Device Support (A), 12–10

displaying mapped addresses, (P) Device Support (A), 12-9

errors, (P) Device Support (A), 16-26 I/O address space, (P) Device Support (A), 16-2, 16-17, 19-1

master of, (P) Device Support (A), 16–10 memory space, (P) Device Support (A), 16–2 VAXBI node

See also Generic VAXBI device, Node ID definition, (P) Device Support (A), 16–1 determining self-test status of, (P) Device Support (A), 16–13

enabling BIIC options on, (P) Device Support (A), 16-16

enabling error interrupts from, (P) Device Support (A), 16-16

mapping window space of, (P) Device Support (A), 16–16 to 16–18; (P) Device Support (B), 3–107

setting interrupt destination of, (P) Device Support (A), 16-15

VAXBI node (cont'd) VAXcluster (cont'd) setting interrupt vector for, (P) Device Support end node, (M) Networking, 1-12, 2-27 (A), 16–15 Ethernet connection, (M) DECnet-VAX Guide, VAXBI restriction, V5.5 Release Notes, 2-64 1-8 Ethernet interconnect, Dependability VAXBI-to-UNIBUS adapter Handbook, 6–16 See DWBUA FDDI adapter support, V5.5 Release Notes, See DWMUA VAX BLISS fiber distributed data interface (FDDI). BLISS data type declaration, (P) Routines Dependability Handbook, 6-24 Intro, A-22 file specifications, (M) DECnet-VAX Guide, 2-4 BLISS implementation table, (P) Routines hardware components, (M) System Intro, A-22 Management Intro, 6-3 example in, (P) RTL Parallel Processing, 6-4 hardware topologies, Dependability Handbook, using JSB entry point, (P) RTL Intro, 2-2 6 - 15VAX BLISS-32, (P) Programming Resources, 1-6; LAN adapter support, V5.5 Release Notes, (P) System Services Intro, 2-4; (P) File Def 2-72; Dependability Handbook, 7-5 Language, FDL-41 locking considerations, (P) File Applications, example in, (P) RTL Parallel Processing, 6-4 3 - 29VAX BLISS compiler mixed-interconnect, Dependability Handbook, generating reentrant code, (P) DECthreads, 6 - 27MSCP server load balancing, V5.5 New VAX C, (P) Programming Resources, 1-7 Features, B-55 C data type declaration, (P) Routines Intro, multiadapter support, V5.5 Release Notes, A - 252-72; Dependability Handbook, 7-5 C implementation table, (P) Routines Intro, multiple-site data center, Dependability Handbook, 5-15, 6-24, 7-16 example in, (P) RTL Parallel Processing, 6-14 node address, (M) DECnet-VAX Guide, 3-10, Run-Time Library error checking, V5.5 Release 3 - 14Notes, 3-32 node name, (M) DECnet-VAX Guide, 3-10, VAXcluster, (P) File Applications, 3-28 3 - 14See also Mixed-interconnect cluster nodes, (M) DECnet-VAX Guide, 1-8 alias node identifier, (M) DECnet-VAX Guide, organization, (M) System Management Intro, 3-17alias node name, (M) DECnet-VAX Guide, 3-10 overview, (M) System Management Intro, 6-1 application environment topologies, to 6-15 Dependability Handbook, 8-5 partitioning, (M) System Management Intro, architecture, (M) System Management Intro, queue manager in, Dependability Handbook, base address of loadable code, (P) System Dump Analyzer, SDA-13 quorum disk, Dependability Handbook, 9-28 boot disk path, V5.5 Release Notes, 2-72 quorum node, Dependability Handbook, 9-29 CI connection, (M) DECnet-VAX Guide, 1-8 Rdb/VMS database failover in, Dependability clusterwide queue manager, Dependability Handbook, 8-28 Handbook, 8-19 reconfiguration time reduction, V5.5 Release common system disks, Dependability Notes, 2–72 Handbook, 9-29 resource communication mechanisms, (M) System locking, (M) System Management Intro, Management Intro, 6-12 computer interconnect, Dependability synchronizing access, (M) System Handbook, 6-21 Management Intro, 6-3 configuration, (M) Networking, 1-11 router, (M) Networking, 1-12, 2-27 DEMNA firmware revision level for, V5.5 satellite synonym, Dependability Handbook, Release Notes, 2-73 Digital Storage Systems Interconnect (DSSI), security considerations, (M) Security, 9-1 Dependability Handbook, 6–19 sending mail over the network, (M) displaying SDA information, (P) System Dump DECnet-VAX Guide, 2-11 Analyzer, SDA-82

software, (M) System Management Intro, 6-1

VAXcluster VAXcluster environment (cont'd) software (cont'd) registering licenses for, License Management, connection manager, (M) System LMF-20 Management Intro, 6-2, 6-12 to 6-14 sharing activity license units in, License distributed file system, (M) System Management, LMF-34 Management Intro, 6-2 supported versions of the batch and print distributed job controller, (M) System queuing system, V5.5 Release Notes, 2-7 Management Intro, 6-3 SYSGEN parameter recommendation, V5.5 distributed lock manager, (M) System Release Notes, 2-12 Management Intro, 6-3 using autostart queues in, (M) Maintaining VMS, 5-5, 5-11 system communication services, (M) System Management Intro, 6-2 using generic batch queues in, (M) Maintaining software component, (M) System Management VMS, 5-9Intro, 6-2 using generic output queues in, (M) support, V5.5 Release Notes, 2-70 Maintaining VMS, 5-15 use of an alias node identifier, (M) Networking, VAXcluster failover, V5.5 New Features, B-67, 1-12, 2-4, 2-33, 3-11, 8-9 B - 68use of CI data link, (M) Networking, 1-11 VAXCLUSTER parameter, (M) System use of DECnet-VAX data link, (M) Networking, Generation, A-37 1-11VAXcluster sample program, (M) VAXcluster, E-1 using multiple CI interfaces, V5.5 New LAVC\$FAILURE\_ANALYSIS.MAR, (M) VAXcluster, E-3 Features, B-55 using multiple STAR couplers, V5.5 New LAVC\$START\_BUS.MAR, (M) VAXcluster, E-1 LAVC\$STOP\_BUS.MAR, (M) VAXcluster, E-2 Features, B-55 VMS operating system support of, VAX COBOL, (P) Programming Resources, 1-7 Dependability Handbook, 9-28 COBOL data type declaration, (P) Routines volume shadowing in, V5.5 New Features, Intro, A-28 B-106 COBOL implementation table, (P) Routines with fault tolerant system kernels, Intro, A-28 Dependability Handbook, 6-12 VAX common language environment, (P) VAXcluster alias Programming Resources, 1-5 defining, (M) VAXcluster, 4-6, 7-42 VAX compilers enabling operations, (M) VAXcluster, 4-9 See Compiler VAXcluster Console System VAX computers, VMS support for, V5.5 Release See VCS Notes, 2-64 VAXcluster environment VAX condition, (P) Routines Intro, 2-44 controlling node access, License Management, VAX condition codes, (P) MACRO, 10-17 LMF-38 VAX Condition Handling Standard, (P) Routines defining QMAN\$MASTER in, V5.5 New Intro, 2-44 Features, 5-4; (M) Maintaining VMS, 5-65 exception, (P) Routines Intro, 2-44 deletion of print and batch files, V5.5 Release VAX C Run-Time Library, V5.5 Release Notes, Notes, 1-4 3-33 generic queues in, (M) Maintaining VMS, 5-4 VAX Data Distributor local security audit log files in, (M) See Data Distributor Maintaining VMS, 6-14 VAX DATATRIEVE managing licenses in, License Management, See DATATRIEVE LMF-38 VAX data type, (P) Routines Intro, 1-8 mounting public volumes in, (M) Maintaining VAX DBMS VMS, 2-6, 2-8 See DBMS NO\_SHARE option, License Management, VAX DEC/CMS (Code Management System), (P) LMF-6, LMF-39 Modular Procedures, 1–12 providing availability in, License Management, tracking source code changes, Dependability LMF-30 Handbook, 8-57 providing more availability in, License VAX DEC/MMS (Module Management System), Management, LMF-31 (P) Modular Procedures, 1–12 queue manager in, V5.5 New Features, 5-1; building systems, Dependability Handbook,

8-58

(M) VAXcluster, 6-1

VAX DEC/Test Manager, (P) Modular Procedures, testing applications, Dependability Handbook, 8 - 58VAX DIBOL, (P) Programming Resources, 1-8 VAX Distributed File Service See DFS VAX Distributed Name Service See DNS VAX Distributed Queuing System See DQS VAX FORTRAN, (P) Programming Resources, 1-8: (P) File Def Language, FDL-33 /BLAS qualifier, (P) RTL Math, 2-1 example in, (P) RTL Parallel Processing, 6-9 FORTRAN data type declaration, (P) Routines Intro, A-31 FORTRAN implementation table, (P) Routines Intro, A-31 special considerations, (P) RTL Parallel Processing, 5-6 VAX FORTRAN-HPO compiler, (P) RTL Math, 2-1, 2-10VAXft fault tolerant systems, Dependability Handbook, 6-10 meeting requirements for fault tolerance. Dependability Handbook, 1-2 providing multiple WAN connections for, Dependability Handbook, 7–19

use of built-in uninterruptible power systems, Dependability Handbook, 5–3

VAXft 3000 computer

adding a zone to a running system, V5.5 New Features, B-41

boot procedure for XDELTA, V5.5 Release Notes, 3-54

device names, V5.5 New Features, B-57 device types supported by Error Log Utility, V5.5 New Features, B-62

displaying current state of system, V5.5 New Features, B-41

EFDRIVER OPCOM messages, V5.5 Release Notes, 2-58

line and circuit support within NCP, V5.5 New Features, B-105

removing a zone from a running system, V5.5 New Features, B-41

requesting an interrupt for VAXft 3000, V5.5 Release Notes, 3-55

SHOW ZONE command, V5.5 New Features,

START/ZONE command, V5.5 New Features,

STOP/ZONE command, V5.5 New Features, B-41

VAX instruction set

accessing through Run-Time Library, (P) RTL Library, 2-9

VAX language

use with control blocks, (P) RMS, 2-1

VAX language extension, (P) Routines Intro, 2-6

VAX language implementation table

See Implementation table

VAX LISP, (P) Programming Resources, 1–8 programming technology, Dependability Handbook, 3-12

VAX MACRO, V5.5 Release Notes, 3-33; (P) Programming Resources, 1-9; (P) System Services Intro, 2-1, 2-4, 2-5; (P) File Applications, 3–12, 3–15, 3–27, 4–2

See also Addressing mode

See also Directive

See also Macro

and VMS RMS, (P) File Applications, 9-5 MACRO data type declaration, (P) Routines Intro, A-36

MACRO implementation table, (P) Routines Intro, A-36

using JSB entry point, (P) RTL Intro, 2-2

VAX MACRO instruction

as used in device driver, (P) Device Support (A), 5–1 to 5–5

entering, (P) Patch, PAT-21

formatting memory with SDA, (P) System Dump Analyzer, SDA-51

INSERT command, (P) Patch, PAT-68 with same opcode, (P) Patch, PAT-21

VAX Math Run-Time Library, V5.5 Release Notes, 3 - 38

VAX object language, (P) Linker, 7-1 to 7-37 VAX OPS5

programming technology, Dependability Handbook, 3-12

VAX Packetnet System Interface

See VAX PSI

VAX Pascal, (P) Programming Resources, 1–9 Pascal data type declaration, (P) Routines Intro, A-38

Pascal implementation table, (P) Routines Intro, A-38

VAX PL/I, (P) Programming Resources, 1–10 PL/I data type declaration, (P) Routines Intro,

PL/I implementation table, (P) Routines Intro, A - 42

VAXport communication, (M) VAXcluster, C-9

VAXport driver, (M) VAXcluster, 1-4, C-9

VAX Procedure and Condition Handling Standard for calling services, (P) RMS, 3-3

VAX procedure calling conventions, (P) System Services Intro, 2-1

VAX PSI (VAX Packetnet System Interface) (cont'd) VAX Procedure Calling Standard, (P) Routines multihost installation, (M) Networking, 6-2 Intro, 2-1multihost mode, (M) Networking, 1-3, 1-15, address, (P) Routines Intro, 2-3 argument list, (P) Routines Intro, 2-3 5-1multinetwork configuration, (M) Networking, argument list format, (P) Routines Intro, 2-4 5 - 33calling sequence, (P) Routines Intro, 2-4 native mode. (M) Networking, 1-3, 1-15 argument list, (P) Routines Intro, 2-4 native user programs, (M) Networking, 2-7 condition value, (P) Routines Intro, 2-3 object, (M) Networking, 2-35, 3-80 severity code, (P) Routines Intro, 2-9 server module states, (M) Network Control condition value format, (P) Routines Intro, 2-8 Program, A-21 data type, (P) Routines Intro, 2-15 server module state transitions, (M) Network atomic, (P) Routines Intro, 2-15 Control Program, A-22 COBOL intermediate temporary, (P) software, (M) Networking, 1-16, 2-1 Routines Intro, 2-20 system management, (M) Networking, 1-15, miscellaneous, (P) Routines Intro, 2-18 5-4string, (P) Routines Intro, 2–17 test facilities, (M) Networking, 7-1 descriptor, (P) Routines Intro, 2-3 users, (M) Networking, 1-15 descriptor formats, (P) Routines Intro, 2-21 VAX PSI Access software, (M) Networking, 1–13, exception condition, (P) Routines Intro, 2-3 2-1, 2-6, 2-37, 5-1, 6-2 for high-level languages, (P) Routines Intro, VAX PSI software, (M) DECnet-VAX Guide, 1-6, 2-61 - 10function, (P) Routines Intro, 2-3 VAX RALLY function value, (P) Routines Intro, 2-7 programming technology, Dependability goals, (P) Routines Intro, 2-2 Handbook, 3-11immediate value, (P) Routines Intro, 2-3 prototyping tool, Dependability Handbook, introduction, (P) Routines Intro, 2-1 8 - 24language support procedures, (P) Routines VAX Rdb/VMS Intro, 2-4 as resource manager with DECdtm services, library procedures. (P) Routines Intro, 2-4 Dependability Handbook, 8-15 procedure, (P) Routines Intro, 2-3 automatic cleanup of databases, Dependability reference, (P) Routines Intro, 2-3 Handbook, 8-41 registers, (P) Routines Intro, 2-12 database security, Dependability Handbook, requirements for vectorized programs, V5.5 8-44 New Features, B-31 to B-33 dependability features, Dependability Handbook, 8-27 to 8-46 use of, (P) Routines Intro, 2-14 failover of databases in VAXclusters, subroutine, (P) Routines Intro, 2-3 Dependability Handbook, 8-28 VAX language extensions, (P) Routines Intro, minimizing impact of component failure, Dependability Handbook, 8-33 VAX PSI (VAX Packetnet System Interface), (M) placement of files, Dependability Networking, 1-3 Handbook, 8-31 bringing up a DTE, (M) Networking, 6-2 online backup, Dependability Handbook, 8-34 command procedure for object, (M) Networking, online restructuring of database characteristics, Dependability Handbook, 8-42 configuration, (M) Networking, 1-5, 1-18, 5-1, RDO utility as prototyping tool, Dependability 5-30, 5-33 Handbook, 8-24 connector node, (M) Networking, 6-2 replication in wide area networks, database, (M) Networking, 1-16, 3-3 Dependability Handbook, 3-8 DTE states and substates, (M) Network Control SQL utility as prototyping tool, Dependability Program, A-20 Handbook, 8-24 DTE state transitions, (M) Network Control use of transaction sequence numbers in online Program, A-20 backup, Dependability Handbook, 8-35 dumping KMS11 microcode, (M) Networking, use of two-phase commit protocol, 7-1, 7-14 Dependability Handbook, 8-39 dumping KMV11 microcode, (M) Networking, using DECtrace with, Dependability Handbook, 7-1, 7-14 8-46 line-level loopback test, (M) Networking, 7-1,

7 - 13

VAX Rdb/VMS (cont'd) using RdbExpert with, Dependability Handbook, 8-46 VAX RdbExpert optimizing physical Rdb/VMS design, Dependability Handbook, 8-46 VAX Remote System Manager See VAXrsm VAX RMS Journaling error caused by active recovery units, (P) Analyze/RMS\_File, ARMS-9 how to turn off, (P) Analyze/RMS File, ARMS-8 VAX RMS Journaling errors how to handle, (P) Analyze/RMS\_File, ARMS-8 VAX RMS Journaling recovery units how to turn off, (P) Analyze/RMS\_File, ARMS-9 VAX RPG II, (P) Programming Resources, 1–10 RPG II data type declaration, (P) Routines Intro, A-48 RPG II implementation table, (P) Routines Intro, A-48 VAXrsm use in wide area networks, Dependability Handbook, 3-8 VAX scalar See Scalar VAX SCAN, (P) Programming Resources, 1-11 SCAN data type declaration, (P) Routines Intro, A-51 SCAN implementation table, (P) Routines Intro, A-51 VAXsimPLUS minimizing failures, Dependability Handbook, 9 - 16use at CSC lights out data center, Dependability Handbook, 11–23 VAX standard data type, (P) Routines Intro, 1–8 VAXstation See Workstation VAXstation 2000 computer boot procedure for XDELTA, V5.5 Release Notes, 3-49 bootstrap procedure for XDELTA, (P) Delta/XDelta, DELTA-5 requesting interrupt, V5.5 Release Notes, 3-55; (P) Delta/XDelta, DELTA-7 VAXstation 3520 and 3540 computers Ctrl/F2 key sequence, V5.5 Release Notes, 2–65 Print Screen restriction, V5.5 Release Notes, 1-12supported software products, V5.5 Release Notes, 2-65

support for SCSI devices, (P) Device Support

(A), 1–18, 1–19

VAXstation 3520 and 3540 screen blank out, V5.5 Release Notes, 1-8 VAXstation 3520 computer boot procedure for XDELTA, V5.5 Release Notes, 3-49 requesting interrupt, V5.5 Release Notes, 3-55 VAXstation 3540 computer boot procedure for XDELTA, V5.5 Release Notes, 3-49 requesting interrupt, V5.5 Release Notes, 3-55 VAXstation 4000 series computer changing font size, V5.5 Release Notes, 2-65 VAXstation 8000 computer upgrade information, V5.5 Release Notes, 2-58 VAXstation II computer inducing a crash, (P) System Dump Analyzer, SDA-31minimum DEQNA revision level requirement, (M) System Management Intro, 6-7 minimum memory requirement, (M) System Management Intro, 6-7 restrictions for use as boot node, (M) System Management Intro, 6–7 VAX Storage Library System See SLS VAX Text Processing Utility See VAXTPU VAX Text Processing Utility routines See VAXTPU routines VAXTPU (VAX Text Processing Utility), (P) Programming Resources, 1-4 batch editing, (U) DCL Dictionary, DCL1-191, DCL1-194 built-in procedures, (P) VAXTPU, 1-2 command file, (U) DCL Dictionary, DCL1-191; (U) EVE Ref, 1–8 compiling procedures, (U) EVE Ref, EVE-54, EVE-55, EVE-57 debugger, (U) DCL Dictionary, DCL1-192; (U) EVE Ref. 1-9 DECwindows, (P) VAXTPU, 1-2 DECwindows interface, (U) DCL Dictionary, DCL1-193, DCL1-195 display mangager, (U) DCL Dictionary, DCL1-193 EVE editor, (P) Programming Resources, 1-5 executing procedures, (U) EVE Ref, EVE-239 file support, (P) VAXTPU, F-1 help on built-in procedures, (U) EVE Ref, EVE-239 input file, (U) DCL Dictionary, DCL1-189, DCL1-192 invoking, (U) DCL Dictionary, DCL1-189 journaling, (U) DCL Dictionary, DCL1-195, DCL1-198 journaling methods, (P) VAXTPU, 1-11

output file, (U) DCL Dictionary, DCL1-197

VAXTPU (VAX Text Processing Utility) (cont'd) VAX vector procedures See Vector help on, (U) EVE Ref, EVE-72 VAX Vector Instruction Emulation Facility recovery from system failure, (U) DCL See VVIEF Dictionary, DCL1-198 VAXVMSSYS.PAR file relationship with DEC windows features, (P) created by CLUSTER\_CONFIG.COM, (M) VAXTPU, 1-2 VAXcluster, 7-2 running from a subprocess VBIC (Vector Bit Clear) instruction, (P) MACRO, example, (P) VAXTPU, A-5 10-64 section file, (U) DCL Dictionary, DCL1-200 VBIS (Vector Bit Set) instruction, (P) MACRO, start position, (U) DCL Dictionary, DCL1-202 10 - 64used with UIL, (P) VAXTPU, 1-4 VBN (virtual block number), (P) Analyze/RMS\_ /WORK and /NOWORK qualifiers, V5.5 Release File, ARMS-6 Notes, 1-21 VCB (volume control block), (P) System Dump work file, (U) DCL Dictionary, DCL1-202 Analyzer, SDA-99; (P) Device Support (B), VAXTPU callable interface 1-74, 1-78 See VAXTPU routines VCMP (Vector Floating Compare) instruction, (P) VAXTPU procedure MACRO, 10-72 compiling, (U) Text Processing, 1-69 VCMPL (Vector Integer Compare) instruction, (P) executing, (U) Text Processing, 1-68 MACRO, 10-59 extending EVE with, (U) Text Processing, 1-69 %VCR rules for writing, (U) Text Processing, 1-69 See VCR using EXTEND EVE command to compile, (U) VCR (vector count register), V5.5 New Features, Text Processing, 1–70 B-5; (P) Debugger, 11-4, D-3; (P) MACRO, VAXTPU routines 10-3, 10-88, 10-90 callable VAXTPU, (P) Utility Routines, TPU-1 VCS (VAXcluster Console System) error handling, (P) Utility Routines, detecting operational failures, Dependability TPU-3 Handbook, 9-15 full interface, (P) Utility Routines, TPU-2, introduction, Dependability Handbook, 7-24 TPU-6 use at CSC lights out data center, overview, (P) Utility Routines, TPU-1 Dependability Handbook, 11-22 simplified interface, (P) Utility Routines, VDIV (Vector Floating Divide) instruction, (P) TPU-2, TPU-5 MACRO, 10-78 condition handler VEC\$B\_DATAPATH, (P) Device Support (A), condition codes, (P) Utility Routines, 14-17, 14-18, 14-21, 14-25 TPU-4 VEC\$B NUMREG, (P) Device Support (A), 14-20 default, (P) Utility Routines, TPU-4 VEC\$L\_IDB, (P) Device Support (A), 4-6, 15-13 return values, (P) Utility Routines, TPU-4 VEC\$L\_INITIAL, (P) Device Support (A), 4-6, universal symbols, (P) Utility Routines, 12-4; (P) Device Support (B), 4-8 TPU-4 VEC\$L\_ISR, (P) Device Support (A), 4-6, E-5; examples, (P) Utility Routines, TPU-5, TPU-8 (P) Device Support (B), 4-13 to TPU-25 VEC\$L\_RTINTD, (P) Device Support (A), 14-34, introduction, (P) Utility Routines, TPU-1 14 - 35parameter VEC\$L UNITINIT, (P) Device Support (A), 4-6, bound procedure value, (P) Utility 12-4; (P) Device Support (B), 4-22 Routines, TPU-4 VEC\$Q\_DISPATCH, (P) Device Support (B), 1-25 shareable image, (P) Utility Routines, TPU-1, VEC\$V\_LWAE, (P) Device Support (A), 14-15, TPU-3 14-21; (P) Device Support (B), 3-78 constants, (P) Utility Routines, TPU-3 VEC\$V MAPLOCK, (P) Device Support (A), symbols, (P) Utility Routines, TPU-3 14-20; (P) Device Support (B), 3-90 user-written VEC\$V PATHLOCK, (P) Device Support (A), FILEIO, (P) Utility Routines, TPU-51 14-17, 14-18; (P) Device Support (B), 3-87 HANDLER, (P) Utility Routines, TPU-53 VEC\$W\_MAPALT, (P) Device Support (A), 14-21, INITIALIZE, (P) Utility Routines, TPU-54 requirements, (P) Utility Routines, TPU-8 VEC\$W\_MAPREG, (P) Device Support (A), 14-20, USER, (P) Utility Routines, TPU-55 14-22

See VUP

VAX unit of performance

Vector consumer (cont'd) VEC\$W\_NUMALT, (P) Device Support (A), 14-21 marginal, V5.5 New Features, B-9, B-13 VEC (interrupt transfer vector), (P) Device obtaining information about, V5.5 New Support (A), 14-29, 14-30 to 14-33; (P) Features, B-14 to B-16, B-24; (M) Device Support (B), 1-9, 1-22 to 1-27 Maintaining VMS, 6-15 to 6-18 initializing, (P) Device Support (A), 14-31 Vector context, V5.5 New Features, B-8 multiple, (P) Device Support (B), 1-23 preserving, V5.5 New Features, B-25, B-32 \$VECEND macro, (P) Device Support (A), 18-6; Vector context switch (P) Device Support (B), 2–99 fast, V5.5 New Features, B-10 example, (P) Device Support (B), 2-100 obtaining information about, V5.5 New \$VECINI macro, (P) Device Support (A), 18-6; Features, B-14, B-24; (M) Maintaining (P) Device Support (B), 2-98, 2-100 VMS. 6-16example, (P) Device Support (B), 2-100 slow, V5.5 New Features, B-10 \$VEC macro, (P) Device Support (A), 18-6; (P) Vector control word, (P) MACRO, 10-9, 10-13, Device Support (B), 2–98 10 - 17example, (P) Device Support (B), 2-100 EXC (Exception Enable) bit, (P) MACRO, **VECTAB** 10-11, 10-12, 10-13, 10-17, 10-28, 10-58, See Adapter dispatch table 10-61, 10-63, 10-68, 10-71, 10-76, 10-79, Vector, (P) MACRO, 10-28 10-81, 10-83 applying Givens plane rotation, (P) RTL Math, MI (Modify Intent) bit, (P) MACRO, 10-11, MTH-173 10-12, 10-18, 10-50, 10-53 copying, (P) RTL Math, MTH-160 MOE (Masked Operations Enable) bit, (P) defined, V5.5 New Features, B-5 MACRO, 10-11, 10-12, 10-18 fixed space, (P) Device Support (A), 12–14 MTF (Match True/False) bit, (P) MACRO, fixed-space, (M) System Generation, B-1 10-11, 10-12, 10-18 floating space, (P) Device Support (A), 12–14 register specifier fields, (P) MACRO, 10-13 floating-space, (M) System Generation, B-1 Vector count register generating the elements for a Givens plane See VCR rotation, (P) RTL Math, MTH-178 Vector CPU time multiplying, (P) RTL Math, MTH-155 definition, V5.5 New Features, B-15; (M) obtaining the Euclidean norm of, (P) RTL Maintaining VMS, 6-17 Math, MTH-170 obtaining information obtaining the index of, (P) RTL Math, about image, V5.5 New Features, B-15 MTH-149 about process, V5.5 New Features, B-14, obtaining the inner product of, (P) RTL Math, B-15, B-24MTH-165 about processor, V5.5 New Features, B-16 obtaining the sum of the absolute values of, (P) about system, V5.5 New Features, B-16 RTL Math, MTH-152 obtaining information regarding image, (M) processor synchronization, (P) Routines Intro, Maintaining VMS, 6-17 2-13obtaining information regarding process, (M) register usage, (P) Routines Intro, 2-12 scaling, (P) RTL Math, MTH-183 Maintaining VMS, 6-16, 6-17 obtaining information regarding processor, (M) swapping, (P) RTL Math, MTH-187 Maintaining VMS, 6-17 Vector address translation, (P) MACRO, 10-47 obtaining information regarding system, (M) Vector arithmetic exception Maintaining VMS, 6-17 debugging, V5.5 New Features, B-19, B-28 Vector exception Vector capability, V5.5 New Features, B-8 arithmetic, V5.5 New Features, B-19, B-28 determining availability within a system, V5.5 delivery of, (P) Debugger, 11-19, 11-22 New Features, B-15; (M) Maintaining memory management, V5.5 New Features, VMS, 6-16 B - 28placing an ACL on, V5.5 New Features, B-13 servicing, V5.5 New Features, B-28 to B-31 to B-14 Vector exception state Vector-capable system, V5.5 New Features, B-5 preserving across procedure boundaries, V5.5 Vector code assembling, (P) MACRO, 6-23 New Features, B-25 to B-26, B-32 Vector instruction, (P) Debugger, 11-8 Vector consumer, V5.5 New Features, B-8 CANCEL BREAK/VECTOR INSTRUCTION determining the identity of, V5.5 New Features, command, (P) Debugger, 11-3, CD-18 B-14, B-24; (M) Maintaining VMS, 6-16

managing, V5.5 New Features, B-12 to B-14

Vector instruction (cont'd)	Vectorized program (cont'd)
CANCEL TRACE/VECTOR_INSTRUCTION	setting breakpoint, (P) Debugger, 11–3
command, (P) Debugger, 11-3, CD-31	setting breakpoint, (1) Debugger, 11–3
decoding, (P) MACRO, 10-18	setting watchpoint, (P) Debugger, 11–3
delivery of vector exception, (P) Debugger,	SET VECTOR_MODE command, (P) Debugger,
11–19, 11–22	11–19, CD–194
depositing, $(P)$ Debugger, $11-12$	SHOW PROCESS/FULL command, (P)
displaying, (P) Debugger, 11–12 displaying, (P) Debugger, 11–8	
	Debugger, 11–2
EXAMINE/OPERANDS command, (P) Debugger, 11–9	SHOW VECTOR_MODE command, (P)
	Debugger, 11–19, CD–253
examining, (P) Debugger, 11–9	specifying vector register, (P) Debugger, 11–4
execution, (P) MACRO, 10-21	SYNCHRONIZE VECTOR_MODE command,
formats, (P) MACRO, 10-9 masked operation, (P) Debugger, 11-9, 11-14	(P) Debugger, 11–19, CD–264
operand, (P) Debugger, 11-9, 11-14	synchronizing scalar and vector processors, (P)
replacing, (P) Debugger, 11–12	Debugger, 11–19
SET BREAK/VECTOR_INSTRUCTION	V0 to V15, (P) Debugger, 11–6
command, (P) Debugger, 11–3, CD–129	VCR, (P) Debugger, 11-4
SET STEP VECTOR_INSTRUCTION command,	VLR, (P) Debugger, 11–4
(P) Debugger, 11–3, CD–176	VMR, (P) Debugger, 11–5, 11–9, 11–13
SET TRACE/VECTOR_INSTRUCTION	with DECwindows, (P) Debugger, 1–29 writing, V5.5 New Features, B–7, B–21 to B–33
command, (P) Debugger, 11–3, CD–187 STEP/VECTOR_INSTRUCTION command, (P)	Vectorizing compiler, V5.5 New Features, B-7, B-21
Debugger, 11-3, CD-260	
	Vectorizing FORTRAN compiler, (P) RTL Math,
Vectorization of a loop preventing, (P) RTL Math, MTH-192,	2–8
	Vector jump table
MTH-197, MTH-201, MTH-205	See Adapter dispatch table
Vectorized program CALL/[NO]SAVE_VECTOR_STATE command,	VECTOR keyword
(P) Debugger, 11–22, CD–11	Error Log Utility (ERROR LOG), V5.5 New
controlling and monitoring execution, (P)	Features, B–16, B–62
Debugger, 11–2	Vector length register
debugging, V5.5 New Features, B-26 to B-31;	See VLR
(P) Debugger, 11–1	Vector Logical Functions, (P) MACRO, 10-64
with DECwindows, (P) Debugger, 1–29	Vector mask register
definition, V5.5 New Features, B-7 to B-8	See VMR
delivery of vector exception, (P) Debugger,	Vector memory
11–19, 11–22	accessing page tables, (P) MACRO, 10-47
depositing into vector register, (P) Debugger,	access mode, (P) MACRO, 10–20, 10–49
11–4, 11–6	alignment, (P) MACRO, 10–49
depositing vector instruction, (P) Debugger,	HALT considerations, (P) MACRO, 10–43
11–12	indicating intent to modify, (P) MACRO, 10–12
EXAMINE/FMASK command, (P) Debugger,	instructions, (P) MACRO, 10–49
11–13	management
EXAMINE/OPERANDS command, (P)	_
Debugger, 11–9, CD–83	See Memory management
EXAMINE/TMASK command, (P) Debugger,	required use of synchronization instructions,
11–13	(P) MACRO, 10–42
examining vector instruction, (P) Debugger,	scalar/vector synchronization of, (P) MACRO, 10–38
11–9	stride, (P) MACRO, 10–49
examining vector register, (P) Debugger, 11–4,	
11–6	Vector memory activity check register
masked operation, (P) Debugger, 11–5, 11–9,	See VMAC
11–13	Vector mode
obtaining information about, (P) Debugger,	SET VECTOR_MODE [NO]SYNCHRONIZED
11–2	command, (P) Debugger, 11-19
requirements when written in VAX MACRO,	SYNCHRONIZE VECTOR_MODE command,
V5.5 New Features, B-22	$(P)\ Debugger,\ 11-19$

Vector register (cont'd) Vector opcode, (P) MACRO, D-1 composite address expression, (P) Debugger, Vector-present processor, V5.5 New Features, B-5 adding to system, V5.5 New Features, B-11 to depositing into, (P) Debugger, 11-4, 11-6 display, screen mode, (P) Debugger, 7-9, 7-15, identifying, V5.5 New Features, B-15, B-24; 11 - 23(M) Maintaining VMS, 6–16 examining, (P) Debugger, 11-4, 11-6 removing from system, V5.5 New Features, scope, (P) Debugger, 11-1 B-11 to B-12 V0 to V15, (P) Debugger, 11-6, D-3 when unavailable, V5.5 New Features, B-12 VCR, (P) Debugger, 11-4, D-3 Vector processing, V5.5 New Features, B-4 to VLR, (P) Debugger, 11-4, D-3 VMR, (P) Debugger, 11-5, 11-9, 11-13, D-3 benefits of, V5.5 New Features, B-7 watchpoint, (P) Debugger, 11-3 establishing batch queues for, V5.5 New Vector routines Features, B-13 table of entry points, (P) RTL Math, B-1 to integrated model, V5.5 New Features, B-5 B-4 management considerations, V5.5 New Vector state Features, B-10 to B-21 definition, V5.5 New Features, B-25 resource requirements, V5.5 New Features, restoring, (P) System Services Ref, SYS-498 support within Error Log Utility, V5.5 New Vector state address register Features, B-16 See VSAR support within Monitor Utility, V5.5 New vector\_byte\_signed data type, (P) Routines Intro, Features, B-100 to B-104 A-13t support within Patch Utility, V5.5 New vector\_byte\_unsigned data type, (P) Routines Features, B-28 Intro, A-13t system descriptions, V5.5 New Features, B-5 to /VECTOR\_INSTRUCTION qualifier, (P) Debugger, 11-3, CD-18, CD-31, CD-129, system messages, V5.5 New Features, B-17 to CD-187, CD-260 B-21vector\_longword\_signed data type, (P) Routines Vector processing support code Intro, A-13t loading, V5.5 New Features, B-8, B-11 vector\_longword\_unsigned data type, (P) Routines Vector processing system Intro, A-13t configuring, V5.5 New Features, B-11 to B-12 VECTOR\_MARGIN parameter, V5.5 New obtaining information about, V5.5 New Features, B-13 Features, B-14 to B-16, B-24; (M) VECTOR\_PROC parameter, V5.5 New Features, Maintaining VMS, 6-15 to 6-18 B-11obtaining number of vector processors in, vector\_quadword\_signed data type, (P) Routines V5.5 New Features, B-15, B-24; (M) Intro, A-13t Maintaining VMS, 6-16 vector\_quadword\_unsigned data type, (P) performance, V5.5 New Features, B-5 Routines Intro, A-13t tuning, V5.5 New Features, B-12 to B-13 vector\_word\_signed data type, (P) Routines Intro, Vector processor A-13t disabled, (P) MACRO, 10-31, 10-32 vector\_word\_unsigned data type, (P) Routines exception handling, (P) Routines Intro, 2-51 Intro, A-13t releasing, V5.5 New Features, B-24; (P) Vendor reputation, Dependability Handbook, 3–14 System Services Ref, SYS-491 Vendor-supplied backup sites, Dependability restoring the exception state of, (P) System Handbook, 5-15 Services Ref, SYS-496 Vendor tradeoffs, Dependability Handbook. 4-20 saving the exception state of, (P) System adequate coverage, Dependability Handbook, Services Ref, SYS-507 4 - 20Vector processor status register committed response, Dependability Handbook, 4-20See VPSR Vector register, V5.5 New Features, B-5; (P) flexible roles, Dependability Handbook, 4-21 location flexibility, Dependability Handbook, MACRO, 10-1See also Register one-stop service, Dependability Handbook, built-in symbol, (P) Debugger, 11–4, D–3 4-21

Vendor tradeoffs (cont'd) VFC (variable with fixed-length control) record reliable products, Dependability Handbook, format, (U) Files and Devices, B-14 VFC record format option Verb See FAB\$C\_VFC option See also DEFINE VERB statement VGATH (Gather Memory Data into Vector how to define, (P) Command Def, CDU-8 to Register) instruction, (P) MACRO, 10–12, CDU-9 10-16, 10-44 Verification Video attribute, (P) Programming Resources, image data records, V5.5 Release Notes, 1-19 7-10, 7-16, 7-20 modifying for command procedures, (U) DCL current, (P) Programming Resources, 7-16 Dictionary, DCL2-237 default, (P) Programming Resources, 7-16 mount marker, (P) VAXTPU, 2-9, 7-261 See Mount verification PROMPT\_AREA, (P) VAXTPU, 7-446 of circuit, (M) Security, 8-6 range, (P) VAXTPU, 2-22 of disk volumes, (M) Analyze/Disk, ADSK-1 SET (VIDEO) built-in procedure, (P) VAXTPU, of user identity, (M) Security, 5–16 7 - 492VERIFICATION INBOUND parameter, (M) with STATUS\_LINE, (P) VAXTPU, 7-476 Networking, 3-42, 3-93 VIDEO keyword, (P) VAXTPU, 7-492 Verification of NCS library operations "Video" string constant parameter to GET\_INFO, See /LOG qualifier (P) VAXTPU, 7-187, 7-193, 7-226 VERIFICATION parameter, (M) Networking, Video terminal 3 - 41clearing screen, (M) Security, 3-21 Verify logout considerations, (M) Security, 3-20 SET OUTPUT VERIFY command, (P) \$VIELD macro, (P) Device Support (B), 2-102 to Debugger, CD-155 2 - 103VERIFY command, (P) Patch, PAT-90 \_VIELD macro, (P) Device Support (B), 1-70, Verifying 2-102 to 2-103 network connection, (M) DECnet-VAX Guide, example, (P) Device Support (B), 2-103 3-28, 3-29VIEW command, (U) DCL Dictionary, DCL2-396; successful network installation, (M) (P) File Def Language, FDL-67 DECnet-VAX Guide, 3-30 PostScript file support, V5.5 New Features, /VERIFY qualifier, (M) Backup, BCK-91 B - 46VERSION keyword, (P) VAXTPU, 7-141 PS input format, V5.5 New Features, B-41 with FILE\_SEARCH, (P) VAXTPU, 7-144 viewing PostScript files, V5.5 New Features, Version limit for files in directory, (U) DCL Dictionary, /VIEWING\_TIME qualifier, (M) Monitor, DCL1-90 MON-31 setting on public volumes, (M) Maintaining Viewport, (P) Programming Resources, 7–17; (P) VMS, 2-1RTL Screen Management, 1-6, 2-12 Version number, (U) VMS Intro, 2-3; (U) See also Screen layout Files and Devices, 4–17, B–11; (P) File Def changing characteristics, (P) RTL Screen Language, FDL-20; (P) VAXTPU, 4-2 Management, 2-14 See also File version number creating, (P) RTL Screen Management, 2-13 assigning, V5.5 New Features, E-16 deleting, (P) RTL Screen Management, 2-13 assigning to files, (U) DCL Dictionary, description, (U) Phone, PHONE-2 DCL1-216 moving, (P) RTL Screen Management, 2-13 Version number with SHOW SUMMARY pasting, (P) RTL Screen Management, 2-13 command, (U) EVE Ref, EVE-226 scrolling, (U) Phone, PHONE-5; (P) RTL "Version" string constant parameter to GET\_INFO, Screen Management, 2-13 (P) VAXTPU, 7-208 specifying size, (U) Phone, PHONE-7 unpasting, (P) RTL Screen Management, 2-13 VFC (variable with fixed-length control) field, (P) File Applications, 2-11, 3-9, 3-10 VIRTCONS spin lock, (P) Device Support (A), record, (P) File Def Language, FDL-34, 3-14FDL-35 Virtual address, (P) MACRO, 8-1 converting, (P) Convert, CONV-15 Virtual address operator (@), (P) System Dump format of, (P) File Def Language, FDL-35 Analyzer, SDA-12 record format, (P) File Applications, 1-2

Virtual display (cont'd) Virtual address register logical cursor position, (P) Programming See MBA\$L\_VAR Resources, 7-17 Virtual address space, (P) System Services Intro, modifying, (P) Programming Resources, 7-15 12-2, 12-3 obtaining the pasting order, (P) Programming adding page to, (P) System Services Ref. Resources, 7–14 SYS-114, SYS-218 outputting through, (P) RTL Screen creating, (P) System Services Ref, SYS-114 Management, 2-5 deleting page from, (P) System Services Ref, overwriting text, (P) Programming Resources, SYS-147; Obsolete Features, 2-6 7-18, 7-20 increasing and decreasing, (P) System Services pasting, (P) Programming Resources, 7-11 Intro, 12–3 physical cursor position, (P) Programming layout, (P) System Services Intro, 12-2 Resources, 7–18 mapping section of, (P) System Services Intro, popping, (P) Programming Resources, 7-15 12 - 12reading data from, (P) Programming Resources, specifying array, (P) System Services Intro, 12-4reading from, (P) RTL Screen Management, sufficient for system dump analysis, (P) System 2-12Dump Analyzer, SDA-6 rearranging, (P) Programming Resources, 7–13 VAXTPU restriction concerning. (P) VAXTPU. saving, (P) RTL Screen Management, 2-15 5-1scrolling, (P) Programming Resources, 7–20 Virtual block sharing, (P) Programming Resources, 7–32 dump, (P) Analyze/RMS\_File, ARMS-25 specifying double-width characters, (P) Virtual block number Programming Resources, 7-20 See VBN specifying video attributes, (P) Programming Virtual-block-position option, (P) File Resources, 7–10 Applications, 4–31 viewport, (P) Programming Resources, 7-17 Virtual circuit, (M) VAXcluster, C-9; (M) writing double-width characters, (P) Networking, 1-7, 1-8 Programming Resources, 7–19 See also X.25, virtual circuit writing text to, (P) Programming Resources, Virtual device, (M) Exchange, EXCH-1 7 - 17allocating, (M) Exchange, EXCH-31 Virtual I/O, (P) System Services Intro, 7-7 creating, (M) Exchange, EXCH-11 canceling requests for, (P) System Services Ref. definition, (M) Exchange, EXCH-11 SYS-48 dismounting, (M) Exchange, EXCH-11 Virtual I/O function, (P) Device Support (B), 1-40, mounting, (M) Exchange, EXCH-11 Virtual display, (P) Programming Resources, translation to logical function from, (P) Device 7-10; (P) RTL Screen Management, 1-5 Support (A), 2-3 See also Viewport Virtual keyboard, (P) RTL Screen Management, changing rendition of, (P) RTL Screen Management, 2-9 definition of, (P) RTL Screen Management, 3-1 checking occlusion of, (P) Programming inputting through, (P) RTL Screen Resources, 7–12 Management, 3-1 creating, (P) Programming Resources, 7-10 obtaining data from, (P) RTL Screen creating a subprocess from, (P) Programming Management, 3-1 Resources, 7–16 reading data from, (P) Programming Resources, cursor movement, (P) Programming Resources, 7-23, 7-24 Virtual keyboard characteristics deleting, (P) Programming Resources, 7-14 setting and retrieving, (P) RTL Screen deleting text, (P) Programming Resources, 7-21 Management, 3-1 drawing lines, (P) Programming Resources, Virtual memory 7-20 examining contents, (U) DCL Dictionary, erasing, (P) Programming Resources, 7-14 DCL1-209 ID, (P) Programming Resources, 7–10, 7–32 replacing contents, (U) DCL Dictionary, inserting text, (P) Programming Resources, DCL1-147 7-18, 7-20 Virtual memory address list pasting order of, (P) Programming

Resources, 7–14

See Memory address

Virtual memory allocation VLR (vector length register), V5.5 New Features, B-5; (P) Debugger, 11-4, D-3; (P) MACRO, See Memory allocation 10-2, 10-88, 10-90 Virtual memory zone VMAC (vector memory activity check) register, creating, (P) RTL Parallel Processing, 3-4 (P) MACRO, 10-7, 10-20, 10-40, 10-42, 10-44 deleting, (P) RTL Parallel Processing, 3-4 **VMEbus** VIRTUAL option, (P) File Applications, 4-31 arbitration, V5.5 New Features, A-10 VIRTUALPAGECNT parameter, (M) System hardware environment, V5.5 New Features, Generation, A-38; (P) System Dump Analyzer, interrupts, V5.5 New Features, A-11 use for optimizing batch queues for SORT, (M) parameter selection, V5.5 New Features, A-9 Maintaining VMS, 5-30 programming, V5.5 New Features, A-9 VIRTUALPAGECOUNT parameter protocol, V5.5 New Features, A-9 adjustment for Volume Shadowing (Phase II), request level, V5.5 New Features, A-10 V5.5 Release Notes, 2–76 timeout, V5.5 New Features, A-10 Virtual terminal, (M) Setting Up VMS, 6–19; (M) VMEbus device support, V5.5 New Features, A-9 Security, 3-5, 5-22; (M) DECnet-VAX Guide, VME code example 3-24; (M) Networking, 1-10, 2-18 DMA interface, V5.5 New Features, A-36 and logout, (M) Security, 3-22 VME device driver at logout time, (M) Security, 3-21 assembling, V5.5 New Features, A-17 connecting to, (U) DCL Dictionary, DCL1-60 coding, V5.5 New Features, A-15 disconnecting from, (U) DCL Dictionary, coding concepts, V5.5 New Features, A-16 DCL1-168 direct memory access, V5.5 New Features, enabling, (M) Networking, 5-11 A - 12documentation, V5.5 New Features, A-9 cause of disasters, Dependability Handbook, interrupt handling, V5.5 New Features, A-11 linking, V5.5 New Features, A-17 effect on site security, Dependability loading, V5.5 New Features, A-18 Handbook, 5-6 macros, V5.5 New Features, A-19 Visibility porting, V5.5 New Features, A-16 fetching display value of record or window, (P) programmed I/O, V5.5 New Features, A-13 VAXTPU, 7-186, 7-222 programming, V5.5 New Features, A-9 of record routines, V5.5 New Features, A-22 using display value to determine, (P) sample for a DR11-W Emulator, V5.5 New VAXTPU, 7-370 Features, A-36 setting record, (P) VAXTPU, 7-448 VMERGE (Vector Merge) instruction, (P) MACRO, Visible process, (P) Debugger, 10-2, 10-7 10-84 field and buttons in main window VME routines, V5.5 New Features, A-22 with DECwindows, (P) Debugger, 1-9 /VISIBLE qualifier, (P) Debugger, 12-11, CD-158, %VMR See VMR CD-179, CD-230 "Visible" string constant parameter to GET\_INFO, VMR (vector mask register), V5.5 New Features, (P) VAXTPU, 7-226 B-5; (P) Debugger, 11-4, 11-5, 11-9, 11-13, "Visible bottom" string constant parameter to D-3; (P) MACRO, 10-3, 10-24, 10-88, 10-90 GET\_INFO, (P) VAXTPU, 7-226 VMR utility, (M) Networking, 4-20 "Visible\_length" string constant parameter to VMS data type, (P) Routines Intro, 1-7, A-1; (P) GET\_INFO, (P) VAXTPU, 7-202, 7-226 System Services Intro, 1-6 %VISIBLE\_PROCESS, (P) Debugger, 10-11 VMS Debugger %VISIBLE\_TASK, (P) Debugger, 12–10, 12–14 See Debugger "Visible\_top" string constant parameter to VMS executive image GET\_INFO, (P) VAXTPU, 7-226 global symbols, (P) System Dump Analyzer, "Vk100" string constant parameter to GET\_INFO, SDA-59 (P) VAXTPU, 7-202 **VMSINSTAL** VLD (Load Memory Data into Vector Register) deferred running of image, V5.5 New Features, instruction, (P) MACRO, 10-12, 10-16, 10-44, 10-50 VMSINSTAL callback RUN IMAGE, V5.5 New %VLR Features, A-8

See VLR

VMS operating system (cont'd) VMSKITBLD procedure, V5.5 Release Notes, B-1; failover of queue manager, Dependability (M) Setting Up VMS, 2–21, 2–22, 2–24, 2–25 Handbook, 9-23 VMSLICENSE.COM, License Management, independent processes paradigm, Dependability LMF-1, LMF-6 Handbook, 8-7 batch processing with, License Management, installing license, (M) VAXcluster, 4-4 LMF-44 network interface, (M) System Management canceling default data with, License Intro, 7-2; (M) Networking, 1-2 Management, LMF-10, LMF-117 nonpaged dynamic memory pool, (M) creating data files for, License Management, Networking, 5–36 LMF-45 processes default value rules used in data files with, ACMS load balancing, Dependability License Management, LMF-47 Handbook, 8-50 examples, License Management, LMF-7, programmer productivity tools, Dependability LMF-104, LMF-111 Handbook, 8-57 parameters used in data files with, *License* queue manager failover, Dependability Management, LMF-46 Handbook, 8-19, 9-23registering a license with, License resource contention, Dependability Handbook, Management, LMF-5, LMF-7, LMF-104, 8-6 LMF-111 RMS Journaling, Dependability Handbook, registering multiple licenses with, License 8 - 18Management, LMF-117 support of redundant functional units, using data files with, License Management, Dependability Handbook, 8-2 LMF-44 using multiple versions, Dependability using with a PAAM, License Management, Handbook, 9-30 LMF-15VMS Volume Shadowing, Dependability VMS Linker Handbook, 8-4See Linker Utility VMS Performance Monitor VMSMAIL\_PROFILE.DATA, (U) Mail, MAIL-14 See VPM VMSMAIL\_PROFILE.DATA file VMS print symbiont defining logical name for, (M) VAXcluster, 4-14 preparing common version of, (M) VAXcluster, See Symbiont 4-14 VMS Record Management Services sharing, (M) VAXcluster, 4-12 See VMS RMS VMS multiprocessing system VMS RMS (Record Management Services), showing attached processor state, (U) DCL (U) Files and Devices, B-1, B-13, B-14; Dictionary, DCL2-258 (P) Programming Resources, 1–35 to 1–38; starting attached processor. (U) DCL (P) Modular Procedures, 1–11; (P) System Dictionary, DCL2-343 Services Intro, 7–1; (P) File Applications, stopping attached processor, (U) DCL 1-10; (P) File Def Language, FDL-42 Dictionary, DCL2-361 allocating buffers, (P) File Applications, 3-12, VMS NCS, (U) DCL Dictionary, DCL2-1 3 - 14VMS node, (M) Networking, 2-1 Analyze/RMS\_File Utility, (P) Programming VMS operating system, (P) File Def Language, Resources, 1–38 FDL-38 and remote file access, (M) DECnet-VAX Guide, application environment topologies, Dependability Handbook, 8-5 applicable macro programming rules, (P) RMS, application scaling, Dependability Handbook, argument delimiters, (P) RMS, 3-10 client/server computing, Dependability attributes, (U) Files and Devices, B-15, B-16 Handbook, 8-9 block I/O processing services, (P) RMS, 3-5 DECdtm services, Dependability Handbook, blocking used to reduce I/O operations, (M) Performance Management, 3-9 dependability features, Dependability bucket splits, (P) File Applications, 3-23 Handbook, 8-2 to 8-19 buffer parameters, (M) Performance disk defragmentation applications, Management, 3-5 Dependability Handbook, 8–17, 9–22 calculating extension size, (P) File distributed arbitration paradigm, Applications, 3-10

Dependability Handbook, 8-8

```
VMS RMS (Record Management Services) (cont'd)
                                                      VMS RMS (Record Management Services) (cont'd)
  calculating file extension size, (P) File
                                                         opening file for mapping, (P) System Services
      Applications, 3–5
                                                            Intro, 12-8
  calling sequence, (P) RMS, 2-4
                                                         option
  calling services. (P) RMS, 1-1
                                                             selection, (P) File Applications, 9-1
  connect-time options, (P) File Applications, 4-2
                                                         overflow into P0, (P) File Applications, 7–17
  consumption of executive mode processing time,
                                                         passing arguments to, (P) RMS, 1-2
      (M) Performance Management, 3–15, 3–18
                                                         performance implications of file design, (M)
  control block, (P) File Applications, 1-11, 4-15;
                                                             Performance Management, 3-18
      (P) File Def Language, FDL-2; (P) RMS,
                                                         placing file information in prolog, (P) File
                                                            Applications, 3–15
      FAB, (P) Programming Resources, 1-36
                                                         program interface description, (P) RMS, 2-1
      NAM. (P) Programming Resources, 1–36
                                                         Put service, (P) Convert, CONV-11
      XAB, (P) Programming Resources, 1–36
                                                         RAB$V_ASY option, V5.5 Release Notes, 3-40
  Convert/Reclaim Utility, V5.5 Release Notes,
                                                        record access modes, (P) RMS, 1-1
      3-38; (P) Programming Resources, 1-39
                                                         record formats, (P) RMS, 1-1
  Convert Utility, (P) Programming Resources,
                                                         role in reclaiming buckets, (P) Convert,
                                                            CONV-4
  Create/FDL Utility. (P) Programming
                                                         security features, (P) RMS, 1-1
      Resources, 1-39
                                                         service
  creation-time options, (P) File Applications,
                                                             allowable program execution modes, (P)
                                                                 RMS, 2-7
      4-2, 4-17; (P) File Def Language, FDL-41
                                                             calling example, (P) RMS, 3-11
  data structures, (P) File Applications, 1-11
  data structures shown by SDA, (P) System
                                                             naming conventions, (P) RMS, 3-3
      Dump Analyzer, SDA-76
                                                             optional arguments to, (P) RMS, 3-11
                                                             restrictions to calling, (P) RMS, 2-7
  default, (P) Convert, CONV-19; (P) File Def
                                                         statistics restrictions, V5.5 Release Notes, 3-41
      Language, FDL-19
  deferred-write operation, (P) File Applications,
                                                         supporting file operations, (P) RMS, 1-2
      3-15, 3-27
                                                         supporting record operations, (P) RMS, 1-2
  device support, (P) Programming Resources,
                                                         use of DEC Multinational Character Set, (P)
      1 - 36
                                                             RMS, 2-7
  displaying data structures, (P) System Dump
                                                         use of multiblocks, (P) File Applications, 3-11
      Analyzer, SDA-127, SDA-147
                                                         use of reserved event flags, (P) RMS, 2-7
  displaying default block count, (U) DCL
                                                         using with languages, (P) File Applications,
                                                             1-10
      Dictionary, DCL2-318
                                                         utilities
  distributed file system, (M) System
      Management Intro, 6-2
                                                            ANALYZE/RMS_FILE, (P) File
  Edit/FDL Utility, (P) Programming Resources,
                                                                 Applications, 1-12
      1 - 39
                                                             CONVERT, (P) File Applications, 1-14
                                                             CONVERT/RECLAIM, (P) File
  error
      recommended method for signaling, (P)
                                                                 Applications, 1-14
          RMS, 2–6
                                                             CREATE/FDL, (P) File Applications, 1-14
  file organizations, (P) RMS, 1-1
                                                             EDIT/FDL, (P) File Applications, 1-14
  global symbols, (P) System Dump Analyzer,
                                                         with Prolog 3 files, (P) File Applications, 10-30
      SDA-60, SDA-61
                                                         XAB$_NORECORD, V5.5 Release Notes, 3–39
  how to use, (P) RMS, 2-1
                                                      VMS RMS distributed file system, (M) VAXcluster,
  image activation, (P) File Applications, 5-5
                                                          1-4
  improving caching, (M) Performance
                                                      VMS service node, V5.5 New Features, 9-7
      Management, 5-14
                                                      VMS Symbolic Debugger
  in indexed files, (P) File Applications, 3-15
                                                         See Debugger
  macro capabilities listed, (P) RMS, 4-1
                                                      VMS system
  MACRO parameter, (P) File Applications, 3-12
                                                         See also VMS operating system
  macros, (P) Programming Resources, 1-37
                                                         asynchronous connection to non-VMS system,
  misuse, (M) Performance Management, 4-37
                                                             (M) DECnet-VAX Guide, 3-18, 3-27
  modifying defaults for, (U) DCL Dictionary,
                                                         communication with foreign vendor systems,
      DCL2-214
                                                            (M) DECnet-VAX Guide, 1-5, 1-6
  new local buffers default, V5.5 Release Notes,
```

3 - 41

VMS system (cont'd) communication with non-Digital systems, (M) DECnet-VAX Guide, 1-5, 1-11 communication with non-VMS systems, (M) DECnet-VAX Guide, 1-1 communication with other VMS systems, (M) DECnet-VAX Guide, 1-5 networking interface, (M) DECnet-VAX Guide, 1-1, 1-4 preparing for network connection, (M) DECnet-VAX Guide, 3–9 tuning for network use, (M) DECnet-VAX Guide, 3-9VAXcluster, (M) DECnet-VAX Guide, 1–8 VMS System Generation Utility Manual, V5.5 Release Notes, 4–18 VMS system image global symbols, (P) System Dump Analyzer, SDA-59VMS system-specific events, (M) Network Control Program, A-35VMS to RT-11 network operation, (M) Networking, 9-14 VMS to IAS network operation, (M) Networking, 9-2VMS to MS-DOS network operation, (M) Networking, 9–24 VMS to MVS network operation, (M) Networking, 9 - 30VMS to P/OS network operation, (M) Networking, 9-5VMS to RSTS/E network operation, (M) Networking, 9-7 VMS to RSX (using FCS-based FAL) network operation, (M) Networking, 9-12 VMS to RSX (using RMS-based FAL) network operation, (M) Networking, 9-10 VMS to TOPS-10 network operation, (M) Networking, 9-18 VMS to TOPS-20 network operation, (M) Networking, 9-21 VMS to ULTRIX network operation, (M) Networking, 9-27 VMS to VMS network operation Version 5.0 to previous version, (M) Networking, 9-33 VMS usage, (P) System Services Intro, 1-6 VMS Usage, (P) Modular Procedures, B-1; (P) Routines Intro, 1-7, A-1; (P) RTL Intro, 2-6 description of, (P) Routines Intro, A-1 VMS Usage entry, (P) Routines Intro, 1-7 VMS Usage implementation table See Implementation table VMS versions

computer support, V5.5 Release Notes, 2-64

VMS Volume shadowing

See Volume shadowing

VMS wildcards, (U) EVE Ref, EVE-216, EVE-246, EVE-247 VMUL (Vector Floating Multiply) instruction, (P) MACRO, 10-80 VMULL (Vector Integer Multiply) instruction, (P) MACRO, 10-61 Voice characteristics, (P) RTL DECtalk, 1-2 comma pause, (P) RTL DECtalk, 1-2, DTK-31 period pause, (P) RTL DECtalk, 1-2, DTK-31 speech rate, (P) RTL DECtalk, 1-2, DTK-31 Voice identifier See DECtalk device VOL1 label, (U) Files and Devices, 2-4 See also Volume label Volatile database, (M) Networking, 1-16, 3-2 copying node entries, (M) Networking, 3-24 display information, (M) Networking, 3-98 network, (M) DECnet-VAX Guide, 3-12, 3-17, 3-25, 3-32use of, (M) Networking, 3-2 VOL label See Volume label VOLPRO privilege, (M) Setting Up VMS, 5-18; (M) Security, A-10 VOLSET.SYS reserved file, (U) Files and Devices, A-3; (M) Analyze/Disk, B-3 Volume, (P) File Applications, 1-4; (P) Device Support (B), 1-78 See also Disk See also Disk volume, Public volume, Tape volume, Volume set See also Magnetic tape ANSI-labeled magnetic tape, (U) Files and Devices, B-3 copying files from, (U) Files and Devices, mounting, (U) Files and Devices, 3-12 availability OPCOM message, (M) Maintaining VMS, 3-10canceling mount verification, (M) Maintaining VMS, 3-12 continuation, (U) Files and Devices, 3-17 controlling cache size, (M) Maintaining VMS, definition, (U) Using VMS, 2-9; (U) DCL Concepts, 3-5 deleting disk files, (U) DCL Dictionary, DCL1-131 dismounting, (M) Exchange, EXCH-28; (M) Maintaining VMS, 3-9; (P) System Services Ref, SYS-161 message in operator log file, (M) Maintaining VMS, 6-9 dismounting disk and magnetic tape, (U) DCL Dictionary, DCL1-170

Volume (cont'd) Volume (cont'd) displaying disk quota, (U) DCL Dictionary, mounting continuation, (M) Maintaining VMS, DCL2-317 3-5dumping, (U) DCL Dictionary, DCL1-174 mounting foreign, (M) Mount, MOUNT-21 erasures. (M) Security, 5-43 mounting public. (M) Maintaining VMS, 2-5 file configurations, (U) Files and Devices, B-3, mounting with EXCHANGE, (U) Files and B-4, B-5, B-7 Devices, 5-11; (M) Maintaining VMS, 2-9 Files-11 mounting with operator assistance, (M) Mount, modifying characteristics of, (U) DCL MOUNT-7 mounting without HDR2 labels, (U) Files and Dictionary, DCL2-240 recording name on, (U) DCL Dictionary, Devices, B-15 DCL2-242 mount verification aborted foreign, (U) Files and Devices, 3-8 OPCOM message, (M) Maintaining VMS, transferring information to and from, (M) 3 - 13Maintaining VMS, 2-8 mount verification timeout, (M) Maintaining getting information about VMS, 3-12asynchronously, (P) System Services Ref, OPCOM message, (M) Maintaining VMS, SYS-266 synchronously, (P) System Services Ref, multidisk, (P) File Applications, 3-23 SYS-285 operator assistance, (U) Files and Devices, 3-7 operator-assisted mount, (M) System header labels, (U) Files and Devices, 3-15 initializing, (U) Files and Devices, 3-3, 3-4, Management Intro, 4-4 owner field, (U) Files and Devices, B-9 3-5; (U) DCL Dictionary, DCL1-240 planning public, (M) Maintaining VMS, 2-1 initializing from within a program, (P) System Services Intro, 7-24; (P) System Services positioning. (P) File Applications, 3-23 Ref, SYS-407 private, (U) Files and Devices, 3-1 example, (P) System Services Intro, 7-24 protecting, (U) DCL Dictionary, DCL1-247 label, (U) Files and Devices, B-3; (U) DCL protection, (M) Security, 4-2, 4-12 Dictionary, DCL1-240 and MOUNT command, (M) Mount, label format, (U) Files and Devices, 3-12 MOUNT-33 magnetic tape, (U) Files and Devices, 5-2 public ANSI-labeled, (U) Files and Devices, 5-3 making a volume public, (M) Mount, copying files from, (U) Files and Devices, MOUNT-40 5 - 3rebuilding, (M) Maintaining VMS, 4-3 deallocating, (U) Files and Devices, 4-16 recovering from error, (M) Maintaining VMS, dismounting, (U) Files and Devices, 4-16 initializing, (U) Files and Devices, 4-15 repairing errors on a disk volume, (M) mounting, (U) Files and Devices, 3-11 Analyze/Disk, ADSK-9 record format, (U) Files and Devices, 5-3 specifying maximum file number, (U) DCL writing files to, (U) Files and Devices, 4-15 Dictionary, DCL1-245 modifying characteristics of disk, (U) Files and specifying ownership, (U) DCL Dictionary, DCL1-246 Devices, 4–13 mounting, (U) Files and Devices, 3-6, 3-8; substituting, (M) Maintaining VMS, 3-3 (M) System Management Intro, 4-2; switching (M) Exchange, EXCH-35; (M) Mount, automatic, (M) Maintaining VMS, 3-5 MOUNT-2; (P) System Services Intro, nonautomatic, (M) Maintaining VMS, 3-5 7-22; (P) System Services Ref, SYS-436 Volume accessibility field writing characters to, (U) DCL Dictionary, See also MOUNT command DCL1-245 from a subprocess, (M) Mount, MOUNT-1 VOLUME attribute, (P) File Def Language, if device is unavailable, (M) Maintaining FDL-8 VMS, 3–3 Volume control block message in operator log file, (M) See VCB Maintaining VMS, 6–9 Volume format operator assistance, (M) Maintaining See also Format VMS. 3-3converting, (M) Exchange, EXCH-7 operator functions, (M) Maintaining VMS, defaults, (M) Exchange, EXCH-6 DOS-11, (M) Exchange, EXCH-2, EXCH-5

Volume set (cont'd) Volume format (cont'd) Files-11, (M) Exchange, EXCH-2, EXCH-3 initializing, (U) Files and Devices, 3-9 options, (M) Exchange, EXCH-3 list file, (U) Files and Devices, A-3 RT-11, (M) Exchange, EXCH-1, EXCH-4 loosely coupled, (U) Files and Devices, A-3 specifying, (M) Exchange, EXCH-3 magnetic tape Volume identifier field, (U) Files and Devices, automatic volume switching, (U) Files and 3-17, B-9 Devices, 3-17 Volume integrity, (M) Maintaining VMS, 3-9 continuation volumes, (U) Files and Volume label Devices, 3-17 definition, (M) Backup, BCK-9 creating, (U) Files and Devices, 3-16 mounting, (U) Files and Devices, 3-15 EOF (end-of-file) label, (U) Files and Devices, B-3maximum number in set, (U) Files and Devices, 3-11 EOV (end-of-volume) label, (U) Files and Devices, B-3 mounting, (U) Files and Devices, 3-6, 3-8 modifying for satellite's local disk, (M) See also MOUNT command VAXcluster, 7–3 mounting with automatic switching, (M) VOL1 label, (U) Files and Devices, B-8 Maintaining VMS, 3-5 accessibility field, (U) Files and Devices, mounting without automatic switching, (M) Maintaining VMS, 3-5 volume identifier field, (U) Files and naming, (U) Files and Devices, 3-9, 3-10 Devices, B-9 privileges, (U) Files and Devices, 3-9 VOL label, (U) Files and Devices, B-3 processing continuation volumes, (U) Files and Volume-number option, (P) File Applications, 4–32 Devices, 3-15 Volume protection, (P) System Services Intro, 7-4 restriction for system disk, (M) Maintaining See also Protection VMS, 2-3access types, (U) DCL Concepts, 8-7 saving contents of, (M) Backup, BCK-14 commands for setting, (U) DCL Concepts, 8-7 tape, (U) Using VMS, 2-9; (U) DCL Concepts, for a disk volume, (U) DCL Concepts, 8-7 3-5for a tape volume, (U) DCL Concepts, 8-7 end of tape (EOT) marker, (M) when initializing a volume, (U) DCL Concepts, Maintaining VMS, 3-5 mounting, (M) Maintaining VMS, 3-5 /VOLUME qualifier, (M) Backup, BCK-93; (P) to minimize disk head competition, (P) File Patch, PAT-36 Applications, 3-23 Volume shadowing, V5.5 Release Notes, 2-35; Volume quota file V5.5 New Features, B-106; Dependability See Disk quota Handbook, 8-4Volume RT-11, (U) Files and Devices, 3-12 across clusters, (M) VAXcluster, 3-7 VOLUME secondary attribute, (P) File concepts, (M) VAXcluster, 3-5 Applications, 4-32 configurations, V5.5 New Features, B-106 Volume set, (P) File Applications, 1–5 disk repair and recovery, V5.5 New Features, adding to, (U) Files and Devices, 3–11; (M) B - 106Mount, MOUNT-9 distributing shadow sets, (M) VAXcluster, 3-7 adding volumes, (U) Files and Devices, 3-11 fault tolerance, V5.5 New Features, B-106 and MOUNT command. (M) Mount, MOUNT-3 for system disks, (M) VAXcluster, 7-35 creating, (U) Files and Devices, 3-9, 3-10; (M) in a VAXcluster, V5.5 New Features, B-106 Maintaining VMS, 2-2, 2-6; (M) Mount, in mixed-interconnect cluster, (M) VAXcluster, MOUNT-9 7 - 36defining, (U) Using VMS, 2-9; (U) Files and interprocessor communication, (M) VAXcluster, Devices, 3-10; (U) DCL Concepts, 3-5 3 - 8disk, (U) Using VMS, 2-9; (U) Files and mirrored disks, Dependability Handbook, 4-5 Devices, 3-9; (U) DCL Concepts, 3-5 mixing phase I and phase II, V5.5 New add volume, (U) Files and Devices, 3-11 Features, B-106 mounting, (U) Files and Devices, 3-8 overview, V5.5 New Features, B-106; (M) dismounting, (U) DCL Dictionary, DCL1-172 VAXcluster, 3-5 for improving performance, (P) File phase I, (M) VAXcluster, 3-7 Applications, 3–6 phase II, (M) VAXcluster, 3-7 image save operation, (M) Backup, BCK-17, phase II support, V5.5 New Features, B-106 BCK-55 PHY IO privilege, V5.5 Release Notes, 2-76

Volume shadowing (cont'd) redundant storage devices, Dependability Handbook, 4-5 shadow sets, (M) VAXcluster, 2-7 shutdown with shadowed system disk, V5.5 Release Notes, 2-76 the system disk, V5.5 New Features, B-106 types, V5.5 New Features, B-106 virtual units, (M) VAXcluster, 3-8 Volume shadowing (Phase II) changing device names, V5.5 Release Notes, 2 - 74implications for batch and print jobs, V5.5 Release Notes, 2-74 overview, V5.5 Release Notes, 2-74 SHADBOOTFAIL bugcheck message, V5.5 Release Notes, 2-76 UAF parameter changes, V5.5 Release Notes, 2 - 77VIRTUALPAGECOUNT parameter adjustment, V5.5 Release Notes, 2-76 Volume specification, Obsolete Features, 4–16 Volume valid bit See UCB\$V\_VALID Voluntary decrementing disabling, (M) Performance Management, 5-7 tuning, (M) Performance Management, 5-7 turning on, (M) Performance Management, 5-7 Vote, (P) System Dump Analyzer, SDA-82 VOTES parameter, (M) System Management Intro, 6-13; (M) VAXcluster, 3-1, A-3; (M) System Generation, A-38 Voting member, (M) VAXcluster, 3-1 adding, (M) VAXcluster, 7-2, 7-7, 7-22 removing, (M) VAXcluster, 7-2, 7-12, 7-22 VPM (VMS Performance Monitor), V5.5 New Features, D-3 default access for, V5.5 New Features, D-2 VPSR (vector processor status register), (P) MACRO, 10-4, 10-5, 10-6 AEX (Arithmetic Exception) bit, (P) MACRO, 10-5, 10-31, 10-32, 10-33, 10-34 BSY (Busy) bit, (P) MACRO, 10-4, 10-5, 10-6, 10-8, 10-20, 10-21, 10-33, 10-39, 10-47, 10 - 48IMP (Implementation-Specific Hardware Error) bit, (P) MACRO, 10-5, 10-31, 10-32, 10-33, 10-34, 10-47, 10-48 IVO (Illegal Vector Opcode) bit, (P) MACRO, 10-5, 10-17, 10-31, 10-32, 10-33, 10-34 MF (Memory Fault) bit, (P) MACRO, 10-4, 10-19, 10-30, 10-34 PMF (Pending Memory Fault) bit, (P) MACRO,

10-4, 10-19, 10-30, 10-33, 10-34 RLD (State Reload) bit, (P) MACRO, 10-4,

10-6, 10-8, 10-33, 10-41

RST (State Reset) bit, (P) MACRO, 10-4, 10-5,

VPSR (vector processor status register) (cont'd) STS (State Store) bit, (P) MACRO, 10-5, 10-33 VEN (Enable) bit, (P) MACRO, 10-4, 10-5, 10-6, 10-18, 10-20, 10-31, 10-33, 10-34, 10-47, 10-48 VSAR (vector state address register), (P) MACRO, VSCAT (Scatter Vector Register Data into Memory) instruction, (P) MACRO, 10-12, 10-16, 10-44, 10-56 VSL (Vector Shift Logical) instruction, (P) MACRO, 10-67 VST (Store Vector Register Data into Memory) instruction, (P) MACRO, 10-12, 10-16, 10-44, 10-54 VSUB (Vector Floating Subtract) instruction, (P) MACRO, 10-82 VSUBL (Vector Integer Subtract) instruction, (P) MACRO, 10-63 VSYNC (Synchronize Vector Memory Access) instruction, (P) MACRO, 10-41, 10-42, 10-44, 10-91 "Vt100" string constant parameter to GET\_INFO, (P) VAXTPU, 7-202 VT200-specific editing commands, (M) ACL Editor, ACL-10 "Vt200" string constant parameter to GET INFO, (P) VAXTPU, 7-202 "Vt300" string constant parameter to GET\_INFO, (P) VAXTPU, 7-202 VTBIA (Vector TB Invalidate All) instruction, (P) MACRO, 10-7, 10-8, 10-32, 10-34, 10-41, 10 - 47**VUIT** prototyping tool, Dependability Handbook, VUP (VAX unit of performance) overview, Dependability Handbook, 4-12 VVCVT (Vector Convert) instruction, (P) MACRO, 10 - 75VVIEF\$DINSTAL.COM, V5.5 New Features, B-16 VVIEF\$INSTAL.COM. V5.5 New Features. B-16 VVIEF (VAX Vector Instruction Emulation Facility) determining presence of, V5.5 New Features, B-15, B-16, B-24; (M) Maintaining VMS, 6 - 16loading, V5.5 New Features, B-16 overview, V5.5 New Features, B-10 SHOW PROCESS/FULL command, (P) Debugger, 11-2 unloading, V5.5 New Features, B-16 VXOR (Vector Exclusive Or) instruction, (P) MACRO, 10-64

10-5, 10-34

Warning message, (P) Convert, CONV-3 /WARNING qualifier WAIT command, (U) DCL Dictionary, DCL2-397 in message definition, (P) Message, MSG-23 to DCL2-398 Wastebasket synchronizing command procedures, (U) emptying, (U) Mail, MAIL-39, MAIL-83 Command Procedures, 8–10 recovering messages from, (U) Mail, MAIL-39 Wait for interrupt macro Watchpoint aggregate, (P) Debugger, 3-17, 11-3 See WFIKPCH macro, WFIRLCH macro canceling, (P) Debugger, CD-34 Waiting for condition variable, (P) DECthreads, defined, (P) Debugger, 3-15 cma-53, cma-56, pthread-42, pthread-45 displaying, (P) Debugger, CD-254 Waiting job state, (M) Maintaining VMS, 5-78 effect on execution speed, (P) Debugger, 3-18 \$WAIT macro global section, (P) Debugger, 10-15 format difference, (P) RMS, 3-12 in tasking (multithread) program, (P) Wait option Debugger, 12–23, 12–24 See RAB\$V WAT option multiprocess program, (P) Debugger, 10–15 Wait primitive operation, (P) RTL Parallel nonstatic (stack or register) variable, (P) Processing, 4–10 Debugger, 3-17 /WAIT qualifier. (P) Debugger, CD-256 register, (P) Debugger, 3-17 Wait service, (P) File Applications, 8-5; (P) RMS, setting, (P) Debugger, 3-15, CD-196 RMS-102 shareable image, (P) Debugger, 3-20 and asynchronous operations, (P) File source display at, (P) Debugger, 6-7 Applications, 8–18 static variable, (P) Debugger, 3-17 condition values, (P) RMS, RMS-103 vector register, (P) Debugger, 11-3 control block input and output fields, (P) RMS, with DECwindows, (P) Debugger, 1–24 RMS-102 Watch Progress toggle button, V5.5 New Features, Wait state B-48delaying command processing, (U) DCL Water supplies, Dependability Handbook, 5-5 Dictionary, DCL2-397 WAT option, (P) File Def Language, FDL-15 inducing to synchronize process with batch job, WBH option, (P) File Def Language, FDL-15 (U) DCL Dictionary, DCL2-387 WCB (window control block), (P) System Dump placing current process in, (U) DCL Dictionary, Analyzer, SDA-77; (P) Device Support (A). DCL2-397 4-10; (P) Device Support (B), 1-12, 1-39 WAIT\_FOR\_RECORD attribute, (P) File Def WCK option, (P) File Def Language, FDL-25 Language, FDL-15 Weak definition, (P) Linker, 2-9, 2-10 WAIT\_FOR\_RECORD secondary attribute, (P) .WEAK directive, (P) MACRO, 6-101 File Applications, 7–12 Weak reference, (P) Linker, 2-9, 2-10 WAKE system service Weekday use of, (P) RTL Parallel Processing, 5-5 restrictions for login, (M) Security, 3-16 Wakeup Welcome message, (M) Security, 3-5 canceling, (P) System Services Ref, SYS-53 security disadvantage, (M) Security, 5-21 canceling request, (U) DCL Dictionary, WFIKPCH macro, (P) Device Support (A), 4-16, DCL1-56, DCL2-55 8-5, 8-6, 10-7, 15-14, E-10; (P) Device scheduling, (P) System Services Intro, 10-6 Support (B), 2-66, 2-104 to 2-105, 3-104, scheduling with RUN command, (U) DCL 4 - 19Dictionary, DCL2-55 WFIRLCH macro, (P) Device Support (A), 4-16, Waking a thread, (P) DECthreads, cma-43, 8-5, 8-6; (P) Device Support (B), 2-104 to cma-49, cma-51, pthread-33, pthread-40 2-105, 3-104, 4-19 WAN (wide area network), (M) DECnet-VAX WHAT LINE command, (U) EVE Ref, EVE-244 Guide, 1-5 WHEN clause comparison with VAXclusters, Dependability example, (P) Debugger, 3-13 Handbook, 6-29 format, (P) Debugger, CD-4 configuration, (M) DECnet-VAX Guide, 1-9 WHILE command, (P) Debugger, 8-10, CD-268 dependability constraints, Dependability White box testing, (P) Modular Procedures, 4-3 Handbook, 3-8 White space providing multiple WAN connections for VAXft finding in EVE, (U) Using VMS, 8-19 systems, Dependability Handbook, 7–19

.WARN directive, (P) MACRO, 6-99

Wide area network /WIDTH qualifier, (U) VMS Intro, 6-16; (P) See WAN Debugger, 7-22, CD-181; (P) Librarian, Widget LIB-45 callback\_parameters, (P) VAXTPU, 7-209 Width specifier case sensitivity of name, (P) VAXTPU, 7-74 with SET SCREEN, (U) EDT Ref, EDT-190 controlling mapping, (P) VAXTPU, 7-418 "Width" string constant parameter to GET\_INFO, creating, (P) VAXTPU, 7-72 (P) VAXTPU, 7-202 defining a class of, (P) VAXTPU, 7-105 Wildcard character, (U) VMS Intro, 2-3; deleting, (P) VAXTPU, 7-108 (M) Backup, BCK-5; (M) Network Control Program, NCP-2; (P) Librarian, LIB-5; (P) fetching callback routine for, (P) VAXTPU, 7 - 214Convert, CONV-5 fetching children of in VAXTPU, (P) VAXTPU, See also File specification 7 - 210and AUTHORIZE proxy command, (M) fetching class of in VAXTPU, (P) VAXTPU, Security, 8-19 7 - 214and multiple file locations, (P) File fetching name of. (P) VAXTPU, 7-215 Applications, 5–8 finding out if managed in VAXTPU, (P) asterisk (\*), (U) Using VMS, 2-14; (U) DCL VAXTPU, 7-214 Concepts, 3-17, 3-19 to 3-20 getting information about, (P) VAXTPU, 7-216 default pattern (EVE), (U) Text Processing, listing of, (P) VAXTPU, 4-5 1-30 main window, (P) VAXTPU, 4-16 DNS, V5.5 New Features, C-9, C-20 managing, (P) VAXTPU, 7-258 duplicating directory structure with, (U) Using membership in subclass VMS, 2-25finding out in VAXTPU, (P) VAXTPU, ellipsis (...), (U) Using VMS, 2-23 to 2-24; (U) DCL Concepts, 3-10 to 3-11 menu bar EXCHANGE/NETWORK command, V5.5 New in VAXTPU, (P) VAXTPU, 4–16 Features, E-16 menu position of in VAXTPU, (P) VAXTPU, for events, (M) Networking, 3-90 7 - 210for NCP component names, (M) Networking, parent of fetching in VAXTPU, (P) VAXTPU, 7-215 hyphen (-), (U) Using VMS, 2-24 to 2-25; (U) realizing in VAXTPU, (P) VAXTPU, 7-306 DCL Concepts, 3-10, 3-12 redrawing in XUI Toolkit, V5.5 Release Notes, in ACL commands, (M) Security, 4-35 3 - 19in a file specification that contains logical resource names, (U) DCL Concepts, 4-19 fetching class and data type of in VAXTPU. in DECnet event types, (M) DECnet-VAX (P) VAXTPU, 7-215 Guide, 4-5 scroll bar, (P) VAXTPU, 7-224, 7-462 in directory specifications, (U) Using VMS, 2-8 scroll bar slider, (P) VAXTPU, 7-224 in EVE file name, (U) Using VMS, 8-2 setting resource values of, (P) VAXTPU, 7-494 in file name (EVE), (U) Text Processing, 1-2 title bar, (P) VAXTPU, 4-16 in file names, (P) VAXTPU, 5-20 unmanaging, (P) VAXTPU, 7-534 in file specifications, (M) Audit Analysis, using callback data structure in VAXTPU. (P) AUD-9 VAXTPU, 7-496 in file specifications containing logical names, widget\_id, (P) VAXTPU, 7-209 (U) Using VMS, 4-15 Widget children in file specifications for network copying managing, (P) VAXTPU, 7-258 operations, (M) DECnet-VAX Guide, 2-6 unmanaging, (P) VAXTPU, 7-534 in input file specifications, (U) DCL Concepts, WIDGET data type, (P) VAXTPU, 2-24 to 2-25 3-17Widget resources in output directory specifications, (U) DCL data types of, (P) VAXTPU, 4-12 Concepts, 3-20, 3-21 specifying, (P) VAXTPU, 4-12 in output file specifications, (U) DCL Concepts, WIDGET\_CALL\_DATA parameter to SET built-in 3 - 19procedure, (P) VAXTPU, 7-496 in search string, (U) Using VMS, 8-18 %WIDTH, (P) Debugger, C-6 in search string (EVE), (U) Text Processing, WIDTH parameter to SET built-in procedure, (P) VAXTPU, 7-501 in SHOW/RIGHTS command, (M) Security, 5-7 Wildcard character (cont'd) Window, (M) Show Cluster, SHCL-2; (P) File in UIC format output directory specifications, Applications, 9-8 to 9-10 (U) DCL Concepts, 3-21 See also Display, debugger, screen mode matching file names with (EVE), (U) Text adding to report, (M) Show Cluster, SHCL-7 Processing, 1–52 adjusting size, (P) VAXTPU, 7-19 percent sign (%), (U) Using VMS, 2-15; (U) attribute, DECwindows, (P) Debugger, 1–10 DCL Concepts, 3-17 attributes, (P) VAXTPU, 7-78 program preprocessing, (P) File Applications, automatic (AUTO), DECwindows, (P) 5-8 to 5-14 Debugger, 1-11 rules for using with NCP, (M) Network Control bottom Program, NCP-3 example of fetching, (P) VAXTPU, B-16 to to display logical names, (U) DCL Concepts, B - 19changing position, (P) VAXTPU, 7-20 used in directory specifications, (U) Files and command Devices, 4-4 in EVE editor, (P) VAXTPU, 4-16 used with file, (U) Files and Devices, 4-17 compressing or expanding, (M) Show Cluster, used with magnetic tape, (U) Files and Devices, SHCL-81 4-17creating, (P) VAXTPU, 2-26 use in ADD/IDENTIFIER command, (M) current, (P) VAXTPU, 2-27, 7-77 Security, 5–6 default configuration, DECwindows, (P) use of, (P) National Char Set, NCS-27, Debugger, 1-4 NCS-28, NCS-38 definition, (U) Using VMS, 8-2; (P) VAXTPU, use restriction, (P) National Char Set, NCS-34, 2 - 25NCS-36 EVE, (U) Text Processing, 1-2 use with Remove service,  $\,$  (P) RMS, RMS-82 deleting, (U) EVE Ref, EVE-42, EVE-95; (P) use with Search service, (P) RMS, 4-10 VAXTPU, 6-4, 7-108 using with ANALYZE/RMS\_FILE, (P) designating, (M) Show Cluster, SHCL-76 Analyze/RMS\_File, ARMS-10 determining bottom of, (P) VAXTPU, 7-222 with CONV routines, (P) Utility Routines, determining boundaries and size of, (P) CONV-12 VAXTPU, 7-222 Wildcard context field determining last column of, (P) VAXTPU, See NAM\$L\_WCC field 7 - 224WILDCARD FIND command, (U) Using VMS, determining leftmost column of, (P) VAXTPU, 8-18; (U) EVE Ref, EVE-245 to EVE-249 7 - 222EVE editor, (U) Text Processing, 1-30 determining length of, (P) VAXTPU, 7-223 finding text with (EVE), (U) Text Processing, determining top of, (P) VAXTPU, 7-225 determining width of, (P) VAXTPU, 7-226 specifying direction of search (EVE), (U) Text dimensions, (P) VAXTPU, 2–25 Processing, 1-30 displaying count for open files, (U) DCL Wildcard operation Dictionary, DCL2-266 using \$GETJPI with \$PROCESS\_SCAN to displaying size for open files, (U) DCL perform wildcard searches across the Dictionary, DCL2-266 cluster, (P) System Services Ref, SYS-286 enlarging, (P) VAXTPU, 7-19 using \$GETJPI with \$PROCESS\_SCAN to EVE commands for using, (U) Using VMS, search for specific processes, (P) System 8-35 Services Ref, SYS-286 fetching display value of, (P) VAXTPU, 7-222 using with \$GETJPI to return information for debugger command interface about processes, (P) System Services Ref, DECwindows COMMAND box, (P) SYS-286 Debugger, 1-19, 1-27 Wildcard search DECwindows DECterm window, (P) obtaining information about processes, (P) Debugger, 1–33 System Services Ref, SYS-460 VWS window, (P) Debugger, 9-5, CD-150 example, (P) System Services Intro, 9-5 function of using \$GETJPI, (P) System Services Intro, 9-4 in VAXTPU compared with DECwindows, Wildcard substitution (P) VAXTPU, 4-16 specifying NAM\$L\_RSA field, (P) RMS, 6-9 getting information, (P) VAXTPU, 2-29 instruction (INST), DECwindows, (P) Debugger, 1-11, 1-21

Window (cont'd)	Window (cont'd)
key map list	using multiple (EVE), (U) Text Processing, 1-55
example of fetching, (P) VAXTPU, B-19 to	values, (P) VAXTPU, 2–27
B-22	viewing large display, (M) Show Cluster,
length, (P) VAXTPU, 2–26	SHCL-59
example of fetching, (P) VAXTPU, B-16 to	width, (P) VAXTPU, 2–26
B-19	example of fetching, (P) VAXTPU, B-19 to
making current, (P) VAXTPU, 6-2	B-22
mapping, (P) VAXTPU, 2–27, 6–3	window width, (P) VAXTPU, 6–4
message	with the DCL command, (U) EVE Ref, EVE-32
in EVE editor, (P) VAXTPU, 4–16	Window control block
moving, (M) Show Cluster, SHCL-9, SHCL-77	See WCB
moving between, (U) EVE Ref, EVE-94, EVE-98, EVE-104	WINDOW data type, (P) VAXTPU, 2–25 to 2–29
output (OUT), DECwindows, (P) Debugger,	Windowing system
1–10	using threads in, (P) DECthreads, 1–4
predefined, DECwindows, (P) Debugger, 1–9	Window Manager
rearranging, (M) Show Cluster, SHCL-57	See DECwindows
reducing, (P) VAXTPU, 7–20	Window size, (P) File Applications, 10–29
register (REG), DECwindows, (P) Debugger,	Window size parameter, (M) Networking, 3–31
1–12	Window space, (P) Device Support (A), 16-5
removing, (P) VAXTPU, 2-28	mapping, (P) Device Support (A), 16-16 to
resizing, (U) EVE Ref, EVE-46, EVE-229	16–18 starting address, (P) Device Support (A), 16–17
screen management, (P) VAXTPU, 6-2 to 6-4	/WINDOWS qualifier, (M) Mount, MOUNT-42
screen-mode, creating definition for, (P)	Window systems
Debugger, 7-14, CD-202	switching with AUTOGEN, V5.5 Release Notes,
screen-mode, defined, (P) Debugger, 7-2	2–5
screen-mode, deleting definition of, (P)	WINDOW_SIZE attribute, (P) File Def Language,
Debugger, 7–14, CD–35	FDL-25
screen-mode, identifying, (P) Debugger, 7–14, CD-255	WINDOW_SYSTEM parameter, (M) System
screen-mode, predefined, (P) Debugger,	Generation, A–38
CD-255, C-7	"Within_range" string constant parameter to
screen-mode, specifying, (P) Debugger, 7–13	GET_INFO, (P) VAXTPU, 7–187
screen updates, (P) VAXTPU, 6–7	WITH qualifier
scroll bar in, (P) VAXTPU, 7–224, 7–462	for COPY KNOWN NODES command, (M)
scroll bar slider in, (P) VAXTPU, 7-224	Networking, 3–24
scrolling, (M) Show Cluster, SHCL-10,	Word
SHCL-75	definition, (U) Using VMS, 5–1
selecting address expression from,	WORD command, (U) Using VMS, 8-55; (U)
DECwindows, (P) Debugger, 1-22	EDT Ref, EDT-112
setting display value of, (P) VAXTPU, 7–370	See also Cursor movement  Word count register (P) Device Support (A) 14, 22
shifting, (U) EVE Ref, EVE-218, EVE-219	Word count register, (P) Device Support (A), 14-23 Word data type, (P) MACRO, 8-2
size	.WORD directive, (P) MACRO, 6–102
with terminal display, (P) VAXTPU, 6-4	World dump, (U) DCL Dictionary, DCL1–177
with terminal emulator, (P) VAXTPU, 6–4	WORD keypad function
source (SRC), DECwindows, (P) Debugger,	EDT, (U) Text Processing, 2–11
1-10, 1-21 terminating selection, (M) Show Cluster,	WORD mode, (P) Patch, PAT-16
SHCL-53	/WORD qualifier
top	with ALIGN command, (P) Patch, PAT-38
example of fetching, (P) VAXTPU, B-16 to	with DELETE command, (P) Patch, PAT-52
B-19	with DEPOSIT command, (P) Patch, PAT-55
unmapping, (P) VAXTPU, 2–28	with EVALUATE command, (P) Patch, PAT-59
unsupported terminals, (P) VAXTPU, 2-29	with EXAMINE command, (P) Patch, PAT-62
updating, (P) VAXTPU, 2-29	with REPLACE command, (P) Patch, PAT-71
user	with SET MODE command, (P) Patch, PAT-76
in EVE editor. (P) VAXTPU 4-16	with VERIFY command, (P) Patch, PAT-90

Working set (cont'd) /WORD qualifier, (P) Debugger, CD-60, CD-85 establishing sizes, (M) Performance Word separators, (P) VAXTPU, 7-146 Management, 2-12 Word storage directive (.WORD), (P) MACRO, locking page into, (P) Programming Resources, 10-3; (P) System Services Intro, 12-6; (P) word\_signed data type, (P) Routines Intro, A-13t System Services Ref. SYS-422 word\_unsigned data type, (P) Routines Intro, modifying default size, (U) DCL Dictionary, A-13t DCL2-244 Work area obtaining information, (M) Performance copying to parameter file, (M) SYSMAN, Management, 3-22 SM-67 paging, (P) System Services Intro, 12-6 loading parameters, (M) SYSMAN, SM-66 purging, (P) System Services Ref, SYS-473 Work crew model, (P) DECthreads, 1-6 specifying default Work file, (U) EVE Ref, 1-18 for detached process, (U) DCL Dictionary, assigning location of, (U) Sort/Merge, DCL2-61 SORT-72 for subprocess, (U) DCL Dictionary, default number, (U) Sort/Merge, SORT-35 DCL2-61 specifying number of, (U) Sort/Merge, specifying quotas, (U) DCL Dictionary, SORT-35 DCL2-58 VAXTPU, (U) DCL Dictionary, DCL1–202 specifying values, (M) Performance Working set, (P) File Applications, 1–16 Management, 4-10 adjusting, (M) Performance Management, 2-14, suggested initial limits, (M) Performance 5 - 3Management, 2-13 with AUTHORIZE, (M) Performance unlocking page from, (P) System Services Ref, Management, 2-21 SYS-653 adjusting for optimal sort performance, (P) Working set extent Convert, CONV-22 adjusting limit, (P) System Services Ref, See WSEXTENT Working set limit, (P) Device Support (B), 3-35, SYS-17 adjusting size, (P) Programming Resources, 3 - 41insufficient, (P) Device Support (B), 3-33 10-3; (P) System Services Intro, 12-6 Working set list analyzing problems, (M) Performance Management, 4-8 displaying, (P) System Dump Analyzer, automatic adjustment, (M) Performance SDA-128 Management, 2-7 Working set quota batch job See WSQUOTA defining default for, (U) DCL Dictionary, /WORKING\_SET qualifier, (P) System Dump DCL1-260, DCL1-269, DCL2-208, Analyzer, SDA-128 DCL2-353, DCL2-383 WORKING SET MANAGEMENT.EXE defining extent for, (U) DCL Dictionary, global symbols, (P) System Dump Analyzer, DCL1-260, DCL1-269, DCL2-208, SDA-61 DCL2-353, DCL2-383 Work item defining quota for, (U) DCL Dictionary, deleting, (P) RTL Parallel Processing, 4-18 DCL1-269, DCL2-208, DCL2-353, inserting, (P) RTL Parallel Processing, 4-17 DCL2-383 removing, (P) RTL Parallel Processing, 4-18 default size, (M) Setting Up VMS, 5-6 Workload defining quota importance of knowing, (M) System for batch job, (U) DCL Dictionary, Management Intro, 5-1; (M) Performance DCL2-61 Management, 1-1 determining when too large, (M) Performance managing, (M) System Management Intro, 5-4; Management, 4-22(M) Performance Management, 1-3 discouraging loans when memory is scarce, (M) Workload balancing, (M) System Management Performance Management, 5–11 Intro, 6-3, 6-15; (M) VAXcluster, 1-1, 6-1 displaying /WORK qualifier, (U) EVE Ref, 1-18 limit for process, (U) DCL Dictionary, Work queue DCL2-335 creating, (P) RTL Parallel Processing, 4-16 quota for process, (U) DCL Dictionary, definition of, (P) RTL Parallel Processing, 4-16 DCL2-335 deleting, (P) RTL Parallel Processing, 4-17

Work queue (cont'd)	Workstation
deleting work item from, (P) RTL Parallel	debugging screen-oriented program (cont'd)
Processing, 4–18	using separate VWS window, (P) Debugger,
first in/first out, (P) RTL Parallel Processing,	9–5, CD–150
4–16, 4–18	popping debugger window (when using VWS),
inserting an item into, (P) RTL Parallel	(P) Debugger, CD-162
Processing, 4–17	separate, for debugger DECwindows interface,
reading, (P) RTL Parallel Processing, 4-17	(P) Debugger, 1–32
removing work item from, (P) RTL Parallel	separate debugger terminal-emulator window
Processing, 4–18	using DECwindows (DECterm), (P)
variation of boss/worker model, (P) DECthreads, 1-5	Debugger, 1–33 using VWS, (P) Debugger, 9–5, CD–150
Work queue processing software model, (P) RTL	terminal emulator screen size, (P) Debugger,
Parallel Processing, 1–5	7–22, CD–181
Work queue synchronization	with dual-head support, V5.5 Release Notes,
advantages and disadvantages, (P) RTL	1–15
Parallel Processing, 5–9	Workstation device, (P) Device Support (B), 1-76
PPL\$ routines for, (P) RTL Parallel Processing,	/WORK_FILES qualifier, (U) Sort/Merge,
4–16 to 4–18	SORT-35, SORT-72; (P) Convert, CONV-12,
Work restrictions, (M) Security, 5–30	CONV–27
WORKSET.COM command procedure	WORLD category, (M) System Management Intro,
using to obtain working set information, (M)	3–3; (M) Setting Up VMS, 5–19; (P) File Def
Performance Management, 3–22 Worksheets	Language, FDL-23
See also Checklists	definition, (U) DCL Concepts, 8-3 World ownership category, (U) Using VMS, 7-4
evaluation of data centers	WORLD privilege, (M) Security, A-10
application software, Dependability	impact on SHOW PROCESS command, (M)
Handbook, A-18	Security, 5–39
compliance summary table, Dependability	WORLD user, (M) Security, 4-4
Handbook, A-21	Worm, (M) Security, 5-41
environmental management, Dependability	WPS keypad, (U) EVE Ref, EVE-183
$Handbook,  ext{A}5$	WPS keypad option
general planning, Dependability	EVE editor, (U) Using VMS, 8-23; (U) Text
Handbook, A-3	Processing, 1–6
in SYS\$EXAMPLES, Dependability	online help for (EVE), (U) Text Processing,
Handbook, A-1	1–36 WDS Dulan have (II) EVE Dat EVE 194
$egin{array}{ll} { m organization}, & { m \it Dependability \it Handbook}, \ { m \it A-8} \end{array}$	WPS Ruler key, (U) EVE Ref, EVE-184 for paragraph indent, (U) EVE Ref, EVE-186
security, Dependability Handbook, A-10	for tab stops, (U) EVE Ref, 1–42
service and support, Dependability	/WRAP qualifier, (U) VMS Intro, 6–16
Handbook, A-20	Writable image, (M) Install, INS-2
suggested use of, Dependability Handbook,	/WRITABLE qualifier, (M) Install, INS-11
A-1	Write
sample requirements worksheet, Dependability	record to file, (U) DCL Dictionary, DCL2-399
Handbook,2–11	WRITE access, (M) Security, 4-5; (P) File Def
with fictional requirements data, Dependability	Language, FDL-23
Handbook, 2–11	See also Access
Workstation	and directory file, (M) Security, 4–8
See also VAXstation 2000 debugger commands for (when using VWS), (P)	and disk file, (M) Security, 4–8
Debugger, CD-5	and volume, (M) Security, 4–10
debugger DECwindows interface for, (P)	for a device, (U) DCL Concepts, 8–6
Debugger, 1–1	for a directory, (U) DCL Concepts, 8–8 for a file, (U) DCL Concepts, 8–9
debugging DECwindows application, (P)	for a global section, (U) DCL Concepts, 8–10
Debugger, 1–32	for a logical name table, (U) DCL Concepts,
debugging screen-oriented program	8–10
using separate DECterm window, (P)	for a queue, (U) DCL Concepts, 8-7
Debugger, 1-33	for a volume, (U) DCL Concepts, 8-7

Write access category, (M) System Management Intro, 3–3 definition, (U) Using VMS, 7-4 Write access type, (P) MACRO, 8-17 Write attention AST function, (P) I/O User's I, Write-back caching, (U) Files and Devices, 3-14 Write back section, (P) System Services Intro, 12 - 17Write-behind option See RAB\$V\_WBH option Write breakthrough function, (P) I/O User's I, 8-36 Write check enabling, (P) Device Support (B), 1-75 with APPEND command, (U) DCL Dictionary, DCL1-37 with COPY command, (U) DCL Dictionary, DCL1-80 with INITIALIZE command, (U) DCL Dictionary, DCL1-242 Write check option See FAB\$V\_WCK option WRITE command, (U) VMS Intro, 5-5; (U) Using VMS, 6-12, 6-13, 8-69; (U) DCL Concepts, 5-1, 7-4; (U) Command Procedures, 3-14, 6-5; (U) DCL Dictionary, DCL2-399 to DCL2-401; (U) EDT Ref, EDT-253; (M) System Generation, SGN-44; (M) Show Cluster, SHCL-82 See also CLOSE command See also Copying text See also OPEN command See also READ command EDT editor, (U) Text Processing, 2-36 for remote file, (M) DECnet-VAX Guide, 2-13 updating records, (U) Command Procedures, with symbols, (U) Command Procedures, 6-5 writing a string to a record, (U) Command Procedures, 4-11 Write end-of-file function magnetic tape, (P) I/O User's I, 6-21 message, (P) I/O User's I, 7-9 WRITE FILE command, (U) Using VMS, 8-24, 8-31, 8-34; (U) EVE Ref, EVE-250 to EVE-251 for buffer manipulation (EVE), (U) Text Processing, 1–49 writing buffer to a file using (EVE), (U) Text Processing, 1–54 Write function FDT routine for, (P) Device Support (A), 7-9 WRITE keyword SET BUFFER command (EVE), (U) Text

Processing, 1-50

Write-lock disk volumes, (M) Maintaining VMS, 3-9 mount verification, (M) Maintaining VMS, tape volumes, (M) Maintaining VMS, 3-5 Write-only file, (M) Security, 4–8 Write operation, (U) Files and Devices, 4-14 continuation volumes, (U) Files and Devices, 5-5; (M) Maintaining VMS, 3-6 disk, (U) Files and Devices, 4–15 magnetic tape, (U) Files and Devices, 4-15, 4-16, 4-19 ANSI-labeled, (U) Files and Devices, 4–17 Write protection hardware, (P) I/O User's I, 10-4 /WRITE qualifier, (U) EVE Ref, 1-19; (M) Mount, MOUNT-43; (P) VAXTPU, 5-17 Write rings, (M) Maintaining VMS, 3-5 Write service, (P) RMS, RMS-104, RMS-105 condition values, (P) RMS, RMS-106 control block input fields, (P) RMS, RMS-105 control block output fields, (P) RMS, RMS-105 "Write" string constant parameter to GET\_INFO, (P) VAXTPU, 7-178 WRITE\_BEHIND attribute, (P) File Def Language, FDL-15 WRITE\_CHECK attribute, (P) File Def Language, FDL-25 /WRITE CHECK qualifier, (P) Convert, CONV-28 WRITE CLIPBOARD built-in procedure, (P) VAXTPU, 7-540 example of use, (P) VAXTPU, B-11 to B-13 WRITE\_FILE built-in procedure, (P) VAXTPU, 7-543 to 7-545 WRITE GLOBAL SELECT built-in procedure, (P) VAXTPU, 7-546 example of use, (P) VAXTPU, B-31 to B-33 Writing operations, (P) RTL Screen Management, 2 - 8Writing predictable code, Dependability Handbook, 8-19 to 8-23 WSDEC parameter, (M) System Generation, A-38 WSDEF (default working set size), (M) Setting Up VMS. 5-6WSEXTENT (working set extent), (U) Sort/Merge, SORT-7; (M) Setting Up VMS, adjusting, for optimization, (U) Sort/Merge, SORT-7 WSINC parameter, (M) System Generation, A-38 page faulting, (M) Performance Management, WSMAX parameter, (M) System Generation, A-39 WSQUOTA (working set quota), (M) Setting Up VMS, 5-7displaying, (U) DCL Dictionary, DCL2-335

how to determine, (P) Convert, CONV-22

WSQUOTA parameter server module, (M) Networking, 1-20, 2-5, 2-6, page faulting, (M) Performance Management, 2 - 35server module commands, (M) Networking, 3 - 81X server module counters, (M) Network Control Program, A-14 ;X command, (P) Delta/XDelta, DELTA-40 server module states, (M) Network Control X.25, (M) Networking, 1-3, 2-5 Program, A-21 access module, (M) Networking, 1-20, 2-6, server module state transitions, (M) Network Control Program, A-22 access module commands, (M) Networking, SVC, (M) Networking, 2-7, 2-12, 3-36 3 - 86BCUG, (M) Networking, 2-6, 3-33, 3-82 trace module, (M) Networking, 1-20 user group, (M) Networking, 2-6, 3-33, 3-82 call destination, (M) Networking, 2-35 virtual circuit, (M) Networking, 1-1, 1-3, 1-13, CCITT recommendation, (M) Networking, 1-3, 2-7, 2-121 - 13X.25 packet level events, (M) Network Control circuit, (M) Networking, 2-6, 3-37 Program, A-33 circuit devices, (M) Networking, 2-12 X.25 packet switching data network, (M) circuit identification, (M) Networking, 3-36 DECnet-VAX Guide, 1–11 circuit parameters, (M) Networking, 3-47 X.29 combination node, (M) Networking, 1-3 CCITT recommendation, (M) Networking, 1-3, connector node, (M) Networking, 1-1, 1-3, 1-5, 1-13, 1-18, 2-1, 2-6, 2-35, 2-37, 3-85, incoming calls, (M) Networking, 3-83 3-86, 5-1, 6-2server module, (M) Networking, 1-20, 2-5, connector node configuration, (M) Networking, 5 - 30server module commands, (M) Networking, CUG, (M) Networking, 2-6, 3-33, 3-82 3 - 81data packet control, (M) Networking, 3-30, terminal, (M) Networking, 1-13 X25-PROTOCOL module gateway node, (M) Networking, 1-3, 5-1 commands, (M) Networking, 3-28 handling incoming calls. (M) Networking, 3-81 counters, (M) Networking, 3-34 host node, (M) Networking, 1-3, 1-13, 1-18, parameters, (M) Networking, 3-28 2-1, 2-6, 2-35, 2-37, 3-85, 3-86, 5-1 X25router, (M) DECnet-VAX Guide, 1-6 host node configuration, (M) Networking, 5-30 X25-SERVER module LAPBE line protocol, (M) Networking, 3-54 identification, (M) Networking, 3-81 LAPB line protocol, (M) Networking, 3-54 parameters, (M) Networking, 3-81 line, (M) Networking, 2-12, 2-13, 3-55 line device, (M) Networking, 2–20 X29-SERVER module line-level loopback test, (M) Networking, 7-13 See X25-SERVER module line parameters, (M) Networking, 3-62 24x365, Dependability Handbook, 1-2 line receive buffers, (M) Networking, 3-64 defined, Dependability Handbook, Glossary-1 multihost installation, (M) Networking, 6–2 X4 symbol, (P) Delta/XDelta, DELTA-9 multihost mode, (M) Networking, 1-13, 2-6, X5 symbol, (P) Delta/XDelta, DELTA-9 XAB\$B AID field, (P) File Applications, 4–30; (P) 5-1multihost mode network configuration, (M) File Def Language, FDL-6; (P) RMS, 8-2 Networking, 5-30 XAB\$B\_ALN field, (P) File Def Language, FDL-8; multinetwork configuration, (M) Networking, (P) RMS, 8-2options, (P) File Applications, 4-31 native mode, (M) Networking, 1–13 XAB\$B AOP field, (P) File Def Language, FDL-6, native-mode network configuration, (M) FDL-7; (P) RMS, 8-3 Networking, 5–28 options, (P) File Applications, 4-30; (P) RMS, protocol module, (M) Networking, 1-20, 2-1, 8-4 2-5, 3-28XAB\$B\_ATR field, (P) RMS, 10-2 protocol module counters, (M) Network Control options, (P) RMS, 10-2Program, A-13 XAB\$B\_BKZ field, (P) File Applications, 3–24, PSDN, (M) Networking, 1–1 4-28, 7-19, 7-20 PVC, (M) Networking, 2-7, 2-12, 3-36 as output, (P) RMS, 8-5 default logic, (P) RMS, 8-5

X.25 (cont'd)

XAB\$B\_BKZ field (cont'd) XAB\$B\_IBS field, (P) RMS, 13-10 determining bucket size, (P) RMS, 8-5 XAB\$B\_LAN field, (P) File Def Language, in allocation XAB (XABALL), (P) RMS, 8-4 FDL-28; (P) RMS, 13-11 in file header characteristics allocation XAB indicating index level, (P) RMS, 8-5 (XABFHC), (P) RMS, 10-3 relationship to XAB\$B\_AID field, (P) RMS, RMS-11 restriction, (P) RMS, 8-5 13 - 11size requirements for multiple index areas, (P) requirement for compatibility with XAB\$B\_IAN RMS, 8–5 field, (P) RMS, 13-11 XAB\$B\_BLN field use restriction, (P) RMS, 13-11 in allocation XAB (XABALL), (P) RMS, 8-5 XAB\$B\_LVL field, (P) RMS, 13-12 in date and time XAB (XABDAT), (P) RMS, XAB\$B\_MTACC field, (P) File Def Language, FDL-22; (P) RMS, 14-5 in file header characteristics XAB (XABALL), default logic, (P) RMS, 14-5 (P) RMS, 10-3valid character codes, (P) RMS, 14-5 in item list XAB (XABITM), (P) RMS, 11-2 XAB\$B\_NOA field, (P) RMS, 17-2 in key XAB (XABKEY), (P) RMS, 13-2 XAB\$B\_NOK field, (P) RMS, 17-2 in protection XAB (XABPRO), (P) RMS, 14-4 XAB\$B\_NSG field, (P) RMS, 13-12 in revision date and time XAB (XABRDT), (P) XAB\$B NUL field, (P) File Def Language, RMS, 15-2 FDL-29: (P) RMS, 13-12 in summary XAB (XABSUM), (P) RMS, 17-1 use restrictions. (P) RMS, 13-12 in terminal XAB (XABTRM), (P) RMS, 18-2 XAB\$B\_PROLOG field, (P) File Def Language, XAB\$B\_COD field FDL-30; (P) RMS, 13-13 See also COD field default logic, (P) RMS, 13-13 in allocation XAB (XABALL), (P) RMS, 8-5 service usage, (P) RMS, 13-13 in date and time XAB (XABDAT), (P) RMS, use restriction, (P) RMS, 13-13 XAB\$B\_PROT\_OPT field, (P) RMS, 14-7 in file header characteristics XAB (XABFHC), XAB\$B\_REF field, (P) File Def Language, FDL-26 (P) RMS, 10-3XAB\$B\_RFO field, (P) RMS, 10-5 in item list XAB (XABITM), (P) RMS, 11-2 values listed, (P) RMS, 10-6 in key XAB (XABKEY), (P) RMS, 13-2 XAB\$B\_SIZ0 field, (P) File Def Language, in protection XAB (XABPRO), (P) RMS, 14-4 FDL-28, FDL-30 in revision date and time XAB (XABRDT), (P) XAB\$B\_SIZ0 through XAB\$B\_SIZ7 field, (P) RMS, 15-2 RMS, 13-14 in summary XAB (XABSUM), (P) RMS, 17-1 default logic, (P) RMS, 13-15 in terminal XAB (XABTRM), (P) RMS, 18-2 requirement for compatibility with XAB\$W\_ XAB\$B\_DAN field, (P) File Def Language, POS0 through XAB\$W\_POS7 field, (P) FDL-27; (P) RMS, 13-4 RMS, 13–14 XAB\$B\_DBS field, (P) RMS, 13–4 with segmented key, (P) RMS, 13-14 XAB\$B\_DPT field, (P) File Def Language, FDL-32 with simple key, (P) RMS, 13-14 XAB\$B\_DTP field, (P) RMS, 13-5 XAB\$B\_TKS field, (P) RMS, 13-15 data formats, (P) RMS, 13-6 XAB\$C\_ALLEN value, (P) RMS, 8-5 data type restrictions, (P) RMS, 13-5 XAB\$C\_ALL value, (P) RMS, 8-6 options, (P) RMS, 13-5 XAB\$C\_DATLEN value, (P) RMS, 9-2 use with search key, (P) RMS, 7-13, 7-14 XAB\$C\_DAT value, (P) RMS, 9-3 value prefixes for sorting, (P) RMS, 13-5 XAB\$C\_FHCLEN value, (P) RMS, 10-3 XAB\$B\_FLG field, (P) File Def Language, XAB\$C\_FHC value, (P) RMS, 10-3 FDL-26, FDL-27, FDL-28, FDL-29; (P) XAB\$C\_ITMLEN value, (P) RMS, 11-2 RMS, 13-8, B-21 XAB\$C\_ITM value, (P) RMS, 11-2 option allowable combinations listed, (P) RMS, XAB\$C\_KEYLEN value, (P) RMS, 13–2 13-9 XAB\$C\_KEY value, (P) RMS, 13-2 options, (P) RMS, 13-8 XAB\$C\_PROLEN value, (P) RMS, 14-4 XAB\$B\_HSZ field, (P) RMS, 10-4 XAB\$C\_PRO value, (P) RMS, 14-4 use restriction, (P) RMS, 10-4 XAB\$C\_RDTLEN value, (P) RMS, 15-2 XAB\$B\_IAN field, (P) File Def Language, XAB\$C\_RDT value, (P) RMS, 15-2 FDL-28; (P) RMS, 13-10 XAB\$C\_SUMLEN value, (P) RMS, 17-1 conditional usage, (P) RMS, 13-10 XAB\$C\_SUM value, (P) RMS, 17-2 indicating index level, (P) RMS, 8-5 XAB\$C\_TRMLEN value, (P) RMS, 18-2

XAB\$C\_TRM value, (P) RMS, 18-2 XAB\$Q\_EDT field, (P) File Def Language, XAB\$L ACLBUF field, (P) RMS, 14-2 FDL-16; (P) RMS, 9-3 determining value for Create service, (P) RMS, XAB\$Q RDT field, (P) File Def Language, FDL-16; (P) RMS, 9-3, 15-2 determining value for Open and Display service, XAB\$V\_BLK option, (P) RMS, 10-2 XAB\$V\_CBT option, (P) RMS, 8-4 (P) RMS, 14-2handling ACE, (P) RMS, 14-2 XAB\$V\_CHG option, (P) RMS, 13-8 XAB\$L\_ACLCTX field, (P) RMS, 14-2, 14-3 use restriction, (P) RMS, 13-8 XAB\$L\_ACLSTS field, (P) RMS, 14-3 XAB\$V\_CR option, (P) RMS, 10-2 error-handling guidelines, (P) RMS, 14-3 XAB\$V\_CTG option, (P) RMS, 8-4 use restriction, (P) RMS, 14-4 XAB\$V DAT NCMPR option, (P) RMS, 13-8 XAB\$L\_ALQ field, (P) File Applications, 4-30; XAB\$V\_DUP option, (P) RMS, 13-8 (P) File Def Language, FDL-6; (P) RMS, 8-3 XAB\$V\_FTN option, (P) RMS, 10-2 XAB\$L\_COLNAM field, (P) RMS, 13-2 XAB\$V\_HRD option, (P) RMS, 8-4 XAB\$L\_COLSIZ field, (P) RMS, 13-3 use restrictions, (P) RMS, 8-4 XAB\$V IDX NCMPR option, (P) RMS, 13-8 XAB\$L COLTBL field, (P) RMS, 13-3 XAB\$L\_DVB field, (P) RMS, 13-7 use in defining string keys, (P) RMS, 13-8 use restriction, (P) RMS, 13-8 XAB\$L\_EBK field, (P) RMS, 10-3 XAB\$L\_HBK field, (P) RMS, 10-4 XAB\$V\_KEY\_NCMPR option, (P) RMS, 13-8 comparing with FAB\$L\_ALQ field, (P) RMS, use in defining string keys, (P) RMS, 13-8 use restriction, (P) RMS, 13-9 XAB\$L\_ITEMLIST field, (P) RMS, 11-2 XAB\$V\_NUL option, (P) RMS, 13-9 XAB\$L\_ITMLST field, (P) RMS, 18-2 setting for various data types, (P) RMS, 13-6 requirement for valid terminal driver, (P) use in defining string keys, (P) RMS, 13-8 use restriction, (P) RMS, 13-9 RMS, 18-1 with XAB\$B\_NUL field, (P) RMS, 13-9 XAB\$L\_KNM field, (P) File Def Language, XAB\$V\_ONC option, (P) RMS, 8-4 FDL-29; (P) RMS, 13-11 XAB\$V\_PRN option, (P) RMS, 10-2 XAB\$L\_LOC field, (P) File Applications, 4–31; XAB\$V\_PROPAGATE option, (P) RMS, 14-7 (P) File Def Language, FDL-8; (P) RMS, 8-6 determining value, (P) RMS, 8-6 XAB\$W ACLLEN field, (P) RMS, 14-3 requirement for alignment option, (P) RMS, determining value, (P) RMS, 14-3 8-6 limitation, (P) RMS, 14-3 XAB\$L\_MODE field, (P) RMS, 11-2 XAB\$W ACLSIZ field, (P) RMS, 14-3 limitations imposed by MAXBUF, (P) RMS, XAB\$L\_NXT field 14 - 3in XABALL, (P) RMS, 8-6 in XABDAT, (P) RMS, 9-3 limitations imposed by user's BYTLM quota, in XABFHC, (P) RMS, 10–5 in XABKEY, (P) RMS, 13–12 (P) RMS, 14-3XAB\$W\_DEQ field, (P) File Applications, 4-31; (P) File Def Language, FDL-7; (P) RMS, 8-6 in XABPRO, (P) RMS, 14-5 in XABRDT, (P) RMS, 15-2 XAB\$W\_DFL field, (P) File Def Language, in XABSUM, (P) RMS, 17-2 FDL-27; (P) RMS, 13-4 in XABTRM, (P) RMS, 18-3 advantages of using, (P) RMS, 13-4 XAB\$L RVB field, (P) RMS, 13-14 comparing for primary and alternate keys, (P) XAB\$L\_SBN field, (P) RMS, 10-6 RMS, 13-4 XAB\$L\_UIC field, (P) RMS, 14-4, 14-8 determining value, (P) RMS, 13-4 use with RAB\$V\_LOA option, (P) RMS, 7-13 combining the XAB\$W GRP and XAB\$W MBM fields, (P) RMS, 14-8 XAB\$W\_DXQ field in XABFHC, (P) RMS, 10-3 order of determining value, (P) RMS, 14-8 setting XAB\$W\_GRP field, (P) RMS, 14-4 XAB\$W\_FFB field, (P) RMS, 10-4 XAB\$W\_GBC field setting XAB\$W\_MBM field, (P) RMS, 14-5 XAB\$NXT field in XABFHC, (P) RMS, 10-4 XAB\$W\_GRP field, (P) File Def Language, in XABITM, (P) RMS, 11-2 XAB\$Q\_BDT field, (P) File Def Language, FDL-23; (P) RMS, 14-4 XAB\$W\_IFL field, (P) File Def Language, FDL-15; (P) RMS, 9-2 XAB\$Q\_CDT field, (P) File Def Language, FDL-28; (P) RMS, 13-10 FDL-16; (P) RMS, 9-2 advantages of using, (P) RMS, 13-11 XAB\$W\_ITMLST\_LEN field, (P) RMS, 18-2

XAB\$W\_ITMLST\_LEN field (cont'd) XAB (extended attribute block) (cont'd) requirement for valid terminal driver, (P) date and time fields, (P) File Applications, RMS, 18-1 4 - 28XAB\$W\_LRL field, (P) RMS, 10-4 description, (P) RMS, 1-3 use restriction, (P) RMS, 10-5 key definition fields, (P) File Applications, 4-29 XAB\$W\_MBM field, (P) File Def Language, naming conventions for FAB, (P) RMS, 1-3 FDL-23; (P) RMS, 14-5 program example, (P) RMS, 4-8 XAB\$W\_MRL field, (P) RMS, 13-12 protection fields, (P) File Applications, 4-28 comparing primary key and alternate keys, (P) types, (P) RMS, 1-3 types for VMS RMS file operations, (P) RMS, RMS, 13-12 XAB\$W\_MRZ field 1 - 3in XABFHC, (P) RMS, 10-5 XABALL block, (P) RMS, 1-3, 8-1 relationship to FAB fields, (P) RMS, 8-1 XAB\$W\_MRZ field in XABFHC determining value, (P) RMS, 10-5 summary of fields, (P) RMS, 8-1 XAB\$W\_POS0 field, (P) File Def Language, \$XABALL macro, (P) RMS, B-13 FDL-29, FDL-30 argument categories, (P) RMS, B-13 \$XABALL\_STORE macro, (P) RMS, B-14 XAB\$W\_POS0 through XAB\$W\_POS7 field, (P) RMS, 13-12 argument categories, (P) RMS, B-14 comparing with \$XABALL macro, (P) RMS, requirement to be compatible with XAB\$B\_SIZ0 through XAB\$B\_SIZ7 field, (P) RMS, B-14requirements, (P) RMS, B-14 13 - 13XAB\$W\_PRO field, (P) File Def Language. XAB block FDL-23; (P) RMS, 14-6 naming conventions for RAB, (P) RMS, 1-4 default logic, (P) RMS, 14-7 XABDAT block, (U) Files and Devices, B-13; (P) organization, (P) RMS, 14-6 RMS, 9-1required ordering of arguments, (P) RMS, 14-6 brief description, (P) RMS, 1-3 subfield offsets, (P) RMS, 14-6 CDT (creation date) field, (U) Files and user classes, (P) RMS, 14-7 Devices, B-13 XAB\$W\_PVN field, (P) RMS, 17-2 EDT (expiration date) field, (U) Files and XAB\$W\_RFI field, (P) File Def Language, FDL-8; Devices, B-13 summary of fields, (P) RMS, 9-1 (P) RMS, 8-7as argument to \$XABALL\_STORE macro, (P) value selection logic, (P) RMS, 9-2 \$XABDAT macro, (P) RMS, B-15 RMS, B-14 \$XABDAT\_STORE macro, (P) RMS, B-16 requirement for XAB\$C\_RFI, (P) RMS, 8-7 argument categories, (P) RMS, B-16 specifying, (P) RMS, 8-7 XAB\$W\_RVN field, (P) File Def Language, argument variations, (P) RMS, B-16 FDL-24; (P) RMS, 9-3, 15-3 example of use, (P) RMS, 3-9 XAB\$W\_VERLIMIT field requirements, (P) RMS, B-16 in XABFHC, (P) RMS, 10-6 XABFHC block, (P) RMS, 10-1 XAB\$W\_VOL field, (P) File Applications, 4–32; brief description, (P) RMS, 1-3 (P) File Def Language, FDL-8; (P) RMS, 8-7 summary of fields, (P) RMS, 10-1 use restriction, (P) RMS, 8-7 use exception, (P) RMS, 10-1XAB\$\_ENABLE symbol, V5.5 New Features, values for shared sequential files, (P) RMS. B - 11210 - 1XAB\$ MULTIBUFFER COUNT XABITM \$XABFHC macro, (P) RMS, B-17 implementation of, V5.5 New Features, B-110 \$XABFHC\_STORE macro, (P) RMS, B-18 argument categories, (P) RMS, B-18 supporting data structure requirement, V5.5 New Features, B-110 requirements, (P) RMS, B-18 XABITM block, (P) RMS, 11-1 XAB\$ NORECORD XABITM, V5.5 New Features. B - 112brief description, (P) RMS, 1-3 summary of fields, (P) RMS, 11-1 buffer requirement, V5.5 New Features, B-112 typical usage, V5.5 New Features, B-112 \$XABITM macro, (P) RMS, B-19 XAB\$\_REF field, (P) RMS, 13-14 XABJNL block, (P) RMS, 12-1 XAB (extended attribute block), (P) Programming brief description, (P) RMS, 1-3 Resources, 1–36; (P) File Applications, 1–11, XABKEY block, (P) RMS, 13-1 4-2; (P) System Dump Analyzer, SDA-77 brief description, (P) RMS, 1-3 data type options, (P) RMS, 13-5 See also XAB block default logic, (P) RMS, 13-9

XABKEY block (cont'd) XADRIVER.MAR. (P) Device Support (A), D-1 to summary of fields, (P) RMS, 13-1 XAB\$W MRL field, (P) RMS, 13-12 **XDELTA** \$XABKEY macro, (P) RMS, B-20, B-21 See Delta/XDelta Utility argument categories, (P) RMS, B-21 XDELTA entry IPL, (P) Device Support (A), 3-9 position and size options, (P) RMS, B-21 XE base register, (P) Delta/XDelta, DELTA-9, \$XABKEY\_STORE macro, (P) RMS, B-22 DELTA-38 argument categories, (P) RMS, B-23 XF base register, (P) Delta/XDelta, DELTA-9, requirements, (P) RMS, B-23 DELTA-38 XABPRO block, (P) RMS, 14-1 XFC (Extended Function Call) instruction, (P) brief description, (P) RMS, 1-3 MACRO, 9-81 summary of fields, (P) RMS, 14-1 XFMAXRATE parameter, (M) System Generation, XAB\$B\_BLN field, (P) RMS, 14-4 A-39; (P) I/O User's II, 4-22 XAB\$W\_GRP field, (P) RMS, 14-4 %X format, (P) Analyze/RMS\_File, ARMS-25 \$XABPRO macro, (P) RMS, B-24 XLATE command, (U) EDT Ref, EDT-332 ASCII radix indicator requirement in MTACC .XLOWER command, (U) DSR Ref, 2-130, 6-2 argument, (P) RMS, B-24 describing UIC argument, (P) RMS, B-25 displaying mapped addresses, (P) Device example of MTACC argument, (P) RMS, B-24 Support (A), 12–11 listing user classes, (P) RMS, B-25 XMI bus XAB\$W\_PRO field requirements, (P) RMS, DEMNA Ethernet/802 controller support, V5.5 B - 24Release Notes, 2–26 \$XABPRO STORE macro, (P) RMS, B-26 memory space, (P) Device Support (A), 16-5 argument categories, (P) RMS, B-26 XMI-to-VME routines, V5.5 New Features, A-22 argument exceptions to general rules, (P) RMS, Xn symbol, (P) Delta/XDelta, DELTA-9 B - 26XORB2 (Exclusive OR Byte 2 Operand) requirements, (P) RMS, B-26 instruction, (P) MACRO, 9-32 XABRDT block, (P) RMS, 15-1 XORB3 (Exclusive OR Byte 3 Operand) brief description, (P) RMS, 1-3 instruction, (P) MACRO, 9-32 comparing with XABDAT, (P) RMS, 15-1 XORL2 (Exclusive OR Long 2 Operand) default logic, (P) RMS, 15-1 instruction, (P) MACRO, 9-32 service use of XAB\$Q\_RDT and XAB\$W\_RVN XORL3 (Exclusive OR Long 3 Operand) fields, (P) RMS, 15-1 instruction, (P) MACRO, 9-32 summary of fields, (P) RMS, 15-1 XOR operator, (P) VAXTPU, 3-7 use restriction, (P) RMS, 15-1 XOR operator (\), (P) System Dump Analyzer, \$XABRDT macro, (P) RMS, B-27 SDA-13 \$XABRDT\_STORE macro, (P) RMS, B-28 XORW2 (Exclusive OR Word 2 Operand) argument categories, (P) RMS, B-28 instruction, (P) MACRO, 9-32 requirements, (P) RMS, B-28 XORW3 (Exclusive OR Word 3 Operand) XABRU block, (P) RMS, 16-1 instruction, (P) MACRO, 9-32 brief description, (P) RMS, 1-3 XQP (extended QIO processor), (P) I/O User's I, XABSUM block, (P) RMS, 17-1 1–1; (P) System Dump Analyzer, SDA–99; brief description, (P) RMS, 1-3 (P) Device Support (B), 1-12, 1-74 summary of fields, (P) RMS, 17-1 default, (P) Device Support (B), 1-28 use restriction, (P) RMS, 17-1 X resource \$XABSUM macro, (P) RMS, B-29 fetching value of, (P) VAXTPU, 7-151 \$XABSUM\_STORE macro, (P) RMS, B-30 X servers argument categories, (P) RMS, B-30 interoperability with other vendors' X servers, requirements, (P) RMS, B-30 V5.5 Release Notes, 2-17 XABTRM block, (P) RMS, 18-1 XUI Toolkit brief decription, (P) RMS, 1-4 redrawing widgets, V5.5 Release Notes, 3-19 requirements to use, (P) RMS, 18-1 unavailable VAX bindings for DRM routines, summary of fields, (P) RMS, 18-1 V5.5 Release Notes, 3-18 \$XABTRM macro, (P) RMS, B-31 .XUPPER command, (U) DSR Ref, 2-130, 6-2 \$XABTRM\_STORE macro, (P) RMS, B-32 use of uppercase flag with, (U) DSR Ref, 6-2 argument categories, (P) RMS, B-32

requirements, (P) RMS, B-32

#### Υ

Y-connector defined, Dependability Handbook, Glossary-6 \$\$Year, (U) DSR Ref, 3-18 YES logical value, (P) File Def Language, FDL-2 YFDRIVER terminal port driver, V5.5 Release Notes, 2-78 Yielding to another thread, (P) DECthreads, cma-118, pthread-106

#### Z

ZERO CIRCUITS command, (M) Networking,
3-52; (M) Network Control Program,
NCP-180

Zero condition code (Z), (P) MACRO, 8-15

ZERO COUNTERS command, (M) LATCP,
LAT-61; (M) DECnet-VAX Guide, 4-3

Zero creation date, (U) Files and Devices, B-13

ZERO EXECUTOR command, (M) Networking,
3-27; (M) Network Control Program,
NCP-181

Zeroing

line counters, (M) Networking, 3-65 node counters, (M) Networking, 3-27 ZERO LINE command, (M) Networking, 3-65; (M) Network Control Program, NCP-182 ZERO MODULE X25-PROTOCOL command, (M) Network Control Program, NCP-183 ZERO MODULE X25-SERVER command, (M) Network Control Program, NCP-184 ZERO MODULE X29-SERVER command, (M) Network Control Program, NCP-184 ZERO NODE command, (M) Networking, 3-27; (M) Network Control Program, NCP-185 Zero-numbered object, (M) Networking, 2-32 Zone, (P) RTL Library, 5-6 See also Virtual memory zone allocation algorithm, (P) RTL Library, 5-15 attribute, (P) RTL Library, 5-8 creating, (P) RTL Library, 5-6 default, (P) RTL Library, 5-12 defined, Dependability Handbook, Glossary-6 deleting, (P) RTL Library, 5-6 identifier, (P) RTL Library, 5-12 resetting, (P) RTL Library, 5-14 user-created, (P) RTL Library, 5-6

### **How to Order Additional Documentation**

## **Technical Support**

If you need help deciding which documentation best meets your needs, call 800-343-4040 before placing your electronic, telephone, or direct mail order.

### **Electronic Orders**

To place an order at the Electronic Store, dial 800-DEC-DEMO (800-332-3366) using a 1200- or 2400-baud modem. If you need assistance using the Electronic Store, call 800-DIGITAL (800-344-4825).

### **Telephone and Direct Mail Orders**

Your Location	Call	Contact
Continental USA, Alaska, or Hawaii	800-DIGITAL	Digital Equipment Corporation P.O. Box CS2008 Nashua, New Hampshire 03061
Puerto Rico	809-754-7575	Local Digital subsidiary
Canada	800-267-6215	Digital Equipment of Canada Attn: DECdirect Operations KAO2/2 P.O. Box 13000 100 Herzberg Road Kanata, Ontario, Canada K2K 2A6
International		Local Digital subsidiary or approved distributor
Internal <sup>1</sup>		USASSB Order Processing - WMO/E15 or U.S. Area Software Supply Business Digital Equipment Corporation Westminster, Massachusetts 01473

<sup>&</sup>lt;sup>1</sup>For internal orders, you must submit an Internal Software Order Form (EN-01740-07).

# **Reader's Comments**

AA-LA01C-TE

Please use this postage-paid form to comment problem and are eligible to receive one under comments on an SPR form.				
Thank you for your assistance.				
I rate this manual's:	Excellent	Good	Fair	Poor
Accuracy (software works as manual says) Completeness (enough information) Clarity (easy to understand) Organization (structure of subject matter) Figures (useful) Examples (useful) Index (ability to find topic) Page layout (easy to find information)				
I would like to see more/less				
What I like best about this manual is  What I like least about this manual is				
I found the following errors in this manual: Page Description				
Additional comments or suggestions to improve	e this manual:			
			, , , , , , , , , , , , , , , , , , ,	
I am using <b>Version</b> of the software thi	is manual describ	es.		
Name/Title			Dept Date	
Mailing Address			none	

Do	Not	Tear	_	Fold	Here	and	Tape





No Postage Necessary if Mailed in the United States

# **BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION Corporate User Information Products ZK01–3/J35 110 SPIT BROOK RD NASHUA, NH 03062–9987



Do Not Tear - Fold Here -----