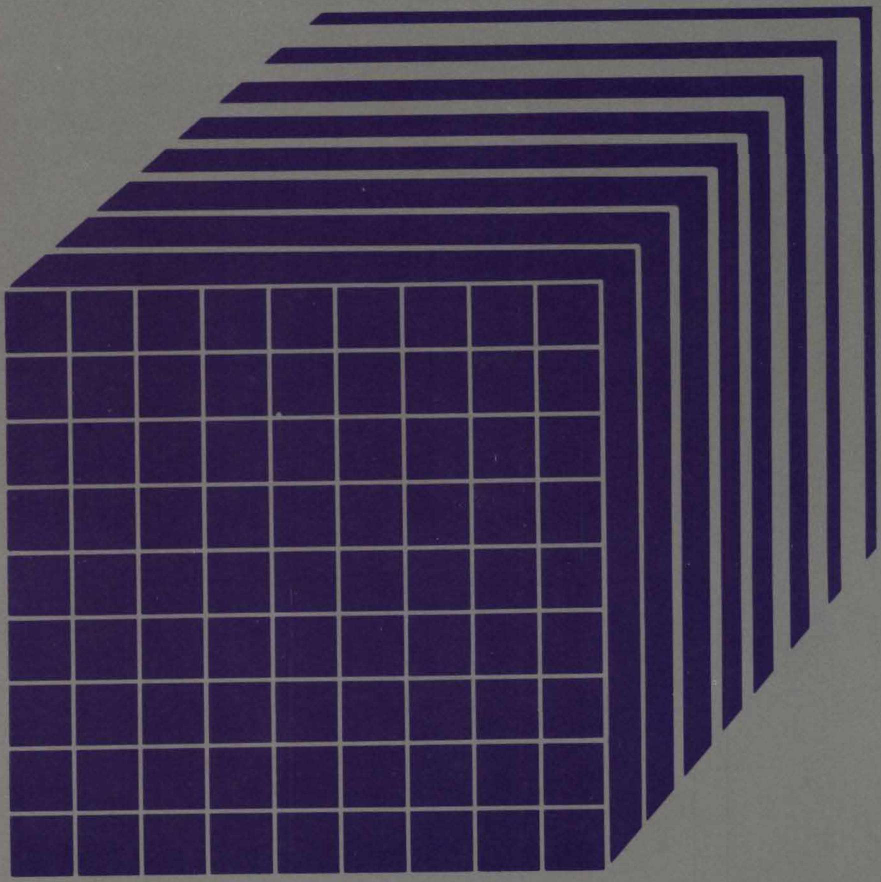
Virtual Machine/
System Product

# Data Areas and Control Block Logic Volume 2 (CMS)

Release 3



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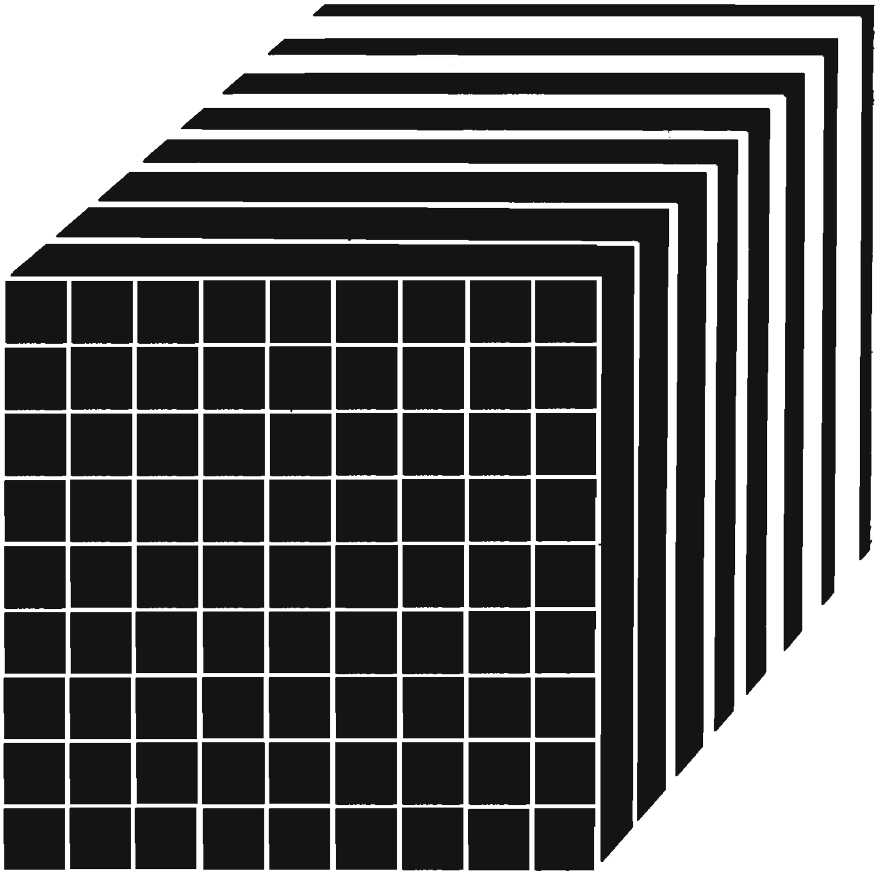
System Product

# Data Areas and Control Block Logic Volume 2 (CMS)

**Release 3**



First Edition (September 1983)

This edition LY24-5221-0, is a major revision of LY20-0891-1. For Release 3, LY20-0891-1 was reorganized and divided into two seperate volumes: LY24-5220-0 (CP), and LY24-5221-0 (CMS). All changes apply to Release 3 of the Virtual Machine/System Product (5664-167) and to all subsequent releases (if any) and modifications until otherwise indicated in new editions or Technical Newsletters. Changes are periodically made to the information contained herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370 and 4300 Processors Bibliography,* GC20-0001, for the editions that are applicable and current.

Summary of Changes

For a list of changes, see page iii.

For Release 3, technical changes and additions to text or illustrations are indicated by a vertical bar to the left of the change.

References in this publication to IBM products, programs, or services does not imply that IBM intends to make these available in all countries in which IBM operates. Any references to an IBM program product in this publication is not intended to state or imply that only IBM's program products may be used. Any functionally equivalent program may be used instead.

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Summary of Changes
to LY24-5221-0
for VM/SP Release 3

## MAJOR CHANGES

Changed: Book Structure

The original Data Area and Control Block Logic book has been reorganized and divided into two seperate volumes. See the Preface for more information.

New: Additions

Ten new data areas have been added to this volume. ABNXTCB, CMSLEVEL, COMCLIST, IMMBLOK, IMWKSECT, IUCVIDBK, IUCVPTBK, IUCVTAB, RTXSBFLD, SVCWORK.

Changed: Control Blocks

The following is a complete listing of the data areas that have been modified in this publication: ADTSECT, DESTYP, DEVTAB, EPLIST, FCBSECT, FRDSECT, FVSECT, IHADECB, LSCREEN, NUCON, OPSECT, PARMLIST, PROPCOM, PRSCB, QEL, RECSAVE, RTDSECT, SCBLOCK, SYNSUB, SYSNAMES, TOKLIST, ZDESC, ZFONC.

## MISCELLANEOUS CHANGES

Changed: Documentation Only

Minor technical and editorial changes have been made throughout this publication.

Summary of Changes
to LY20-0891-1
as updated by LN24-5717

## MAJOR CHANGES

New: Additions

Thirteen data areas are added to this book. Four new CP areas are INTBLK, PFDATA, PFKTABLE and RETBUF. Nine new CMS areas are EPLIST, LOGFBFMT, PARMLIST, PROPCOM, PROPTAB, QEL, RTDSECT, SHVBLOCK and, TOKLIST. Minor changes have been made to many other data areas and control blocks.

## MISCELLANEOUS CHANGES

Changed: Documentation Only

Minor technical and editorial changes have been made throughout this publication.

## Summary of Changes to LY20-0891-1 for VM/SP Service Level 106

## MAJOR CHANGES

New: Format

This revision provides an easier to use format. Some of the highlights to the new format are:

- Graphic representations of the data areas and control blocks.
- All displacements are given in hexadecimal.
- Data area size values are given in hexidecimal numbers as compared to bit patterns in past editions.
- Bit values immediately follow the corresponding byte definition.
- The Cross Reference has a heading to describe what values it represents.

Five data areas, MNCHLIST, ORDBLOK, PDSSECT, VBFBLOK and VMPSCOM, are added to the book. In addition, minor changes have been made to many other data areas and control blocks.

## MISCELLANEOUS CHANGES

Changed: Documentation Only

Minor technical and editorial changes have been made throughout this publication.

# PREFACE

This publication, together with the VM/SP System Logic and Problem Determination Guide, Volumes 1 and 2, and VM/370 System Logic and Problem Determination Guide, Volume 3 is intended for use by system programmers responsible for updating VM/SP.

## HOW THIS MANUAL IS ORGANIZED

The original Data Area and Control Block Logic book has been reorganized and divided into two separate volumes:

- Volume 1 - Control Program (CP)
- Volume 2 - Conversational Monitor System (CMS)

This volume contains descriptions of the major data areas and control blocks used by the Conversational Monitor System. There is only one section with two appendixes, as follows:

- "CMS Data Areas and Control Blocks" contains information about CMS data areas and control blocks.
- "Appendix A. CMS Equate Symbols" contains assembler language equate symbols used by CMS to reference data.
- "Appendix B. CMS Data Areas and Control Block References" contains information on the modules that reference data areas and control blocks.

## OTHER VM/SP DATA AREAS AND CONTROL BLOCKS

Some data areas and control blocks that affect VM/SP service and support programs are not included in this publication. Information on these data areas and control blocks can be found in the Virtual Machine/System Product: Service Routines Program Logic, Order No. LY20-0890.

## PRE-REQUISITE PUBLICATIONS

To use this publication effectively and to understand it thoroughly, the following publications are prerequisite:

IBM System/370 Principles of Operation, Order No. GA22-7000

IBM OS/VS, DOS/VS, and VM/370 Assembler Language, Order No. GC33-4010

### Related Publications

This publication should be used in conjunction with:

Virtual Machiney/System Product:

System Logic and Problem Determination Guide,

Volume 1 Control Program (CP), Order No. LY20-0892

Volume 2 Conversational Monitor System (CMS), Order No. LY20-0893

System Programmer's Guide, Order No. SC19-6203

Library Guide and Master Index, Order No. GC19-6207

Virtual Machine Facility/370:

Volume 3 Remote Spooling Communication Subsystem (RSCS), Order No. GC20-1813.

For information on how to use the fourth component -- interactive problem control system -- and its facilities, the hardware and software support personnel or the installation system programmer should use:

*Virtual Machine Facility/370: Interactive Problem Control System (IPCS) User's Guide,* Order No. GC20-1823.

The following communications provide information about the VTAM Communications Network Application (VM/VCNA) Program Product.

*IBM VM/VCNA General Information,* GC27-0501

*IBM VM/VCNA Installation, Operation, and Terminal Use,* SC27-0502

## HOW TO USE THIS PUBLICATION

This publication addresses and describes the major control blocks | associated with CMS. Generally, data areas, or scratch areas that are created and exist only during the execution of a particular module are not described in this publication. In this publication, the data areas and control blocks are arranged in alphabetical order by DSECT name.

Control blocks and data areas are blocks of related information applicable to one or more system functions. They are usually defined by the DSECT instruction. The blocks can reflect current status, history information, or combinations of both, applicable to VM/SP functions. Control blocks and data areas provide the linkage and information for the user, the hardwa·e, and the programs to work as one entity for the successful execution of a job, task, or process.

For each data area or control block, a statement is given that defines the use of it. This statement is followed by a graphic representation of the arrangement of fields in the DSECT. Following this is listing-related information such as the hexadecimal displacement of the field into the DSECT, the name of the field and its definition in the listing, and a brief description of the contents and meaning of the field.

The following terms in this publication refer to the indicated support devices:

- "2305" refers to IBM 2305 Fixed Head Storage, Models 1 and 2.
- "270x" refers to IBM 2701, 2702, and 2703 Transmission Control Units or the Integrated Communications Adapter (ICA) on the System/370 Model 135.
- "2741" refers to the IBM 2741 and the 3767, unless otherwise specified.
- "3270" refers to a series of display devices, namely, the IBM 3275, 3276, 3277, 3278, and 3279 Display Stations. A specific device type is used only when a distinction is required between device types.

  Information about display terminal usage also applies to the IBM 3138, 3148, and 3158 Display Consoles when used in display mode, unless otherwise noted.

  Any information pertaining to the IBM 3284 or 3286 Printer also pertains to the IBM 3287, 3288, and 3289 printers, unless otherwise noted.

- "3262" refers to the IBM 3262 Printer, Models 1 and 11.
- "FB-512" refers to the IBM 3310 and 3370 Direct Access Storage Devices.
- "3330" refers to the IBM 3330 Disk Storage, Models 1, 2, or 11; the IBM 3333 Disk Storage and Control, Models 1 or 11; and the 3350 Direct Access Storage operating in 3330/3333 Model 1 or 3330/3333 Model 11 compatibility mode.
- "3340" refers to the IBM 3340 Disk Storage, Models A2, B1, and B2, and the 3344 Direct Access Storage Model B2.
- "3350" refers to the IBM 3350 Direct Access Storage Models A2 and B2 in native mode.
- "370x" refers to IBM 3704 and 3705 Communications Controllers.
- The term "3705" refers to the 3705 I and the 3705 II unless otherwise noted.

Note:

The symbol '**' is used in the Cross Reference listing to indicate that the field is equated with a value greater than x'FF'. Please refer to the data area mapping for the correct equate value.

Also, many data areas make use of a 'key'. This key is used in the graphics if the name (up to 8 letters) does not fit in the allotted space. For example, A*1 is the key for AFTFLG in AFTSECT. This key can then be traced in the listing to find the correct name and description associated with it.

# FIGURES

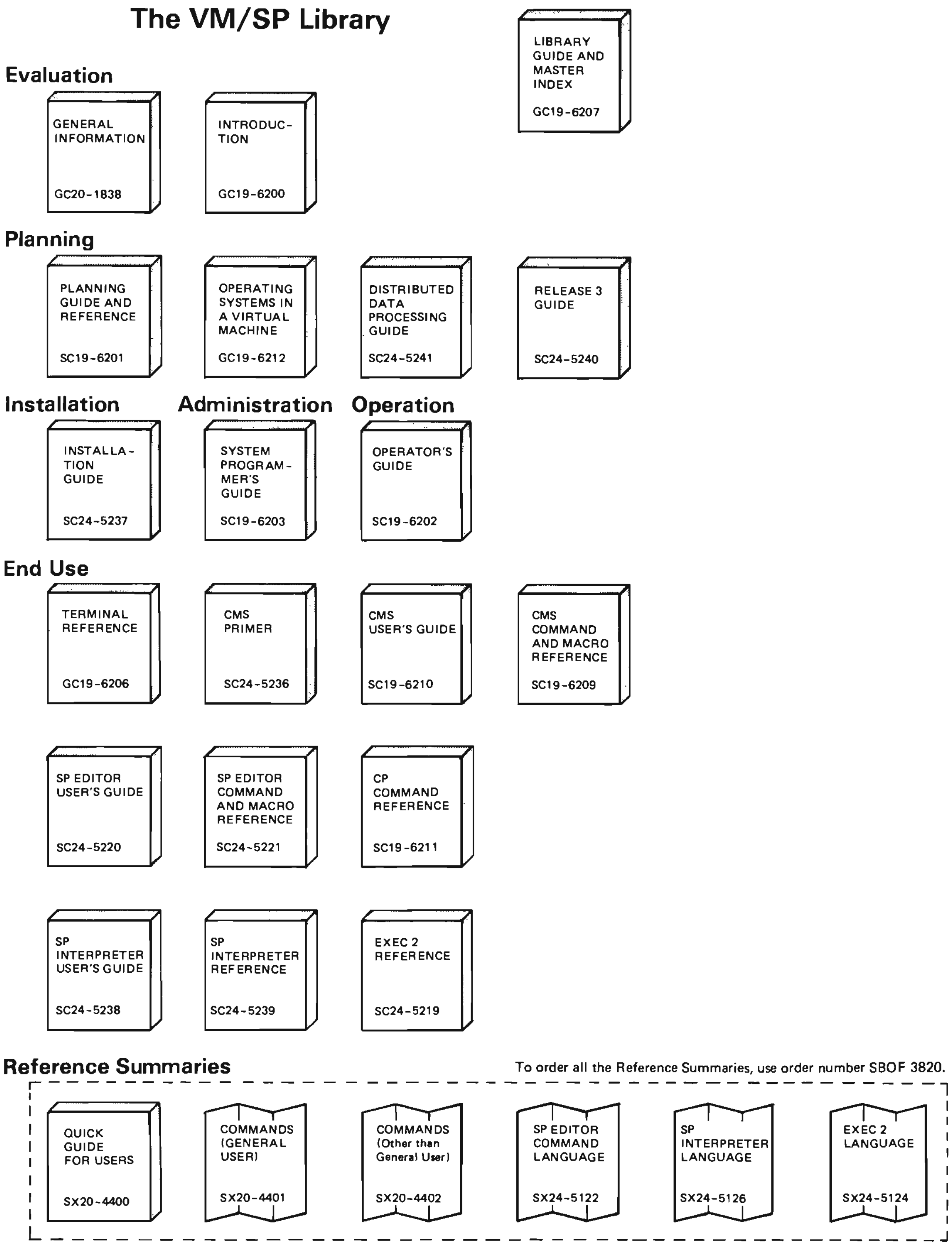

The VM/SP Library
LIBRARY GUIDE AND MASTER INDEX GC19-6207
Evaluation
GENERAL INFORMATION GC20-1838
INTRODUCTION GC19-6200
Planning
PLANNING GUIDE AND REFERENCE SC19-6201
OPERATING SYSTEMS IN A VIRTUAL MACHINE GC19-6212
DISTRIBUTED DATA PROCESSING GUIDE SC24-5241
RELEASE 3 GUIDE SC24-5240
Installation
INSTALLATION GUIDE SC24-5237
Administration
SYSTEM PROGRAMMER'S GUIDE SC19-6203
Operation
OPERATOR'S GUIDE SC19-6202
End Use
TERMINAL REFERENCE GC19-6206
CMS PRIMER SC24-5236
CMS USER'S GUIDE SC19-6210
CMS COMMAND AND MACRO REFERENCE SC19-6209
SP EDITOR USER'S GUIDE SC24-5220
SP EDITOR COMMAND AND MACRO REFERENCE SC24-5221
CP COMMAND REFERENCE SC19-6211
SP INTERPRETER USER'S GUIDE SC24-5238
SP INTERPRETER REFERENCE SC24-5239
EXEC 2 REFERENCE SC24-5219
Reference Summaries
To order all the Reference Summaries, use order number SBOF 3820.
QUICK GUIDE FOR USERS SX20-4400
COMMANDS (GENERAL USER) SX20-4401
COMMANDS (Other than General User) SX20-4402
SP EDITOR COMMAND LANGUAGE SX24-5122
SP INTERPRETER LANGUAGE SX24-5126
EXEC 2 LANGUAGE SX24-5124

Figure 1. VM/SP Library - Interrelationship of Publications (Part 1 of 2)

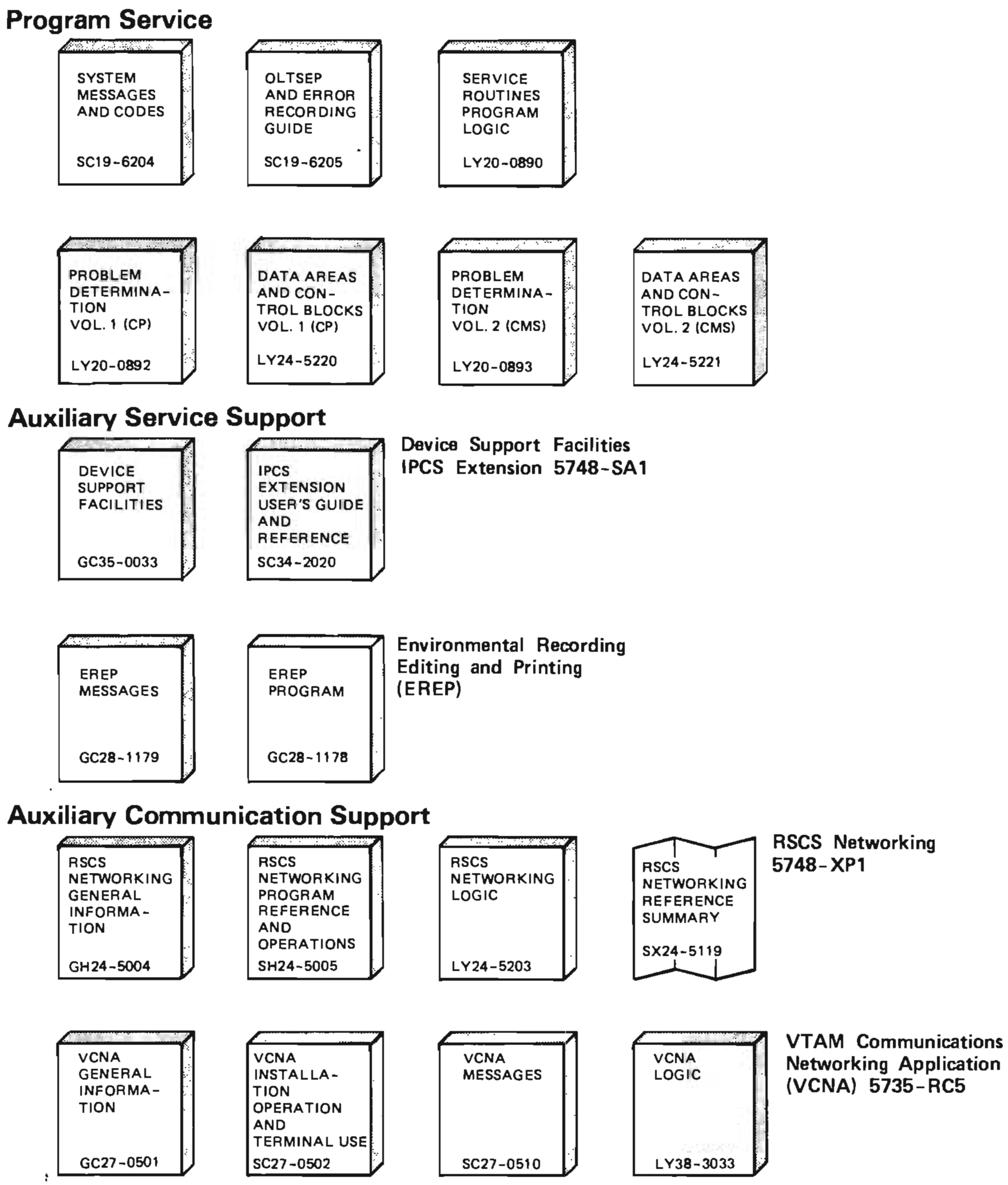
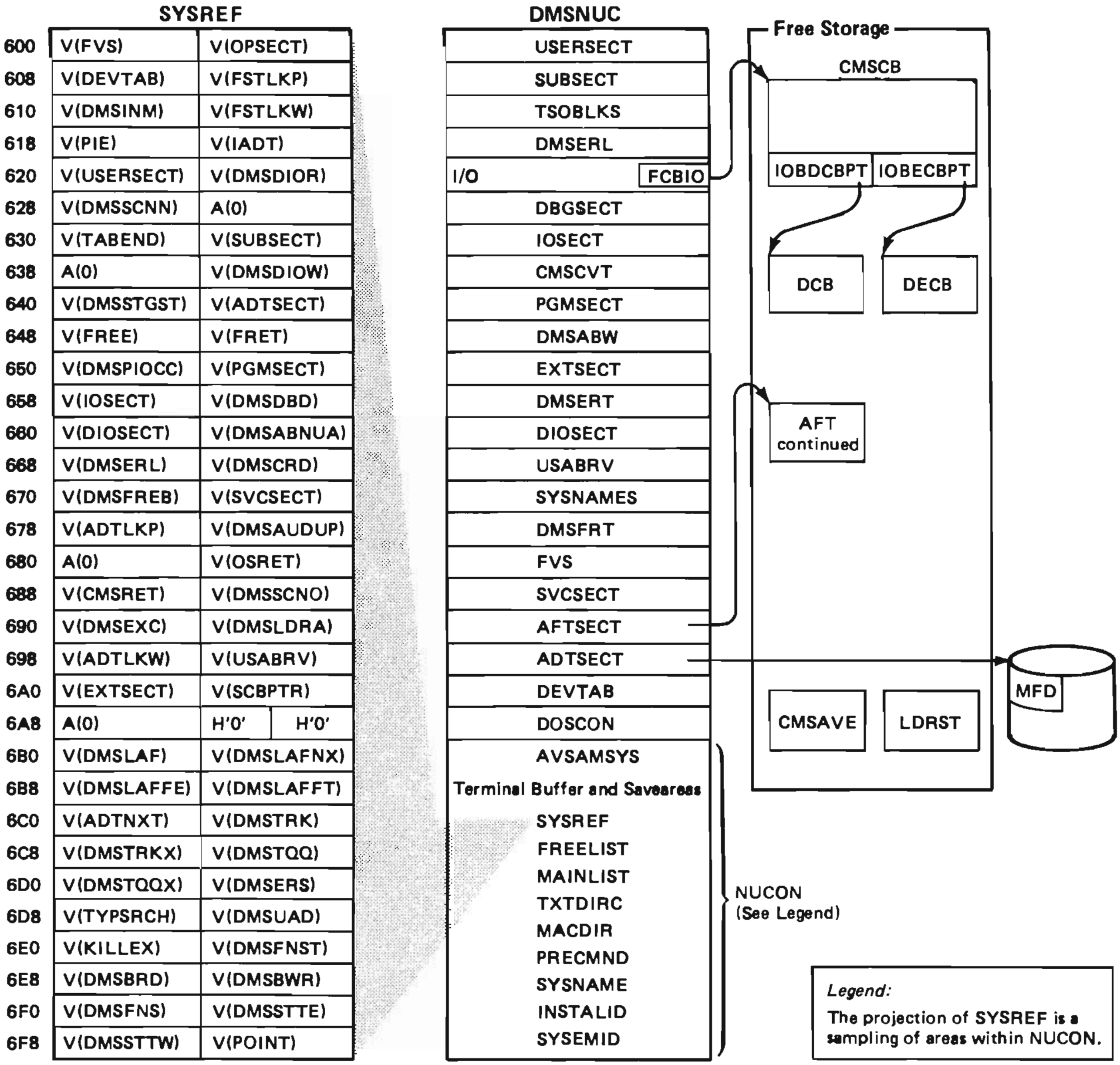

Program Service
SYSTEM MESSAGES AND CODES SC19-6204
OLTSEP AND ERROR RECORDING GUIDE SC19-6205
SERVICE ROUTINES PROGRAM LOGIC LY20-0890
PROBLEM DETERMINATION VOL. 1 (CP) LY20-0892
DATA AREAS AND CONTROL BLOCKS VOL. 1 (CP) LY24-5220
PROBLEM DETERMINATION VOL. 2 (CMS) LY20-0893
DATA AREAS AND CONTROL BLOCKS VOL. 2 (CMS) LY24-5221
Auxiliary Service Support
DEVICE SUPPORT FACILITIES GC35-0033
IPCS EXTENSION USER'S GUIDE AND REFERENCE SC34-2020
Device Support Facilities
IPCS Extension 5748-SA1
EREP MESSAGES GC28-1179
EREP PROGRAM GC28-1178
Environmental Recording Editing and Printing (EREP)
Auxiliary Communication Support
RSCS NETWORKING GENERAL INFORMATION GH24-5004
RSCS NETWORKING PROGRAM REFERENCE AND OPERATIONS SH24-5005
RSCS NETWORKING LOGIC LY24-5203
RSCS NETWORKING REFERENCE SUMMARY SX24-5119
RSCS Networking 5748-XP1
VCNA GENERAL INFORMATION GC27-0501
VCNA INSTALLATION OPERATION AND TERMINAL USE SC27-0502
VCNA MESSAGES SC27-0510
VCNA LOGIC LY38-3033
VTAM Communications Networking Application (VCNA) 5735-RC5

Figure 1. VM/SP Library - Interrelationship of Publications (Part 2 of 2)

This volume contains descriptions of the CMS data areas and control blocks. Figure 2 shows how the control blocks interrelate.



SYSREF

| | | |
|---|---|---|
| 600 | V(FVS) | V(OPSECT) |
| 608 | V(DEVTAB) | V(FSTLKP) |
| 610 | V(DMSINM) | V(FSTLKW) |
| 618 | V(PIE) | V(IADT) |
| 620 | V(USERSECT) | V(DMSDIOR) |
| 628 | V(DMSSCNN) | A(0) |
| 630 | V(TABEND) | V(SUBSECT) |
| 638 | A(0) | V(DMSDIOW) |
| 640 | V(DMSSTGST) | V(ADTSECT) |
| 648 | V(FREE) | V(FRET) |
| 650 | V(DMSPIOCC) | V(PGMSECT) |
| 658 | V(IOSECT) | V(DMSDBD) |
| 660 | V(DIOSECT) | V(DMSABNUA) |
| 668 | V(DMSERL) | V(DMSCRD) |
| 670 | V(DMSFREB) | V(SVCSECT) |
| 678 | V(ADTLKP) | V(DMSAUDUP) |
| 680 | A(0) | V(OSRET) |
| 688 | V(CMSRET) | V(DMSSCNO) |
| 690 | V(DMSEXC) | V(DMSLDRA) |
| 698 | V(ADTLKW) | V(USABRV) |
| 6A0 | V(EXTSECT) | V(SCBPTR) |
| 6A8 | A(0) | H'0' H'0' |
| 6B0 | V(DMSLAF) | V(DMSLAFNX) |
| 6B8 | V(DMSLAFFE) | V(DMSLAFFT) |
| 6C0 | V(ADTNXT) | V(DMSTRK) |
| 6C8 | V(DMSTRKX) | V(DMSTQQ) |
| 6D0 | V(DMSTQQX) | V(DMSERS) |
| 6D8 | V(TYPSRCH) | V(DMSUAD) |
| 6E0 | V(KILLEX) | V(DMSFNST) |
| 6E8 | V(DMSBRD) | V(DMSBWR) |
| 6F0 | V(DMSFNS) | V(DMSSTTE) |
| 6F8 | V(DMSSTTW) | V(POINT) |

DMSNUC

USERSECT
SUBSECT
TSOBLKS
DMSERL
I/O FCBIO
DBGSECT
IOSECT
CMSCVT
PGMSECT
DMSABW
EXTSECT
DMSERT
DIOSECT
USABRV
SYSNAMES
DMSFRT
FVS
SVCSECT
AFTSECT
ADTSECT
DEVTAB
DOSCON
AVSAMSYS
Terminal Buffer and Saveareas
SYSREF
FREELIST
MAINLIST
TXTDIRC
MACDIR
PRECMND
SYSNAME
INSTALID
SYSEMID

NUCON (See Legend)

*Legend:*
The projection of SYSREF is a sampling of areas within NUCON.

Figure 2. CMS Control Block Relationships

## ABWSECT: ABEND RECOVERY WORKSPACE

ABWSECT describes the fields used for saving registers and other data during abend recovery. V-constants in DMSABN, DMSDBG, DMSFRE, DMSITI, DMSITP, and DMSITS point to the ABWSECT block. ABWSECT is defined in CSECT DMSABW in module DMSNUC.

```
            +-----------------------------------------------+
          0 |                                               |
            =                    ABNREGS                    =
            |                                               |
            +-----------------------------------------------+
         40 |                    ABNPSW                     |
            +-----------------------+-----------------------+
         48 |         ABNRR         |                       |
            +-----------------------+                       |
         50 |                                               |
            =                    ABNPAS13                   =
            |                                               |
            |                       +-----------------------+
         90 |                       |                       |
            +-----------------------+                       |
            |                                               |
            =                    ABNCMSG                    =
            |                                               |
            |                        +----------------------+
         F0 |                        |       ABNUWRD        |
            +------------------------+----------------------+

                     SPACE FOR DMSERR PLISTS

            +-----------------------+-----------------------+
         48 |                       |                       |
            +-----------------------+                       |
            |                                               |
            =                    ABNERLST                   =
            |                                               |
            |                 +-----------------------------+
         78 |                 |                             |
            +-----------------+-----------------------------+
            |                                               |
            =                                               =
            |                                               |
            +-----------------------+-----------------------+
         F8 |        ABNLENPL       |                       |
            +-----------------------+-----------------------+
         FC |        ABNSCBN        |                       |
            +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ABNREGS | 64 | | REGISTERS AT TIME OF ABEND |
| 40 | ABNPSW | 8 | | PSW AT TIME OF ABEND |
| 48 | ABNRR | 4 | | TEMPORARY SAVEAREA |
| 4C | ABNPAS13 | 72 | | AREA PASSED TO NUCLEUS ROUTINES |

|   | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
|   | 94 | ABNCMSG | 96 |  | CONSOLE MESSAGE SAVE AREA FOR IPCS |
| \| | F4 | ABNUWRD | 4 |  | ABEND EXIT USER WORD |
| \| | SPACE FOR DMSERR PLISTS |  |  |  |  |
| \| | 4C | ABNERLST | 47 |  |  |
| \| | F8 | ABNLENPL | 4 |  | LENGTH OF THE TOKENIZED PLIST USED BY DMSABN AND DMSINT |
| \| | FC | ABNSCBN | 8 |  | USED TO SAVE A NUCLEUS EXTENSION NAME TEMPORARILY |

CROSS REFERENCE (Name  Disp  Value)

```
  ABNCMSG  0094 ..    ABNPAS13 004C ..    ABNREGS  0000 ..  | ABNSCBN  00FC ..
  ABNERLST 004C ..    ABNPSW   0040 ..    ABNRR    0048 ..  | ABNUWRD  00F4 ..
| ABNLENPL 00F8 ..
```

## ABNXTCB: ABEND EXIT CONTROL BLOCK

This block is created whenever a user establishes an abend exit; it contains information about the abend. ABNXTCB is invoked by the ABNXTCB macro.

```
        +-----------------------+-----------------------+
  0     |       ABNXPREV        |       ABNXADDR        |
        +-----------------------+-----+-----------------+
  8     |       ABNXUWRD        | A*1 | /////////////// |
        +-----------------------+-----+-----------------+
```

### Size

BLOCK LENGTH (DOUBLE WORD) (ABNXTCBL) 02

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ABNXPREV | 4 | | ADDRESS OF PREVIOUS BLOCK |
| 4 | ABNXADDR | 4 | | EXIT ROUTINE ADDRESS |
| 8 | ABNXUWRD | 4 | | USER WORD ADDRESS |
| C | ABNXFLAG | 1 | A*1 | |

Bits defined in ABNXFLAG

| | | |
|---|---|---|
| 80 | ABNXDRVN | EXIT DRIVEN FLAG |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| ABNXADDR | 0004 | .. |
| ABNXDRVN | 000C | 80 |
| ABNXFLAG | 000C | .. |
| ABNXPREV | 0000 | .. |
| ABNXTCBL | 0000 | 02 |
| ABNXUWRD | 0008 | .. |

## ADTSECT: ACTIVE DISK TABLE

ADTSECT describes the attributes of virtual disks (A-Z) accessed by a virtual machine via the ACCESS command. Space is allocated for the ADT when DMSNUC is assembled. In the ADT, certain fields are defined for use by both CMS and OS. For example, ADTHBCT field at displacement 1C (hexadecimal) into ADTSECT is also defined as OSADTVTA for use by OS simulation routines. ADTSECT is invoked by the ADT macro.

```
     +-----------------------+-----------------------+
   0 |        ADTPTR         |       ADTBWPTR        |
     +-----------------------+-----------------------+
   8 |        ADTDTA         |        ADTFDA         |
     +-----------------------+-----------------------+
  10 |        ADTDFP1        |        ADTDFP2        |
     +-----------------------+-----------------------+
  18 |        ADTDFP3        |        ADTHBCT        |
     +-----------------------+-----------------------+
  20 |        ADTFSTC        |        ADTCHBA        |
     +-----------------------+-----------------------+
  28 |        ADTCFST        |        ADTAMHO        |
     +-----------------------+-----------------------+
  30 |        ADTAMHD        |       OSADTSV1        |
     +-----------------------+-----------------------+
  38 |        ADTLEFT        |        ADTLAST        |
     +-----------------------+-----+-----+-----+-----+
  40 | ///////////////////// | A*1 | A*2 | A*3 | A*4 |
     +-----+-----+-----+-----+-----+-----+-----+-----+
  48 | A*5 | A*6 | A*7 |/////|        ADTDIOA        |
     +-----+-----+-----+-----+-----------------------+
  50 |        ADTDIOB        | ///////////////////// |
     +-----------------------+-----------------------+
  58 |        ADTMSK         |        ADTAMP1        |
     +-----------------------+-----------------------+
  60 |        ADTAMP2        |        ADTAMP3        |
     +-----------------------+-----------------------+
  68 |       ADTDAMAP        |        ADTLHBA        |
     +-----------------------+-----------------------+
  70 |        ADTLFST        |       ADTANACW        |
     +-----------------------+-----------------------+
  78 |        ADTARES        |       ADTXNREC        |
     +-----------------------+-----------------------+
  80 |       ADTXAREC        |       ADTCHMAP        |
     +-----------------------+-----------------------+
  88 | ///////////////////////////////////////////// |
     +-----------------------+-----------------------+
  90 |       ADTIDENT        |         ADTID         |
     +-----------+-----------+-----------------------+
  98 |  (cont.)  |  ADTVER   |       ADTDBSIZ        |
     +-----------+-----------+-----------------------+
  A0 |        ADTDOP         |        ADTCYL         |
     +-----------------------+-----------------------+
  A8 |        ADTMCYL        |        ADTNUM         |
     +-----------------------+-----------------------+
  B0 |        ADTUSED        |       ADTFSTSZ        |
     +-----------------------+-----------------------+
  B8 |        ADTNFST        |       ADTDCRED        |
     +-----------------------+-----------------------+
         +-----------+-----------+-----------------------+
      C0 | (cont.)   | ///////// |        ADTOFFST       |
         +-----------+ ----------+-----------------------+
      C8 |                                               |
         = ///////////////////////////////////////////// =
         |                                               |
         +-----------------------------------------------+
```

Size

LENGTH OF FULL ADT BLOCK (BYTES) (ADTLB) E0
LENGTH OF THE LABEL PORTION (ADTLABSZ) 50

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ADTPTR | 4 | | POINTER TO NEXT ADT BLOCK IN CHAIN |
| 4 | ADTBWPTR | 4 | | ADDRESS OF PREVIOUS ADT (BW CHAIN) |
| 8 | ADTDTA | 4 | | DEVICE TABLE ADDRESS IN NUCON |
| C | ADTFDA | 4 | | FILE DIRECTORY (PSTAT) ADDRESS |
| 10 | ADTDFP1 | 4 | | DIRECTORY FILE LEVEL 1 POINTER |
| 14 | ADTDFP2 | 4 | | DIRECTORY FILE LEVEL 2 POINTER |
| 18 | ADTDFP3 | 4 | | DIRECTORY FILE LEVEL 3 POINTER |
| Bits defined in ADTDFP3 | | | | |
| 14 | ADTMFDA | | | ADDRESS OF MFD |
| 10 | ADTMFDN | | | NUMBER OF DOUBLEWORDS IN MFD |
| 1C | ADTHBCT | 4 | | FST HYPERBLOCK COUNT |
| 20 | ADTFSTC | 4 | | NUMBER OF FST ENTRIES IN DIRECTORY |
| 24 | ADTCHBA | 4 | | ADDRESS OF CURRENT HYPERBLOCK |
| Bits defined in ADTCHBA | | | | |
| 24 | OSADTFST | | | ADDRESS OF 1ST O/S FST |
| 28 | ADTCFST | 4 | | DISPLACEMENT OF CURRENT FST ENTRY |
| Bits defined in ADTCFST | | | | |
| 28 | OSADTVTB | | | ADDRESS OF UPPER O/S VTOC |
| 2C | ADTAMHO | 4 | | ALLOCATION MAP HBLK WITH NEXT HOLE |
| Bits defined in ADTAMHO | | | | |
| 2C | ADT1ST | | | FIRST EMPTY RECORD |
| 30 | ADTAMHD | 4 | | DISPLACEMENT INTO HBLK DATA OF NEXT HOLE |
| Bits defined in ADTAMHD | | | | |
| 30 | OSADTDSK | | | OS DISK ADDRESS |
| 34 | OSADTSV1 | 4 | | O/S SAVE AREA |
| 38 | ADTLEFT | 4 | | NUMBER OF RECORDS LEFT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3C | ADTLAST | 4 | | INDICATOR FOR LAST RECORD |
| 40 | | 4 | | RESERVED |
| 44 | ADTM | 1 | | MODE LETTER (A,B,C,...,X,Y,Z) |
| 45 | ADTMX | 1 | | EXTENSION-OF-MODE LETTER |
| 46 | ADTFLG1 | 1 | | FLAG BYTE 1 |
| Bits defined in ADTFLG1 | | | | |
| 80 | ADTFSF | | | ADT BLOCK IN FREE STORAGE |
| 40 | ADTFRO | | | CMS READ-ONLY DISK (ATTACH & READY) |
| 20 | ADTFRW | | | CMS READ-WRITE DISK (ATTACH & READY) |
| 10 | ADTFFSTF | | | 1ST FST HYPBLK IS IN FREE STORAGE |
| 08 | ADTFFSTV | | | FST HYPBLKS ARE OF VARYING LENGTH |
| 04 | ADTFQQF | | | 200-BYTE QQMSK IS IN FREE STORAGE |
| 02 | ADTROX | | | THIS DISK HAS READ ONLY EXTENSION(S) |
| 01 | ADTFMIN | | | ADT BLOCK IS MINIMUM SIZE |
| 47 | ADTFLG2 | 1 | | FLAG BYTE 2 |
| Bits defined in ADTFLG2 | | | | |
| F8 | ADTFALUF | | | ALL UFD IS IN CORE |
| 80 | ADTFMFD | | | MFD IS IN CORE |
| 40 | ADTFALNM | | | ALL FILENAMES ARE IN CORE |
| 20 | ADTFALTY | | | ALL FILETYPES ARE IN CORE |
| 18 | ADTFALMD | | | ALL MODES (0-5) ARE IN CORE |
| 10 | ADTFMDRO | | | MODES 1-5 ARE IN CORE |
| 04 | ADTFROS | | | INDICATES THIS IS AN OS DISK |
| 02 | ADTPSTM | | | ADT PSTAT CHAIN MODIFIED |
| 01 | ADTFDOS | | | INDICATES THIS IS A DOS DISK |
| 48 | ADTFLG3 | 1 | | FLAG BYTE 3 |
| Bits defined in ADTFLG3 | | | | |
| 80 | ADTFUPD1 | | | 1ST HALF OF UPDISK CALLED |
| 40 | ADTFXCHN | | | EXTRA CHAIN LINK(S) NEED TO BE RETURNED |
| 20 | ADTFRWOS | | | READ-WRITE OS OR DOS DISK |
| 10 | ADTFSORT | | | ALL FST HYPERBLOCKS AND FST ENTRIES SORTED |
| 08 | ADTFORCE | | | CMS/DOS/OS DISK FORCED READ-ONLY |
| 04 | ADTFNOAB | | | FOR DMSAUD - DON'T ABEND IF DISK ERROR |
| 49 | ADTFLG4 | 1 | | FLAG BYTE 4 |
| Bits defined in ADTFLG4 | | | | |
| 80 | ADTEDF | | | ENHANCED-DISK-FORMAT DISK |
| 40 | ADTEDFAE | | | EDF ACCESS ERASE DONE |
| 20 | ADTADDED | | | ADT ADDED TO ADT CHAIN BY ADTLKP |
| 4A | ADTFTYP | 1 | | FILE TYPE FLAG BYTE |
| 4B | | 1 | | RESERVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 4C | ADTDIOA | 4 | | DISK CONSTANTS TABLE IN DMSDIO |
| Bits defined in ADTDIOA | | | | |
| 4C | ADTFBABF | | | FBA BLOCK TO CMS BLOCK FACTOR |
| 50 | ADTDIOB | 4 | | SECTOR NUMBER TABLE IN DMSDIO |
| Bits defined in ADTDIOB | | | | |
| 50 | ADTFBALB | | | LAST FBA BLOCK OF THE MINIDISK |
| 58 | ADT2ND | 0 | | |
| 58 | ADTMSK | 4 | | 800-BYTE (PQMSK) BIT MASK ADDRESS OR ALLOCATION MAP DATA HBLK CHAIN |
| 5C | ADTAMP1 | 4 | | ALLOCATION MAP LEVEL 1 POINTER |
| 60 | ADTAMP2 | 4 | | ALLOCATION MAP LEVEL 2 POINTER |
| 64 | ADTAMP3 | 4 | | ALLOCATION MAP LEVEL 3 POINTER |
| 68 | ADTDAMAP | 4 | | DEALLOCATION MAP HBLK CHAIN |
| Bits defined in ADTDAMAP | | | | |
| 68 | ADTPQM3 | | | NUMBER OF DOUBLEWORDS IN PQMSK |
| 64 | ADTPQM2 | | | NUMBER OF BIT MASK BYTES |
| 60 | ADTPQM1 | | | NUMBER OF NON-MFD MASK BYTES |
| 5C | ADTQQM | | | 200-BYTE (PQQMSK) BIT-MASK ADDRESS |
| 6C | ADTLHBA | 4 | | POINTER TO LAST FST HYPER-BLOCK |
| 70 | ADTLFST | 4 | | DISPLACEMENT OF LAST FST IN LAST HYPER-BLOCK |
| 74 | ADTANACW | 4 | | ALTERNATE NUMBER OF ACTIVE WRITE FILES |
| Bits defined in ADTANACW | | | | |
| 76 | ADTNACW | | | NUMBER OF ACTIVE WRITE FILES |
| 78 | ADTARES | 4 | | ALTERNATE RESERVE-COUNT |
| Bits defined in ADTARES | | | | |
| 7A | ADTRES | | | RESERVE-COUNT (RESRVCNT) |
| 7C | ADTXNREC | 4 | | NUMBER DOUBLEWORDS OF EXTRA CHAIN LINK RECORDS |
| 80 | ADTXAREC | 4 | | ADDRESS OF BLOCK OF EXTRA CHAIN LINK RECORDS |
| 84 | ADTCHMAP | 4 | | CHANGE MAP HBLK CHAIN |
| 88 | | 4 | | RESERVED |
| MAPPING OF VOLUME TABLE | | | | |
| 90 | ADTIDENT | 4 | | VOLUME START / LABEL IDENTIFIER |
| 94 | ADTID | 6 | | VOLUME START / VOLUME IDENTIFIER |
| 9A | ADTVER | 2 | | VERSION LEVEL |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 9C | ADTDBSIZ | 4 | | DISK BLOCK SIZE |
| A0 | ADTDOP | 4 | | DISK ORIGIN POINTER |
| A4 | ADTCYL | 4 | | NUMBER OF FORMATTED CYLINDERS ON DISK |
| A8 | ADTMCYL | 4 | | MAXIMUM NUMBER FORMATTED CYLINDERS ON DISK |
| AC | ADTNUM | 4 | | DISK SIZE IN BLOCKS |
| B0 | ADTUSED | 4 | | NUMBER OF DISK BLOCKS IN USE |
| B4 | ADTFSTSZ | 4 | | SIZE OF FST |
| B8 | ADTNFST | 4 | | NUMBER OF FST'S PER BLOCK |
| BC | ADTDCRED | 6 | | DISK CREATION DATE (YYMMDDHHMMSS) |
| C2 | | 2 | | RESERVED |
| C4 | ADTOFFST | 4 | | DISK OFFSET WHEN RESERVED |
| C8 | | 24 | | RESERVED |

MAPPING OF OS FIELDS IN VOLUME LABEL

| | | |
|---|---|---|
| 320 | ADTRL | LOGICAL RECORD LENGTH |
| 09B | OSADTVTA | VTOC ADDRESS OF O/S PACK |
| 058 | ADTLBM | LENGTH OF MINIMUM ADT BLOCK (BYTES) IN DOUBLEWORDS |
| 01C | ADTLD | LENGTH OF FULL ADT BLOCK |
| 00B | ADTLDM | LENGTH OF MINIMUM ADT BLOCK |
| 00A | ADTMXBML | MAXIMUM BIT MAP LENGTH |

NUCON DEVICE TABLE OFFSETS

| | | |
|---|---|---|
| 04 | DTAS | SYMBOLIC DEVICE NAME |
| 03 | DTADT | DEVICE TYPE BYTE |
| 02 | DTADC | DEVICE CLASS |
| 00 | DTAD | DEVICE NUMBER |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| ADTADDED | 0049 | 20 |
| ADTAMHD | 0030 | .. |
| ADTAMHO | 002C | .. |
| ADTAMP1 | 005C | .. |
| ADTAMP2 | 0060 | .. |
| ADTAMP3 | 0064 | .. |
| ADTANACW | 0074 | .. |
| ADTARES | 0078 | .. |
| ADTBWPTR | 0004 | .. |
| ADTCFST | 0028 | .. |
| ADTCHBA | 0024 | .. |
| ADTCHMAP | 0084 | .. |
| ADTCYL | 00A4 | .. |
| ADTDAMAP | 0068 | .. |
| ADTDBSIZ | 009C | .. |
| ADTDCRED | 00BC | .. |
| ADTDFP1 | 0010 | .. |
| ADTDFP2 | 0014 | .. |
| ADTDFP3 | 0018 | .. |
| ADTDIOA | 004C | .. |
| ADTDIOB | 0050 | .. |
| ADTDOP | 00A0 | .. |
| ADTDTA | 0008 | .. |
| ADTEDF | 0049 | 80 |
| ADTEDFAE | 0049 | 40 |
| ADTFALMD | 0047 | 18 |
| ADTFALNM | 0047 | 40 |
| ADTFALTY | 0047 | 20 |
| ADTFALUF | 0047 | F8 |
| ADTFBABF | 004C | 4C |
| ADTFBALB | 0050 | 50 |
| ADTFDA | 000C | .. |
| ADTFDOS | 0047 | 01 |
| ADTFFSTF | 0046 | 10 |
| ADTFFSTV | 0046 | 08 |
| ADTFLG1 | 0046 | .. |
| ADTFLG2 | 0047 | .. |
| ADTFLG3 | 0048 | .. |
| ADTFLG4 | 0049 | .. |
| ADTFMDRO | 0047 | 10 |
| ADTFMFD | 0047 | 80 |
| ADTFMIN | 0046 | 01 |
| ADTFNOAB | 0048 | 04 |
| ADTFORCE | 0048 | 08 |
| ADTFQQF | 0046 | 04 |
| ADTFRO | 0046 | 40 |
| ADTFROS | 0047 | 04 |
| ADTFRW | 0046 | 20 |
| ADTFRWOS | 0048 | 20 |
| ADTFSF | 0046 | 80 |
| ADTFSORT | 0048 | 10 |
| ADTFSTC | 0020 | .. |
| ADTFSTSZ | 00B4 | .. |
| ADTFTYP | 004A | .. |
| ADTFUPD1 | 0048 | 80 |
| ADTFXCHN | 0048 | 40 |
| ADTHBCT | 001C | .. |
| ADTID | 0094 | .. |
| ADTIDENT | 0090 | .. |
| ADTLABSZ | 0000 | 50 |
| ADTLAST | 003C | .. |
| ADTLB | 0000 | E0 |
| ADTLBM | 00C4 | 58 |
| ADTLD | 00C4 | 1C |
| ADTLDM | 00C4 | 0B |
| ADTLEFT | 0038 | .. |
| ADTLFST | 0070 | .. |
| ADTLHBA | 006C | .. |
| ADTM | 0044 | .. |
| ADTMCYL | 00A8 | .. |
| ADTMFDA | 0018 | 14 |
| ADTMFDN | 0018 | 10 |
| ADTMSK | 0058 | .. |
| ADTMX | 0045 | .. |
| ADTMXBML | 00C4 | 0A |
| ADTNACW | 0074 | 76 |
| ADTNFST | 00B8 | .. |
| ADTNUM | 00AC | .. |
| ADTOFFST | 00C4 | .. |
| ADTPQM1 | 0068 | 60 |
| ADTPQM2 | 0068 | 64 |
| ADTPQM3 | 0068 | 68 |
| ADTPSTM | 0047 | 02 |
| ADTPTR | 0000 | .. |
| ADTQQM | 0068 | 5C |
| ADTRES | 0078 | 7A |
| ADTRL | 00C4 | 20 |
| ADTROX | 0046 | 02 |
| ADTUSED | 00B0 | .. |
| ADTVER | 009A | .. |
| ADTXAREC | 0080 | .. |
| ADTXNREC | 007C | .. |
| ADT1ST | 002C | 2C |
| ADT2ND | 0058 | .. |
| DTAD | 00C4 | 00 |
| DTADC | 00C4 | 02 |
| DTADT | 00C4 | 03 |
| DTAS | 00C4 | 04 |
| OSADTDSK | 0030 | 30 |
| OSADTFST | 0024 | 24 |
| OSADTSV1 | 0034 | .. |
| OSADTVTA | 00C4 | 9B |
| OSADTVTB | 0028 | 28 |

## AFTSECT: ACTIVE FILE TABLE

AFTSECT is used to describe a file currently open for a read or write. The AFT is created when a file is opened. Space for up to five AFTs is available in DMSNUC; any other must reside in free storage. AFTSECT is invoked via the AFT macro.

```
     +---------------------------------------+
   0 |       AFTPTR      |      AFTADT       |
     +-------------------+-------------------+
   8 |  AFTCLD |  AFTCLN |      AFTCLA       |
     +---------+---------+-------------------+
  10 |  AFTDBD |  AFTDBN |      AFTDBA       |
     +---------+---------+-------------------+
  18 |                                       |
     =                AFTCLB                 =
     |                                       |
     +-------------------+-------------------+
  18 |      AFTUFP5      |      AFTUFP4      |
     +-------------------+-------------------+
  20 |      AFTUFP3      |      AFTUFP2      |
     +-------------------+-------------------+
  28 |      AFTUFP1      |     AFTRDBLK      |
     +-------------------+-------------------+
  30 |      AFTRDID      |     AFTLSTRC      |
     +-------------------+-------------------+
  38 |      AFTARP       |      AFTAWP       |
     +-------------------+-------------------+
  40 |      AFTPHYP      |     AFTSVBLK      |
     +-------------------+-------------------+
  48 |  AFTSVBLK (cont.) |     AFTSVFP4      |
     +-------------------+-------------------+
  50 |  AFTSVFP4 (cont.) |     AFTSVFP3      |
     +-------------------+-------------------+
  58 |  AFTSVFP3 (cont.) |     AFTSVFP2      |
     +-------------------+-------------------+
  60 |  AFTSVFP2 (cont.) |     AFTSVFP1      |
     +-------------------+-------------------+
  68 |  AFTSVFP1 (cont.) |     AFTUBFAD      |
     +-------------------+-------------------+
  70 |     AFTUBFLG      |     AFTMXBLK      |
     +-------------------+-------------------+
  78 |     AFTBLKWD      |     AFTEBLIN      |
     +-------------------+----+--------------+
  80 |     AFTEBDSP      |A*1 |   AFTPFST    |
     +---------+---------+----+--------------+
  88 |  AFTIN  |  AFTID  |      AFTFCLA      |
     +---------+---------+----+-----+--------+
  90 | AFTFCLX | AFTCLDX |A*2 |/////|AFTOCLDX|
     +---------+---------+----+-----+--------+
  98 |                 AFTN                  |
     +---------------------------------------+
  A0 |                 AFTT                  |
     +-------------------+---------+---------+
  A8 |       AFTD        |  AFTWP  |  AFTRP  |
     +-------------------+---------+----+----+
  B0 |  AFTM   |  AFTIC  | AFTFCL  |A*3 |A*4 |
     +---------+---------+---------+----+----+
  B8 |       AFTIL       | AFTDBC  |  AFTYR  |
     +-------------------+---------+---------+
     +-----------------------+-----------+-----------+
  C0 |        AFTFOP         |        AFTADBC        |
     +-----------------------+-----+-----+-----------+
  C8 |        AFTAIC         | A*5 | A*6 | AFTADATI  |
     +-----------------------+-----+-----+-----------+
  D0 |    AFTADATI (cont.)   | ///////////////////// |
     +-----------------------+-----------------------+
```

Size

| | | |
|---|---|---|
| LENGTH OF AFT BLOCK IN BYTES | (AFTLB) | D8 |
| LENGTH OF AFT BLOCK IN DOUBLEWORDS | (AFTLD) | 1B |
| LENGTH OF AN EDF FST | (AFTL2) | 40 |
| LENGTH OF AFT BLOCK | (AFTL) | 28 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | AFTPTR | 4 | | POINTER TO NEXT AFT BLOCK IN CHAIN |
| Bits defined in AFTPTR | | | | |
| 40 | AFTFSF | | | AFTPTR BIT INDICATES IN FREE STORAGE |
| 4 | AFTADT | 4 | | POINTER TO ACTIVE DISK TABLE |
| 8 | AFTCLD | 2 | | DISK ADDRESS OF CURRENT CHAIN LINK |
| A | AFTCLN | 2 | | NUMBER OF CURRENT CHAIN LINK |
| C | AFTCLA | 4 | | CORE ADDRESS OF CHAIN LINK BUFFER |
| 10 | AFTDBD | 2 | | DISK ADDRESS OF CURRENT DATA BLOCK |
| 12 | AFTDBN | 2 | | NUMBER OF CURRENT DATA BLOCK |
| 14 | AFTDBA | 4 | | CORE ADDRESS OF CURRENT DATA BLOCK |
| 18 | AFTCLB | 80 | | CHAIN LINK BUFFER FROM 1ST CHAIN LINK |
| 18 | AFTUFP5 | 4 | | 5TH LEVEL POINTER HBLK CHAIN |
| 1C | AFTUFP4 | 4 | | 4TH LEVEL POINTER HBLK CHAIN |
| 20 | AFTUFP3 | 4 | | 3RD LEVEL POINTER HBLK CHAIN |
| 24 | AFTUFP2 | 4 | | 2ND LEVEL POINTER HBLK CHAIN |
| 28 | AFTUFP1 | 4 | | 1ST LEVEL POINTER HBLK CHAIN |
| 2C | AFTRDBLK | 4 | | DATA BLOCK CHAIN |
| 30 | AFTRDID | 4 | | ITEM DISPLACEMENT IN BLOCK |
| 34 | AFTLSTRC | 4 | | LAST RECORD NUMBER PROCESSED |
| 38 | AFTARP | 4 | | ALTERNATE READ POINTER |
| 3C | AFTAWP | 4 | | ALTERNATE WRITE POINTER |
| 40 | AFTPHYP | 4 | | A(HBLK HOLDING STATIC FST) |
| 44 | AFTSVBLK | 8 | | SAVE DATA BLOCK DISPLACEMENT AND NUMBER |
| 4C | AFTSVFP4 | 8 | | SAVE PTR4 BLOCK DISPLACEMENT AND NUMBER |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 54 | AFTSVFP3 | 8 | | SAVE PTR3 BLOCK DISPLACEMENT AND NUMBER |
| 5C | AFTSVFP2 | 8 | | SAVE PTR2 BLOCK DISPLACEMENT AND NUMBER |
| 64 | AFTSVFP1 | 8 | | SAVE PTR1 BLOCK DISPLACEMENT AND NUMBER |
| 6C | AFTUBFAD | 4 | | SAVE USER BUFFER ADDRESS |
| 70 | AFTUBFLG | 4 | | SAVE USER BUFFER LENGTH |
| 74 | AFTMXBLK | 4 | | MAXIMUM NUMBER OF ENTRIES IN A PTR BLOCK |
| 78 | AFTBLKWD | 4 | | SAVE USER BUFFER DISPLACEMENT BLKWR |
| 79 | AFTBFORM | 1 | | SAVE REAL FORMAT DURING BLOCK WORD |
| 7A | AFTBPRCT | 2 | | SAVE PREVIOUS RESIDUAL CT FOR V-FORM |
| 7C | AFTEBLIN | 4 | | CURRENT ITEM NUMBER |
| 80 | AFTEBDSP | 4 | | CURRENT ITEM DISPLACEMENT |
| 84 | AFTFLG | 1 | A*1 | FLAG BYTE |
| Bits defined in AFTFLG | | | | |
| 80 | AFTUSED | | | ACTIVE FILE TABLE BLOCK IN USE |
| 20 | AFTICF | | | FIRST CHAIN LINK IN CORE FLAG |
| 10 | AFTFBA | | | FULL BUFFER ASSIGNED |
| 08 | AFTDBF | | | DATA BLOCK IN CORE FLAG |
| 04 | AFTWRT | | | ACTIVE WRITE |
| 02 | AFTRD | | | ACTIVE READ |
| 01 | AFTFULD | | | FULL-DISK SPECIAL CASE |
| 85 | AFTPFST | 3 | | POINTER TO (STATIC) FST-ENTRY |
| 88 | AFTIN | 2 | | CURRENT ITEM NUMBER |
| 8A | AFTID | 2 | | DISPLACEMENT OF CURRENT ITEM IN DATA BLOCK |
| 8C | AFTFCLA | 4 | | CORE ADDRESS OF FIRST CHAIN LINK |
| 90 | AFTFCLX | 2 | | DISK ADDRESS OF SWAPPED FCL |
| 92 | AFTCLDX | 2 | | DISK ADDRESS OF SWAPPED CHAIN LINK |
| 94 | AFTFLG2 | 1 | A*2 | SECOND FLAG-BYTE |
| Bits defined in AFTFLG2 | | | | |
| 80 | AFTNEW | | | BRAND NEW FILE |
| 80 | AFTOVLAP | | | LENGTH ACROSS TWO DATA BLOCKS |
| 40 | AFTOLDCL | | | CURRENT CHAIN LINK EXISTED PREVIOUSLY |
| 20 | AFTCLX | | | ALTERNATE CHAIN-LINK ASSIGNED/IMPLIED |
| 10 | AFTREAD | | | FILE IS BEING READ |
| 08 | AFTVLGTH | | | LENGTH MUST BE HANDLED FOR V-FORM |
| 04 | AFTVLREC | | | WRITING THE LAST V-FORMAT RECORD |
| 02 | AFTERR8 | | | ERROR 8 : USER BUFFER LENGTH TOO |
| 01 | SAMELEN | | | FORCE SAME LENGTH UPDATE |
| 95 | | 1 | | RESERVED |
| 96 | AFTOCLDX | 2 | | OLD VALUE (IF ANY) OF AFTCLDX |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 98 | AFTFST | 8 | | COPY OF FST BLOCK IMBEDDED IN AFT BLOCK |
| FILE STATUS TABLE (FILE DIRECTORY) BLOCK | | | | |
| 98 | AFTN | 8 | | FILE NAME |
| A0 | AFTT | 8 | | FILE TYPE |
| A8 | AFTD | 4 | | DATE/TIME LAST WRITTEN |
| AC | AFTWP | 2 | | WRITE POINTER (ITEM #) |
| AE | AFTRP | 2 | | READ POINTER (ITEM #) |
| B0 | AFTM | 2 | | FILE MODE |
| B2 | AFTIC | 2 | | ITEM COUNT |
| B4 | AFTFCL | 2 | | FIRST CHAIN LINK |
| B6 | AFTFV | 1 | A*3 | FIXED(F)/VARIABLE(V) FLAG |
| B7 | AFTFB | 1 | A*4 | FLAG BYTE (IF USED) |
| Bits defined in AFTFB | | | | |
| (applicable only to "STATEFST" copy of FST-ENTRY after successful "STATE" or "STATEW" call.) | | | | |
| C0 | AFTFRWX | | | READ-ONLY EXTENSION OF READ-ONLY DISK |
| 80 | AFTFRW | | | READ/WRITE DISK |
| 40 | AFTFROX | | | READ-ONLY EXTENSION OF READ/WRITE DISK |
| 07 | AFTFACT | | | FILE "ACTIVE" - ONE OF THE FOLLOWING: |
| 04 | AFTFAR | | | FILE ACTIVE FOR READING |
| 02 | AFTFAW | | | FILE ACTIVE FOR WRITING |
| 01 | AFTFAP | | | FILE ACTIVE FROM A "POINT" |
| 00 | AFTFRO | | | READ-ONLY DISK |
| Applicable to FSCBFLG in plist | | | | |
| 40 | AFTITAV | | | ITEM AVAILABLE |
| 20 | AFTEPL | | | EXTENDED PLIST |
| 01 | AFTRECAV | | | PREVIOUS RECORD NULL |
| B8 | AFTIL | | | (MAXIMUM) ITEM LENGTH |
| BC | AFTDBC | 2 | | NUMBER OF DATA BLOCKS |
| BE | AFTYR | 2 | | YEAR |
| FST EDF EXTENSION | | | | |
| C0 | AFTFOP | 4 | | ALTERNATE FILE ORIGIN POINTER |
| C4 | AFTADBC | 4 | | ALTERNATE NUMBER OF DATA BLOCKS |
| C8 | AFTAIC | 4 | | ALTERNATE ITEM COUNT |
| CC | AFTNLVL | 1 | A*5 | NUMBER OF POINTER BLOCK LEVELS |
| CD | AFTPTRSZ | 1 | A*6 | LENGTH OF A POINTER ELEMENT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| CE | AFTADATI | 6 | | ALTERNATE DATE/TIME(YY MM DD HH MM SS) |
| FST HYPER-BLOCK PARAMETERS | | | | |
| 320 | AFTBKWD | 4 | | BACKWARD POINTER (TO PREVIOUS HYPERBLK IN CORE) |
| 324 | AFTFWDP | 4 | | FORWARD POINTER (TO NEXT HYPERBLOCK IN CORE) |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| AFTADATI | 00CE | .. |
| AFTADBC | 00C4 | .. |
| AFTADT | 0004 | .. |
| AFTAIC | 00C8 | .. |
| AFTARP | 0038 | .. |
| AFTAWP | 003C | .. |
| AFTBFORM | 0079 | .. |
| AFTBKWD | 00CE | ** |
| AFTBLKWD | 0078 | .. |
| AFTBPRCT | 007A | .. |
| AFTCLA | 000C | .. |
| AFTCLB | 0018 | .. |
| AFTCLD | 0008 | .. |
| AFTCLDX | 0092 | .. |
| AFTCLN | 000A | .. |
| AFTCLX | 0094 | 20 |
| AFTD | 00A8 | .. |
| AFTDBA | 0014 | .. |
| AFTDBC | 00BC | .. |
| AFTDBD | 0010 | .. |
| AFTDBF | 0084 | 08 |
| AFTDBN | 0012 | .. |
| AFTEBDSP | 0080 | .. |
| AFTEBLIN | 007C | .. |
| AFTEPL | 00B7 | 20 |
| AFTERR8 | 0094 | 02 |
| AFTFACT | 00B7 | 07 |
| AFTFAP | 00B7 | 01 |
| AFTFAR | 00B7 | 04 |
| AFTFAW | 00B7 | 02 |
| AFTFB | 00B7 | .. |
| AFTFBA | 0084 | 10 |
| AFTFCL | 00B4 | .. |
| AFTFCLA | 008C | .. |
| AFTFCLX | 0090 | .. |
| AFTFLG | 0084 | .. |
| AFTFLG2 | 0094 | .. |
| AFTFOP | 00C0 | .. |
| AFTFRO | 00B7 | 00 |
| AFTFROX | 00B7 | 40 |
| AFTFRW | 00B7 | 80 |
| AFTFRWX | 00B7 | C0 |
| AFTFSF | 0000 | 40 |
| AFTFST | 0098 | .. |
| AFTFULD | 0084 | 01 |
| AFTFV | 00B6 | .. |
| AFTFWDP | 00CE | ** |
| AFTIC | 00B2 | .. |
| AFTICF | 0084 | 20 |
| AFTID | 008A | .. |
| AFTIL | 00B8 | .. |
| AFTIN | 0088 | .. |
| AFTITAV | 00B7 | 40 |
| AFTL | .... | 28 |
| AFTLB | .... | D8 |
| AFTLD | .... | BD |
| AFTLSTRC | 0034 | .. |
| AFTL2 | .... | 40 |
| AFTM | 00B0 | .. |
| AFTMXBLK | 0074 | .. |
| AFTN | 0098 | .. |
| AFTNEW | 0094 | 80 |
| AFTNLVL | 00CC | .. |
| AFTOCLDX | 0096 | .. |
| AFTOLDCL | 0094 | 40 |
| AFTOVLAP | 0094 | 80 |
| AFTPFST | 0085 | .. |
| AFTPHYP | 0040 | .. |
| AFTPTR | 0000 | .. |
| AFTPTRSZ | 00CD | .. |
| AFTRD | 0084 | 02 |
| AFTRDBLK | 002C | .. |
| AFTRDID | 0030 | .. |
| AFTREAD | 0094 | 10 |
| AFTRECAV | 00B7 | 01 |
| AFTRP | 00AE | .. |
| AFTSVBLK | 0044 | .. |
| AFTSVFP1 | 0064 | .. |
| AFTSVFP2 | 005C | .. |
| AFTSVFP3 | 0054 | .. |
| AFTSVFP4 | 004C | .. |
| AFTT | 00A0 | .. |
| AFTUBFAD | 006C | .. |
| AFTUBFLG | 0070 | .. |
| AFTUFP1 | 0028 | .. |
| AFTUFP2 | 0024 | .. |
| AFTUFP3 | 0020 | .. |
| AFTUFP4 | 001C | .. |
| AFTUFP5 | 0018 | .. |
| AFTUSED | 0084 | 80 |
| AFTVLGTH | 0094 | 08 |
| AFTVLREC | 0094 | 04 |
| AFTWP | 00AC | .. |
| AFTWRT | 0084 | 04 |
| AFTYR | 00BE | .. |
| SAMELEN | 0094 | 01 |

## ANCHSECT: ANCHOR TABLE

ANCHSECT defines the VSE anchor table. This DSECT is used by DMSDOS when a CDLOAD (SVC 65) is issued, and the specified phase is not found in either the CMSVSAM or CMSAMS segment. In this case, the specified phase is loaded either from a CMS DOSLIB or a VSE core image library, and the name, load point, entry point and the length in bytes, of the phase are saved in an available slot in the anchor table. ANCHSECT is invoked by the ANCHTAB macro.

```
         +-----------------------+-----------------------+
       0 |       ANCHENDA        | ///////////////////// |
         +-----------------------+-----------------------+
       8 |       ANCHCBS         |        ANCHOAL        |
         +-----------------------+-----------------------+
      10 |                   ANCHPHNM                    |
         +-----------------------+-----------------------+
      18 |       ANCHLDPT        |        ANCHENTP       |
         +-----+-----------------+-----------------------+
      20 | A*1 |    ANCHPHLN     |
         +-----+-----------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ANCHENDA | 4 | | END ADDRESS OF ANCHOR TABLE |
| 8 | ANCHCBS | 4 | | POINTER TO VSAM "AMCB" TABLE |
| FOLLOWED BY ONE OR MORE ANCHOR-TABLE ENTRIES OF THE FOLLOWING FORMAT: | | | | |
| C | ANCHOAL | 4 | | POINTER TO VSAM "OAL" (OPEN ACB) TABLE |
| 10 | ANCHPHNM | 8 | | PHASE NAME |
| 18 | ANCHLDPT | 4 | | LOAD POINT |
| 1C | ANCHENTP | 4 | | ENTRY POINT |
| 20 | ANCHSTSW | 1 | A*1 | STATUS SWITCH |
| Bits defined in ANCHSTSW | | | | |
| 7F | ANCHINST | | | PHASE IS ALREADY IN STORAGE |
| FF | ANCHRPJL | | | REQUESTED PHASE JUST LOADED BY ANOTHER TASK (ONLY IF AP=YES) |
| 14 | ANCHLENG | | | LENGTH OF ONE ANCHOR-TABLE ENTRY |
| 00 | ANCHMLOD | | | PHASE MUST BE LOADED |
| | ANCHSIZ | | | 1024 DEFAULT SIZE OF ANCHOR TABLE IN BYTES |
| 21 | ANCHPHLN | 3 | | LENGTH OF PHASE IN BYTES |

**CROSS REFERENCE** (Name Disp Value)

```
ANCHCBS  0008 ..    ANCHLDPT 0018 ..    ANCHOAL  000C ..    ANCHRPJL 0020 FF
ANCHENDA 0000 ..    ANCHLENG 0020 14    ANCHPHLN 0021 ..    ANCHSIZ  0020 **
ANCHENTP 001C ..    ANCHMLOD 0020 00    ANCHPHNM 0010 ..    ANCHSTSW 0020 ..
ANCHINST 0020 7F
```

## AVRADR: VOLUME AND DEVICE CHARACTERISTICS

AVRADR describes the characteristics of volumes and devices in response to a VSE SVC 99 request (GETVCE). AVRADR is invoked by AVRADR copy.

```
    +-----------------------+-----------------------+
  0 |        AVRPUB         |       AVRVOLID        |
    +-----------+-----+-----+-----------+-----------+
  8 |           | A*1 | A*2 |  AVRVTOC  |  AVRVHH   |
    +-----+-----+-----+-----+-----+-----+-----------+
 10 | A*3 | /// |  AVRLNO   | A*4 | A*5 |  DCTUCBC  |
    +-----+-----+-----------+-----+-----+-----------+
 18 |           |  DCTPCYL  |  DCTACYL  |  DCTTCYL  |
    +-----------+-----------+-----------+-----------+
 20 |        DCTBTRK        |        DCTTFIX        |
    +-----------+-----------+-----+-----------------+
 28 |  DCTMAXR  |     DCTROH      |     DCTFLG      |
    +-----------+-----------------+-----------------+
```

Size

DCTADR LENGTH IN BYTES (DCTLEN) 1C
AVRADR LENGTH IN BYTES (AVRLEN) 30

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | AVRPUB | 4 | | ADDRESS OF PUB |
| 4 | AVRVOLID | 6 | | VOLUME IDENTIFIER |
| A | AVRFLAG | 1 | A*1 | MASK OF INVALID FIELDS |
| Bits defined in AVRFLAG | | | | |
| 02 | AVRNLNO | | | AVRLNO INVALID |
| 01 | AVRNVOL | | | AVRVOLID AND AVRVTOC INVALID |
| B | AVRTYPE | 1 | A*2 | DEVICE CHARACTERISTICS |
| Bits defined in AVRTYPE | | | | |
| 01 | AVRFBA | | | FB/E DEVICE |
| 02 | AVRCKD | | | CKD DEVICE |
| 03 | AVRRPS | | | DEVICE SUPPORTS RPS |
| C | AVRVTOC | 6 | | VTOC POINTER |
| C | AVRVCC | 2 | | CKD CYLNDER NUMBER |
| E | AVRVHH | 2 | | CKD TRACK NUMBER |
| 10 | AVRVR | 1 | A*3 | CKD RECORD NUMBER |
| C | AVRVCI | 1 | | FB/E BLKS/CI IN VTOC |
| D | AVRVNUM | 4 | | FB/E BLOCKNO |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 12 | AVRLNO | 2 | | LOGICAL UNIT NUMBER |
| | Bits defined in AVRLNO | | | |
| | 14 AVRDEVC | | | DEVICE CHARACTERISTICS |
| 14 | DCTADR | 1 | A*4 | |
| 14 | DCTPUBC | 1 | | PUB CODE |
| 15 | DCTDTFC | 1 | A*5 | |
| 16 | DCTUCBC | 4 | | VSAM CATALOG CODE |
| 1A | DCTPCYL | 2 | | PRIMARY CYLS/BLKS PER VOLUME |
| 1C | DCTACYL | 2 | | ALTERNATE AREA CYLS/BLKS |
| 1E | DCTTCYL | 2 | | TRKS/CYL..CKD |
| 20 | DCTBTRK | 4 | | CKD. BYTES PER TRK |
| 24 | DCTTFIX | 4 | | CYL/BLKS UNDER FIXED ACCESS |
| 28 | DCTMAXR | 2 | | MAXIMUM PHYSICAL RECORD SIZE |
| 2A | DCTROH | 3 | | DEVICE O/HEAD |
| 2D | DCTFLG | 3 | | DEVICE TOLERANCE |

CROSS REFERENCE (Name  Disp  Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AVRCKD | 000B | 02 | AVRPUB | 0000 | .. | AVRVOLID | 0004 | .. | DCTLEN | .... | 1C |
| AVRDEVC | 0012 | 14 | AVRRPS | 000B | 03 | AVRVR | 0010 | .. | DCTMAXR | 0028 | .. |
| AVRFBA | 000B | 01 | AVRTYPE | 000B | .. | AVRVTOC | 000C | .. | DCTPCYL | 001A | .. |
| AVRFLAG | 000A | .. | AVRVCC | 000C | .. | DCTACYL | 001C | .. | DCTPUBC | 0014 | .. |
| AVRLEN | .... | 30 | AVRVCI | 000C | .. | DCTADR | 0014 | .. | DCTROH | 002A | .. |
| AVRLNO | 0012 | .. | AVRVHH | 000E | .. | DCTBTRK | 0020 | .. | DCTTCYL | 001E | .. |
| AVRNLNO | 000A | 02 | AVRVNUM | 000D | .. | DCTDTFC | 0015 | .. | DCTTFIX | 0024 | .. |
| AVRNVOL | 000A | 01 | AVRVOLC | 0000 | 00 | DCTFLG | 002D | .. | DCTUCBC | 0016 | .. |

## BATLSECT: CMS BATCH USER JOB LIMITS

BATLSECT describes the fields in the user job limits table for CMS batch jobs. BATLSECT is invoked by the BATLIMIT macro.

```
  +-----------+-----------+-----------+-----------+
0 |  BATCPUL  |  BATCPUC  |  BATPRTL  |  BATPRTC  |
  +-----------+-----------+-----------+-----------+
8 |  BATPUNL  |  BATPUNC  |
  +-----------+-----------+
```

| Disp | Name | Len | Key | Description |  |
|---|---|---|---|---|---|
| 0 | BATCPUL | 2 |  | VIRTUAL CPU LIMIT (SEC.) | - CAN BE RESET |
| 2 | BATCPUC | 2 |  | CURRENT CPU COUNT | - DO NOT RESET |
| 4 | BATPRTL | 2 |  | NUMBER PRINTED LINES LIMIT | - CAN BE RESET |
| 6 | BATPRTC | 2 |  | CURRENT LINE COUNT | - DO NOT RESET |
| 8 | BATPUNL | 2 |  | NUMBER PUNCHED CARDS LIMIT | - CAN BE RESET |
| A | BATPUNC | 2 |  | CURRENT CARD COUNT | - DO NOT RESET |

CROSS REFERENCE (Name Disp Value)

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| BATCPUC | 0002 | .. | BATPRTC | 0006 | .. | BATPUNC | 000A | .. |
| BATCPUL | 0000 | .. | BATPRTL | 0004 | .. | BATPUNL | 0008 | .. |

## BBOX: BOUNDARY BOX

BBOX contains the beginning addresses of the VSE partitions when CMS/DOS is active; one for each entry. BBOX is invoked by the BBOX macro.

```
    +-----------------------+-----------------------+
  0 |        PBEGIN         |        PENDLOG        |
    +-----------------------+-----------------------+
  8 |        PGEND          |        PFIXLMT        |
    +-----------------------+-----------------------+
 10 |        PFIXCNT        |
    +-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PBEGIN | 4 | | PARTN START ADDR |
| 4 | PENDLOG | 4 | | PARTN LOGICAL END |
| 8 | PGEND | 4 | | PARTN PHYSICAL END |
| C | PFIXLMT | 4 | | PFIX LIMIT ZERO FOR CMS |
| 10 | PFIXCNT | 4 | | PFIX COUNT ZERO FOR CMS |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| PBEGIN | 0000 | .. |
| PENDLOG | 0004 | .. |
| PFIXCNT | 0010 | .. |
| PFIXLMT | 000C | .. |
| PGEND | 0008 | .. |

## **BGCOM: VSE PARTITION COMMUNICATION REGION**

BGCOM simulates the DOS/VS Partition Communication Region (BGCOM). The ABGCOM field in NUCON points to the BGCOM block. BGCOM is invoked by the BGCOM macro.

```
       +-----------------------------------------------+
     0 |                    JOBDATE                    |
       +-----------------------------------------------+
|    8 | ///////////////////// |        COMUSCR        |
       +-----------------------+-----------------+-----+
|   10 |           COMUSCR (cont.)               | UPSI|
       +-----------------------------------------+-----+
    18 |                    COMNAME                    |
       +-----------------------+-----------------------+
    20 |        PPEND          |        HIPHAS         |
       +-----------------------+-----------+-----------+
    28 |        HIPROG         |  LABLEN   |    PIK    |
       +-----------------------+-----+-----+-----+-----+
    30 |        EOCADR         | B*1 |LTACT| SOB1| SOB2|
       +-----+-----+-----+-----+-----+-----+-----+-----+
|   38 |JCSW1|JCSW2|JCSW3|JCSW4| ///////// |  FOCLPT   |
       +-----+-----+-----+-----+-----------+-----------+
|   40 |  PUBPT    |   FAVPT   |   JIBPT   | ///////// |
       +-----------+-----------+-----------+-----+-----+
|   48 |  FICLPT   |  NICLPT   |   LUBPT   | B*2 | MMDD|
       +-----------+-----+-----+-----------+-----+-----+
    50 |   MMDD (cont.)  |          YYDDD              |
       +-----------+-----+-----+-----------+-----------+
    58 |  LIOCSCOM |   PIBPT   |  CHKPTID  |  JOBZON   |
       +-----------+-----+-----+-----------------------+
|   60 |  DIBPT    | B*3 | /// |       IJBHCFAD        |
       +-----+-----+-----+-----+-----------+-----------+
|   68 |cont.| /// |   PWTIMS  | ///////// |    LTK    |
       +-----+-----+-----------+-----------+-----------+
    70 |        SYSPAR         |        JAPART         |
       +-----------------------+-----------+-----------+
    78 |        TODCOM         |  PIB2PTR  |  PDTABB   |
       +-----------------------+-----------+-----+-----+
    80 |       LABELPTR        |  BGCOMPT  | B*4 | B*5 |
       +-----------------------+-----+-----+-----+-----+
    88 | ///////////////////// | B*6 | B*7 | B*8 | B*9 |
       +-----------------------------------------+-----+
    90 |           B*9  (continued)              | B*10|
       +-----------------------------------------+-----+
    98 |                POVNAM                   | B*11|
       +-----------------------+-----+-----+-----+-----+
|   A0 |        POWPCB         |JCSW5|JCSW6| ///////// |
       +-----------------------+-----+-----+-----+-----+
    A8 |        LUBEXT         | B*12| B*13| B*14| B*15|
       +-----------------------+-----+-----+-----+-----+
    B0 |        IJBJPL         |        IJBAFCB        |
       +-----------------------+-----------------------+
    B8 |       IJBPHLST        |       IJBJOBLG        |
       +-----------------------+-----------------------+
    C0 |   IJBJOBLG (cont.)    |
       +-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | JOBDATE | 8 | | JOB DATE |
| 8 | | 4 | | RESERVED |
| C | COMUSCR | 11 | | USER SCRATCH AREA |
| 17 | UPSI | 1 | | UPSI BYTE |
| 18 | COMNAME | 8 | | JOB NAME |
| 20 | PPEND | 4 | | HIGHEST STORAGE ADDRESS OF PARTITION |
| 24 | HIPHAS | 4 | | END ADDRESS OF LAST PHASE LOADED |
| 28 | HIPROG | 4 | | END ADDRESS OF LONGEST PHASE LOADED |
| 2C | LABLEN | 2 | | LENGTH OF PROBLEM PROGRAM LABEL AREA |
| 2E | PIK | 2 | | PROGRAM INTERRUPT KEY |
| 30 | EOCADR | 4 | | END OF VIRTUAL STORAGE ADDRESS |
| 34 | CONFIG | 1 | B*1 | MACHINE CONFIGURATION BYTE |
| 35 | LTACT | 1 | | SYSTEM CONFIGURATION BYTE |
| 36 | SOB1 | 1 | | STANDARD LANGUAGE TRANSLATOR OPTIONS |
| 37 | SOB2 | 1 | | STANDARD SUPERVISOR OPTIONS |
| 38 | JCSW1 | 1 | | JOB CONTROL BYTE |
| 39 | JCSW2 | 1 | | LINKAGE CONTROL BYTE |
| 3A | JCSW3 | 1 | | NON-STD LANGUAGE TRANSLATOR OPTIONS |
| 3B | JCSW4 | 1 | | JOB DURATION INDICATOR BYTE |
| 3C | | 2 | | RESERVED |
| 3E | FOCLPT | 2 | | ADDRESS OF FOCL |
| 40 | PUBPT | 2 | | ADDRESS OF PUB |
| 42 | FAVPT | 2 | | ADDRESS OF FAVP |
| 44 | JIBPT | 2 | | ADDRESS OF JIB |
| 46 | | 2 | | RESERVED |
| 48 | FICLPT | 2 | | ADDRESS OF FICL |
| 4A | NICLPT | 2 | | ADDRESS OF NICL |
| 4C | LUBPT | 2 | | ADDRESS OF LUB |
| 4E | SYSLINE | 1 | B*2 | SYSLST LINE COUNT |
| 4F | SYSDATE | 9 | | SYSTEM DATE |
| 4F | MMDD | 4 | | MMDD OR DDMM |

|  | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
|  | 53 | YYDDD | 5 |  | YYDDD PORTION OF DATE |
| \| | 58 | LIOCSCOM | 2 |  | LIOCS COMMUNICATION BYTES |
|  | 5A | PIBPT | 2 |  | ADDRESS OF PIB |
|  | 5C | CHKPTID | 2 |  | LAST CHECKPOINT NUMBER |
|  | 5E | JOBZON | 2 |  | JOB ZONE IN MINUTES |
|  | 60 | DIBPT | 2 |  | BACKGROUND DIB POINTER |
|  | 62 | DEVFLG1 | 1 | B*3 | DEV FLAGS FOR AUTOCLOSE |
| \| | 63 |  | 1 |  | RESERVED |
|  | 64 | IJBHCFAD | 5 |  | JOB STATEMENT ON HC FILE |
| \| | 69 |  | 1 |  | RESERVED |
|  | 6A | PWTIMS | 2 |  | KEY OF PROGRAM WITH IT SUPPORT |
| \| | 6C |  | 2 |  | RESERVED |
|  | 6E | LTK | 2 |  | LOGICAL TRANSIENT KEY |
|  | 70 | SYSPAR | 4 |  | ADDRESS OF SYSPARM |
|  | 74 | JAPART | 4 |  | ADDRESS OF JOB ACCOUNTING TABLE |
|  | 78 | TODCOM | 4 |  | ADDRESS OF TOD COMMUNICATIONS AREA |
|  | 7C | PIB2PTR | 2 |  | ADDRESS OF PIB EXTENSION |
|  | 7E | PDTABB | 2 |  | ADDRESS OF MICR DTF TABLE |
|  | 80 | LABELPTR | 4 |  | ADDRESS OF LABEL SPACE |
|  | 84 | BGCOMPT | 2 |  | ADDRESS OF BACKGROUND COMREG |
|  | 86 | OPTNBYTE | 1 | B*4 | OPTION INDICATOR BYTE |
|  | 87 | RMSROPEN | 1 | B*5 | SYSTEM CONFIG BYTE 2 |
| \| | 88 |  | 4 |  | RESERVED |
|  | 8C | STDOPT | 1 | B*6 | STANDARD JOB CONTROL OPTION BYTE |
|  | 8D | TEMOPT | 1 | B*7 | TEMPORARY JOB CONTROL OPTION BYTE |
|  | 8E | DISKCONF | 1 | B*8 | DISK CONFIGURATION BYTE |
|  | 8F | PROCNAM | 8 | B*9 | PROCEDURE NAME |
|  | 97 | PSWTCH | 1 | B*10 | INTERFACE BYTE FOR CATALOG PROCEDURE |
|  | 98 | POVNAM | 7 |  | SAVE AREA FOR STATEMENT NAME |
|  | 9F | INSIZE | 1 | B*11 | 81 BYTE SYSIN INDICATOR |
|  | A0 | POWPCB | 4 |  | ADDRESS OF PART CTL BLOCK |
|  | A4 | POWFLG1 | 1 | B*12 | POWER/VS FLAG BYTE 1 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| A5 | POWFLG2 | 1 | B*13 | POWER/VS FLAG BYTE 2 |
| A6 | | 2 | | RESERVED |
| A8 | LUBEXT | 4 | | ADDRESS OF LUB TAB EXT |
| AC | JCSW5 | 1 | | JOB CTL SWITCH 5 |
| AD | JCSW6 | 1 | | JOB CTL SWITCH 6 |
| AE | STDOPT2 | 1 | B*14 | STANDARD OPTIONS 2 |
| AF | TEMOPT2 | 1 | B*15 | TEMPORARY OPTIONS 2 |
| B0 | IJBJPL | 4 | | ADDRESS OF JPL OF PARTITION |
| B4 | IJBAFCB | 4 | | SLOT FOR CICS |
| B8 | IJBPHLST | 4 | | ADDRESS OF FETCH/LOAD TRACE TABLE |
| BC | IJBJOBLG | 8 | | ADDRESS OF LAST HC JOBSTMNT |
| C4 | COMREND | | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| BGCOMPT | 0084 | .. |
| CHKPTID | 005C | .. |
| COMNAME | 0018 | .. |
| COMREND | 00C4 | .. |
| COMUSCR | 000C | .. |
| CONFIG | 0034 | .. |
| DEVFLG1 | 0062 | .. |
| DIBPT | 0060 | .. |
| DISKCONF | 008E | .. |
| EOCADR | 0030 | .. |
| FAVPT | 0042 | .. |
| FICLPT | 0048 | .. |
| FOCLPT | 003E | .. |
| HIPHAS | 0024 | .. |
| HIPROG | 0028 | .. |
| IJBAFCB | 00B4 | .. |
| IJBHCFAD | 0064 | .. |
| IJBJOBLG | 00BC | .. |
| IJBJPL | 00B0 | .. |
| IJBPHLST | 00B8 | .. |
| INSIZE | 009F | .. |
| JAPART | 0074 | .. |
| JCSW1 | 0038 | .. |
| JCSW2 | 0039 | .. |
| JCSW3 | 003A | .. |
| JCSW4 | 003B | .. |
| JCSW5 | 00AC | .. |
| JCSW6 | 00AD | .. |
| JIBPT | 0044 | .. |
| JOBDATE | 0000 | .. |
| JOBZON | 005E | .. |
| LABELPTR | 0080 | .. |
| LABLEN | 002C | .. |
| LIOCSCOM | 0058 | .. |
| LTACT | 0035 | .. |
| LTK | 006E | .. |
| LUBEXT | 00A8 | .. |
| LUBPT | 004C | .. |
| MMDD | 004F | .. |
| NICLPT | 004A | .. |
| OPNBYT2 | 0063 | .. |
| OPTNBYTE | 0086 | .. |
| PDTABB | 007E | .. |
| PIBPT | 005A | .. |
| PIB2PTR | 007C | .. |
| PIK | 002E | .. |
| POVNAM | 0098 | .. |
| POWFLG1 | 00A4 | .. |
| POWFLG2 | 00A5 | .. |
| POWPCB | 00A0 | .. |
| PPEND | 0020 | .. |
| PROCNAM | 008F | .. |
| PSWTCH | 0097 | .. |
| PUBPT | 0040 | .. |
| PWTIMS | 006A | .. |
| RMSROPEN | 0087 | .. |
| SOB1 | 0036 | .. |
| SOB2 | 0037 | .. |
| STDOPT | 008C | .. |
| STDOPT2 | 00AE | .. |
| SYSDATE | 004F | .. |
| SYSLINE | 004E | .. |
| SYSPAR | 0070 | .. |
| TEMOPT | 008D | .. |
| TEMOPT2 | 00AF | .. |
| TODCOM | 0078 | .. |
| UPSI | 0017 | .. |
| YYDDD | 0053 | .. |

## CMSLEVEL

CMSLEVEL maps the contents returned by the QUERY CMSLEVEL CMS command. CMSLEVEL is invoked by the CMSLEVEL macro.

The following picture represents the contents of Register's and not of Storage.

```
                QUERY CMSLEVEL LOADS R0 WITH THE FOLLOWING:

         0 +------------------------------------------------+
           | R0 IS LOADED WITH THE FULLWORD AT USERLVL IN   |
           | NUCON. THIS FIELD IS RESERVED FOR THE USER.    |
         4 +------------------------------------------------+

               QUERY CMSLEVEL LOADS R1 WITH THE FOLLOWING:

           +------------------------------------------------+
         0 |                                                |
           |                    RESERVED                    |
           +------------------------------------------------+
         1 |                                                |
           |                 RELEASE NUMBER                 |
           +------------------------------------------------+
         2 |                                                |
           |                  SERVICE LEVEL                 |
           |                                                |
         4 +------------------------------------------------+
```

THE FOLLOWING BITS ARE DEFINED IN R1 AND FOUND IN DISPLACEMENTS 1 to 2.

| Name | Len | Description |
|---|---|---|
| VMR6 | 00 | VM/370 RELEASE 6 |
| VMBSEP | 01 | VM/BSEP RELEASE 2 |
| VMSEP | 02 | VM/SEP RELEASE 2 |
| VMSP1 | 03 | VM/SP RELEASE 1 |
| VMSP2 | 04 | VM/SP RELEASE 2 |
| VMSP3 | 05 | VM/SP RELEASE 3 |

SERVICE LEVEL is a halfword in binary format.

## CMSTAXE: TERMINAL ATTENTION EXIT ELEMENT

CMSTAXE defines the fields used in a Terminal Attention Exit Element (TAXE). The TAXE is used mainly by DMSCIT for processing attention interrupts. CMSTAXE is invoked via the TSOBLOKS macro. The TAXEADDR field in NUCON points to CMSTAXE.

```
    +----------------------+----------------------+
  0 |       TAXESPSW       |       TAXEEXIT       |
    +----------------------+----------------------+
  8 |       TAXELNK        |       TAXEIOL        |
    +----------------------+----------------------+
 10 |       TAXETSOF       |       TAXERTNA       |
    +----------------------+----------------------+
 18 |                                             |
    =                  TAXEEXTS                   =
    |                                             |
    |              (Variable Length)              |
    +---------------------------------------------+
 60 |                                             |
    =                  TAXEIOWS                   =
    |                                             |
    |              (Variable Length)              |
    +----------------------+----------------------+
 88 |                      |       TAXETAIE       |
    +----------------------+----------------------+
 90 | //////////////////// |       TAXEUSER       |
    +-----------+-----+----+----------------------+
 98 | TAIEMSGL  | A*1 |    |       TAIEIAD        |
    +-----------+-----+----+----------------------+
 A0 |                                             |
    =                  TAIERSAV                   =
    |                                             |
    |              (Variable Length)              |
    +---------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | TAXESPSW | 4 | | LEFT HALF PSW FOR ATTENTION RETURN |
| 4 | TAXEEXIT | 4 | | ATTENTION EXIT ADDRESS |
| 8 | TAXESTAT | 4 | | STATUS OF EXIT RETURN |
| Bits defined in TAXESTAT | | | | |
| 80 | TAXEFREQ | | | ATTENTION EXIT TAKEN |
| 8 | TAXELNK | 4 | | NEXT TAXE ON QUEUE |
| C | TAXEIOL | 4 | | LEFT HALF IO OLD PSW |
| 10 | TAXETSOF | 4 | | TSOFLAGS SAVED HERE |
| 14 | TAXERTNA | 4 | | RETURN ADDRESS |
| 18 | TAXEEXTS | 0 | | ATTENTION EXIT RETURN SAVE AREA |
| 60 | TAXEIOWS | 0 | | DMSIOW SAVE AREA |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| ALSO ATTENTION EXIT PARAMETER LIST | | | | |
| 8C | TAXETAIE | 4 | | ADDRESS OF TAIE |
| 94 | TAXEDEF | 4 | | DEFER INDICATOR |
| 94 | TAXEUSER | 4 | | USER PARAMETER LIST ADDRESS |
| ALSO TERMINAL ATTENTION INTERRUPT ELEMENT (TAIE) | | | | |
| 98 | TAIEMSGL | 2 | | RESERVED |
| 9A | TAIETGET | 1 | A*1 | RESERVED |
| 9C | TAIEIAD | 4 | | RIGHT HALF IO OLD PSW |
| A0 | TAIERSAV | 64 | | REGISTERS 0-15 INTERRUPTED PROGRAM |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TAIEIAD | 009C | .. | TAXEEXIT | 0004 | .. | TAXEIOWS | 0060 | .. | TAXESTAT | 0008 | .. |
| TAIEMSGL | 0098 | .. | TAXEEXTS | 0018 | .. | TAXELNK | 0008 | .. | TAXETAIE | 008C | .. |
| TAIERSAV | 00A0 | .. | TAXEFREQ | 0008 | 80 | TAXERTNA | 0014 | .. | TAXETSOF | 0010 | .. |
| TAIETGET | 009A | .. | TAXEIOL | 000C | .. | TAXESPSW | 0000 | .. | TAXEUSER | 0094 | .. |
| TAXEDEF | 0094 | .. | | | | | | | | | |

## COMCLIST: COMMUNICATIONS CHECKING LIST

One of these control blocks is created for each node that is checked for its ability to communicate with the programmable operator facility. The programmable operator facility uses this block as a listing to verify which nodes have to be checked.

```
          +-----------------------+-----------+-----------+
     0    |       COMCNEXT        |  COMCWTT  |  COMCCHKT |
          +-----------------------+-----------+-----------+
     8    |                   COMCNODE                    |
          +-----------+-----------+-----+-----+-----+-----+
    10    |  COMCWTC  |  COMCCHKC | C*1 | C*2 | C*3 | /// |
          +-----------+-----------+-----+-----+-----+-----+
```

### Size

NODE LIST ENTRY LENGTH IN DOUBLEWORDS (CONCLEND) 03
NODE LIST ENTRY LENGTH IN BYTES (COMCLEN) 18

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | COMCNEXT | 4 | | ADDRESS OF NEXT COMCLIST BLOCK |
| 4 | COMCWTT | 2 | | TIME TO WAIT FOR RESPONSE |
| 6 | COMCCHKT | 2 | | TIME BETWEEN CHECKS ON THIS NODE |
| 8 | COMCNODE | 8 | | ID OF NODE BEING CHECKED |
| 10 | COMCWTC | 2 | | RESPONSE WAIT COUNT |
| 12 | COMCCHKC | 2 | | CHECKING WAIT COUNT |
| 14 | COMCSTSF | 1 | C*1 | FLAGS INDICATING CURRENT STATUS |
| | Bits defined in COMCSTSF | | | |
| | 80 COMCUP | | | THIS NODE CURRENTLY OPERATIONAL |
| | 40 COMCRESP | | | THIS NODE HAS RESPONDED |
| | 20 COMCWAIT | | | AWAITING RESPONSE ON THIS NODE |
| | 10 COMCCKON | | | CHECKING IS ON FOR THIS NODE |
| 15 | COMCBLEN | 1 | C*2 | CHKNODES BLOCK LENGTH IN DOUBLEWORDS |
| 16 | COMCCTYP | 1 | C*3 | TYPE OF COMMUNICATION CHECKING |
| | Bits defined in COMCCTYP | | | |
| | 02 COMCCPRP | | | INDICATES PROP CHECKING |
| | 01 COMCCHST | | | INDICATES HOST CHECKING |
| 17 | | 1 | | RESERVED |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| COMCBLEN | 0015 | .. |
| COMCCHKC | 0012 | .. |
| COMCCHKT | 0006 | .. |
| COMCCHST | 0016 | 01 |
| COMCCKON | 0014 | 10 |
| COMCCPRP | 0016 | 02 |
| COMCCTYP | 0016 | .. |
| COMCLEN | .... | 18 |
| COMCLEND | .... | 03 |
| COMCNEXT | 0000 | .. |
| COMCNODE | 0008 | .. |
| COMCRESP | 0014 | 40 |
| COMCSTSF | 0014 | .. |
| COMCUP | 0014 | 80 |
| COMCWAIT | 0014 | 20 |
| COMCWTC | 0010 | .. |
| COMCWTT | 0004 | .. |

## CVTSECT: COMMUNICATIONS VECTOR TABLE AS SUPPORTED BY CMS

CVTSECT simulates the OS Communications Vector Table. CVTSECT is invoked via the CMSCVT macro. The ACMSCVT field in NUCON points to CMSCVT.

```
       +-----------+-----------+-----------------------+
     0 | ///////// |  CVTMDL   |          C*1          |
       +-----------+-----------+-----------------------+
     8 |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       +-----------------------+-----------------------+
    40 |        CVTDATE        |                       |
       +-----------------------+                       |
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       +-----------+-----------+-----------------------+
    58 |  CVTEXIT  |  CVTBRET  |                       |
       +-----------+-----------+                       |
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       |                       +-----+                 |
    78 |                       | C*2 |                 |
       +-----------------------+-----+-----------------+
    80 |        CVTR13         |                       |
       +-----------------------+-----------------------+
    88 |        CVTNUCB        |                       |
       +-----------------------+                       |
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       |                       +-----------------------+
    A0 |                       |        CVTMZ00        |
       +-----------------------+-----------------------+
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       |                                   +-----------+
    B8 |                                   |  CVTOPTA  |
       +-----------------------------------+-----------+
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       |                       +-----------------------+
    D0 |                       |        CVTUSER        |
       +-----------------------+-----------------------+
       |                                               |
       =                NOT SUPPORTED                  =
       |                                               |
       +-----------------------+-----------------------+
   108 |        CVTAVIB        |
       +-----------------------+
```

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | 2 | CVTMDL | 2 | | CPU MODEL ID |
| \| | 4 | | 4 | C*1 | 'CSPR' - CMS SYSTEM PRODUCT RELEASE |
| | 8 | CMSCVT | 0 | | CVT START |
| \| | 40 | CVTDATE | 4 | | CURRENT DATE IN PACKED DECIMAL |
| | 58 | CVTEXIT | 2 | | AN SVC 3 INSTRUCTION (EXIT) |
| | 5A | CVTBRET | 2 | | A BCR 15,14 INSTRUCTION |
| \| | 7C | CVTDCB | 1 | C*1 | SYSTEM CONFIGURATION = PCP |
| | 80 | CVTR13 | 4 | | R13 SAVED DURING 'OPEN' |
| | 88 | CVTNUCB | 4 | | LOWEST STORAGE ADDRESS NOT IN NUCLEUS |
| | AC | CVTMZ00 | 4 | | HIGHEST STORAGE ADDRESS IN MACHINE |
| | BE | CVTOPTA | 2 | | BIT 7 - EXT-PREC FP HRDWRE IN CPU |
| | D4 | CVTUSER | 4 | | FIELD AVAILABLE TO USER |
| | 108 | CVTAVIB | 4 | | ADDRESS OF VSAM INTFC BOOTSTRAP |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CMSCVT | 0008 | .. | CVTDATE | 0040 | .. | CVTMDL | 0002 | .. | CVTOPTA | 00BE | .. |
| CVTAVIB | 0108 | .. | CVTDCB | 007C | .. | CVTMZ00 | 00AC | .. | CVTR13 | 0080 | .. |
| CVTBRET | 005A | .. | CVTEXIT | 0058 | .. | CVTNUCB | 0088 | .. | CVTUSER | 00D4 | .. |

**DBGSECT: DEBUG WORK AREA**

DBGSECT contains the files used by DEBUG for saving registers, breakpoints, PSWs, and other data. V-constants in DMSDBD, DMSDBG, and DMSITE point to the DEBUG work area. DBGSECT is invoked via the DBGSECT macro.

```
     +-----------------------------------------------+
   0 |                   CCWPRINT                    |
     +-----------------------------------------------+
   8 |                                               |
     =                   SYMTABLE                    =
     |                                               |
     +-----------------------+-----------------------+
 108 |        SYMTBG         |                       |
     +-----------------------+                       |
     |                                               |
     =                   BRKPNTBL                    =
     |                                               |
     |                       +-----------------------+
 188 |                       |        TBLEND         |
     +-----------------------+-----------------------+
 190 |                                               |
     =                     ARGS                      =
     |                                               |
     +-----------------------------------+-----+-----+
 1B8 |              JFLAGS               | D*1 | D*2 |
     +-----------------------------------+-----+-----+
 1C0 |                    WAITRD                     |
     +-----------------------+-----+-----+-----------+
 1C8 |          D*3          | D*4 | D*5 |  WTRDCNT  |
     +-----------------------+-----+-----+-----------+
 1D0 |          ORG          |          D*6          |
     +-----------------------+-----------------------+
 1D8 |                      DEC                      |
     +-----------------------------------------------+
 1E0 |                    DECDEC                     |
     +-----------------------+-----------------------+
 1E8 |        ARGSAV         |        RETSAV         |
     +-----------------------+-----------------------+
 1F0 |        EXAMLC         |        EXAMLG         |
     +-----------------------+-----------------------+
 1F8 |         BEGAT         |        STOPAT         |
     +-----------------------+-----------------------+
 200 |         SAVE1         |         SAVE2         |
     +-----------------------+-----------------------+
 208 |                                               |
     =                    DBGSAV1                    =
     |                                               |
     +-----------------------------------------------+
 248 |                                               |
     =                    DBGSAV2                    =
     |                                               |
     +-----------------------------------------------+
 288 |                                               |
     =                    DBGSAV3                    =
     |                                               |
     +-----------------------------------------------+
     +-----------------------------------------------+
2C8  |                                               |
     =                     TSYM                      =
     |                                               |
     +-----------------------------------------------+
2D8  |                     XPSW                      |
     +-----+-----------------------------------------+
2E0  | D*7 |                                         |
     +-----+       LINE      +-----------------------+
2E8  |                       |                       |
     +-----------------------+                       |
     |                                               |
     =                     LINE1                     =
     |                                               |
     |                 +-----+-----------------------+
340  |                 | D*8 |                       |
     +-----------------+-----+                       |
348  |                                               |
     =                     LINE1A                    =
     |                                               |
     |                       +-----+-----+-----------+
360  |                       | D*9 | D*10|   D*11    |
     +-----------------------+-----+-----+-----------+
368  |                     CONWR                     |
     +-----------------------+-----------------+-----+
370  |          D*12         |       D*13      | D*14|
     +-----------+-----------+-----------------+-----+
378  | INPUTSIZ  |               D*15                |
     +-----------+-----------+-----------------------+
380  |                    CONHCT                     |
     +-----------------------+-----------------------+
388  |           HEX         |         D*16          |
     +-----------------------+-----------------------+
390  |                    HEXHEX                     |
     +-----+-----------------------------------------+
398  | D*17|               BITS                      |
     +-----+-----------------------------------------+
3A0  |cont.|                                         |
     +-----+                                         |
     |                                               |
     =                    BITS                       =
     |                                               |
     |                                         +-----+
3B8  |                                         | D*19|
     +-----------------------------------------+-----+
3C0  |                      YPSW                     |
     +-----------------------+----------+------------+
3C8  |          TBLINDX      |   BCR    |    D*20    |
     +-----+-----+-----+-----+----------+------------+
3D0  | D*21| D*22| D*23| D*24|       DBGXWK          |
     +-----+-----+-----+-----+----------+------------+
3D8  | continued |
     +-----------+
```

Size

FOR INITIALIZING TO ZERO (MVCNT2) 2F
NUMBER OF BYTES IN ARGS (MVCNT1) 28

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CCWPRINT | 8 | | |
| 8 | SYMTABLE | 256 | | USER DEFINED SYMBOL TABLE |
| 108 | SYMTBG | 4 | | |
| 10C | BRKPNTBL | 64 | | BREAKPOINT TABLE |
| 18C | TBLEND | 4 | | END ADDRESS OF BREAKPOINT TABLE |

STORAGE AND CONSTANTS FOR NEWLIN AND CONTROL

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 190 | ARGS | 40 | | ARGUMENTS STORED HERE |

Bits defined in ARGS

| | | |
|---|---|---|
| 1B8 | ARGMAX | END OF ARGUMENT AREA |
| | ARGMAX | END OF ARGUMENT AREA |
| 28 | MVCNTI | NUMBER OF BYTES IN ARGUMENT |
| 20 | MVCNT | NEEDED FOR SET GPR COMMAND |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1B8 | JFLAGS | 6 | | FLAGS CORRESPONDING TO ARGS |

```
ONE FLAG FOR EACH PARAMETER: 00 = NUMERIC (0 - 9)
                             F0 = HEX (A - F, 0 - 9)
                             FF = ALPHABETIC (A - F)
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1BE | ARGSCT | 1 | D*1 | NUMBER OF ARGUMENTS IN COMMAND LINE |
| 1BF | | 1 | D*2 | UNUSED |
| 1C0 | WAITRD | 8 | | PARAMETER LIST TO GET INPUT LINE |
| 1C8 | | 4 | D*3 | A(INPUT BUFFER) |
| 1CC | | 1 | D*4 | CLEAN UP AND LOGICAL CARRIAGE RETURN |
| 1CD | | 1 | D*5 | |
| 1CE | WTRDCNT | 2 | | BYTE COUNT FILLED IN HERE |
| 1D0 | ORG | 4 | | ORIGIN OF ROUTINE BEING EXAMINED |
| 1D4 | | 4 | D*6 | |

THE FOLLOWING VARIABLES ARE USED BY DEBUG AND DEBDUMP

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1D8 | DEC | 8 | | BINARY WORD |
| 1E0 | DECDEC | 8 | | DECIMAL WORD |
| 1E8 | ARGSAV | 4 | | STORAGE FOR ARGUMENT LOCATION |
| 1EC | RETSAV | 4 | | STORAGE FOR RETURN ADDRESS |
| 1F0 | EXAMLC | 4 | | FIRST LOCATION TO BE EXAMINED |
| 1F4 | EXAMLG | 4 | | LENGTH OF FIELD TO BE EXAMINED |
| 1F8 | BEGAT | 4 | | BEGINNING PARAMETER BEING PROCESSED |

```
 Disp  Name      Len Key  Description


 1FC   STOPAT      4      LAST PARAMETER LOCATION

    Bits defined in STOPAT

       LASTLINE           32 BYTES FOR LAST LINE DUMPED

 200   SAVE1       4      DEBDUMP USES FOR LINE COUNT

 204   SAVE2       4

 208   DBGSAV1    64      DEBUG BALR-CALL SAVE

 248   DBGSAV2    64      SAVE AREA FOR CONWAIT/CONREAD

| 288   DBGSAV3    64      SAVE AREA FOR USER REGISTERS

| 2C8   TSYM       16      SYMBOL ENTRY

| 2D8   XPSW        8      PSW TO BE LOADED UPON GO

| 2E0   OUTPT1      1 D*7  BYTE COUNT

 2E1   LINE       11      I/O BUFFER

| 2EC   LINE1      87

| 343   LINE1B      1 D*8

| 344   LINE1A     32

| 364   LINE1C      1 D*9

| 365   LINE1D      1 D*10

    Bits defined in LINE1D

|   31D INPUT1            HEX PACK AREA
|   2E1 DBGOUT            OUTPUT BUFFER
|   2E1 INPUT             INPUT BUFFER

| 366               2 D*11 UNUSED

| 368   CONWR       8      PLIST TO TYPE OUTPUT LINE

| 370               4 D*12

| 374               3 D*13

| 377   CONWRL      1 D*14

| 378   INPUTSIZ    2      SIZE OF TYPED IN INPUT LINE

| 37A               6 D*15

| 380   CONHCT      8

| 388   HEX         4      BINARY WORD

| 38C               4 D*16

| 390   HEXHEX      8      PRINTER GRAPHIC WORD

| 398               1 D*17
```

```
  Disp  Name      Len Key  Description


| 399   BITS        8

| 3A1              15 D*18

| 3BF   DBGSWTCH    1 D*19 INTERNAL DEBUG STATUS FLAGS

     Bits defined in DBGSWTCH

|    80                    UNUSED FLAG
|    40                    UNUSED FLAG
     20 DBDEXIT            SIGNALS EXIT FROM DEBDUMP
     10 DBDDMSG            SIGNALS DUPLICATE MESSAGE IN DEBDUMP
     08 DBGSET             SIGNALS SET COMMAND
     04 DBGPERM            RESERVED FOR IBM USE
     02 DBGCOND            RESERVED FOR IBM USE

  THE FOLLOWING ARE RESERVED FOR FUTURE USE

| 3C0   YPSW        8      PSW CONTAINING NSI

| 3C8   TBLINDX     4      CURRENT BRKPT TABLE INDEX

| 3CC   BCR         2      NOPR TO PAD DBGXWK WHEN NEEDED

| 3CE               2 D*20 ADDITIONAL NOPR (IF NEEDED)

| 3D0   ILC         1 D*21 ILC OF INSTRUCTION IN DBGXWK

| 3D1   ILC11       1 D*22 3 HALFWORD INSTRUCTION (6 BYTES)

' 3D2   ILC0110     1 D*23 2 HALFWORD INSTRUCTION (4 BYTES)

  3D3   ILC00       1 D*24 1 HALFWORD INSTRUCTION (2 BYTES)

     Bits defined in ILC00

     45 BAL                BAL  OP-CODE
     05 BALR               BALR OP-CODE

  3D4   DBGXWK      6      RECREATE INSTRUCTION AT BRKPT ADDRESS


  CROSS REFERENCE (Name  Disp  Value)

  ARGMAX   0190 **    DBDEXIT  037F 20  | ILC00    03D3 ..    MVCNT2   0000 2F
  ARGS     0190 ..    DBGCOND  037F 02  | ILC0110  03D2 ..    ORG      01D0 ..
  ARGSAV   01E8 ..    DBGOUT   0325 **  | ILC11    03D1 ..    OUTPT1   02A0 ..
  ARGSCT   01BE ..    DBGPERM  037F 04    INPUT    0325 **    RETSAV   01EC ..
  BAL      0393 45    DBGSAV1  0208 ..  | INPUTSIZ 0378 ..    SAVE1    0200 ..
  BALR     0393 05    DBGSAV2  0248 ..    INPUT1   0325 **    SAVE2    0204 ..
  BCR      03CC ..    DBGSET   037F 08    JFLAGS   01B8 ..    STOPAT   01FC ..
  BEGAT    01F8 ..  | DBGSWTCH 03BF ..    LASTLINE 01FC **    SYMTABLE 0008 ..
  BITS     0399 ..    DBGXWK   0394 ..  | LINE     02E1 ..    SYMTBG   0108 ..
  BRKPNTBL 010C ..    DEC      01D8 ..  | LINE1    02EC ..    TBLEND   018C ..
  CCWPRINT 0000 ..    DECDEC   01E0 ..  | LINE1A   0344 ..  | TBLINDX  03C8 ..
  CONHCT   0380 ..    EXAMLC   01F0 ..  | LINE1B   0343 ..    TSYM     0288 ..
  CONHXT   03B9 **    EXAMLG   01F4 ..  | LINE1C   0364 ..    WAITRD   01C0 ..
  CONWR    0368 ..  | HEX      0388 ..  | LINE1D   0365 ..    WTRDCNT  01CE ..
  CONWRL   0377 ..  | HEXHEX   0390 ..    MVCNT    0190 20    XPSW     0298 ..
  DBDDMSG  037F 10  | ILC      03D0 ..    MVCNT1   0000 28  | YPSW     03C0 ..
```

## DCHSECT: DATA CONTROL HYPERBLOCK

DCHSECT is the data control hyperblock that is an in-storage representation of disk data blocks as well as the relationship of these blocks on the disk. DCHSECT is invoked via the DCH macro.

```
     +-----------------------+-----------------------+
   0 |       DCHFWPTR        |       DCHBWPTR        |
     +-----------------------+-----------------------+
   8 |       DCHDWSIZ        |       DCHTRUNK        |
     +-----------------------+-----------------------+
  10 |       DCHTDISP        |       DCHDTSIZ        |
     +-----------------------+-----+-----+-----+-----+
  18 |       DCHSEQBD        | D*1 | D*2 | D*3 | D*4 |
     +-----------------------+-----+-----+-----+-----+
  20 |       DCHDAMAP        |       DCHCHMAP        |
     +-----------------------+-----------------------+
  28 |                     DCHRSV                    |
     +-----------------------------------------------+
  30 |                     DCHDATA                   |
     +-----------------------------------------------+
```

Size

PREFIX PORTION OF HBLK LENGTH IN BYTES (DCHPFIXL) 30

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DCHFWPTR | 4 | | FORWARD POINTER |
| 4 | DCHBWPTR | 4 | | BACKWARD POINTER |
| 8 | DCHDWSIZ | 4 | | FULL HYPERBLK STOR SIZE IN DOUBLEWORDS |
| C | DCHTRUNK | 4 | | ADDRESS OF NEXT BLOCK UP IN STRUCTURE |
| 10 | DCHTDISP | 4 | | DISPLACEMENT TO DISK ADDRESS IN TRUNK POINTER BLOCK |
| 14 | DCHDTSIZ | 4 | | DATA PORTION SIZE IN BYTES |
| 18 | DCHSEQBD | 4 | | SEQUENTIAL DATA BLK DISPLACEMENT |
| 1C | DCHFLG1 | 1 | D*1 | DCH FLAG 1 |

Bits defined in DCHFLG1

| | | |
|---|---|---|
| 80 | DCHCHOP | DEALLOC THIS DIRECTORY BLOCK DURING DIRECTORY UPDATE |
| 40 | DCHNEW | DO NOT REALLOC THIS DIRECTORY BLOCK DURING DIRECTORY UPDATE |
| 20 | DCHDALLO | DISK ADDRESS OF BLOCK IS IN DE-ALLOCATION LIST |
| 10 | DCHCHGD | BLOCK HAS BEEN ALTERED |
| 08 | DCHRALLO | DISK ADDRESS OF BLOCK IS IN RE-ALLOCATION LIST |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1D | DCHFLG2 | 1 | D*2 | DCH FLAG 2 |

Bits defined in DCHFLG2

| | | |
|---|---|---|
| 80 | DCHFULL | ALL DISK BLOCKS ALLOCATED IN THIS HBLK |
| 40 | DCHDA | ALL DISK BLOCKS DEALLOCATED BY ERS |
| 20 | DCHLHBLK | LAST HBLK IN BUFFER CH FOR ERS |
| 10 | DCHDUM | DUMMY HBLK FOR CHAINING AUXILIARY DIRECTORY |
| 08 | DCHSHR | BLOCK IS IN SHARED STORAGE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1E | DCHFLG3 | 1 | D*3 | DCH FLAG 3 - RESERVED - |
| 1F | DCHFLG4 | 1 | D*4 | DCH FLAG 4 - RESERVED - |
| 20 | DCHDAMAP | 4 | | DEALLOCATION MAP ADDRESS |
| 24 | DCHCHMAP | 4 | | CHANGE MAP ADDRESS |
| 28 | DCHRSV | 8 | | RESERVED |
| 30 | DCHDATA | 8 | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| DCHBWPTR | 0004 | .. |
| DCHCHGD | 001C | 10 |
| DCHCHMAP | 0024 | .. |
| DCHCHOP | 001C | 80 |
| DCHDA | 001D | 40 |
| DCHDALLO | 001C | 20 |
| DCHDAMAP | 0020 | .. |
| DCHDATA | 0030 | .. |
| DCHDTSIZ | 0014 | .. |
| DCHDUM | 001D | 10 |
| DCHDWSIZ | 0008 | .. |
| DCHFLG1 | 001C | .. |
| DCHFLG2 | 001D | .. |
| DCHFLG3 | 001E | .. |
| DCHFLG4 | 001F | .. |
| DCHFULL | 001D | 80 |
| DCHFWPTR | 0000 | .. |
| DCHLHBLK | 001D | 20 |
| DCHNEW | 001C | 40 |
| DCHPFIXL | .... | 30 |
| DCHRALLO | 001C | 08 |
| DCHRSV | 0028 | .. |
| DCHSEQBD | 0018 | .. |
| DCHSHR | 001D | 08 |
| DCHTDISP | 0010 | .. |
| DCHTRUNK | 000C | .. |

## DESTYP: FILETYPE DESCRIPTOR

DESTYP is defined in DMSXTF and is used by the System Product Editor module DMSXIN to determine the filetype default settings. DESTYP is invoked via the ZDESTYP macro.

```
   +-------------------------------------------------+
 0 |                    DESFTYPE                     |
   +-------------------------------------------------+
 8 |                                                 |
   =                     DESTABS                     =
   |                                                 |
   +-----------------------+-----------+-------------+
58 |       DESLRECL        | DESTRUNC  |  DESVERIF   |
   +-----+-----+-----+-----+-----+-----+-----+-------+
60 | D*1 | D*2 | D*3 | D*4 | D*5 | DESRECFM  |  D*6  |
   +-----+-----+-----+-----+-----+-----+-----+-------+
```

Size

LENGTH IN DOUBLEWORDS (DESLDESD) 0D
LENGTH IN BYTES (DESLDESB) 68

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DESFTYPE | 8 | | FILETYPE |
| 8 | DESTABS | 80 | | TABULATIONS |
| 58 | DESLRECL | 4 | | LRECL |
| 5C | DESTRUNC | 2 | | TRUNCATION COLUMN |
| 5E | DESVERIF | 2 | | END VERIFY COLUMN |
| 60 | DESCFILL | 1 | D*1 | FILLER CHARACTER |
| 61 | DESCESCA | 1 | D*2 | ESCAPE CHARACTER |
| 62 | DESCASMU | 1 | D*3 | CASE UPPERCASE/MIXED |
| 63 | DESNDISP | 1 | D*4 | NONDISP CHARACTER |
| 64 | | 1 | D*5 | RESERVED |
| 65 | DESRECFM | 2 | | RECFM F OR V |
| 67 | DESFLAG1 | 1 | D*6 | FLAG BYTE |

Bits defined in DESFLAG1

| | | | |
|---|---|---|---|
| 80 | | X....... | RESERVED |
| 40 | | .X...... | RESERVED |
| 20 | | ..X..... | RESERVED |
| 10 | DESSPLWD | ...X.... | SPILL WORD |
| 08 | DESSPLON | ....X... | SPILL ON |
| 04 | DESCANON | .....X.. | IMAGE CANON |
| 02 | DESIMGON | ......X. | IMAGE ON |
| 01 | DESSERON | .......X | SERIAL ON/OFF |

CROSS REFERENCE (Name  Disp  Value)

```
| DESCANON 0067 04    DESFTYPE 0000 ..  | DESNDISP 0063 ..  | DESSPLWD 0067 10
| DESCASMU 0062 ..  | DESIMGON 0067 02  | DESRECFM 0065 ..    DESTABS  0008 ..
| DESCESCA 0061 ..    DESLDESB 0000 68  | DESSERON 0067 01    DESTRUNC 005C ..
| DESCFILL 0060 ..    DESLDESD 0067 0D  | DESSPLON 0067 08    DESVERIF 005E ..
| DESFLAG1 0067 ..    DESLRECL 0058 ..
```

## DEVSECT: DEVICE TABLE DSECT

DEVSECT describes the device information required for input/output routines. DEVSECT is a DSECT corresponding to the data in a DEVTAB entry. DEVSECT is invoked via the DEVSECT macro.

```
  +-----------+-----+-----+----------------------+
0 |  DEVADDR  | D*1 | D*2 |       DEVNAME        |
  +-----------+-----+-----+----------------------+
8 |        DEVIPRA        |       DEVMISC        |
  +-----------------------+----------------------+
```

Size

DEVICE TABLE SIZE IN BYTES (DEVSIZE) 10

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DEVADDR | 2 | | VIRTUAL DEVICE ADDRESS |
| 2 | DEVFLAG | 1 | D*1 | DEVICE FLAGS |
| 3 | DEVTYPE | 1 | D*2 | DEVICE TYPE |
| 4 | DEVNAME | 4 | | SYMBOLIC DEVICE NAME |
| 8 | DEVIPRA | 4 | | INTERRUPT PROCESSING ROUTINE ADDRESS |
| C | DEVMISC | 4 | | MISCELLANEOUS - DEVICE DEPENDENT |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEVADDR | 0000 | .. | DEVIPRA | 0008 | .. | DEVNAME | 0004 | .. | DEVSIZE | .... | 10 |
| DEVFLAG | 0002 | .. | DEVMISC | 000C | .. | | | | DEVTYPE | 0003 | .. |

## DEVTAB: DEVICE TABLE

DEVTAB contains the entries for the various devices handled by CMS (disks, tapes, reader, punch, printer, and console). DEVTAB is pointed to by V-constants in DMSIOW and DMSITI, and is also referenced indirectly by the ADEVTAB field in NUCON. DEVTAB is invoked via the DEVTAB macro.

| | | | |
|---|---|---|---|
| 0 | CONSOLE | F0 | ODISK |
| C | CO1ECB | 100 | PDISK |
| 10 | ADISK | 110 | QDISK |
| 20 | BDISK | 120 | RDISK |
| 30 | CDISK | 130 | SDISK |
| 40 | DDISK | 140 | TDISK |
| 50 | EDISK | 150 | UDISK |
| 60 | FDISK | 160 | VDISK |
| 70 | GDISK | 170 | WDISK |
| 80 | HDISK | 180 | XDISK |
| 90 | IDISK | 190 | YDISK |
| A0 | JDISK | 1A0 | ZDISK |
| B0 | KDISK | 1B0 | READER1 |
| C0 | LDISK | 1C0 | PUNCH1 |
| D0 | MDISK | 1D0 | PRINTER1 |
| E0 | NDISK | 1E0 | READER2 |

```
   +-----------------------------+        +-----------------------------+
1F0|           PUNCH2            |     230|           TAPE3             |
   |                             |        |                             |
   +-----------------------------+        +-----------------------------+
200|           PRINTER2          |     240|           TAPE4             |
   |                             |        |                             |
   +-----------------------------+        +-----------------------------+
210|           TAPE1             |     250|           DUMMY             |
   |                             |        |                             |
   +-----------------------------+        +-----------------------------+
220|           TAPE2             |   | 260|           TABEND            |
   |                             |        |                             |
   +-----------------------------+        +-----------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CONSOLE | 0 | | DEVICE TABLE ENTRY FOR CONSOLE |
| C | CON1ECB | 4 | | CONSOLE ECB |
| 10 | ADISK | 0 | | DEVICE TABLE ENTRY FOR ADISK |
| 20 | BDISK | 0 | | DEVICE TABLE ENTRY FOR BDISK |
| 30 | CDISK | 0 | | DEVICE TABLE ENTRY FOR CDISK |
| 40 | DDISK | 0 | | DEVICE TABLE ENTRY FOR DDISK |
| 50 | EDISK | 0 | | DEVICE TABLE ENTRY FOR EDISK |
| 60 | FDISK | 0 | | DEVICE TABLE ENTRY FOR FDISK |
| 70 | GDISK | 0 | | DEVICE TABLE ENTRY FOR GDISK |
| 80 | HDISK | 0 | | DEVICE TABLE ENTRY FOR HDISK |
| 90 | IDISK | 0 | | DEVICE TABLE ENTRY FOR IDISK |
| A0 | JDISK | 0 | | DEVICE TABLE ENTRY FOR JDISK |
| B0 | KDISK | 0 | | DEVICE TABLE ENTRY FOR KDISK |
| C0 | LDISK | 0 | | DEVICE TABLE ENTRY FOR LDISK |
| D0 | MDISK | 0 | | DEVICE TABLE ENTRY FOR MDISK |
| E0 | NDISK | 0 | | DEVICE TABLE ENTRY FOR NDISK |
| F0 | ODISK | 0 | | DEVICE TABLE ENTRY FOR ODISK |
| 100 | PDISK | 0 | | DEVICE TABLE ENTRY FOR PDISK |
| 110 | QDISK | 0 | | DEVICE TABLE ENTRY FOR QDISK |
| 120 | RDISK | 0 | | DEVICE TABLE ENTRY FOR RDISK |
| 130 | SDISK | 0 | | DEVICE TABLE ENTRY FOR SDISK |
| 140 | TDISK | 0 | | DEVICE TABLE ENTRY FOR TDISK |
| 150 | UDISK | 0 | | DEVICE TABLE ENTRY FOR UDISK |
| 160 | VDISK | 0 | | DEVICE TABLE ENTRY FOR VDISK |
| 170 | WDISK | 0 | | DEVICE TABLE ENTRY FOR WDISK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 180 | XDISK | 0 | | DEVICE TABLE ENTRY FOR XDISK |
| 190 | YDISK | 0 | | DEVICE TABLE ENTRY FOR YDISK |
| 1A0 | ZDISK | 0 | | DEVICE TABLE ENTRY FOR ZDISK |
| 1B0 | READER1 | 0 | | DEVICE TABLE ENTRY FOR READER1 |
| 1C0 | PUNCH1 | 0 | | DEVICE TABLE ENTRY FOR PUNCH1 |
| 1D0 | PRINTER1 | 0 | | DEVICE TABLE ENTRY FOR PRINTER1 |
| 1E0 | READER2 | 0 | | DEVICE TABLE ENTRY FOR READER2 |
| 1F0 | PUNCH2 | 0 | | DEVICE TABLE ENTRY FOR PUNCH2 |
| 200 | PRINTER2 | 0 | | DEVICE TABLE ENTRY FOR PRINTER2 |
| 210 | TAPE1 | 0 | | DEVICE TABLE ENTRY FOR TAPE1 |
| 220 | TAPE2 | 0 | | DEVICE TABLE ENTRY FOR TAPE2 |
| 230 | TAPE3 | 0 | | DEVICE TABLE ENTRY FOR TAPE3 |
| 240 | TAPE4 | 0 | | DEVICE TABLE ENTRY FOR TAPE4 |
| 250 | DUMMY | 0 | | DEVICE TABLE ENTRY FOR DUMMY |
| 260 | TABEND | 0 | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| ADISK | 0010 | .. |
| BDISK | 0020 | .. |
| CDISK | 0030 | .. |
| CONSOLE | 0000 | .. |
| CON1ECB | 000C | .. |
| DDISK | 0040 | .. |
| DUMMY | 0250 | .. |
| EDISK | 0050 | .. |
| FDISK | 0060 | .. |
| GDISK | 0070 | .. |
| HDISK | 0080 | .. |
| IDISK | 0090 | .. |
| JDISK | 00A0 | .. |
| KDISK | 00B0 | .. |
| LDISK | 00C0 | .. |
| MDISK | 00D0 | .. |
| NDISK | 00E0 | .. |
| ODISK | 00F0 | .. |
| PDISK | 0100 | .. |
| PRINTER1 | 01D0 | .. |
| PRINTER2 | 0200 | .. |
| PUNCH1 | 01C0 | .. |
| PUNCH2 | 01F0 | .. |
| QDISK | 0110 | .. |
| RDISK | 0120 | .. |
| READER1 | 01B0 | .. |
| READER2 | 01E0 | .. |
| SDISK | 0130 | .. |
| TABEND | 0260 | .. |
| TAPE1 | 0210 | .. |
| TAPE2 | 0220 | .. |
| TAPE3 | 0230 | .. |
| TAPE4 | 0240 | .. |
| TDISK | 0140 | .. |
| UDISK | 0150 | .. |
| VDISK | 0160 | .. |
| WDISK | 0170 | .. |
| XDISK | 0180 | .. |
| YDISK | 0190 | .. |
| ZDISK | 01A0 | .. |

## DIB: DISK INFORMATION BLOCK TABLE

DIB simulates the VSE disk information block. The DIBPT field of BGCOM points to the DIB. DIB is invoked via the DIB macro.

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | | 7 | | SYSLINK DIB ENTRY CCHH000 |
| 7 | | 1 | | STARTING ADDR PCIL CYLINDER |
| **SYSIN DIB ENTRY** | | | | |
| 18 | | 1 | | CURRENT ADDRESS BBCCHHR |
| 1F | | 3 | | KEY AND DATA LENGTH KDD |
| 22 | | 1 | | END ADDRESS BBCCHHR |
| 29 | | 1 | | UPPER AND LOWER HEAD LIMIT |
| 2B | | 1 | | MAXIMUM NUMBER OF RECORDS |
| 2C | | 1 | | RECORD COUNT |
| **SYSPUNCH DIB ENTRY** | | | | |
| 30 | | 1 | | CURRENT ADDRESS BBCCHHR |
| 37 | | 3 | | KEY AND DATA LENGTH KDD |
| 3A | | 1 | | END ADDRESS BBCCHHR |
| 41 | | 1 | | UPPER AND LOWER HEAD LIMIT |
| 43 | | 1 | | MAXIMUM NUMBER OF RECORDS |
| 44 | | 2 | | RECORD COUNT |
| **SYSLST DIB ENTRY** | | | | |
| 48 | | 1 | | CURRENT ADDRESS BBCCHHR |
| 4F | | 3 | | KEY AND DATA LENGTH KDD |
| 52 | | 1 | | END ADDRESS BBCCHHR |
| 59 | | 1 | | UPPER AND LOWER HEAD LIMIT |
| 5B | | 1 | | MAXIMUM NUMBER OF RECORDS |
| 5C | | 2 | | RECORD COUNT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| PROCEDURE DIB ENTRY | | | | |
| 60 | | 1 | | CURRENT ADDRESS BBCCHHR |
| 67 | | 3 | | KEY AND DATA LENGTH KDD |
| 6A | | 1 | | END ADDRESS BBCCHHR |
| 71 | | 2 | | UPPER AND LOWER HEAD LIMIT |
| 73 | | 1 | | MAXIMUM NUMBER OF RECORDS |
| 74 | | 2 | | RECORD COUNT |

CROSS REFERENCE (Name Disp Value)

DIB 0000 ..

## DIOSECT: DISK I/O WORK AREA

DIOSECT describes the fields used by DMSDIO as a work area when reading and writing actual blocks of data on CMS disks. DIOSECT is pointed to by a V-constant in DMSNUC, and referenced indirectly by ADIOSECT in NUCON. DIOSECT is invoked via the DIOSECT macro.

```
    +-----------------------------------------------+
  0 |                     IOOLD                     |
    +-----------------------------------------------+
  8 |                     DIOCSW                    |
    +-----------------------------------------------+
 10 |                                               |
    |                     PWAIT                     |
    |                       +-----------------------+
 20 |                       |        QQDSK1         |
    +-----------------------+-----------------------+
 28 |                                               |
    =                                               =
    |                                               |
    +-----------------------------------------+-----+
 50 |                  SEEKADR                | A*1 |
    +-----------------------------------------+-----+
 58 |                                               |
    =                                               =
    |                                               |
    +-----+-----------------+-----------------------+
 70 | A*2 | //////////////// |       FBACD1MO        |
    +-----------------------+-----------------------+
 78 |       FBACD1FB        |       FBACD1LB        |
    +-----+-----+-----------+-----------------------+
 80 | A*3 |/A*4/|  FBACL1NB |       FBACL1BO        |
    +-----+-----+-----------+-----------------------+
 88 |          LASTCYL      |       LASTHED         |
    +-----+-----+-----------+-----------------------+
 90 | A*5 | A*6 |                                   |
    +-----+-----+                                   |
    =                     SENSB                     =
    |                       +-----------------------+
 A8 |                       |                       |
    +-----------------------+-----------------------+
 B0 |                     SENCCW                    |
    +-----------------------------------------------+
 B8 |                     DOUBLE                    |
    +-----------------------------------------------+
 C0 |                                               |
    =                     XRSAVE                    =
    |                       +-----------------+-----+
 F8 |                       |                 | A*7 |
    +-----------------------+-----------------+-----+
100 |         FREERO        |        DIOFREE        |
    +-----------------------+-----------------------+
108 |        SAVEADT        |                       |
    +-----------------------+-----------------------+
110 |                                               |
    +-----+-----+-----+-----------------------------+
118 | A*8 | A*9 | A*10|                             |
    +-----+-----+-----+-----------------------------+
120 |                    DIOCCW01                   |
    +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IOOLD | 8 | | I/O-OLD-PSW (FROM INTERRUPT ROUTINE) |
| 8 | DIOCSW | 8 | | CSW (FROM INTERRUPT ROUTINE) |
| WAIT CALLING SEQUENCE | | | | |
| 10 | PWAIT | 8 | | |
| 24 | QQDSK1 | 2 | | TWO BYTES ALWAYS = 0 |
| 26 | QQDSK2 | 2 | | 2ND HALFWORD COPY OF 16TH TRACK DISK-ADDRESS |
| CCW CHAIN | | | | |
| 50 | SEEKADR | 7 | | SEEK/SEARCH INFORMATION (1ST 3 BYTES ARE 0) |
| 57 | SECTNUM | 1 | A*1 | SECTOR NUMBER |
| FBA CCWS FOR USE IN ONE-CMS-BLK OPERATIONS | | | | |
| 70 | FBACD1 | 1 | A*2 | MASK |
| 74 | FBACD1MO | 4 | | MAJOR OFFSET |
| 78 | FBACD1FB | 4 | | FIRST BLOCK OFFSET |
| 7C | FBACD1LB | 4 | | LAST BLOCK OFFSET |
| LOCATE LIST | | | | |
| 80 | FBACL1 | 1 | A*3 | OPERATION |
| 82 | FBACL1NB | 2 | | NUMBER OF BLOCKS |
| 84 | FBACL1BO | 4 | | BLOCK OFFSET |
| I/O INFORMATION | | | | |
| 88 | LASTCYL | 4 | | BECOMES 'LAST CYLINDER-NUMBER USED' |
| 8C | LASTHED | 4 | | BECOMES 'LAST HEAD-NUMBER USED' |
| 90 | DEVTYP | 1 | A*5 | 01 = 2311,08 = 2314,09 = 3330, |
| 91 | DIOFLAG | 1 | A*6 | RDTK/WRTK FLAG: |
| | Bits defined in DIOFLAG | | | |
| | 18 DIAGNUM | | | NUMBER ASSIGNED BY 'CP' FOR DIAGNOSE I/O |
| | 04 TOOBIG | | | BYTE-COUNT > 800 |
| | 02 WRTKF | | | WRITING FIRST CHAIN LINK |
| | 01 QQTRK | | | HANDLING FIRST CHAIN LINK |
| 92 | SENSB | 24 | | SENSE INFORMATION |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| B8 | DOUBLE | 8 | | (SCRATCH-AREA, FOR CVD USE ETC.) |
| KEEP THE FOLLOWING IN ORDER: | | | | |
| C0 | XRSAVE | 4 | | REGISTERS 0-14 SAVED HERE FOR RDTK-WRTK |
| FF | ERRCODE | 1 | A*7 | ERROR-CODE (IN R15 AT EXIT) |
| KEEP THE FOLLOWING TWO IN ORDER: | | | | |
| 100 | FREER0 | 4 | | NUMBER OF DOUBLEWORDS OF FREE STORAGE (IF ANY) |
| 104 | DIOFREE | 4 | | ADDRESS OF FREE STORAGE FOR BUFFER OR CCW'S |
| 108 | SAVEADT | 4 | | HANDY PLACE FOR AN ADT ADDRESS |
| 118 | DIAGRET | 1 | A*8 | CP'S DIAGNOSE RETURN CODE IF NON-ZERO |
| 119 | IOCOMM | 1 | A*9 | SET TO READ (06) OR WRITE (05) |
| 11A | LASTREC | 1 | A*10 | NUMBER (1-14) OF THE LAST RECORD PROCESS |
| 120 | DIOCCW01 | 8 | | CCW BUILD AREA FOR LONG OPERATIONS |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CC | 0120 | 40 | FBACL1 | 0080 | .. | IOOLD | 0000 | .. | SECTNUM | 0057 | .. |
| CD | 0120 | 80 | FBACL1BO | 0084 | .. | LASTCYL | 0088 | .. | SEEK | 0120 | 07 |
| DEVTYP | 0090 | .. | FBACL1NB | 0082 | .. | LASTHED | 008C | .. | SEEKADR | 0050 | .. |
| DIAGNUM | 0091 | 18 | FBADEF | 0120 | 63 | LASTREC | 011A | .. | SENSB | 0092 | .. |
| DIAGRET | 0118 | .. | FBADWDT | 0120 | C0 | NOP | 0120 | 03 | SENSE | 0120 | 04 |
| DIOCCW01 | 0120 | .. | FBADWIN | 0120 | 40 | PCIF | 0120 | 08 | SETSEC | 0120 | 23 |
| DIOCSW | 0008 | .. | FBAIPL | 0120 | 02 | PWAIT | 0010 | .. | SILI | 0120 | 20 |
| DIOFLAG | 0091 | .. | FBALOC | 0120 | 43 | QQDSK1 | 0024 | .. | SKIP | 0120 | 10 |
| DIOFREE | 0104 | .. | FBALRDT | 0120 | 06 | QQDSK2 | 0024 | 26 | TIC | 0120 | 08 |
| DOUBLE | 00B8 | .. | FBALWDT | 0120 | 01 | QQTRK | 0091 | 01 | TOOBIG | 0091 | 04 |
| ERRCODE | 00FF | .. | FBARD | 0120 | 42 | RDCONS | 0120 | 0A | WRDATA | 0120 | 05 |
| FBACD1 | 0070 | .. | FBAWR | 0120 | 41 | RDDATA | 0120 | 06 | WRITE | 0120 | 01 |
| FBACD1FB | 0078 | .. | FREER0 | 0100 | .. | READ | 0120 | 02 | WRITE1 | 0120 | 09 |
| FBACD1LB | 007C | .. | IDA | 0120 | 04 | SAVEADT | 0108 | .. | WRTKF | 0091 | 02 |
| FBACD1MO | 0074 | .. | IOCOMM | 0119 | .. | SEARCH | 0120 | 31 | XRSAVE | 00C0 | .. |

## DIRSECT: CMS PDS DIRECTORY ENTRY

DIRSECT describes the fields of a CMS PDS directory entry. DIRSECT is invoked by the LIB macro.

```
        +-----------------------------------------------+
      0 |                    DIRMEMB                    |
        +-----------+-----+-----+-----------------------+
      8 | DIRITEMX  | D*1 | D*2 |        DIRITEM        |
        +-----------+-----+-----+-----------------------+
```

Size

DIRECTORY ENTRY LENGTH IN BYTES (DIRENTSZ) 10

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DIRMEMB | 8 | | MEMBER NAME |
| 8 | DIRITEMX | 2 | | SCP 2 BYTE START ITEM NUMBER |
| A | DIRFLG1 | 1 | D*1 | FLAG BYTE 1 |
| B | DIRFLG2 | 1 | D*2 | FLAG BYTE 2 |
| Bits defined in DIRFLG2 | | | | |
| 80 | DIRNA | | | NOT AN ALIAS |
| C | DIRITEM | 4 | | STARTING ITEM NUMBER OF MEMBER |
| Bits defined in DIRITEM | | | | |
| 10 | DIRNEXT | | | |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIRENTSZ | .... | 10 | DIRFLG2 | 000B | .. | DIRITEMX | 0008 | .. | DIRNA | 000B | 80 |
| DIRFLG1 | 000A | .. | DIRITEM | 000C | .. | DIRMEMB | 0000 | .. | DIRNEXT | 000C | 10 |

## DMSCCB: COMMAND CONTROL BLOCK

DMSCCB describes all fields of a VSE command control block (CCB). This DSECT is used by DMSXCP to map the CCB specified by a user for an SVC 0 (EXCP). DMSCCB passes the address of CCB to DMSXCP. DMSCCB is invoked via the DMSCCB macro.

```
     +-----------+-----+-----+-----+-----+-----+-----+
   0 |  CCBCNT   | A*1 | A*2 | A*3 | A*4 | A*5 | A*6 |
     +-----+-----+-----+-----+-----+-----+-----+-----+
   8 | A*7 |      CCBCCW       | A*8 |     CCBCSW      |
     +-----+-----------------+-----+-----------------+
  10 |       CCBLDATB        |       CCBLCCWB        |
     +-----------------------+-----+-----------------+
  18 |                       | A*9 |  CCBFSCCW       |
     +-----------------------+-----+-----------------+
  20 |       CCBRDCCW        |       CCBWTCCW        |
     +-----------------------+-----------------------+
  28 |       CCBLWCCW        |                       |
     +-----------------------+-----------------------+
  30 |                       |                       |
     +-----------------------+-----------------------+
  38 |       CCBNCCB         |                       |
     +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CCBST | | | START CCB |
| 0 | CCBD | | | COMMAND CONTROL BLOCK |
| 0 | CCBLEN | 16 | | MAP OF THE DOS CCB |
| 0 | CCBCNT | 2 | | RESIDUAL COUNT |
| 2 | CCBERMAP | 4 | | 4 BYTES USED TO CHECK ERRORS |
| 2 | CCBCOM1 | 1 | A*1 | COMMUNICATIONS BYTE NUMBER 1 |

Bits defined in CCBCOM1

| | | |
|---|---|---|
| 80 | CCBWAIT | TRAFFIC BIT(SET AT CE) |
| 40 | CCBEOF | END-OF-FILE |
| 20 | CCBIOERR | UNRECOVERABLE I/O ERROR |
| 10 | CCBERROK | ACCEPT UNRECOVERABLE ERROR |
| 08 | CCBRDC | RETURN DATA CHECKS |
| 04 | CCBPDE | POST AT DEVICE END |
| 02 | CCBDCV | RETURN DATA CHECK RD/CHK |
| 01 | CCBUERR | USER ERROR ROUTINE |

| | | | | |
|---|---|---|---|---|
| 3 | CCBCOM2 | 1 | A*2 | COMMUNICATIONS BYTE NUMBER 2 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| Bits defined in CCBCOM2 | | | | |
| 80 | CCBDCCNT | | | DATA CHECK IN COUNT AREA |
| 40 | CCBTRKOV | | | TRACK OVERRUN |
| 20 | CCBEOC | | | END-OF-CYLINDER |
| 10 | CCBDC | | | DATA CHECK |
| 08 | CCBNOREC | | | NO-RECORD-FOUND |
| 04 | CCBRETRY | | | RETRY NO RECORD FOUND |
| 02 | CCBVER | | | VERIFY ERROR |
| 01 | CCBCC | | | COMMAND CHAIN(RETRY) |
| 4 | CCBCSW1 | 1 | A*3 | CSW STATUS BIT NUMBER 1 |
| Bits defined in CCBCSW1 | | | | |
| 80 | CCBATTN | | | ATTENTION |
| 40 | CCBSTMOD | | | STATUS MODIFIER |
| 20 | CCBCUE | | | CONTROL UNIT END |
| 10 | CCBBUSY | | | BUSY |
| 08 | CCBCE | | | CHANNEL END |
| 04 | CCBDE | | | DEVICE END |
| 02 | CCBUC | | | UNIT CHECK |
| 01 | CCBUE | | | UNIT EXCEPTION |
| 5 | CCBCSW2 | 1 | A*4 | CSW STATUS BIT NUMBER 2 |
| Bits defined in CCBCSW2 | | | | |
| 80 | CCBPCI | | | PROGRAM-CONTROLLED INTERRUPT |
| 40 | CCBILEN | | | INCORRECT LENGTH |
| 20 | CCBPROGM | | | PROGRAM CHECK |
| 10 | CCBPROT | | | PROTECTION CHECK |
| 08 | CCBCHAND | | | CHANNEL DATA CHECK |
| 04 | CCBCHANC | | | CHANNEL CONTROL CHECK |
| 02 | CCBICTRL | | | INTERFACE CONTROL CHECK |
| 01 | CCBCHAIN | | | CHAINING CHECK |
| 6 | CCBSYMU | 2 | | SYMBOLIC UNIT(SYSUN) |
| 6 | CCBSUCLS | 1 | A*5 | U - LUB CLASS |
| 7 | CCBSUNUM | 1 | A*6 | N - LUB NUMBER WITHIN CLASS |
| 8 | CCBLIOBS | 1 | A*7 | RESERVED FOR LIOBS |
| 9 | CCBCCW | 3 | | POINTER TO START OF CHANNEL PROGRAM |
| C | CCBCOM3 | 1 | A*8 | COMMUNICATION BYTE NUMBER 3 |
| Bits defined in CCBCOM3 | | | | |
| 40 | CCBAPEND | | | APPENDAGE EXIT AT INTERRUPT |
| D | CCBCSW | 3 | | POINT TO CSW OR POINT APPENDAGE RETURN |
| 10 | CCBLDATB | 4 | | ADDRESS OF LAST DATA BLOCK |
| 14 | CCBLCCWB | 4 | | ADDRESS OF LAST CCW BLOCK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1C | CCBUFLGS | 1 | A*9 | I/O MANAGER CCB FLAGS |

Bits defined in CCBUFLGS

| | | |
|---|---|---|
| 80 | CCBUEAIC | ERROR ANALYSIS IN CONTROL |
| 40 | CCBUEAC | ERROR ANALYSIS COMPLETE |
| 20 | CCBURDCW | READ CCW ACTIVE |
| 10 | CCBRPS | RPS CHAN PGM CANDIDATE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1D | CCBFSCCW | 3 | | SAVE AREA FOR FIRST CCW ADDRESS |
| 20 | CCBRDCCW | 4 | | ADDRESS OF FIRST READ CCW |
| 24 | CCBWTCCW | 4 | | ADDRESS OF FIRST WRITE CCW |
| 28 | CCBLWCCW | 4 | | ADDRESS OF THE LAST WRITE CCW |

THIS CHAIN FIELD MUST HAVE SAME DISPLACEMENT AS FCBCHAIN IN FCDB AND BKPFSTBK IN BKPHD.

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 38 | CCBNCCB | 4 | | ADDRESS OF NEXT CCB BLOCK |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CCBAPEND | 000C | 40 |
| CCBATTN | 0004 | 80 |
| CCBBUSY | 0004 | 10 |
| CCBCC | 0003 | 01 |
| CCBCCW | 0009 | .. |
| CCBCE | 0004 | 08 |
| CCBCHAIN | 0005 | 01 |
| CCBCHANC | 0005 | 04 |
| CCBCHAND | 0005 | 08 |
| CCBCNT | 0000 | .. |
| CCBCOM1 | 0002 | .. |
| CCBCOM2 | 0003 | .. |
| CCBCOM3 | 000C | .. |
| CCBCSW | 000D | .. |
| CCBCSW1 | 0004 | .. |
| CCBCSW2 | 0005 | .. |
| CCBCUE | 0004 | 20 |
| CCBD | 0000 | 00 |
| CCBDC | 0003 | 10 |
| CCBDCCNT | 0003 | 80 |
| CCBDCV | 0002 | 02 |
| CCBDE | 0004 | 04 |
| CCBEOC | 0003 | 20 |
| CCBEOF | 0002 | 40 |
| CCBERMAP | 0002 | .. |
| CCBERROK | 0002 | 10 |
| CCBFSCCW | 001D | .. |
| CCBICTRL | 0005 | 02 |
| CCBILEN | 0005 | 40 |
| CCBIOERR | 0002 | 20 |
| CCBLCCWB | 0014 | .. |
| CCBLDATB | 0010 | .. |
| CCBLEN | 0000 | .. |
| CCBLIOBS | 0008 | .. |
| CCBLWCCW | 0028 | .. |
| CCBNCCB | 0038 | .. |
| CCBNOREC | 0003 | 08 |
| CCBPCI | 0005 | 80 |
| CCBPDE | 0002 | 04 |
| CCBPROGM | 0005 | 20 |
| CCBPROT | 0005 | 10 |
| CCBRDC | 0002 | 08 |
| CCBRDCCW | 0020 | .. |
| CCBRETRY | 0003 | 04 |
| CCBRPS | 001C | 10 |
| CCBST | 0000 | 00 |
| CCBSTMOD | 0004 | 40 |
| CCBSUCLS | 0006 | .. |
| CCBSUNUM | 0007 | .. |
| CCBSYMU | 0006 | .. |
| CCBTRKOV | 0003 | 40 |
| CCBUC | 0004 | 02 |
| CCBUE | 0004 | 01 |
| CCBUEAC | 001C | 40 |
| CCBUEAIC | 001C | 80 |
| CCBUERR | 0002 | 01 |
| CCBUFLGS | 001C | .. |
| CCBURDCW | 001C | 20 |
| CCBVER | 0003 | 02 |
| CCBWAIT | 0002 | 80 |
| CCBWTCCW | 0024 | .. |

**DOSSECT: VSE SIMULATION CONTROL BLOCK**

DOSSECT simulates the CMS file control block (FCB) in the CMS/DOS environment. DOSSECT is invoked by the DOSCB macro.

The DOS simulation control blocks are chained together. The DOSFIRST field in NUCON points to the first DOSCB in the chain, or if no chain exists, contains zero.

```
     +-----------------------+-----------------------+
   0 |        DOSNEXT        |        DOSCBID        |
     +-----------------------+-----------------------+
   8 |                     DOSDD                     |
     +-----------------------------------------------+
  10 |                     DOSOP                     |
     +-----------------------------------------------+
  18 |                    DOSDSNAM                   |
     +-----------------------------------------------+
  20 |                    DOSDSTYP                   |
     +-----------+-----------+-----------------------+
  28 | DOSDSMD   | ///////// |        DOSBUFF        |
     +-----------+-----------+-----+-----+-----------+
  30 |        DOSBYTE        | D*1 | D*2 | ///////// |
     +-----------------------+-----+-----+-----------+
  38 |        DOSREAD        |        DOSITEM        |
     +-----------------------+-----+-----+-----------+
  40 |        DOSCOUT        | D*3 | D*4 | DOSBLKSZ  |
     +-----------------------+-----+-----+-----------+
  48 |                    DOSWORK                    |
     +-----+-----+-----+-----+-----------------------+
  50 | D*5 | D*6 | D*7 | D*8 |        DOSOSFST       |
     +-----+-----+-----+-----+-----------------------+
  58 |        DOSOSDSN       |        DOSVOLTB       |
     +-----------------------+-----------+-----+-----+
  60 |        DOSEXTTB       | DOSSENSE  | D*9 | D*10|
     +-----------------------+-----------+-----+-----+
  68 |        DOSBUFSP       |        DOSUCNAM       |
     +-----------------------+-----------------------+
  70 |  DOSUCNAM (cont.)     |                       |
     +-----------------------+                       |
     |                                               |
     =                    DOSSAVE                    =
     |                                               |
     |                       +-----+-----+-----------+
  88 |                       | D*11| D*12| ///////// |
     +-----------------------+-----+-----+-----------+
  90 |         DOSDTF        |        DOSF1AD        |
     +-----------+-----------+-----+-----+-----------+
  98 |   DOSCC   |   DOSHH   |DOSR | /////////////// |
     +-----------+-----------+-----+-----------------+
  A0 |                     DOSEND                    |
     +-----------------------------------------------+
```

Size

DOSSECT SIZE IN DOUBLEWORDS (DOSENSIZ) 14

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DOSINIT | 1 | | DOSCB FLAG BYTE |
| Bits defined in DOSINIT | | | | |
| 40 | DOSOS | | | CREATED BY 'OS' USER |
| 20 | DOSDOS | | | DEFINED FOR NON-CMS DISK |
| 10 | DOSCMS | | | DEFINED FOR CMS DISK |
| 08 | DOSDDCAT | | | USER CATALOG DATASET |
| 04 | DOSPERM | | | PERMANENT CONTROL BLOCK |
| 02 | DOSJCAT | | | SEARCH VSAM JOB CATALOG |
| 01 | DOSUCAT | | | SEARCH VSAM USER CATALOG |
| 0 | DOSNEXT | 4 | | AL3 (NEXT DOSCB) |
| 4 | DOSCBID | 4 | | 'DLBL' TO DISTINGUISH FROM CMSCB |
| 8 | DOSDD | 8 | | DATA DEFINITION NAME |
| 10 | DOSOP | 8 | | CMS OPERATION |
| 18 | DOSTAPID | 1 | | TAPE IDENTIFICATION |
| 18 | DOSDSNAM | 8 | | DATASET NAME |
| 20 | DOSDSTYP | 8 | | DATASET TYPE |
| 28 | DOSDSMD | 2 | | DATASET MODE |
| 2A | | 2 | | RESERVED |
| 2C | DOSBUFF | 4 | | A (INPUT/OUTPUT BUFFER) |
| 30 | DOSBYTE | 4 | | SIZE OF BUFFER (DATA COUNT) |
| 34 | DOSFORM | 1 | D*1 | FILE FORMAT: FIXED/VARIABLE |
| 35 | DOSEPL | 1 | D*2 | EXTENDED PLIST |
| 36 | | 2 | | RESERVED |
| 38 | DOSREAD | 4 | | N'BYTES ACTUALLY READ |
| 3C | DOSITEM | 4 | | ITEM (RECORD) NUMBER |
| 40 | DOSCOUT | 4 | | RECORDS PER CMS PHYSICAL BLOCK |
| 44 | DOSDEV | 1 | D*3 | DEVICE TYPE CODE |
| Bits defined in DOSDEV | | | | |
| 14 | DOSDSK | | | DISK |
| 00 | DOSDUM | | | DUMMY DEVICE |
| 45 | DOSTAPMD | 1 | D*4 | TAPE MODESET SAVE |
| 46 | DOSBLKSZ | 2 | | BLOCK SIZE |
| 48 | DOSWORK | 8 | | WORK AREA |
| 50 | DOSYSXXX | 2 | | LOGICAL UNIT FOR CMS/DOS |
| 50 | DOSSYS | 1 | D*5 | SYS/PROG UNIT: X'00' =SYS, X'01'=PROG |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 51 | DOSXXX | 1 | D*6 | NUMBER FROM 000-255 ASSOC WITH UNIT |
| 52 | DOSEXT | 1 | D*7 | NUMBER DOS EXTENTS LEFT TO PROCESS |
| 53 | DOSEXTCT | 1 | D*8 | CURRENT DOS EXTENT |
| 54 | DOSOSFST | 4 | | POINTER TO OS FST |
| 58 | DOSOSDSN | 4 | | POINTER TO OS DSNAME BLOCK |
| 5C | DOSVOLTB | 4 | | A(VOLUME ID TABLE)-VSAM MULTIVOL DATASET |
| 60 | DOSEXTTB | 4 | | A(EXTENT TABLE) FOR VSAM DATASPACE |
| 64 | DOSSENSE | 2 | | I/O SENSE DATA |
| 66 | DOSVOLNO | 1 | D*9 | NUMBER VOLUMES (ENTRIES IN DOSVOLTB) |
| 67 | DOSEXTNO | 1 | D*10 | NUMBER EXTENTS (ENTRIES IN DOSEXTTB) |
| 68 | DOSBUFSP | 4 | | SIZE OF VSAM I/O BUFFER(S) |
| 6C | DOSUCNAM | 8 | | VSAM USER CATALOG DDNAME |
| 74 | DOSSAVE | 24 | | TEMPORARY SAVE FOR RE-ENTRANT CODE |
| 8C | DOSEXTCX | 1 | D*11 | CURRENT EXTENT (USED BY DMSXCP) |
| 8D | DOSTYPE | 1 | D*12 | DATASET TYPE (SAM=S, VSAM=A) |
| 90 | DOSDTF | 4 | | POINTER TO DTF |
| 94 | DOSF1AD | 4 | | POINTER TO F1 LABEL |
| Bits defined in DOSF1AD | | | | |
| 98 | DOSCCHHR | | | DOS CCHHR |
| 98 | DOSCC | 2 | | DOS CC - CYLINDER |
| 9A | DOSHH | 2 | | DOS HH - TRACK |
| 9C | DOSR | 1 | | DOS R - RECORD |
| 9D | | 3 | | RESERVED |
| A0 | DOSEND | 8 | | END ADDRESS OF THIS BLOCK |

<u>CROSS</u> <u>REFERENCE</u> (Name  Disp  Value)

```
DOSBLKSZ 0046 ..    DOSDSMD  0028 ..    DOSF1AD  0094 ..    DOSSAVE  0074 ..
DOSBUFF  002C ..    DOSDSNAM 0018 ..    DOSHH    009A ..    DOSSENSE 0064 ..
DOSBUFSP 0068 ..    DOSDSTYP 0020 ..    DOSINIT  0000 ..    DOSSYS   0050 ..
DOSBYTE  0030 ..    DOSDTF   0090 ..    DOSITEM  003C ..    DOSTAPID 0018 ..
DOSCBID  0004 ..    DOSDUM   0044 00    DOSJCAT  0000 02    DOSTAPMD 0045 ..
DOSCC    0098 ..    DOSEND   00A0 ..    DOSNEXT  0000 ..    DOSTYPE  008D ..
DOSCCHHR 0094 98    DOSENSIZ .... 14    DOSOP    0010 ..    DOSUCAT  0000 01
DOSCMS   0000 10    DOSEPL   0035 ..    DOSOS    0000 40    DOSUCNAM 006C ..
DOSCOUT  0040 ..    DOSEXT   0052 ..    DOSOSDSN 0058 ..    DOSVOLNO 0066 ..
DOSDD    0008 ..    DOSEXTCT 0053 ..    DOSOSFST 0054 ..    DOSVOLTB 005C ..
DOSDDCAT 0000 08    DOSEXTCX 008C ..    DOSPERM  0000 04    DOSWORK  0048 ..
DOSDEV   0044 ..    DOSEXTNO 0067 ..    DOSR     009C ..    DOSXXX   0051 ..
DOSDOS   0000 20    DOSEXTTB 0060 ..    DOSREAD  0038 ..    DOSYSXXX 0050 ..
DOSDSK   0044 14    DOSFORM  0034 ..
```

**DTFSD: OPEN DTF MAP**

DTFSD describes fields within the DTF for sequential disk files and is used in the CMS/DOS environment. DTFSD is invoked by the DTFSD macro.

```
           +-------------+-------------+-------------+------+------+
|        0 | DTFCOUNT    | DTFTRANS    | DTFCSW      | D*1  |DTFLU |
           +------+------+-------------+------+------+------+------+
|        8 | D*2  |       DTFCCW       | D*3  |        D*4         |
           +------+--------------------+------+------+-------------+
|       10 | D*5  |      DTFLGMOD      | D*6  | D*7  |   DTFNAME   |
           +------+--------------------+------+------+------+------+
|       18 |        DTFNAME (cont.)           | D*8  | D*9  | D*10 |
           +------+------+------+------+------+------+------+------+
|       20 | D*11 | D*12 | D*13 | D*14 | D*15 | D*16 | D*17 | D*18 |
           +------+------+------+------+------+------+------+------+
|       28 | D*19 | D*20 | D*21 | D*22 | D*23 |      DTFIOA1       |
           +------+------+------+------+------+------+-------------+
        30 |          DTFULADR         |  DTFLHLIM   |  DTFULPBN   |
           +-------------+------+------+------+------+------+------+
|       38 |   (cont.)   | D*24 | D*25 | D*26 | D*27 | D*28 | D*29 |
           +------+------+------+------+------+------+------+------+
|       40 | D*30 | D*31 |  DTFRECSZ   | D*32 |      DTFWERAD      |
           +------+------+-------------+------+------+------+------+
|       48 | D*33 | D*34 |  DTFBLKSZ   |     D*35    | D*36 | D*37 |
           +------+------+-------------+------+------+------+------+
|       50 | D*38 | D*39 |  DTFCPDTL   | D*40 | D*41 | D*42 | D*43 |
           +------+------+-------------+------+------+------+------+
        58 |         DTFAVAIL          |         DTFLOGRS          |
           +---------------------------+------+--------------------+
        60 |         DTFIEND           | D*44 |      DTFDERAD      |
           +------+--------------------+------+--------------------+
        68 | D*45 |                      D*46                      |
           +------+------------------------------------------------+
        70 |                                                       |
           =                         D*47                          =
           |                                                       |
           +------+--------------------+------+--------------------+
        A0 | D*48 |      DTFFLEOX      | D*49 |      DTFULEOX      |
           +------+--------------------+------+--------------------+
        A8 |             D*50                 |      DTFVLEOX      |
           +---------------------------+------+--------------------+
        B0 |         DTFVIRLN          |         DTFVUPBN          |
           +------+--------------------+-------------+-------------+
        B8 | D*51 |      DTFCFEOX      |  DTFVULBL   |    D*52     |
           +------+--------------------+-------------+-------------+
        C0 |                D*52 (continued)                       |
           +---------------------------+---------------------------+
        C8 |         DTFVORLN          |         DTFVOSRR          |
           +------+--------------------+---------------------------+
        D0 | D*53 |        D*54        |           D*55            |
           +------+--------------------+------+------+------+------+
        D8 |         DTFVURLN          | D*56 | D*57 | D*58 | D*59 |
           +---------------------------+------+------+------+------+
        E0 |           D*60            |         DTFVUCI1          |
           +-------------+-------------+------+------+------+------+
        E8 |  DTFVULB1   |    D*61     | D*62 | D*63 | D*64 | D*65 |
           +-------------+-------------+------+------+------+------+
```

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | 0 | DTFCCB | | | CCB |
| | 0 | DTFCOUNT | 2 | | CCB-COUNT |
| | 2 | DTFTRANS | 2 | | CCB-TRANSMISSION INFORMATION |
| | Bits defined in DTFTRANS | | | | |
| | 80 | DTFTRAF | | | CCB-TRAFFIC BIT |
| | 80 | DTFDCH1 | | | DASD DATA CHECK |
| | 40 | DTFEOF | | | CCB-END OF FILE |
| | 20 | DTFUNRC | | | CCB-UNRECOVERED I/O ERROR |
| | 10 | DTFACPT | | | CCB-ACCEPT UNRECOVERED ERROR |
| | 10 | DTFDCH2 | | | DASD DATA CHECK |
| | 04 | DTFNRCF | | | NO RECORD FOUND FOR DASD |
| | 02 | DTFVERR | | | DASD VERIFY ERROR |
| | 4 | DTFCSW | 2 | | CCB-CSW STATUS BITS |
| | Bits defined in DTFCSW | | | | |
| | 40 | DTFINCL | | | INCORRECT LENGTH SPECIFICATION |
| | 06 | DTFTYPLU | | | CCB-TYPE/LOGICAL UNIT |
| | 01 | DTFUE | | | CCB-UNIT EXCEPTION |
| | 6 | DTFTYPC | 1 | D*1 | CCB-TYPE CODE |
| | Bits defined in DTFTYPC | | | | |
| | 01 | DTFPLU | | | 1=PROG LOG UNIT |
| | 7 | DTFLU | 1 | | CCB-LOGICAL UNIT |
| | 8 | | 1 | D*2 | WORD WITH CCW POINTER |
| | 9 | DTFCCW | 3 | | CCB-CCW ADDRESS |
| │ | C | | 1 | D*3 | RESERVED FOR PIOCS |
| │ | D | | 3 | D*4 | CCB-CCW ADDRESS IN CSW |
| │ | 10 | DTFLGMDA | | | WORD WITH LOGIC MODULE ADDRESS |
| | 10 | DTFFLG1 | 1 | D*5 | DTF FLAGS |
| | Bits defined in DTFFLG1 | | | | |
| | 80 | DTFDQEXT | | | DEQUE OLD VOL XTNTS |
| | 80 | DTFDAULI | | | 1=DA PH TRL LABELS<br>0=DA PH HDR LABELS |
| | 40 | DTFSPECL | | | SPECIAL SYSTEM OPEN |
| | 20 | DTFIGNOP | | | COBOL IGN OPTION |
| | 10 | DTFBLHLD | | | BLOCK HOLD OPTION SPECIFIED |
| | 04 | DTFTRLBL | | | PROC TRAILER LBL-CLOSE |
| | 02 | DTFSPAND | | | SPANNED PROCESSING |
| | 01 | DTFEOEXT | | | COBOL END-OF-EXTENT |
| | 11 | DTFLGMOD | 3 | | LOGIC MOD ADDRESS |
| | 14 | DTFTYPE | 1 | D*6 | DTF TYPE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 15 | DTFFLG2 | 1 | D*7 | DTF FLAGS |

Bits defined in DTFFLG2

| | | |
|---|---|---|
| 80 | DTFDAOUT | 1=DA OUTPUT, 0=DA INPUT |
| 40 | DTFBLKFL | BLOCKED FILE |
| 40 | DTFWKDLT | DELETE WORKFILE |
| 40 | DTFDAVER | DTFDA VERIFY OPTION |
| 20 | DTFWRKFL | WORKFILE |
| 20 | DTFDASCH | DTFDA SRCHM OPTION |
| 10 | DTFWORKA | WORKA = YES SPECIFIED |
| 10 | DTFWKPTO | 1 = POINT OPEN |
| 10 | DTFDAAFT | DTFDA AFTER = YES SPECIFIED |
| 08 | DTFVER2 | VERSION 2 DTF |
| 04 | DTFOPEN | 1 = OPEN, 0 = CLOSED |
| 04 | DTFDAUND | DTFDA UNDEFINED FORMAT |
| 02 | DTFINPUT | 1 = INPUT, 0 = OUTPUT |
| 01 | DTFUSRLB | USER LABELS SPECIFIED |

| | | | | |
|---|---|---|---|---|
| 16 | DTFNAME | 7 | | DTF NAME |
| 1D | DTFDEVTP | 1 | D*8 | DEVICE TYPE |
| 1E | DTFF1ADD | | | BCCHHR FMT1 ADDRESS |
| 1E | DTFWTKCP | | | WORKFILE TRCK CAPACITY |
| 1E | DTFDAFSU | | | DTFDA 1ST SYM UNIT |
| 1E | DTFPHEOF | | | EOF INDICATOR FOR DTFPH |
| 1E | DTFWKTKC | 1 | D*9 | WORKFILE FIRST TRACK CAPACITY BYTE |
| 1F | | 1 | D*10 | UNUSED |
| 20 | DTFF1ADR | | | FMT1 LABLE ADDRESS IN VTOC |
| 20 | | 1 | D*11 | UNUSED |

Bits defined in &1

| | | |
|---|---|---|
| 40 | DTFDARPS | DTFDA INDICATES THAT DEVICE SUPPORTS RPS |
| 20 | DTFPHMV3 | VERSION 3 INDICATOR DTFPH MOUNTED = ALL |
| 01 | DTFDAXTN | DTFDA INDICATES THAT DTF HAS BEEN EXTENDED FOR THE REENTRANT DAM LOGICMODS |

| | | | | |
|---|---|---|---|---|
| 21 | DTFDAULR | | | ADDRESS OF USER LABEL ROUTINE |
| 21 | DTFIDXSQ | 1 | D*12 | EXTENT SEQUENTIAL NUMBER IN D/X |
| 22 | DTFIF1SQ | 1 | D*13 | EXTENT SEQUENTIAL NUMBER IN F1 |
| 23 | DTFFMT1R | 1 | D*14 | FMT1 R OF CKD CCHHR |
| 24 | DTFDAXXR | | | ADDRESS OF DA XTNT EXIT INFORMATION RETURNED |
| 24 | DTFVOLNO | | | VOLUME SEQUENCE NUMBER |
| 24 | DTFWKSEQ | 1 | D*15 | EXTNT SEQUENTIAL NO-WKFILE |
| 25 | DTFWKOCF | 1 | D*16 | WORKFILE OPN COM FIELD |

Bits defined in DTFWKOCF

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 40 | DTFWKRPS | | | INDICATOR DEVICE SUPPORTS RPS |
| 20 | DTFWKV3 | | | VERSION 3 INDICATOR WORKFILE |
| 10 | DTFWKXTF | | | INDIC ALL EXTENTS PROCESSED |
| 08 | DTFWKNWV | | | EXTENT ON NEW VOLUME |
| 04 | DTFWKFID | | | OK FOR = FILE ID |
| 02 | DTFWKXTD | | | AN EXTENT WAS OPENED |
| 26 | DTFFLG3 | 1 | D*17 | DTF FLAGS |
| Bits defined in DTFFLG3 | | | | |
| 80 | DTFNOEXT | | | INPUT - NO MORE XTNTS OUTPUT-NO MORE XTNTS |
| 40 | DTFUPDAT | | | INPUT - UPDATE FILE |
| 40 | DTFOXTCL | | | OUTPUT - XTNT NEEDED AT CLOSE TIME |
| 20 | DTFPRTLB | | | INPUT - PROCESS TRL LABEL<br>OUTPUT - PROCESS TRL LABEL |
| 10 | DTFUEOF | | | INPUT - EXIT TO USERS EOF ROUTINE |
| 10 | DTFOHDRL | | | OUTPUT - PROCESS HDR LABEL |
| 08 | DTFNEWVL | | | INPUT - EXTENT ON NEW VOLUME<br>OUTPUT - EXTENT ON NEW VOLUME |
| 04 | DTFIRTCL | | | INPUT - RETURN TO CLOSE |
| 04 | DTF1052 | | | OUTPUT - XTNT VIA CONSOLE |
| 02 | DTFIHDRL | | | INPUT - PROCESS HDR LABEL |
| 02 | DTFTLCL | | | OUTPUT - PROCESS TRAILER LABELS AT CLOSE |
| 01 | DTFDUMEX | | | INPUT - DUMMY EXTENTS<br>OUTPUT - UNREF FOR FBA |
| 27 | DTFODXSQ | 1 | D*18 | DTF FLAGS-IF OUTPUT-SEQUENTIAL NUMBER OF CURRENT EXTENT OPENED |
| Bits defined in DTFODXSQ | | | | |
| 80 | DTFEXBYP | | | INPUT - XTNT BYPASSED BEFORE FILE OPENED |
| 40 | DTFFEOV | | | INPUT - FEOV ISSUED |
| 20 | DTFLSTVL | | | INPUT - LAST VOLUME |
| 28 | DTFFLNML | | | FILENAME.L |
| 28 | DTFSNLEO | | | SEQUENTIAL NUMBER OF LAST EXTENT OPENED |
| 28 | DTFDARTA | 1 | D*19 | DISPLACEMENT TO DTFDA RELATIVE TRACK ADDRESS TABLE |
| 29 | DTFULRTN | | | ADDRESS OF USER LABEL RETURNED |
| 29 | | 1 | D*20 | UNREFERENCED |
| 2A | DTFCPDIF | 1 | D*21 | CP DI FLAGS |
| Bits defined in DTFCPDIF | | | | |
| 40 | DTFRPSXC | | | RPS CP/DI EXTENSION CREATED |
| 01 | DTFRPSXS | | | RPS CP/DI SUPPORTED |
| 2B | | 1 | D*22 | UNREFERENCED |
| 2C | DTFFLG5 | 1 | D*23 | DTF FLAGS |
| Bits defined in DTFFLG5 | | | | |
| 80 | DTFCPIN | | | INPUT FILE FOR DTFCP |
| 40 | DTFSDRPS | | | INDIC DEVICE SUPPORTS RPS |
| 20 | DTFCPFP | | | FIRST PASS INDICATOR FOR DTF CP |
| 20 | DTFPHSV3 | | | VERSION 3 INDICATOR PH SEQUENTIAL |
| 10 | DTFCP2I | | | TWO IO AREAS FOR DTFCP |
| 10 | DTFVAROU | | | VARIABLE OUTPUT FILE FOR DTFSD FEOVD |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 08 | DTFPHSMO | | | DTFPH OPEN BY SPACE MANAGEMENT |
| 04 | DTFCPLP | | | SYSLST OR SYSPCH FOR DTFCP |
| 02 | DTFGVIOA | | | IOAREA(S) GETVISED |
| 2D | DTFIOA1 | 3 | | ADDRESS OF IO AREA 1, AND IO AREA 2 FOR DTFCP |
| 30 | DTFULADR | 4 | | VTOC ADDRESS OF USER LABELS |
| Bits defined in DTFULADR | | | | |
| 20 | DTFDIV3 | | | VERSION 3 INDICATOR FOR DTFCP & DTFDI |
| 34 | DTFLHLIM | 2 | | ZEROS FOR FBA |
| 36 | DTFULPBN | 4 | | EXTENT UL PBN |
| 3A | DTFSKADR | | | ZEROS FOR FBA |
| 3A | DTFWKSKA | 1 | D*24 | WORKFILE SEEK ADDRESS |
| 3B | | 1 | D*25 | UNREFERENCED |
| 3C | DTFLPBNR | | | PHYSICAL POSITION OF CURRENT LOGICAL BLOCK |
| 3C | DTFLLPBN | | | EXTENT LL PBN |
| 3C | DTFWKRNO | 1 | D*26 | RECORD NUMBER FOR WORKFILE |
| 3D | DTFWKLMS | 1 | D*27 | WORKFILE LOGIC MODS SW |
| Bits defined in DTFWKLMS | | | | |
| 80 | DTFWKWT1 | | | FIRST WRITE-WRKFL |
| 40 | DTFWRUPD | | | WRITE UPDATE INDICATOR |
| 20 | DTFWPNTS | | | POINTS INDICATOR |
| 02 | DTFWXTCL | | | EXTENT NEEDED AT CLOSE |
| 3E | DTFWBKSZ | | | MAXIMUM BLOCK SIZE |
| 3E | DTFSRCH1 | 1 | D*28 | 1ST H OF CCHH CKD SEARCH ARGUMENT |
| 3F | | 1 | D*29 | UNREFERENCED |
| 40 | DTFRECNO | 1 | D*30 | RECORD NUMBER |
| 41 | DTFEOFAD | 1 | D*31 | INPUT - EOF ADDRESS |
| 42 | DTFRECSZ | 2 | | BUCKET TO SAVE RECSIZE REGISTER FOR OUTPUT |
| 44 | DTFCTRLF | 1 | D*32 | CONTROL FIELD |
| Bits defined in DTFCTRLF | | | | |
| 80 | DTFWEADR | | | UNREFERENCED |
| 40 | DTFWEIGN | | | ERROPT = IGNORE - WORK FILE |
| 20 | DTFWFUNB | | | RECFORM = FIXNUB - WORK FILE |
| 10 | DTFWVYES | | | VERIFY = YES WORKFILE |
| 08 | DTFWESKP | | | ERROPT = SKIP WORKFILE |
| 45 | DTFWERAD | 3 | | USER ERROR ROUTINE ADDRESS |
| 48 | DTFRECTK | 1 | D*33 | UNREFERENCED |

```
  Disp  Name      Len Key  Description


| 49    DTFFLG6    1 D*34 DTF FLAGS

    Bits defined in DTFFLG6

    80 DTFENTB4            NOT FIRST ENTRY
    20 DTFORTCL            OUTPUT-EXTENT NEEDED AT CLOSE
    20 DTFPBLK             LOGIC MODS - PARTIAL BLOCK TO BE WRITTEN
    10 DTFSKIPR            FIXED OUTPUT - SKIP THIS RECORD
    10 DTFTRUNR            FIXED INPUT - TRUNCATE REQUEST
    08 DTFUEOX             UPDATE-END OF EXTENT
    08 DTFNXTCL            NEW XTNT REQUIRED BY CLOSE
    04 DTFTRNSP            TRUNC NOT SPECIFIED
    04 DTFBFLO             VARIABLE - BLOCK OVERFLOW
    02 DTFPUTTD            INPUT - PUT UPDATE OUTSTANDING
    01 DTFCIOFL            VARIABLE - CI OVERFLOW

  4A    DTFBLKSZ   2       BLKSIZE-1 SD DATAFILE

  4C    DTFLLADR           CCHHR OF LOW LIMIT

| 4C    DTFLOLIM           LL PBN

| 4C               2 D*35 UNREFERENCED

  4E    DTFLOLH1   1 D*36 1ST H OF CCHH CKD LOWLIM FIELD

| 4F               1 D*37 UNREFERENCED

  50    DTFRCNUM   1 D*38 RECORD NUMBER

| 51    DTFWLRRT           INPUT-ADDRESS OF USER WLR RETURNED

  51    DTFFLG7    1 D*39 OUTPUT-FLAG BYTE

    Bits defined in DTFFLG7

    80 DTFCFEOV            CONSECUTIVE FEOVDS DETECTED
    40 DTFFEOVD            OUTPUT - FEOVD

| 52    DTFTKCAP           OUTPUT - TRACK CAPACITY

  52    DTFCPDTL   2       DATA LENGTH FOR DTFCP

| 54    DTFIOREG           LOAD I/O REGISTER INSTRUCTION

| 54               1 D*40 MNEMONIC OF INSTRUCTION (47 OR 58)

  55    DTFIORGS   1 D*41 RR FIELD OR INSTRUCTION

| 56               1 D*42 UNUSED

| 57    DTFIOADS   1 D*43 RELATIVE DISPLACEMENT IN DTF OF IOAREA ADDRESS

  58    DTFAVAIL   4       ADDRESS OF AVAILABLE IO AREA

  5C    DTFLOGRS   4       LOGICAL RECORD SIZE

  60    DTFIEND    4       INPUT-AREA FOR SAVING RECORD
                           LENGHT - OUTPUT ADDR OF END OF IOAREA

| 64    DTFLGIND   1 D*44 LOGICAL INDICATORS

    Bits defined in DTFLGIND
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | DTFDEADR | | | ERROPT = ADDRESS DATAFILE |
| 40 | DTFDEIGN | | | ERROPT = IGNORE DATA FILE |
| 20 | DTFDESKP | | | ERROPT = SKIP DATAFILE |
| 10 | DTFDVYES | | | VERIFY = YES SPECIFIED |
| 08 | DTF2IOAS | | | 2 IOAREAS SPECIFIED |
| 04 | DTFOUNDL | | | OUTPUT - UNDEFINED LENGTH RECORDS |
| 04 | DTFWLRER | | | INPUT - USER HAS WRONG LENGTH ERROR ROUTINE |
| 02 | DTFFXVUL | | | 1 = FIXED LENGTH RECORDS, 0=VAR OR UNDEFINED LENGTH RECORD |
| 01 | DTFCNTRL | | | CONTROL PARM SPECIFIED |
| 65 | DTFDERAD | 3 | | USER ERROR ROUTINE ADDRESS - DATAFILE |
| 68 | DTFSKCCW | | | CKD SEEK CCW |
| 68 | DTFDFSEK | 1 | D*45 | CKD DATA FILE SEEK |
| 69 | | 7 | D*46 | UNREFERENCED |
| 70 | | 48 | D*47 | UNUSED 112 - 159 |
| A0 | DTFVOSPR | | | SPACE REMAINING IN BUFFER |
| A0 | | 1 | D*48 | UNREFERENCED |
| A1 | DTFFLEOX | 3 | | EOX RETURNED ADDRESS FOR OUTPUT FIXED LENGTH RECORDS USED BY COBOL |
| A4 | DTFEOXUL | 1 | D*49 | LABEL NEEDED FOR OVERLAY |
| A5 | DTFULEOX | 3 | | EOX RETURNED ADDRESS FOR OUTPUT UNDEFINED LENGTH RECORDS USED BY COBOL |
| A8 | | 5 | D*50 | UNREFERENCED |
| AD | DTFVLEOX | 3 | | EOX RETURNED ADDRESS FOR OUTPUT VARIABLE LENGTH RECORDS USED BY COBOL |
| B0 | DTFVIRLN | 4 | | VARIABLE INPUT - RECORD LENGTH |
| B4 | DTFVILRR | | | VARIABLE INPUT - INSTRUCTION TO LOAD RECSIZE REG |
| B4 | DTFVUPBN | 4 | | VARIABLE UPDATE - PBN OF HELD CI |
| B8 | DTFVUNIL | | | VARIABLE UPDATE - NOTE ID LAST SEGMENT |
| B8 | DTFVUCIL | | | VARIABLE UPDATE - RELATIVE CI OF LAST SEGMENT |
| B8 | | 1 | D*51 | UNREFERENCED |
| B9 | DTFCFEOX | 3 | | EOX RETURNED ADDRESS FOR OUTPUT FIXED LENGTH RECORDS WITH CONTROL SPECIFIED USED BY COBOL |
| BC | DTFVULBL | 2 | | VARIABLE UPDATE - LOGICAL BLOCK NUMBER OF LAST SEGMENT |
| BE | | 10 | D*52 | UNREFERENCED |
| C8 | DTFVORLN | 4 | | VARIABLE OUTPUT - RECORD LENGTH |
| CC | DTFVOSRR | 4 | | VARIABLE OUTPUT - INSTRUCTION TO STORE RECSIZE REG |
| D0 | DTFVOFLG | 1 | D*53 | VAR OUTPUT - CONTROL FLAGS |

Bits defined in DTFVOFLG

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | 20 | DTFVOSLS | | | LEADING SEGMENT |
| | 10 | DTFVOSBT | | | OUTPUT BLOCK TRUNCATED |
| | 08 | DTFVOSET | | | END OF TRACK |
| | 04 | DTFVOSTT | | | TRACK TRUNCATED |
| | 02 | DTFVOSSA | | | SAVE DISK ADDRESS |
| | 01 | DTFVOSMS | | | MULTI-SEGMENT RECORD |
| \| | D1 | | 3 | D*54 | UNREFERENCED |
| \| | D4 | DTFVOCNT | | | VARIABLE OUTPUT - COUNT SAVE AREA |
| \| | D4 | | 4 | D*55 | UNREFERENCED |
| | D8 | DTFVURLN | 4 | | VARIABLE UPDATE - RECORD LENGTH |
| \| | DC | DTFVULRR | | | VARIABLE UPDATE - INSTRUCTION TO LOAD RECSIZE REG |
| | DC | DTFVOXST | | | VARIABLE OUTPUT - EXTENT STATUS SAVE AREA |
| \| | DC | DTFVOXFL | 1 | D*56 | VARIABLE OUTPUT - EXTENT CHANGE FLAGS |
| | Bits defined in DTFVOXFL | | | | |
| | 10 | DTFVO1VL | | | FIRST VOLUME OF FILE |
| | 08 | DTFVOROK | | | REREAD COMPLETED OK |
| | 04 | DTFVORRD | | | REREAD IN PROGRESS |
| | 01 | DTFVOPEN | | | OUTPUT OPEN IN PROGRESS |
| | DD | DTFVOXSN | 1 | D*57 | VARIABLE OUTPUT - EXTENT SEQUENTIAL NUMBER OF NETED RECORDS |
| \| | DE | DTFVOXS1 | 1 | D*58 | VARIABLE OUTPUT - EXTENT SEQUENTIAL NUMBER OF 1ST EXTENT ON CURRENT VOLUME |
| | DF | DTFVOXOB | 1 | D*59 | VARIABLE OUTPUT - COPY OF OPEN COM BYTE |
| | Bits defined in DTFVOXOB | | | | |
| | 08 | DTFVOXNV | | | NEXT EXTENT ON NEW VOLUME |
| \| | E0 | | 4 | D*60 | UNREFERENCED |
| \| | E4 | DTFVUNI1 | | | VARIABLE UPDATE - NOTED ID OF 1ST SEGMENT |
| | E4 | DTFVUCI1 | 4 | | VARIABLE UPDATE - RELATIVE CI OF 1ST SEGMENT |
| | E8 | DTFVULB1 | 2 | | VARIABLE UPDATE - LOGICAL BLOCK NUMBER OF 1ST SEGMENT |
| \| | EA | | 2 | D*61 | UNREFERENCED |
| \| | EC | DTFVUXST | 1 | | VARIABLE UPDATE - EXTENT STATUS SAVE AREA |
| \| | EC | DTFVUXSL | 1 | D*62 | VARIABLE UPDATE - EXTENT SEQUENCE NUMBER OF LAST SEGMENT |
| \| | ED | DTFVUXS1 | 1 | D*63 | VARIABLE UPDATE - EXTENT SEQUENCE NUMBER OF 1ST SEGMENT |
| | EE | DTFVUXFL | 1 | D*64 | VARIABLE UPDATE - FLAGS |
| | Bits defined in DTFVUXFL | | | | |
| | 80 | DTFVUXSH | | | A SPANNED 1ST SEGMENT IS HELD |
| | 08 | DTFVUXLD | | | DUMMY EXTENT MODE FOR LAST SEGMENT |
| | 04 | DTFVUX1D | | | DUMMY EXTENT MODE FOR FIRST SEGMENT |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | EF | | 1 | D*65 | UNREFERENCED |

| THESE DECLARES ARE OVERLAYS FOR FIELDS IN DTFSD VARIABLE DATA FILES WHERE BOUNDARY ALIGNMENTS WOULD CAUSE OVERLAP IF THE LABELS WERE INSERTED IN LINE.

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | A4 | DTFVOCIC | 2 | | VARIABLE OUTPUT - REMAINING CI CAPACITY |
| | A8 | DTFVOLVB | 4 | | VARIABLE OUTPUT - INSTRUCTION TO LOAD VARBLD REG |
| \| | AC | | 3 | | UNREFERENCED |
| \| | D4 | DTFVONID | | | VARIABLE OUTPUT - NOTE ID |
| | D4 | DTFVOCID | 4 | | VARIABLE OUTPUT - RELATIVE CI PART OF NOTE ID |
| | D8 | DTFVOLBN | 2 | | VARIABLE OUTPUT - LOGICAL BLOCK NUMBER IN NOTE ID |
| \| | 24 | DTFDAEXR | | | ADDRESS OF DA XTNT EXIT INFORMATION RTN |
| \| | 24 | | 1 | | UNREFERENCED |
| | 25 | DTFDAEER | 3 | | DTFPH MOUNT=ALL XTNT EXIT POINTER |

| THIS DECLARE IS AN OVERLAY FOR FIELDS IN DTFSD WORKFILES.

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 28 | DTFWKEXT | | | WORKFILE UL/LL PBN |
| | 28 | DTFWKRLT | 2 | | RECORD LENGTH |
| | 2A | DTFWKLLI | 4 | | INIT EXTNT LL PBN |
| | 2E | DTFWKLLC | 4 | | CURRENT EXTNT LL PBN |
| | 32 | DTFWKULC | 4 | | CURRENT EXTNT UL PBN |
| \| | 36 | | 2 | | UNUSED |
| \| | 38 | DTFWPBNR | | | POSITION IN FILE |
| \| | 38 | DTFWKSRH | | | SEARCH ADDRESS |
| | 38 | DTFWPBCC | 2 | | CC FIELD OF SEARCH ADDRESS |
| | 3A | DTFWPBHH | 2 | | HH FIELD OF SEARCH ADDRESS |
| | 3C | DTFWKSRR | 1 | | RECORD NUMBER OF SEARCH ADDRESS |

END OF DTFSD WORKFILE OVERLAY

Bits defined in DTFWKSRR

| | | |
|---|---|---|
| C6 | DTFEOFPH | DTFPH EOF INDICATOR |
| 33 | DTFTPDI | DTFDI DTF TYPE INDICATOR |
| 32 | DTFTPCP3 | DTFCP DISK = YES DTF TYPE INDICATOR |
| 30 | DTFTPCP1 | DTFCP DISK OMITTED DTF TYPE INDICATOR |
| 23 | DTFTPPHM | DTFPH-MNTF = ALL |
| 22 | DTFTPDA | DTFDA DTF TYPE INDICATOR |
| 21 | DTFTPPH | DTFPH DTF TYPE INDICATOR |
| 20 | DTFTPSD | DTFSD DTF TYPE INDICATOR |

CKD CONTROL FACTOR OVERLAY

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 44 | DTFCTRL | | | CKD CONTROL FACTOR |
| 44 | DTFCTRLC | 2 | | CONTROL FACTOR CC |
| 46 | DTFCTRLH | 2 | | CONTROL FACTOR HH |
| CKD CURRENT SYSFIL DIB ADDRESS OVERLAY | | | | |
| 3A | DTFCDIBA | 7 | | CKD CURRENT DIB ADDRESS BBCCHHR |
| CKD CP/DI SEEK OVERLAY | | | | |
| 58 | DTFCPDIS | 1 | | CKD CP/DI SEEK |
| WORKFILE LOWER/UPPER HEAD LIMIT OVERLAY | | | | |
| 26 | DTFWKLMT | | | |
| 26 | DTFWKLLL | 1 | | WORKFILE LOWER HEAD LIMIT |
| 27 | DTFWKLUL | 1 | | WORKFILE UPPER HEAD LIMIT |
| LOWER HEAD LIMIT AND UPPER PBN LIMIT OVERLAY | | | | |
| 34 | DTFLOWHL | 2 | | LOWER HEAD LIMIT |
| 36 | DTFPBNUL | 4 | | UPPER PBN LIMIT |
| DTFDA DESCRIPTOR STRING DISPLACEMENT/TRACK CONSTANTS/SIX BASIC CCWS OVERLAY | | | | |
| 4E | DTFDAOVY | | | DTFDA DTF OVERLAY |
| 4E | DTFDADSD | | | DTFDA DESCRIPTOR STRING FIELD |
| 4E | DTFDADRI | 1 | | DISPLACEMENT TO READID STRING |
| 4F | DTFDADRK | 1 | | DISPLACEMENT TO READ KEY STRUCTURE |
| 50 | DTFDADWI | 1 | | DISPLACEMENT TO WRITE ID STRUCTURE |
| 51 | DTFDADWK | 1 | | DISPLACEMENT TO WRITE KEY ST |
| 52 | DTFDADW0 | 1 | | DISPLACEMENT TO WRITE RZERO |
| 53 | DTFDADWA | 1 | | DISPLACEMENT TO WRITE AFTER |
| 54 | DTFDATKC | 2 | | DTFDA TRACK CONSTANT |
| 56 | DTFDARIC | 2 | | DTFDA RECORD CONSTANT |
| 58 | | 2 | | FILLER |
| 5A | DTFDASUL | | | USER LABEL SAVE AREA |
| 5A | DTFDASYM | 1 | | SYMBOLIC UNIT |
| 5B | | 1 | | BIN# (NOT USED) |
| 5C | DTFDAULA | 4 | | USER LABLE DASD ADDRESS |
| 60 | DTFDACCW | | | 6 BASIC CCWS OVERLAY |
| 66 | DTFDAKLN | 2 | | KEY LENGTH FIELD |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 68 | | 24 | | 3RD - 5TH BASIC CCW |
| 80 | | 4 | | UNREFERENCED |
| 84 | DTFDACC6 | 1 | | FLAG FOR 6TH CCW |
| 85 | | 3 | | |
| 88 | | 3 | | UNREFERENCED CCWS |
| A8 | | 6 | | UNREFERENCED |
| AE | DTFDAMRS | 2 | | MAXIMUM RECORD SIZE FIELD |

CROSS REFERENCE (Name Disp Value)

| | | |
|---|---|---|
| DTFACPT | 0002 | 10 |
| DTFAVAIL | 0058 | .. |
| DTFBFLO | 0049 | 04 |
| DTFBLHLD | 0010 | 10 |
| DTFBLKFL | 0015 | 40 |
| DTFBLKSZ | 004A | .. |
| DTFCCB | 0000 | 00 |
| DTFCCW | 0009 | .. |
| DTFCCWA | 0007 | 08 |
| DTFCDIBA | 003A | .. |
| DTFCFEOV | 0051 | 80 |
| DTFCFEOX | 00B9 | .. |
| DTFCIOFL | 0049 | 01 |
| DTFCNTRL | 0064 | 01 |
| DTFCOUNT | 0000 | .. |
| DTFCPDIF | 002A | .. |
| DTFCPDIS | 0058 | .. |
| DTFCPDTL | 0052 | .. |
| DTFCPFP | 002C | 20 |
| DTFCPIN | 002C | 80 |
| DTFCPLP | 002C | 04 |
| DTFCP2I | 002C | 10 |
| DTFCSW | 0004 | .. |
| DTFCTRL | 0044 | .. |
| DTFCTRLC | 0044 | .. |
| DTFCTRLF | 0044 | .. |
| DTFCTRLH | 0046 | .. |
| DTFDAAFT | 0015 | 10 |
| DTFDACCW | 005C | 60 |
| DTFDACC6 | 0084 | .. |
| DTFDADRI | 004E | .. |
| DTFDADRK | 004F | .. |
| DTFDADSD | 004E | .. |
| DTFDADWA | 0053 | .. |
| DTFDADWI | 0050 | .. |
| DTFDADWK | 0051 | .. |
| DTFDADWO | 0052 | .. |
| DTFDAEER | 0025 | .. |
| DTFDAEXR | 0024 | .. |
| DTFDAFSU | 001E | .. |
| DTFDAKLN | 0066 | .. |
| DTFDAMRS | 00AE | .. |
| DTFDAOUT | 0015 | 80 |
| DTFDAOVY | 004E | .. |
| DTFDARIC | 0056 | .. |
| DTFDARPS | 001E | 40 |
| DTFDARTA | 0028 | .. |
| DTFDASCH | 0015 | 20 |
| DTFDASUL | 005A | .. |
| DTFDASYM | 005A | .. |
| DTFDATKC | 0054 | .. |
| DTFDAULA | 005C | .. |
| DTFDAULI | 0010 | 80 |
| DTFDAULR | 0021 | .. |
| DTFDAUND | 0015 | 04 |
| DTFDAVER | 0015 | 40 |
| DTFDAXTN | 001E | 01 |
| DTFDAXXR | 0024 | .. |
| DTFDCH1 | 0002 | 80 |
| DTFDCH2 | 0002 | 10 |
| DTFDEADR | 0064 | 80 |
| DTFDEIGN | 0064 | 40 |
| DTFDERAD | 0065 | .. |
| DTFDESKP | 0064 | 20 |
| DTFDEVTP | 001D | .. |
| DTFDFSEK | 0068 | .. |
| DTFDIV3 | 0030 | 20 |
| DTFDQEXT | 0010 | 80 |
| DTFDUMEX | 0026 | 01 |
| DTFDVYES | 0064 | 10 |
| DTFENTB4 | 0049 | 80 |
| DTFEOEXT | 0010 | 01 |
| DTFEOF | 0002 | 40 |
| DTFEOFAD | 0041 | .. |
| DTFEOFPH | 00C6 | .. |
| DTFEOXUL | 00A4 | .. |
| DTFEXBYP | 0027 | 80 |
| DTFFEOV | 0027 | 40 |
| DTFFEOVD | 0051 | 40 |
| DTFFLEOX | 00A1 | .. |
| DTFFLG1 | 0010 | .. |
| DTFFLG2 | 0015 | .. |
| DTFFLG3 | 0026 | .. |
| DTFFLG5 | 002C | .. |
| DTFFLG6 | 0049 | .. |
| DTFFLG7 | 0051 | .. |
| DTFFLNML | 0028 | .. |
| DTFFMT1R | 0023 | .. |
| DTFFXVUL | 0064 | 02 |
| DTFF1ADD | 001E | .. |
| DTFF1ADR | 001E | 20 |
| DTFGVIOA | 002C | 02 |
| DTFIDXSQ | 0021 | .. |
| DTFIEND | 0060 | .. |
| DTFIF1SQ | 0022 | .. |
| DTFIGNOP | 0010 | 20 |
| DTFIHDRL | 0026 | 02 |
| DTFINCL | 0004 | 40 |
| DTFINPUT | 0015 | 02 |
| DTFIOADS | 0057 | .. |
| DTFIOA1 | 002D | .. |
| DTFIOREG | 0054 | .. |
| DTFIORGS | 0055 | .. |
| DTFIRTCL | 0026 | 04 |
| DTFLGIND | 0064 | .. |
| DTFLGMDA | 0009 | 10 |
| DTFLGMOD | 0011 | .. |
| DTFLHLIM | 0034 | .. |
| DTFLLADR | 004C | .. |
| DTFLLPBN | 003C | .. |
| DTFLOGRS | 005C | .. |
| DTFLOLH1 | 004E | .. |
| DTFLOLIM | 004C | .. |
| DTFLOWHL | 0034 | .. |
| DTFLPBNR | 003C | .. |
| DTFLSTVL | 0027 | 20 |
| DTFLU | 0007 | .. |
| DTFNAME | 0016 | .. |
| DTFNEWVL | 0026 | 08 |
| DTFNOEXT | 0026 | 80 |
| DTFNRCF | 0002 | 04 |
| DTFNXTCL | 0049 | 08 |
| DTFODXSQ | 0027 | .. |
| DTFOHDRL | 0026 | 10 |
| DTFOPEN | 0015 | 04 |
| DTFORTCL | 0049 | 20 |
| DTFOUNDL | 0064 | 04 |
| DTFOXTCL | 0026 | 40 |
| DTFPBLK | 0049 | 20 |
| DTFPBNUL | 0036 | .. |
| DTFPHEOF | 001E | .. |
| DTFPHMV3 | 001E | 20 |
| DTFPHSMO | 002C | 08 |
| DTFPHSV3 | 002C | 20 |
| DTFPLU | 0006 | 01 |
| DTFPRTLB | 0026 | 20 |
| DTFPUTTD | 0049 | 02 |
| DTFRCNUM | 0050 | .. |
| DTFRECNO | 0040 | .. |
| DTFRECSZ | 0042 | .. |
| DTFRECTK | 0048 | .. |
| DTFRPSXC | 002A | 40 |
| DTFRPSXS | 002A | 01 |
| DTFSDRPS | 002C | 40 |
| DTFSKADR | 003A | .. |
| DTFSKCCW | 0068 | .. |
| DTFSKIPR | 0049 | 10 |
| DTFSNLEO | 0028 | .. |
| DTFSPAND | 0010 | 02 |
| DTFSPECL | 0010 | 40 |
| DTFSRCH1 | 003E | .. |
| DTFTKCAP | 0052 | .. |
| DTFTLCL | 0026 | 02 |
| DTFTPCP1 | 0030 | .. |
| DTFTPCP3 | 0032 | .. |
| DTFTPDA | 0022 | .. |
| DTFTPDI | 0033 | .. |
| DTFTPPH | 0021 | .. |
| DTFTPPHM | 0023 | .. |
| DTFTPSD | 003C | 20 |
| DTFTRAF | 0002 | 80 |
| DTFTRANS | 0002 | .. |
| DTFTRLBL | 0010 | 04 |
| DTFTRNSP | 0049 | 04 |
| DTFTRUNR | 0049 | 10 |
| DTFTYPC | 0006 | .. |
| DTFTYPE | 0014 | .. |
| DTFTYPLU | 0006 | .. |
| DTFUE | 0004 | 01 |
| DTFUEOF | 0026 | 10 |
| DTFUEOX | 0049 | 08 |
| DTFULADR | 0030 | .. |
| DTFULEOX | 00A5 | .. |
| DTFULPBN | 0036 | .. |
| DTFULRTN | 0029 | .. |
| DTFUNRC | 0002 | 20 |
| DTFUPDAT | 0026 | 40 |
| DTFUSRLB | 0015 | 01 |
| DTFVAROU | 002C | 10 |
| DTFVERR | 0002 | 02 |

| | | |
|---|---|---|
| DTFVER2 | 0015 | 08 |
| DTFVILRR | 00B4 | .. |
| DTFVIRLN | 00B0 | .. |
| DTFVLEOX | 00AD | .. |
| DTFVOCIC | 00A4 | .. |
| DTFVOCID | 00D4 | .. |
| DTFVOCNT | 00D4 | .. |
| DTFVOFLG | 00D0 | .. |
| DTFVOLBN | 00D8 | .. |
| DTFVOLNO | 0024 | .. |
| DTFVOLVB | 00A8 | .. |
| DTFVONID | 00D4 | .. |
| DTFVOPEN | 00DC | 01 |
| DTFVORLN | 00C8 | .. |
| DTFVOROK | 00DC | 08 |
| DTFVORRD | 00DC | 04 |
| DTFVOSBT | 00D0 | 10 |
| DTFVOSET | 00D0 | 08 |
| DTFVOSLS | 00D0 | 20 |
| DTFVOSMS | 00D0 | 01 |
| DTFVOSPR | 00A0 | .. |
| DTFVOSRR | 00CC | .. |
| DTFVOSSA | 00D0 | 02 |
| DTFVOSTT | 00D0 | 04 |
| DTFVOXFL | 00DC | .. |
| DTFVOXNV | 00DF | 08 |
| DTFVOXOB | 00DF | .. |
| DTFVOXSN | 00DD | .. |
| DTFVOXST | 00DC | .. |
| DTFVOXS1 | 00DE | .. |
| DTFVO1VL | 00DC | 10 |
| DTFVUCIL | 00B8 | .. |
| DTFVUCI1 | 00E4 | .. |
| DTFVULBL | 00BC | .. |
| DTFVULB1 | 00E8 | .. |
| DTFVULRR | 00DC | .. |
| DTFVUNIL | 00B8 | .. |
| DTFVUNI1 | 00E4 | .. |
| DTFVUPBN | 00B4 | .. |
| DTFVURLN | 00D8 | .. |
| DTFVUXFL | 00EE | .. |
| DTFVUXLD | 00EE | 08 |
| DTFVUXSH | 00EE | 80 |
| DTFVUXSL | 00EC | .. |
| DTFVUXST | 00EC | .. |
| DTFVUXS1 | 00ED | .. |
| DTFVUX1D | 00EE | 04 |
| DTFWBKSZ | 003E | .. |
| DTFWEADR | 0042 | 80 |
| DTFWEIGN | 0042 | 40 |
| DTFWERAD | 0045 | .. |
| DTFWESKP | 0042 | 08 |
| DTFWFUNB | 0042 | 20 |
| DTFWKDLT | 0015 | 40 |
| DTFWKEXT | 0028 | .. |
| DTFWKFID | 0025 | 04 |
| DTFWKLLC | 002E | .. |
| DTFWKLLI | 002A | .. |
| DTFWKLLL | 0026 | .. |
| DTFWKLMS | 003D | .. |
| DTFWKLMT | 0026 | .. |
| DTFWKLUL | 0027 | .. |
| DTFWKNWV | 0025 | 08 |
| DTFWKOCF | 0025 | .. |
| DTFWKPTO | 0015 | 10 |
| DTFWKRLT | 0028 | .. |
| DTFWKRNO | 003C | .. |
| DTFWKRPS | 0025 | 40 |
| DTFWKSEQ | 0024 | .. |
| DTFWKSKA | 003A | .. |
| DTFWKSRH | 0038 | .. |
| DTFWKSRR | 003C | .. |
| DTFWKTKC | 001E | .. |
| DTFWKULC | 0032 | .. |
| DTFWKV3 | 0025 | 20 |
| DTFWKWT1 | 003D | 80 |
| DTFWKXTD | 0025 | 02 |
| DTFWKXTF | 0025 | 10 |
| DTFWLRER | 0064 | 04 |
| DTFWLRRT | 0051 | .. |
| DTFWORKA | 0015 | 10 |
| DTFWPBCC | 0038 | .. |
| DTFWPBHH | 003A | .. |
| DTFWPBNR | 0038 | .. |
| DTFWPNTS | 003D | 20 |
| DTFWRKFL | 0015 | 20 |
| DTFWRUPD | 003D | 40 |
| DTFWTKCP | 001E | .. |
| DTFWVYES | 0042 | 10 |
| DTFWXTCL | 003D | 02 |
| DTF1052 | 0026 | 04 |
| DTF2IOAS | 0064 | 08 |

## DTFX: DTF EXTENSION

DTFX describes the fields in the DTF extension. DTFX is used in the CMS/DOS environment. DTFX is invoked via the DTFX macro.

```
   +-------------------------------------------------------+
 0 |                       DTFXIDEN                        |
   +-------------+-------------+-------------+-------------+
 8 |  DTFXCBRC   |  DTFXCBTI   |  DTFXCBST   |  DTFXCBTC   |
   +------+------+-------------+------+------+-------------+
10 | D*1  |     DTFXCCWA       | D*2  |     DTFXCWCS       |
   +------+--------------------+------+--------------------+
18 | D*3  |     DTFXRBPT       |                           |
   +------+--------------------+---------------------------+
20 |                           |         DTFXRSV1          |
   +------+--------------------+------+--------------------+
28 | D*4  |     DTFXFBLP       | D*5  |     DTFXFBUP       |
   +------+--------------------+------+--------------------+
30 | D*6  |     DTFXC1LP       | D*7  |     DTFXC1UP       |
   +------+--------------------+------+--------------------+
38 | D*8  |     DTFXD1LP       | D*9  |     DTFXD1UP       |
   +------+--------------------+------+--------------------+
40 | D*10 |     DTFXE1LP       | D*11 |     DTFXE1UP       |
   +------+------+------+------+------+--------------------+
48 | D*12 | D*13 | D*14 | D*15 |         DTFXDUMY          |
   +------+------+------+------+---------------------------+
50 |         DTFXFBAO          |         DTFXDTF           |
   +---------------------------+---------------------------+
58 |         DTFXNDTF          |         DTFXORSP          |
   +---------------------------+------+--------------------+
60 |         DTFXXLEN          | D*16 |     DTFXOCWP       |
   +---------------------------+------+--------------------+
68 |         DTFXCISZ          | D*17 |     DTFXLMPT       |
   +---------------------------+------+--------------------+
70 |                                                       |
   =                       DTFXLMSA                        =
   |                                                       |
   +---------------------------+------+--------------------+
B0 |         DTFXFBAB          | D*18 |                    |
   +---------------------------+------+--------------------+
B8 |         DTFXCCWP          |         DTFXMSWA          |
   +---------------------------+---------------------------+
C0 |         DTFXSMWP          |         DTFXERXT          |
   +---------------------------+---------------------------+
C8 |         DTFXULLX          |         DTFXULUX          |
   +---------------------------+---------------------------+
D0 |         DTFXIOA1          |         DTFXSIO1          |
   +---------------------------+---------------------------+
D8 |         DTFXSIO2          |         DTFXBLSZ          |
   +---------------------------+---------------------------+
E0 |                                                       |
   +---------------------------+-------------+-------------+
E8 |         DTFXCI1P          |  DTFXCI1C   |  DTFXCI1H   |
   +------+------+------+------+-------------+-------------+
F0 | D*19 |      | D*20 | D*21 |  DTFXCINC   |  DTFXCINH   |
   +------+------+------+------+-------------+-------------+
    +------+------+-------------+---------------------------+
 F8 | D*22 | D*23 |  DTFXCI11   |         DTFXLCBC          |
    +-------------+-------------+---------------------------+
100 |   DTFXRLEN  |   DTFXLBLN  |         DTFXIOAD          |
    +-------------+-------------+------+--------------------+
108 |          DTFXSSPR         | D*24 |      DTFXRCIN      |
    +------+------+------+------+------+------+------+------+
110 | D*25 | D*26 | D*27 | D*28 | D*29 | D*30 | D*31 | D*32 |
    +------+------+------+------+------+------+------+------+
118 |   DTFXNLBO  |   DTFXNRDF  |   DTFXLBRD  |   DTFXRCIC  |
    +-------------+-------------+------+------+-------------+
120 |          DTFXEXFR         | D*33 | D*34 |             |
    +---------------------------+------+------+-------------+
128 |                           |   DTFXFXLC  |   DTFXFXLH  |
    +-------------+-------------+-------------+-------------+
130 |   DTFXFXUC  |   DTFXFXUH  | D*35 |      DTFXRELL      |
    +------+------+-------------+------+-------------+------+
138 |(cont)|          DTFXHRBA         |   DTFXCISB  | D*36 |
    +------+-------------+-------------+-------------+------+
140 |(cont)|   DTFXTPC   |   DTFXTPC1  |   DTFXCIM4  | D*37 |
    +------+-------------+-------------+-------------+------+
148 |(cont)|          DTFXSSRW         |    DTFXLHH  | D*38 |
    +------+---------------------------+-------------+------+
150 |(cont)|                                                |
    +------+------------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DTFXIDEN | 8 | | EYE CATCHER |
| 8 | DTFXCCB | 2 | | IORB IN DTF EXTENSION |
| 8 | DTFXCCBI | 2 | | CCB IN IORB |
| 8 | DTFXCBRC | 2 | | RESIDUAL COUNT |
| 8 | DMSCCB | | | |
| A | DTFXCBTI | 2 | | TRANSMISSION INFORMATION |
| Bits defined in DTFXCBTI | | | | |
| 80 | DTFXTRAF | | | TRAFFIC BIT |
| C | DTFXCBST | 2 | | STATUS BITS |
| E | DTFXCBTC | 2 | | TYPE CODE |
| Bits defined in DTFXCBTC | | | | |
| 08 | DTFXECBI | | | ECB POINTER IS PRESENT |
| 04 | DTFXIORB | | | IORB INDICATOR |
| 10 | DTFXCBLI | 1 | D*1 | LIOCS BITS |
| 11 | DTFXCCWA | 3 | | CCW POINTER |
| 14 | DTFXCBPI | 1 | D*2 | PIOCS BITS |
| 15 | DTFXCWCS | 3 | | CCW IN CSW |
| 18 | DTFXIOFL | 1 | | FIX LIST POINTER |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 18 | DTFXRBFL | 1 | D*3 | IORB FLAGS |
| 19 | DTFXRBPT | 3 | | FIX LIST POINTER |
| 24 | DTFXRSV1 | 4 | | RESERVED FOR IORB EXPANSION |
| 28 | DTFXFLS1 | 1 | | FIX LIST 1 |
| 28 | DTFXFLB1 | 1 | | IORB FIX LIST |
| 28 | DTFXFBLF | 1 | D*4 | LOWER FLAG |
| 29 | DTFXFBLP | 3 | | LOWER IORB POINTER |
| 2C | DTFXFBUF | 1 | D*5 | UPPER FLAG |
| 2D | DTFXFBUP | 3 | | UPPER IORB POINTER |
| 30 | DTFXFLC1 | 1 | | CCW FIX LIST |
| 30 | DTFXC1LF | 1 | D*6 | LOWER FLAG |
| 31 | DTFXC1LP | 3 | | LOWER CCW POINTER |
| 34 | DTFXC1UF | 1 | D*7 | UPPER FLAG |
| 35 | DTFXC1UP | 3 | | UPPER CCW POINTER |
| 38 | DTFXFLD1 | 1 | | DATA AREA FIX LIST 1 |
| 38 | DTFXD1LF | 1 | D*8 | LOWER FLAG |
| 39 | DTFXD1LP | 3 | | LOWER DATA POINTER |
| 3C | DTFXD1UF | 1 | D*9 | UPPER FLAG |
| 3D | DTFXD1UP | 3 | | UPPER DATA POINTER |
| 40 | DTFXFLE1 | 1 | | ECB FIX LIST 1 |
| 40 | DTFXE1LF | 1 | D*10 | LOWER FLAG |
| 41 | DTFXE1LP | 3 | | LOWER ECB POINTER |
| 44 | DTFXE1UF | 1 | D*11 | UPPER FLAG |
| 45 | DTFXE1UP | 3 | | UPPER ECB POINTER |
| 48 | DTFXFLG1 | 1 | | FLAG BYTES |
| 48 | DTFXFLF1 | 1 | D*12 | END OF FIX LIST |
| 49 | DTFXFL10 | 1 | D*13 | SSR CONTROL FLAGS |

Bits defined in DTFXFL10

| | | |
|---|---|---|
| 80 | DTFXSSHD | HOLD = YES SPECIFIED IN DTF |
| 40 | DTFXSSLC | SSR TO OPERATE IN LOCATE |
| 20 | DTFXSSFT | SSR FIRST ENTRY TAKEN |
| 10 | DTFXSSFW | FORCED WRITES REQUIRED |
| 08 | DTFXRPS | RPS DEVICE |
| 04 | DTFXNHRB | DON'T UPDATE HIGH RBA |
| 02 | DTFX1411 | DEVICE IS A 2311 OR 2314 |
| 01 | DTFXNOMT | MULTI-TRACK READ COUNT AHEAD NOT TO BE DONE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 4A | DTFXFL20 | 1 | D*14 | CCW INITIALIZATION STATE |
| Bits defined in DTFXFL20 | | | | |
| 80 | DTFXCCRD | | | CCWS INITIALIZED FOR READ |
| 40 | DTFXCCWT | | | CCWS INITIALIZED FOR FORMATTED WRITE |
| 20 | DTFXCCWU | | | CCWS INITIALIZED FOR UNFORMATTED WRITE |
| 10 | DTFXCCRC | | | CCWS INITIALIZED FOR READ COUNT |
| 4B | DTFXFL30 | 1 | D*15 | MORE FLAGS |
| Bits defined in DTFXFL30 | | | | |
| 80 | DTFXSSSK | | | ERROPT = SKIP FOR DTFSD |
| 40 | DTFXSSIG | | | ERROPT = IGNORE FOR DTFSD |
| 20 | DTFXERNM | | | ERROPT = NAME FOR DTFSD |
| 10 | DTFXWORK | | | WORKA = YES FOR DTFSD |
| 08 | DTFXTRNC | | | TRUNCS = YES SPECIFIED |
| 04 | DTFXUPDT | | | UPDATE = YES SPECIFIED |
| 02 | DTFXNIOA | | | NO IOAREAS SPECIFIED |
| 01 | DTFXVYES | | | VERIFY = YES SPECIFIED FOR DTFSD - ALWAYS ON FOR CP |
| 4C | DTFXDSAP | 4 | | POINTER TO DSA |
| 4C | DTFXDUMY | 4 | | DUMMY TO GET DSAP GENNED |
| 50 | DTFXFBAO | 4 | | FBA OPEN POINTER |
| 54 | DTFXDTF | 4 | | POINTER TO OLD DTF |
| 58 | DTFXNDTF | 4 | | POINTER TO NEXT IN DTF LIST |
| 5C | DTFXORSP | 4 | | POINTER TO OPEN SAVE AREA |
| 60 | DTFXXLEN | 4 | | LENGTH OF THIS EXTENSION |
| 64 | DTFXOCCW | 1 | | POINTER TO OLD CCW |
| 64 | DTFXSFSW | 1 | D*16 | SYSFIL SWITCH |
| Bits defined in DTFXSFSW | | | | |
| 80 | DTFXIOPT | | | IOPTR SPECIFIED IN DTFCP |
| 40 | DTFXFRVS | | | FREEVIS DTFEXTEN |
| 20 | DTFXMECP | | | MULTIPLE EXTENT CP IS ALLOWED |
| 65 | DTFXOCWP | 3 | | OLD CCW POINTER |
| 68 | DTFXCISZ | 4 | | CI SIZE IN BYTES |
| 6C | DTFXLMSP | 1 | | POINTER TO OLD LOGIC MOD |
| 6C | DTFXLMSW | 1 | D*17 | FLAGS |
| Bits defined in DTFXLMSW | | | | |
| 80 | DTFXCPCP | | | THIS IS FOR DTFCP |
| 40 | DTFXSDSD | | | THIS IS FOR DTFSD |
| 20 | DTFXDIDI | | | THIS IS FOR DTFDI |
| 10 | DTFXSDWF | | | DTFSD TYPE = WORKFILE |
| 08 | DTFXVER3 | | | DTF IS VERSION 3 |
| 04 | DTFXSPRO | | | SPANNED RECORD FILE REOPEN REQUEST |
| 02 | DTFXCEOX | | | COBOL EOX TAKEN |
| 01 | DTFXRSVD | | | NOT USED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 6D | DTFXLMPT | 3 | | POINTER TO OLD LOGIC MOD |
| 70 | DTFXLMSA | 64 | | LOGIC MOD SAVEAREA |
| B0 | DTFXFBAB | 4 | | FBA BLOCKSIZE OR PHYSICAL RECORD SIZE FOR CKD |
| B4 | DTFXODVT | 1 | D*18 | DEVICE TYPE |
| B8 | DTFXCCWP | 4 | | POINTER TO CCW WORK AREA |
| B8 | DTFXDEOC | 1 | | OP CODE |
| B8 | DTFXCCWW | 4 | | |
| B8 | DTFXCCWS | 4 | | FBA CCW STRING |
| B8 | DTFXDFX1 | 4 | | DEFINE EXTENT CCW |
| B9 | DTFXDEXP | 3 | | EXTENT POINTER |
| BC | DTFXMSWA | 4 | | POINTER TO MAP STRING WORK AREA |
| BC | DTFXDECF | 1 | | CHAINING FLAGS |
| BD | DTFXDERS | 1 | | RESERVED |
| BE | DTFXDEBC | 2 | | BYTE COUNT |
| C0 | DTFXLOC1 | 4 | | LOCATE CCW |
| C0 | DTFXSMWP | 4 | | POINTER TO SPACE MANAGEMENT WORK AREA |
| C0 | DTFXLOOC | 1 | | OP CODE |
| C1 | DTFXLOLP | 3 | | LOCATE LIST POINTER |
| C4 | DTFXERXT | 4 | | ERROPT = ADDRESS ADDR |
| C4 | DTFXLOCF | 1 | | CHAINING FLAGS |
| C5 | DTFXLORS | 1 | | RESERVED |
| C6 | DTFXLOBC | 2 | | BYTE COUNT |
| C8 | DTFXRWCW | 4 | | READ/WRITE CCW |
| C8 | DTFXULLX | 4 | | USEF LABEL LOWER EXTENT |
| C8 | DTFXRWOC | 1 | | OP CODE |
| C9 | DTFXRWDP | 3 | | DATA POINTER |
| CC | DTFXULUX | 4 | | USER LABEL UPPER EXTENT |
| CC | DTFXRWCF | 1 | | CHAINING FLAGS |
| Bits defined in DTFXRWCF | | | | |
| 40 | DTFXCWCN | | | COMMAND CHAIN FLAG |
| CD | DTFXRWRS | 1 | | RESERVED |
| CE | DTFXRWLN | 2 | | LENGTH |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| D0 | DTFXVNOP | 1 | | NOP CCW |
| D0 | DTFXIOA1 | 4 | | ADDRESS OF USERS I/O AREA 1 |
| D0 | DTFXVLOC | 1 | | OP CODE |
| D1 | DTFXVLLP | 3 | | DATA POINTER FOR NOP CCW |
| D4 | DTFXSIO1 | 4 | | ADDRESS OF I/O AREA 1 SPECIFIED BY USER ON DTF |
| D4 | DTFXVLCF | 1 | | CHAINING FLAGS |
| D5 | DTFXVLRS | 1 | | RESERVED |
| D6 | DTFXVLBC | 2 | | BYTE COUNT |
| D8 | DTFXSIO2 | 4 | | ADDRESS OF I/O AREA 2 SPECIFIED BY USER ON DTF |
| D8 | DTFXRSV4 | 16 | | RESERVED FOR CHANNEL PROGRAM EXPANSION |
| DC | DTFXBLSZ | 4 | | BLOCKSIZE SPECFED BY USER ON THE DTF |
| E8 | DTFXXTNT | 4 | | DEFINE EXTENT DATA |
| E8 | DTFXCI1 | 4 | | CI HEADER |
| E8 | DTFXCI1P | 4 | | CI BUFFER ADDRESS |
| E8 | DTFXXTMB | 1 | | MASK BYTE |
| E9 | DTFXXRSV | 3 | | RESERVED |
| EC | DTFXPBNR | 2 | | CURRENT POSITION |
| EC | DTFXCI1B | 2 | | PBN OR CCHH OF CI |
| EC | DTFXCI1C | 2 | | CC |
| EC | DTFXXTFB | 4 | | FIRST BLOCK ON MEDIA |
| EE | DTFXCI1H | 2 | | HH |
| F0 | DTFXCI1R | 1 | D*19 | ZERO FOR FBA, PHYSICAL RECORD NUMBER FOR CKD |
| F0 | DTFXXTFD | 4 | | FIRST BLOCK ON DS |
| F2 | DTFXCI12 | 1 | D*20 | IO PASSBACK FIELD |

Bits defined in DTFXCI12

| | | |
|---|---|---|
| 80 | DTFXEOXH | END OF EXTENT |
| 40 | DTFXIOEH | I/O ERROR OCCURRED |
| 20 | DTFXIOWP | WRITE IN PROGRESS |
| 10 | DTFXIORP | READ IN PROGRESS |
| 08 | DTFXCITL | LOGICAL BLOCK TOO LONG |
| 04 | DTFXPONV | POSITION NOT VALID |
| 02 | DTFXEOFH | EOF ENCOUNTERED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| F3 | DTFXCI13 | 1 | D*21 | CI STATUS |
| Bits defined in DTFXCI13 | | | | |
| 80 | DTFXFREE | | | CI OR TRACK IS TO BE FREED |
| 40 | DTFXFWRQ | | | FORMATTED WRITE REQUIRED |
| 20 | DTFXUWRQ | | | UNFORMATTED WRITE REQUIRED |
| 10 | DTFXRETR | | | RETRY BEING DONE |
| 08 | DTFXFORW | | | FORCED WRITE BEING DONE |
| 04 | DTFXVALC | | | CI CONTENTS ARE VALID |
| 02 | DTFXLSIO | | | LAST I/O FOR THE CI |
| F4 | DTFXCI1N | 2 | | NEXT POSITION FOR CI FORMAT CKD OR CCCH OF FIRST TRACK OF FIRST EXTENT FOR NON-CI FORMAT CI |
| F4 | DTFXCIN | 2 | | PBN OR CCHH OF NEXT CI |
| F4 | DTFXCINC | 2 | | CC |
| F4 | DTFXXTLD | 4 | | LAST BLOCK ON DS |
| F6 | DTFXCINH | 2 | | HH |
| F8 | DTFXLOCD | 1 | | LOCATE DATA |
| F8 | DTFXCINR | 1 | D*22 | R |
| F8 | DTFXLCOB | 1 | | OPERATION BYTE |
| F9 | DTFXCI14 | 1 | D*23 | FUNCTION FLAGS |
| Bits defined in DTFXCI14 | | | | |
| 80 | DTFXSARC | | | STAND ALONE READ COUNT REQUESTED |
| 40 | DTFXMTRQ | | | MULTI-TRACK READ COUNT TO BE DONE |
| 20 | DTFXTRHD | | | TRACK IS TO BE HELD ON THIS REQUEST |
| F9 | DTFXLCRC | 1 | | REPLICATION COUNT |
| FA | DTFXCI11 | 2 | | CURRENT LOGICAL BLOCK NUMBER |
| FA | DTFXLCBC | 2 | | BLOCK COUNT |
| FC | DTFXLCDD | 4 | | DATA DISPLACEMENT |
| SSR INTERFACE | | | | |
| 100 | DTFXRLEN | 2 | | REQUESTED DATA LENGTH |
| 102 | DTFXLBLN | 2 | | LOGICAL BLOCK LENGTH |
| 104 | DTFXIOAD | 4 | | LOGICAL BLOCK ADDRESS POINTER |
| 108 | DTFXSSPR | 4 | | POINTER TO SAM SERVICE RTN |
| 10C | DTFXRCIR | 1 | | FULL NOTE/REPOSITION ID |
| 10C | DTFXRLCI | 1 | | RELATIVE CI REPOSITION AND NOTE |
| 10C | DTFXNPCK | 1 | | EXTENDED NOTE/POINT ARGUMENT DEFINITION |
| 10C | DTFXRLC1 | 1 | D*24 | HIGH ORDER BYTE |
| 10C | DTFXNPCC | 2 | | CC |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 10D | DTFXRCIN | 3 | | RELATIVE CI NUMBER FOR NOTE ID |
| 10D | DTFXNWCC | 2 | | CC |
| 10D | DTFXNW | 3 | | EXTENDED NOTE/POINT ARGUMENT DEFINITION |
| 10E | DTFXNPH | 2 | | H |
| 10F | DTFXNWH | 1 | | H |
| 110 | DTFXSSL1 | 1 | D*25 | FIRST BYTE OF LOGICAL BLOCK NUMBER |
| 110 | DTFXNPR | 1 | | R |
| 110 | DTFXSSLB | 1 | | LOGICAL BLOCK FOR REPOSITION AND NOTE FOR CI FORMAT, REMAINING SPACE FOR NON-CI FORMAT OTHER THAN WORKFILES, OR FOR WORKFILES |
| 111 | DTFXSSL2 | 1 | D*26 | SECOND BYTE OF LOGICAL BLOCK NUMBER |
| 112 | DTFXSPB1 | 1 | D*27 | SSR PASSBACK |
| | Bits defined in DTFXSPB1 | | | |
| 80 | DTFXEOX | | | END OF EXTENT |
| 40 | DTFXNLBF | | | NO LOGICAL BLOCK FOUND |
| 20 | DTFXREOC | | | READ ERROR OCCURRED |
| 10 | DTFXWEOC | | | WRITE ERROR OCCURRED |
| 08 | DTFXLBTL | | | LOGICAL BLOCK TOO LONG |
| 04 | DTFXSEOF | | | SOFTWARE EOF ENCOUNTERED |
| 02 | DTFXRQCP | | | REQUEST COMPLETE |
| 01 | DTFXBOE | | | BEGIN OF EXTENT |
| 113 | DTFXSPB2 | 1 | D*28 | SSR PASSBACK |
| | Bits defined in DTFXSPB2 | | | |
| 80 | DTFXBOF | | | BEGIN OF FILE |
| 40 | DTFXBSL | | | BACKSPACE TO BE REISSUED |
| 20 | DTFXBSLR | | | BACKSPACE IN PROGRESS |
| 114 | DTFXSPR1 | 1 | D*29 | PREVIOUS ACTION REQUEST |
| 115 | DTFXSPR2 | 1 | D*30 | PREVIOUS REQUEST |
| 116 | DTFXSSIC | 1 | D*31 | SSR STATUS |
| | Bits defined in DTFXSSIC | | | |
| 80 | DTFXRPIP | | | REPOSITION IN PROGRESS |
| 40 | DTFXERIP | | | ERROR EXIT IN PROGRESS |
| 20 | DTFXSKEX | | | SKIP RETURN FROM ERROR EXIT |
| 10 | DTFXSCDF | | | INITIALIZE CIDF |
| 08 | DTFXRIOE | | | RESUME AFTER IO ERROR |
| 04 | DTFXDWCI | | | DONT WRITE CI |
| 02 | DTFXLMEP | | | EXPLICIT FREE REQUEST |
| 117 | DTFXSSR1 | 1 | D*32 | RESERVED |
| 118 | DTFXNLBO | 2 | | NEXT LOGICAL BLOCK OFFSET |
| 11A | DTFXNRDF | 2 | | NEXT RDF OFFSET |
| 11C | DTFXLBRD | 2 | | LOGICAL BLOCK WITHIN RDF |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 11E | DTFXRCIC | 2 | | REMAINING CI/TRACK CAPACITY |
| 120 | DTFXEXF | 4 | | EXPLICIT FREE ADDRESS |
| 120 | DTFXEXFR | 4 | | EXPLICIT FREE CI BLOCK NUMBER OR CCHH |
| 124 | DTFXEXR | 1 | D*33 | R |
| 125 | DTFXSSOP | 1 | D*34 | SSR OP CODE |
| 12C | DTFXFXLL | 2 | | FILE LOWER EXTENT |
| 12C | DTFXFXLC | 2 | | CC |
| 12E | DTFXFXLH | 2 | | HH |
| 130 | DTFXFXUU | 2 | | FILE UPPER EXTENT |
| 130 | DTFXFXUL | 2 | | PBN OF FIRST BLOCK OF LAST CI IN THE EXTENT OR CCHH OF FIRST PHYSICAL RECORD OF LAST CI IN THE EXTENT |
| 130 | DTFXFXUC | 2 | | CC |
| 132 | DTFXFXUH | 2 | | HH |
| 134 | DTFXFXUR | 1 | D*35 | RECORD NUMBER |
| 135 | DTFXRELL | 4 | | RELATIVE CI NUMBER OF FIRST CI IN THIS EXTENT |
| 139 | DTFXHRBA | 4 | | HIGH USED RBA |
| 13D | DTFXCISB | 2 | | NUMBER BLOCKS PER CI FOR FBA, PHYSICAL RECORDS PER CI FOR CI FORMAT CKD |
| 13F | DTFXBCM1 | 2 | | NUMBER BLOCKS PER CI MINUS 1 |
| 13F | DTFXPRPT | 2 | D*36 | PHYSICAL RECORDS PER TRACK FOR CI FORMAT CKD -- SPACE REQUIRED FPR EOF NON-CI FORMAT CKD |
| 141 | DTFX2BCI | 2 | | TWICE NUMBER BLOCKS PER CI |
| 141 | DTFXTPC | 2 | | TRACKS PER CYLINDER FOR CI FORMAT CKD |
| 143 | DTFX2BM1 | 2 | | TWICE BLOCKS PER CI MINUS 1 |
| 143 | DTFXTPC1 | 2 | | TRACKS PER CYLINDER MINUS 1 FOR CI FORMAT CKD-- COUNT/GAP COMPUTATION CONSTANT FOR NON-CI FORMAT |
| 145 | DTFXCIM4 | 2 | | CISIZE MINUS 4 BYTES FOR CI FORMAT-TRACK CAPACITY FOR NON-CI FORMAT |
| 147 | DTFXCIMX | 2 | D*37 | CISIZE MINUS 10 BYTES FOR CI FORMAT--COUNT/GAP OVERHEAD CONSTANT FOR NON-CI FORMAT CKD |
| 149 | DTFXSSRW | 4 | | ADDRESS OF SSR AND LOGIC MODULE WORKAREA |
| 14D | DTFXLHH | 2 | | LOWER CYLINDER HEAD LIMIT FOR NON-CI CKD, 0 IF NOT SPLIT CYLINDER |
| 14F | DTFXUHH | 2 | D*38 | UPPER CYLINDER HEAD LIMIT FOR NON-CI FORMAT CKD |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|

THIS IS A DESCRIPTION OF THE CCB BLOCK

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 8 | CCBST | | | START CCB |
| 8 | CCBD | | | COMMAND CONTROL BLOCK |
| 8 | CCBLEN | 0 | | MAP OF THE DOS CCB |
| 8 | CCBCNT | 2 | | RESIDUAL COUNT |
| A | CCBERMAP | 0 | | 4 BYTES USED TO CHECK ERRORS |
| A | CCBCOM1 | 1 | | COMMUNICATIONS BYTE NUMBER 1 |

Bits defined in CCBCOM1

| | | |
|---|---|---|
| 80 | CCBWAIT | TRAFFIC BIT (SET AT CE) |
| 40 | CCBEOF | END-OF-FILE |
| 20 | CCBIOERR | UNRECOVERABLE I/O ERROR |
| 10 | CCBERROK | ACCEPT UNRECOVERABLE ERROR |
| 08 | CCBRDC | RETURN DATA CHECKS |
| 04 | CCBPDE | POST AT DEVICE END |
| 02 | CCBDCV | RETURN DATA CHECK RD/CHK |
| 01 | CCBUERR | USER ERROR ROUTINE |

| | | | | |
|---|---|---|---|---|
| B | CCBCOM2 | 1 | | COMMUNICATIONS BYTE NUMBER 2 |

Bits defined in CCBCOM2

| | | |
|---|---|---|
| 80 | CCBDCCNT | DATA CHECK IN COUNT AREA |
| 40 | CCBTRKOV | TRACK OVERRUN |
| 20 | CCBEOC | END-OF-CYLINDER |
| 10 | CCBDC | DATA CHECK |
| 08 | CCBNOREC | NO-RECORD-FOUND |
| 04 | CCBRETRY | RETRY NO RECORD FOUND |
| 02 | CCBVER | VERIFY ERROR |
| 01 | CCBCC | COMMAND CHAIN (RETRY) |

| | | | | |
|---|---|---|---|---|
| C | CCBCSW1 | 1 | | CSW STATUS BIT NUMBER 1 |

Bits defined in CCBCSW1

| | | |
|---|---|---|
| 80 | CCBATTN | ATTENTION |
| 40 | CCBSTMOD | STATUS MODIFIER |
| 20 | CCBCUE | CONTROL UNIT END |
| 10 | CCBBUSY | BUSY |
| 08 | CCBCE | CHANNEL END |
| 04 | CCBDE | DEVICE END |
| 02 | CCBUC | UNIT CHECK |
| 01 | CCBUE | UNIT EXCEPTION |

| | | | | |
|---|---|---|---|---|
| D | CCBCSW2 | 1 | | CSW STATUS BIT NUMBER 2 |

Bits defined in CCBCSW2

| | | |
|---|---|---|
| 80 | CCBPCI | PROGRAM-CONTROLLED INTERRUPT |
| 40 | CCBILEN | INCORRECT LENGTH |
| 20 | CCBPROGM | PROGRAM CHECK |
| 10 | CCBPROT | PROTECTION CHECK |
| 08 | CCBCHAND | CHANNEL DATA CHECK |
| 04 | CCBCHANC | CHANNEL CONTROL CHECK |
| 02 | CCBICTRL | INTERFACE CONTROL CHECK |
| 01 | CCBCHAIN | CHAINING CHECK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| E | CCBSYMU | 0 | | SYMBOLIC UNIT (SYSUN) |
| E | CCBSUCLS | 1 | | U - LUB CLASS |
| F | CCBSUNUM | 1 | | N - LUB NUMBER WITHIN CLASS |
| 10 | CCBLIOBS | 1 | | RESERVED FOR LIOBS |
| 11 | CCBCCW | 3 | | POINTER TO START OF CHANNEL PROGRAM |
| 14 | CCBCOM3 | 1 | | COMMUNICATION BYTE NUMBER 3 |
| Bits defined in CCBCOM3 | | | | |
| 40 | CCBAPEND | | | APPENDAGE EXIT AT INTERRUPT |
| 15 | CCBCSW | 3 | | PT TO CSW OR PT APPENDAGE RETURN |
| 18 | CCBLDATB | 4 | | ADDRESS OF LAST DATA BLOCK |
| 1C | CCBLCCWB | 4 | | ADDRESS OF LAST CCW BLOCK |
| 24 | CCBUFLGS | 1 | | I/O MANAGER CCB FLAGS |
| Bits defined in CCBUFLGS | | | | |
| 80 | CCBUEAIC | | | ERROR ANALYSIS IN CONTROL |
| 40 | CCBUEAC | | | ERROR ANALYSIS COMPLETE |
| 20 | CCBURDCW | | | READ CCW ACTIVE |
| 10 | CCBRPS | | | RPS CHAN PGM CANDIDATE |
| 25 | CCBFSCCW | 3 | | SAVE AREA FOR FIRST CCW ADDRESS |
| 28 | CCBRDCCW | 4 | | ADDRESS OF FIRST READ CCW |
| 2C | CCBWTCCW | 4 | | ADDRESS OF FIRST WRITE CCW |
| 30 | CCBLWCCW | 4 | | ADDRESS OF THE LAST WRITE CCW |
| 40 | CCBNCCB | 4 | | ADDRESS OF NEXT CCB BLOCK |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CCBAPEND | 0014 | 40 |
| CCBATTN | 000C | 80 |
| CCBBUSY | 000C | 10 |
| CCBCC | 000B | 01 |
| CCBCCW | 0011 | .. |
| CCBCE | 000C | 08 |
| CCBCHAIN | 000D | 01 |
| CCBCHANC | 000D | 04 |
| CCBCHAND | 000D | 08 |
| CCBCNT | 0008 | .. |
| CCBCOM1 | 000A | .. |
| CCBCOM2 | 000B | .. |
| CCBCOM3 | 0014 | .. |
| CCBCSW | 0015 | .. |
| CCBCSW1 | 000C | .. |
| CCBCSW2 | 000D | .. |
| CCBCUE | 000C | 20 |
| CCBD | 0008 | .. |
| CCBDC | 000B | 10 |
| CCBDCCNT | 000B | 80 |
| CCBDCV | 000A | 02 |
| CCBDE | 000C | 04 |
| CCBEOC | 000B | 20 |
| CCBEOF | 000A | 40 |
| CCBERMAP | 000A | .. |
| CCBERROK | 000A | 10 |
| CCBFSCCW | 0025 | .. |
| CCBICTRL | 000D | 02 |
| CCBILEN | 000D | 40 |
| CCBIOERR | 000A | 20 |
| CCBLCCWB | 001C | .. |
| CCBLDATB | 0018 | .. |
| CCBLEN | 0008 | .. |
| CCBLIOBS | 0010 | .. |
| CCBLWCCW | 0030 | .. |
| CCBNCCB | 0040 | .. |
| CCBNOREC | 000B | 08 |
| CCBPCI | 000D | 80 |
| CCBPDE | 000A | 04 |
| CCBPROGM | 000D | 20 |
| CCBPROT | 000D | 10 |
| CCBRDC | 000A | 08 |
| CCBRDCCW | 0028 | .. |
| CCBRETRY | 000B | 04 |
| CCBRPS | 0024 | 10 |
| CCBST | 0008 | .. |
| CCBSTMOD | 000C | 40 |
| CCBSUCLS | 000E | .. |
| CCBSUNUM | 000F | .. |
| CCBSYMU | 000E | .. |
| CCBTRKOV | 000B | 40 |
| CCBUC | 000C | 02 |
| CCBUE | 000C | 01 |
| CCBUEAC | 0024 | 40 |
| CCBUEAIC | 0024 | 80 |
| CCBUERR | 000A | 01 |
| CCBUFLGS | 0024 | .. |
| CCBURDCW | 0024 | 20 |
| CCBVER | 000B | 02 |
| CCBWAIT | 000A | 80 |
| CCBWTCCW | 002C | .. |
| DMSCCB | 0008 | .. |
| DTFXBCM1 | 013F | .. |
| DTFXBLSZ | 00DC | .. |
| DTFXBOE | 0112 | 01 |
| DTFXBOF | 0113 | 80 |
| DTFXBSL | 0113 | 40 |
| DTFXBSLR | 0113 | 20 |
| DTFXCBLI | 0010 | .. |
| DTFXCBPI | 0014 | .. |
| DTFXCBRC | 0008 | .. |
| DTFXCBST | 000C | .. |

| | | |
|---|---|---|
| DTFXCBTC | 000E | .. |
| DTFXCBTI | 000A | .. |
| DTFXCCB | 0008 | .. |
| DTFXCCBI | 0008 | .. |
| DTFXCCRC | 004A | 10 |
| DTFXCCRD | 004A | 80 |
| DTFXCCWA | 0011 | .. |
| DTFXCCWP | 00B8 | .. |
| DTFXCCWS | 00B8 | .. |
| DTFXCCWT | 004A | 40 |
| DTFXCCWU | 004A | 20 |
| DTFXCCWW | 00B8 | .. |
| DTFXCEOX | 006C | 02 |
| DTFXCIMX | 0147 | .. |
| DTFXCIM4 | 0145 | .. |
| DTFXCIN | 00F4 | .. |
| DTFXCINC | 00F4 | .. |
| DTFXCINH | 00F6 | .. |
| DTFXCINR | 00F8 | .. |
| DTFXCISB | 013D | .. |
| DTFXCISZ | 0068 | .. |
| DTFXCITL | 00F2 | 08 |
| DTFXCI1 | 00E8 | .. |
| DTFXCI1B | 00EC | .. |
| DTFXCI1C | 00EC | .. |
| DTFXCI1H | 00EE | .. |
| DTFXCI1N | 00F4 | .. |
| DTFXCI1P | 00E8 | .. |
| DTFXCI1R | 00F0 | .. |
| DTFXCI11 | 00FA | .. |
| DTFXCI12 | 00F2 | .. |
| DTFXCI13 | 00F3 | .. |
| DTFXCI14 | 00F9 | .. |
| DTFXCPCP | 006C | 80 |
| DTFXCWCN | 00CC | 40 |
| DTFXCWCS | 0015 | .. |
| DTFXC1LF | 0030 | .. |
| DTFXC1LP | 0031 | .. |
| DTFXC1UF | 0034 | .. |
| DTFXC1UP | 0035 | .. |
| DTFXDEBC | 00BE | .. |
| DTFXDECF | 00BC | .. |
| DTFXDEOC | 00B8 | .. |
| DTFXDERS | 00BD | .. |
| DTFXDEXP | 00B9 | .. |
| DTFXDFX1 | 00B8 | .. |
| DTFXDIDI | 006C | 20 |
| DTFXDSAP | 004C | .. |
| DTFXDTF | 0054 | .. |
| DTFXDUMY | 004C | .. |
| DTFXDWCI | 0116 | 04 |
| DTFXD1LF | 0038 | .. |
| DTFXD1LP | 0039 | .. |
| DTFXD1UF | 003C | .. |
| DTFXD1UP | 003D | .. |
| DTFXECBI | 000E | 08 |
| DTFXEOFH | 00F2 | 02 |
| DTFXEOX | 0112 | 80 |
| DTFXEOXH | 00F2 | 80 |
| DTFXERIP | 0116 | 40 |
| DTFXERNM | 004B | 20 |
| DTFXERXT | 00C4 | .. |
| DTFXEXF | 0120 | .. |
| DTFXEXFR | 0120 | .. |
| DTFXEXR | 0124 | .. |
| DTFXE1LF | 0040 | .. |
| DTFXE1LP | 0041 | .. |
| DTFXE1UF | 0044 | .. |
| DTFXE1UP | 0045 | .. |
| DTFXFBAB | 00B0 | .. |
| DTFXFBAO | 0050 | .. |
| DTFXFBLF | 0028 | .. |
| DTFXFBLP | 0029 | .. |
| DTFXFBUF | 002C | .. |
| DTFXFBUP | 002D | .. |
| DTFXFLB1 | 0028 | .. |
| DTFXFLC1 | 0030 | .. |
| DTFXFLD1 | 0038 | .. |
| DTFXFLE1 | 0040 | .. |
| DTFXFLF1 | 0048 | .. |
| DTFXFLG1 | 0048 | .. |
| DTFXFLS1 | 0028 | .. |
| DTFXFL10 | 0049 | .. |
| DTFXFL20 | 004A | .. |
| DTFXFL30 | 004B | .. |
| DTFXFORW | 00F3 | 08 |
| DTFXFREE | 00F3 | 80 |
| DTFXFRVS | 0064 | 40 |
| DTFXFWRQ | 00F3 | 40 |
| DTFXFXLC | 012C | .. |
| DTFXFXLH | 012E | .. |
| DTFXFXLL | 012C | .. |
| DTFXFXUC | 0130 | .. |
| DTFXFXUH | 0132 | .. |
| DTFXFXUL | 0130 | .. |
| DTFXFXUR | 0134 | .. |
| DTFXFXUU | 0130 | .. |
| DTFXHRBA | 0139 | .. |
| DTFXIDEN | 0000 | .. |
| DTFXIOAD | 0104 | .. |
| DTFXIOA1 | 00D0 | .. |
| DTFXIOEH | 00F2 | 40 |
| DTFXIOFL | 0018 | .. |
| DTFXIOPT | 0064 | 80 |
| DTFXIORB | 000E | 04 |
| DTFXIORP | 00F2 | 10 |
| DTFXIOWP | 00F2 | 20 |
| DTFXLBLN | 0102 | .. |
| DTFXLBRD | 011C | .. |
| DTFXLBTL | 0112 | 08 |
| DTFXLCBC | 00FA | .. |
| DTFXLCDD | 00FC | .. |
| DTFXLCOB | 00F8 | .. |
| DTFXLCRC | 00F9 | .. |
| DTFXLHH | 014D | .. |
| DTFXLMEP | 0116 | 02 |
| DTFXLMPT | 006D | .. |
| DTFXLMSA | 0070 | .. |
| DTFXLMSP | 006C | .. |
| DTFXLMSW | 006C | .. |
| DTFXLOBC | 00C6 | .. |
| DTFXLOCD | 00F8 | .. |
| DTFXLOCF | 00C4 | .. |
| DTFXLOC1 | 00C0 | .. |
| DTFXLOLP | 00C1 | .. |
| DTFXLOOC | 00C0 | .. |
| DTFXLORS | 00C5 | .. |
| DTFXLSIO | 00F3 | 02 |
| DTFXMECP | 0064 | 20 |
| DTFXMSWA | 00BC | .. |
| DTFXMTRQ | 00F9 | 40 |
| DTFXNDTF | 0058 | .. |
| DTFXNHRB | 0049 | 04 |
| DTFXNIOA | 004B | 02 |
| DTFXNLBF | 0112 | 40 |
| DTFXNLBO | 0118 | .. |
| DTFXNOMT | 0049 | 01 |
| DTFXNPCC | 010C | .. |
| DTFXNPCK | 010C | .. |
| DTFXNPH | 010E | .. |
| DTFXNPR | 0110 | .. |
| DTFXNRDF | 011A | .. |
| DTFXNW | 011D | .. |
| DTFXNWCC | 010D | .. |
| DTFXNWH | 010F | .. |
| DTFXOCCW | 0064 | .. |
| DTFXOCWP | 0065 | .. |
| DTFXODVT | 00B4 | .. |
| DTFXORSP | 005C | .. |
| DTFXPBNR | 00EC | .. |
| DTFXPONV | 00F2 | 04 |
| DTFXPRPT | 013F | .. |
| DTFXRBFL | 0018 | .. |
| DTFXRBPT | 0019 | .. |
| DTFXRCIC | 011E | .. |
| DTFXRCIN | 010D | .. |
| DTFXRCIR | 010C | .. |
| DTFXRELL | 0135 | .. |
| DTFXREOC | 0112 | 20 |
| DTFXRETR | 00F3 | 10 |
| DTFXRIOE | 0116 | 08 |
| DTFXRLCI | 010C | .. |
| DTFXRLC1 | 010C | .. |
| DTFXRLEN | 0100 | .. |
| DTFXRPIP | 0116 | 80 |
| DTFXRPS | 0049 | 08 |
| DTFXRQCP | 0112 | 02 |
| DTFXRSVD | 006C | 01 |
| DTFXRSV1 | 0024 | .. |
| DTFXRSV4 | 00D8 | .. |
| DTFXRWCF | 00CC | .. |
| DTFXRWCW | 00C8 | .. |
| DTFXRWDP | 00C9 | .. |
| DTFXRWLN | 00CE | .. |
| DTFXRWOC | 00C8 | .. |
| DTFXRWRS | 00CD | .. |
| DTFXSARC | 00F9 | 80 |
| DTFXSCDF | 0116 | 10 |
| DTFXSDSD | 006C | 40 |
| DTFXSDWF | 006C | 10 |
| DTFXSEOF | 0112 | 04 |
| DTFXSFSW | 0064 | .. |
| DTFXSIO1 | 00D4 | .. |
| DTFXSIO2 | 00D8 | .. |
| DTFXSKEX | 0116 | 20 |
| DTFXSMWP | 00C0 | .. |
| DTFXSPB1 | 0112 | .. |
| DTFXSPB2 | 0113 | .. |
| DTFXSPRO | 006C | 04 |
| DTFXSPR1 | 0114 | .. |
| DTFXSPR2 | 0115 | .. |
| DTFXSSFT | 0049 | 20 |
| DTFXSSFW | 0049 | 10 |
| DTFXSSHD | 0049 | 80 |
| DTFXSSIC | 0116 | .. |
| DTFXSSIG | 004B | 40 |
| DTFXSSLB | 0110 | .. |
| DTFXSSLC | 0049 | 40 |
| DTFXSSL1 | 0110 | .. |
| DTFXSSL2 | 0111 | .. |
| DTFXSSOP | 0125 | .. |
| DTFXSSPR | 0108 | .. |
| DTFXSSRW | 0149 | .. |
| DTFXSSR1 | 0117 | .. |
| DTFXSSSK | 004B | 80 |
| DTFXTPC | 0141 | .. |
| DTFXTPC1 | 0143 | .. |
| DTFXTRAF | 000A | 80 |
| DTFXTRHD | 00F9 | 20 |
| DTFXTRNC | 004B | 08 |
| DTFXUHH | 014F | .. |
| DTFXULLX | 00C8 | .. |
| DTFXULUX | 00CC | .. |
| DTFXUPDT | 004B | 04 |
| DTFXUWRQ | 00F3 | 20 |
| DTFXVALC | 00F3 | 04 |
| DTFXVER3 | 006C | 08 |
| DTFXVLBC | 00D6 | .. |
| DTFXVLCF | 00D4 | .. |
| DTFXVLLP | 00D1 | .. |
| DTFXVLOC | 00D0 | .. |
| DTFXVLRS | 00D5 | .. |
| DTFXVNOP | 00D0 | .. |
| DTFXVYES | 004B | 01 |
| DTFXWEOC | 0112 | 10 |
| DTFXWORK | 004B | 10 |
| DTFXXLEN | 0060 | .. |
| DTFXXRSV | 00E9 | .. |
| DTFXXTFB | 00EC | .. |
| DTFXXTFD | 00F0 | .. |
| DTFXXTLD | 00F4 | .. |
| DTFXXTMB | 00E8 | .. |
| DTFXXTNT | 00E8 | .. |
| DTFX1411 | 0049 | 02 |
| DTFX2BCI | 0141 | .. |
| DTFX2BM1 | 0143 | .. |

## EDCB: EDIT CONTROL BLOCK

EDCB is used by all CMS EDIT modules to define common free storage control blocks. It is initialized by DMSEDX, the EDIT bootstrap routine, and built dynamically from user free storage each time a user issues the EDIT command. EDCB is invoked by the EDCB macro.

```
    +-----------------------------------------------+
  0 |                     FNAME                     |
    +-----------------------------------------------+
  8 |                     FTYPE                     |
    +-----------+-----+-----+-----------+-----------+
 10 |   FMODE   | FV  | E*1 |  TRUNCOL  |   ZONE1   |
    +-----------+-----+-----+-----------+-----------+
 18 |   ZONE2   |  VERCOL1  |  VERCOL2  |  VERLEN   |
    +-----------+-----------+-----------+-----------+
 20 |       SCRBUFAD        |       CARDINCR        |
    +-----------+-----------+-----+-----+-----------+
 28 |  LMSTART  |  LMINCR   |FLAG | E*2 |           |
    +-----------+-----------+-----+-----+           |
    |                                               |
    =                     TABS                      =
    |                                               |
    +-----------------+-----+-----------------------+
 48 |     SEQNAME     | E*3 |        PADBUF         |
    +-----------------+-----+-----+-----------------+
 50 |    PADBUF (continued)       |     PTRCONS     |
    +-----------------------------+-----------------+
 58 |                     PTR1                      |
    +-----------------------+-----------------------+
 60 |         PTR2          |         PTR3          |
    +-----------------------+-----------------------+
 68 |        AEXTEND        |        CORITEM        |
    +-----------------------+-----------------------+
 70 |        SPARES         |         FPTR          |
    +-----------------------+-----------------------+
 78 |         ITEM          |       AFSTFNRD        |
    +-----------------------+-----------------------+
 80 |        FREELEN        |        FREEAD         |
    +-----------------------+-----------------------+
 88 |         EDRET         |         EDMSK         |
    +-----------------------+-----------------------+
 90 |        MAINAD         |                       |
    +-----------------------+                       |
    |                                               |
    =                    AUTOREG                    =
    |                                               |
    +-----------------------+-----------------------+
 C8 |        CARDNO         |         COUNT         |
    +-----------------------+-----------------------+
 D0 |                    LMCURR                     |
    +-----------------------+-----------------------+
 D8 |         BUFFL         |         BUFFA         |
    +-----------------------+-----------------------+
             +-----------------------+-----------------------+
         E0  |                                               |
             =                    CANSAV                     =
             |                                               |
             |                       +-----------------------+
        100  |                       |                       |
             +-----------------------+                       |
             |                                               |
             =                    DUALNOS                    =
             |                                               |
             |                                               |
             +-----------------------+-----------------------+
        1F8  |        DECIMAL        |         HALF          |
             +-----------------------+-----------------------+
        200  |                                               |
             =                    REGSAVE                    =
             |                                               |
             |                       +-----------------------+
        210  |                       |                       |
             +-----------------------+                       |
        218  |                    REGSAVX                    |
             +-----------------------+-----------------------+
        220  |        REPCNT         |                       |
             +-----------------------+                       |
             |                                               |
             =                    SAVEAR                     =
             |                                               |
             +-----------------------+-----------------------+
        260  |         XYCNT         |        CHNGNUM        |
             +-----------------------+-----------------------+
        268  |                      TIN                      |
             +-----+-----------------+-----+-----------------+
|       270  |cont.|     AEDLIN      | E*4 |       E*5       |
             +-----+-----------------+-----+-----------------+
        278  |                     TOUT                      |
             +-----------------------------+-----------------+
|       280  |      TOUT (continued)       |     TYPFLG      |
             +-----------------------------+-----------------+
        288  |                    IOLIST                     |
             +-----------------------------------------------+
        290  |                     IOID                      |
             +-----------------------------------------------+
|       298  |                      E*6                      |
             +-----------+-----------+-----------------------+
|       2A0  |  IOMODE   | ///////// |         IOAD          |
             +-----------+-----------+-----+-----------------+
|       2A8  |          E*7          | E*8 |    PLSTFLGS     |
             +-----------------------+-----+-----------------+
|       2B0  |   PLSTFLGS (cont.)    |       PLSTITEM        |
             +-----------------------+-----------------------+
|       2B8  |                     RECS                      |
             +-----------------------+-----------------------+
|       2C0  |     RECS (cont.)      |        ALTLIST        |
             +-----------------------+-----------------------+
|       2C8  |    ALTLIST (cont.)    |        EDWORK         |
             +-----------------------+-----------------------+
|       2D0  |    ERDWORK (cont.)    |          E*9          |
             +-----------------------+-----------------------+
|       2D8  |      E*9 (cont.)      |        ALTMODE        |
             +-----------------------+-----------------------+
    +-----------------------+-----------------------+
2E0 |    ALTMODE (cont.)    | ///////////////////// |
    +-----------------------+-----------------------+
2E8 | ///////////////////////////////////////////// |
    +-----------------------+-----------+-----------+
2F0 | ///////////////////// |   E*10    | ///////// |
    +-----------------------+-----------+-----------+
2F8 | ///////////////////// |         E*11          |
    +-----------------------+-----------------------+
300 |     E*11 (cont.)      |        STACKAT        |
    +-----------------------+-----------------------+
308 |              STACKAT (continued)              |
    +-----------------------+-----------------------+
310 |       STACKATL        |         ATTN          |
    +-----------------------+-----------------------+
318 |               ATTN (continued)                |
    +-----------------------+-----------------------+
320 |       ATTNLEN         |        RENLIST        |
    +-----------------------+-----------------------+
328 |   RENLIST (cont.)     |         RPLIST        |
    +-----------------------+-----------------------+
330 |                RPLIST (cont.)                 |
    +-----------------------+-----------------------+
338 |        STRTNO         |        INCRNO         |
    +-----------------------+-----------------------+
340 |        AINCORE        |        FSIZE          |
    +-----------------------+-----------------------+
348 |                    DECLTH                     |
    +-----------------------------------------------+
350 |                     RANGE                     |
    +-----------------------------------------------+
358 | ///////////////////////////////////////////// |
    +-----+-----------------+-----+-----+-----------+
360 | E*12|      BUFAD      | FLG | CTL |  WRCOUNT  |
    +-----+-----------------+-----+-----+-----------+
368 |       BUFFLOC         |       ALINELOC        |
    +-----------------------+-----------------------+
370 |       ANUMLOC         |       AFLAGLOC        |
    +-----------------------+-----------+-----------+
378 |       TRNCNUM         |  AUTOCNT  | AUTOCURR  |
    +-----------+-----------+-----------+-----------+
380 |  CHNGCNT  |  DITCNT   |   EDCT    |  LINELOC  |
    +-----------+-----------+-----------+-----------+
388 |  NUMLOC   |  SAVCNT   | TVERCOL1  | TVERCOL2  |
    +-----+-----+-----------+-----------+-----------+
390 | E*13| E*14|               AREA                |
    +-----+-----+-----+-----+-----------------------+
398 |AREA(cont.)| BYTE| E*15|                       |
    +-----------+-----+-----+                       |
3A0 |                                               |
    =                    CHNGMSG                    =
    |                                               |
    +-----------+-----------------------------------+
3B0 |   E*16    |                                   |
    +-----------+        CHGTRUNC       +-----------+
3B8 |                                   |           |
    +-----------------------------------+           |
3C0 |                     E*17                      |
    +-----------------------+-----------------------+
                +-----------------------+-----------------------+
            3C8 |      CMODE            |                       |
                +-----------------------+                       |
            3D0 |                                               |
                =                     FILEMS                    =
                |                                               |
                |                                   +-----+-----+
|           3E0 |                                   | E*18| E*19|
                +-----+-----------------------------------------+
            3E8 | E*20|                                         |
                +-----+                                         |
                |                                               |
                =                      JAR                      =
                |                                   +-----------+
                |                                   |  NEWNAME  |
                +-----------------------------------+-----------+
            438 |           NEWNAME (cont.)         |  NEWTYPE  |
                +---------------------------+-------+-----+-----+
            440 |      NEWTYPE (cont.)      |   NEWMODE   | E*21|
                +---------------------------+-------------+-----+
            448 |             E*21 (cont.)                | E*22|
                +-----------+-----+-----+-----------------+-----+
|           450 |E*22 (cont)| E*23| E*24|                       |
                +-----------+-----+-----+                       |
            458 |                                               |
                =                    TEMPTAB                    =
                |                                               |
                |                                   +-----+-----+
|               |                                   | E*25| E*26|
                +-----+-----+-----------------------+-----+-----+
            470 | E*27| E*28|              SCLNO                |
                +-----+-----+-----+-----+-----------+-----------+
|           478 |SCLNO(cont)| E*29| E*30|  XAREA    |           |
                +-----------+-----+-----+-----------+           |
                |                                               |
|               =                    E*31                       =
                |                                               |
                |                                   +-----------+
            500 |                                   |   YAREA   |
                +-----------------------------------+-----------+
            508 |                                               |
                |                                               |
|               =                    E*32                       =
                |                                               |
                |                                               |
                |                                         +-----+
|               |                                         | E*33|
                +-----------------------------------+-----+-----+
|           590 |                E*34               | E*35| E*36|
                +-----------------------------------+-----+-----+
            598 |                   XXXCWD                      |
                +-----------------------------------------------+
            5A0 |                   SAVCWD                      |
                +-----------------------------------+-----------+
            5A8 |                 INVLDHDR          | MACROHDR  |
                +-----------+-----------+-----------+-----------+
            5B0 | continued |  INVLD    |       MACRO           |
                +-----+-----+-----------+-----------------------+
         +-----------------------+-----------------------+
     5B8 | E*37|                                         |
         +-----+                                         |
     5C0 |                                               |
         =                    EDLIN                      =
         |                                               |
     638 |                                               |
         +-----------------------------+-----+-----------+
     640 |            LINENO           | E*38|           |
         +-----------------------------+-----+           |
         |                                               |
         =                     LINE                      =
         |                                               |
         |                                   +-----+-----+
     6E0 |                                   | E*39|     |
         +-----------------------------------+-----+     |
     6E8 |                                               |
         |                                               |
         =                    TABLIN                     =
     780 |                                               |
         +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | BLOC | | | |
| 0 | FNAME | 8 | | FILENAME |
| 8 | FTYPE | 8 | | FILETYPE |
| 10 | FMODE | 2 | | FILEMODE |
| 12 | FV | 1 | | RECORD FORMAT |
| 13 | CASESW | 1 | E*1 | CASE SETTING |
| 14 | TRUNCOL | 2 | | COLUMN OF TRUNCATION |
| 16 | ZONE1 | 2 | | BEGINNING ZONE (INITIALIZE TO COLUMN 1) |
| 18 | ZONE2 | 2 | | END ZONE |
| 1A | VERCOL1 | 2 | | VERIFY COLUMN 1 |
| 1C | VERCOL2 | 2 | | VERIFY COLUMN 2 |
| 1E | VERLEN | 2 | | VERIFY LENGTH |
| 20 | SCRBUFAD | 4 | | ADDRESS OF GETMAIN BUFFER |
| 24 | CARDINCR | 4 | | INCREMENT FOR SERIALIZATION |
| 28 | LMSTART | 2 | | WHERE LINE NUMBERS START |
| 2A | LMINCR | 2 | | AUTOMATIC LINE NUMBERS DEFAULT INCREMENT |
| 2C | FLAG | 1 | | FLAGS FOR LINE MONITORING |
| 2D | FLAG2 | 1 | E*2 | MISCALENEOUS FLAGS |
| 2E | TABS | 26 | | A MAXIMUM OF 25 TABS IS ALLOWED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 48 | ENDTABS | | | END OF TABS |
| 48 | SEQNAME | 3 | | NAME, IF ANY, FOR SERIALIZATION |
| 4B | PADCHAR | 1 | E*3 | '0' ON RIGHT, ' ' ON LEFT |
| 4C | ENDBLOC | | | END OF BLOCX |
| 4C | PADBUF | 9 | | PAD CHARACTERS<br>(PADBUF MUST REMAIN DIRECTLY BEHIND PADCHAR) |
| 55 | PTRCONS | | | SAME AS PTRCONS IN DMSEDI |
| 58 | PTR1 | 8 | | 'TOP' POINTER (FOR DUMMY TOP LINE) |
| 60 | PTR2 | 4 | | CURRENT LINE POINTER |
| 64 | PTR3 | 4 | | POINTER TO BOTTOM LINE |
| 68 | AEXTEND | 4 | | POINTER TO END OF USED AREA OF CORE |
| 6C | CORITEM | 4 | | NUMBER OF BYTES FOR ONE LINE IN CORE |
| 70 | SPARES | 4 | | NUMBER OF SPARE LINES |
| 74 | FPTR | 4 | | FREE-LIST POINTER |
| 78 | ITEM | 4 | | ITEM LENGTH |
| 7C | AFSTFNRD | 4 | | ANCHOR FOR STACKED LINES UPON ENTRY |
| 80 | FREELEN | 4 | | LENGTH OF FREE STORAGE |
| 84 | FREEAD | 4 | | ADDRESS OF FREE STORAGE |
| 88 | EDRET | 4 | | CMS RETURN ADDRESS |
| 8C | EDMSK | 4 | | DMSSCR EDIT MASK |
| 90 | MAINAD | 4 | | LOADSYS ADDRESS / 0 IF LOADMOD |
| 94 | EPTRCONS | | | |
| 94 | AUTOREG | 52 | | AUTOCHECK SAVE AREA |
| C8 | CARDNO | 4 | | SEQUENTIAL NUMBER SAVE AREA |
| CC | COUNT | 4 | | NUMBER OF CHARS IN EDLIN |
| D0 | LMCURR | 8 | | PROMPTER CURRENT LINE NUMBER |
| D8 | BUFFL | 4 | | LENGTH OF STRING (EDC) |
| DC | BUFFA | 4 | | ADDRESS OF STRING (EDC) |
| E0 | CANSAV | 36 | | REGISTER SAVE (EDC) |
| 104 | DUALNOS | 240 | | TEMPORARY STRING BUFFER (EDC) |
| 1F8 | DECIMAL | 4 | | USED BY DECBIN & BINDEC |
| 1FC | HALF | 4 | | BINDEC ONLY EDITS 4 CHARACTERS |
| 200 | REGSAV | 20 | | REGISTER SAVE AREA |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 214 | REGSAVX | 12 | | REGISTER SAVE AREA |
| | 220 | REPCNT | 4 | | 'FOR' COUNT |
| \| | 224 | SAVEAR | 60 | | DMSSCR SAVE AREA |
| | 260 | XYCNT | 4 | | X OR Y EXECUTION COUNT |
| | 264 | CHNGNUM | 4 | | NUMBER OF LINES TO CHANGE |
| \| | 268 | TIN | 9 | | WAITRD PLIST |
| \| | 268 | | 8 | | 'WAITRD' |
| \| | 270 | | 1 | | '1' FOR CONSOLE NUMBER 1 |
| | 271 | AEDLIN | 3 | | A(EDLIN) |
| | 274 | CASEREAD | 1 | E*4 | DEFAULT TO UPPER CASE |
| \| | 275 | | 3 | E*5 | LENGTH PUT HERE |
| \| | 278 | TOUT | 13 | | TYPLIN PLIST |
| \| | 278 | | 8 | | 'TYPLIN' |
| \| | 280 | | 1 | | '1' FOR CONSOLE NUMBER 1 |
| \| | 281 | | 3 | | ADDRESS GOES HERE |
| \| | 284 | | 1 | | 'B' FOR BLACK RIBBON |
| \| | 285 | TYPFLG | 3 | | X'20' MAXIMUM LENGTH OVERRIDE |
| | Bits defined in TYPFLG | | | | |
| | 80 | CRBIT | | | SUPPRESS CARRIAGE RETURN |
| | 288 | IOLIST | 8 | | (INITIAL. FOR 'ESTATE' OF SOURCE) |
| \| | 288 | | 8 | | 'ESTATE' |
| | 290 | IOID | 8 | | 'EDIT' |
| \| | 298 | | 8 | E*6 | 'CMSUT1' |
| | 2A0 | IOMODE | 2 | | 'A1' |
| \| | 2A2 | | 2 | | RESERVED |
| | 2A4 | IOAD | 4 | | '****' DON'T ALLOW '*'S |
| \| | 2A8 | | 4 | E*7 | '133' (XINSCRIPT USE 'LINE') |
| | 2AC | PLSTFV | 1 | E*8 | FV FLAG |
| \| | 2AD | PLSTFLGS | 7 | | PLIST FLAGS (EXTENDED PLIST) |
| \| | 2AE | | 2 | | RESERVED |
| \| | 2B0 | | 4 | | READ BYTE COUNT |
| | 2B4 | PLSTITEM | 4 | | EXTENDED ITEM NUMBER |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 2B8 | RECS | 12 | | EXTENDED NUMBER OF ITEMS |
| \| | 2BC | | 4 | | WRITE POINTER |
| \| | 2C0 | | 4 | | READ POINTER |
| | 2C4 | ALTLIST | 8 | | |
| \| | 2C4 | | 8 | | 'RENAME' |
| | 2CC | EDWORK | 8 | | 'EDIT' |
| \| | 2D4 | | 8 | E*9 | 'CMSUT1' |
| | 2DC | ALTMODE | 8 | | 'A1' |
| \| | 2E4 | | 16 | | RESERVED |
| \| | 2F4 | | 2 | E*10 | '*' |
| \| | 2F6 | | 6 | | RESERVED |
| \| | 2FC | | 8 | E*11 | 'FF' FENCE |
| \| | 304 | STACKAT | 12 | | PLIST TO STACK FIFO |
| \| | 304 | | 8 | | 'ATTN' |
| \| | 30C | | 4 | | 'FIFO' |
| | 310 | STACKATL | 4 | | LENGTH & ADDRESS OF LINE TO STACK |
| \| | 314 | ATTN | 12 | | |
| \| | 314 | | 8 | | 'ATTN' |
| \| | 31C | | 4 | | 'LIFO' |
| | 320 | ATTNLEN | 4 | | LENGTH & ADDRESS OF LINE TO STACK |
| | 324 | RENLIST | 8 | | RENUM PLIST |
| \| | 324 | | 8 | | 'RENUM' |
| | 32C | RPLIST | 12 | | FILEID |
| | 338 | STRTNO | 4 | | STARTING NUMBER |
| | 33C | INCRNO | 4 | | INCREMENT NUMBER |
| | 340 | AINCORE | 4 | | INCORE COPY ADDRESS |
| | 344 | FSIZE | 4 | | RECORD LENGTH |
| | 348 | DECLTH | 8 | | DMSSCR WORK AREA |
| | 350 | RANGE | 8 | | MESSAGE DATA AREA |
| | 358 | | 8 | | RESERVED |
| | 360 | CMDBLOK | 1 | E*12 | X'19' |
| | 361 | BUFAD | 3 | | BUFFER ADDRESS |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 364 | FLG | 1 |  | CCW FLAG |
| 365 | CTL | 1 |  | CONTROL BYTE |
| 366 | WRCOUNT | 2 |  | WRITE COUNT |
| 368 | GIOPLIST |  |  | DMSSCR PLIST FOR DMSGIO, (FULLWORD BOUNDARY) |
| 368 | BUFFLOC | 4 |  | BUFFER LOCATION |
| 36C | ALINELOC | 4 |  | A(LINELOC) |
| 370 | ANUMLOC | 4 |  | A(NUMLOC) |
| 374 | AFLAGLOC | 4 |  | A(FLAGLOC) |
| 378 | TRNCNUM | 4 |  | NUMBER OF LINES TRUNCATED |
| 37C | AUTOCNT | 2 |  | AUTOSAVE PARAMETER |
| 37E | AUTOCURR | 2 |  | CURRENT MODIFICATION COUNT |
| 380 | CHNGCNT | 2 |  | TEMPORARY AREA FOR CHANGE |
| 382 | DITCNT | 2 |  | NUMBER LINES STACKED BY DITTO |
| 384 | EDCT | 2 |  | NEXT CHAR IN EDLIN |
| 386 | LINELOC | 2 |  | DISPLAY LINE NUMBER |
| 388 | NUMLOC | 2 |  | DISPLAY COUNT |
| 38A | SAVCNT | 2 |  | SPOT TO SAVE COUNT FOR DITTO |
| 38C | TVERCOL1 | 2 |  | TEMPORARY AREA FOR VERIFY COL 1 |
| 38E | TVERCOL2 | 2 |  | TEMPORARY AREA FOR VERIFY COL 2 |
| 390 | ALCHAR1 | 1 | E*13 | TEMPORARY USED BY ALTER |
| 391 | ALCHAR2 | 1 | E*14 | ANOTHER ONE |
| 392 | AREA | 8 |  | EDIT INSTRUCTION WORK |
| 39A | BYTE | 1 |  | TEMPORARY (USED BY GET) |
| 39B | CHNGFLAG | 1 | E*15 | FLAG FOR CHANGE |
| 39C | CHNGMSG | 20 |  | LINES CHANGED MESSAGES |
| 3B0 |  | 2 | E*16 | C',' |
| 3B2 | CHGTRUNC | 13 |  | C'.... LINE(S) ' |
| 3BF |  | 9 | E*17 | C'TRUNCATED' |
| 3C8 | CMODE | 4 |  | FILEMODE FOR MODECHK ROUTINE |
| 3CC | FILEMS | 26 |  | RETRY MESSAGE |
| 3E6 | FLAGLOC | 1 | E*18 | FLAG FOR DMSGIO |
| 3E7 | GETFLAG | 1 | E*19 | FLAG FOR GETFILE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3E8 | HOLDFLAG | 1 | E*20 | DMSSCR 'SCRFLGS' |
| 3E9 | JAR | 76 | | SAVE AREA FOR PRESERVE |
| 435 | NEWNAME | 8 | | NAME AREA FOR FILE & SAVE |
| 43D | NEWTYPE | 8 | | TYPE AREA FOR FILE & SAVE |
| 445 | NEWMODE | 2 | | MODE AREA FOR FILE & SAVE |
| 447 | SERSAV | 8 | E*21 | SERIAL NUMBER SAVE AREA |
| 44F | SERTSEQ | 3 | E*22 | TEMPORARY SERIAL AREA |
| 452 | SERTSW | 1 | E*23 | TEMPORARY USED BY SERIAL |
| 453 | SIGNAL | 1 | E*24 | SIGNAL BETWEEN ROUTINES |
| 454 | TEMPTAB | 26 | | TEMPORARY SPOT FOR NEW TABS |
| 46E | UTILFLAG | 1 | E*25 | DMSSCR UTILITY FLAGS |
| 46F | XYFLAG | 1 | E*26 | X/Y ACTIVE FLAG |
| 470 | SCRFLGS | 1 | E*27 | SCREEN FUNCTION FLAGS |
| 471 | SCRFLG2 | 1 | E*28 | MORE SCREEN FUNCTION FLAGS |
| 472 | SCLNO | 8 | | SAVE LINEMODE SEQUENTIAL NUMBER |
| 47A | TWITCH | 1 | E*29 | LOCATION FLAGS |
| 47B | TYPSCR | 1 | E*30 | DISPLAY SIZE INDEX VALUE |
| 47C | XAREA | 2 | | 'X' LENGTH AND REQUEST BUFFER |
| 47E | | 135 | E*31 | (SAME LENGTH AS EDLIN) |
| 506 | YAREA | 2 | | 'Y' LENGTH AND REQUEST BUFFER |
| 508 | | 135 | E*32 | (SAME LENGTH AS EDLIN) |
| 58F | FLAG3 | 1 | E*33 | MISCELLANEOUS FLAGS |
| 590 | | 6 | E*34 | ALIGNMENT FOR XXXCWD |
| 596 | | 1 | E*35 | MORE ALIGNMENT |
| 597 | BLANK1 | 1 | E*36 | BLANK FOR CLEARING XXXCWD |
| 598 | XXXCWD | 8 | | EDIT TOKEN BUFFER |
| 5A0 | SAVCWD | 8 | | SPOT TO SAVE XXXCWD |
| 5A8 | INVLDHDR | 6 | | '?EDIT:' FOR INVALID REQUEST MSG |
| 5AE | MACROHDR | 4 | | 'EXEC' FOR EDIT MACRO STACKING |
| 5B2 | INVLD | 2 | | SPOT TO HOLD INVLDHDR |
| 5B4 | MACRO | 4 | | SPOT TO HOLD MACROHDR (IN INVLD) |
| 5B8 | | 1 | E*37 | BLANK USED FOR CLEARING EDLIN |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 5B9 | EDLIN | 135 | | TERMINAL INPUT BUFFER |
| 640 | LINENO | 5 | | LINE NUMBER FOR TYPEOUT |
| 645 | BLANK2 | 1 | E*38 | BLANK FOR CLEARING LINE |
| 646 | LINE | 160 | | CURRENT LINE IS HELD HERE |
| 6E6 | BLANK3 | 1 | E*39 | BLANK FOR CLEARING TABLIN |
| 6E7 | TABLIN | 160 | | OUTPUT FROM SPREAD |
| 788 | EDCBEND | | | |
| 788 | EDCBLTH | | | LENGTH OF EDCB WAW |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| AEDLIN | 0271 | .. |
| AEXTEND | 0068 | .. |
| AFLAGLOC | 0374 | .. |
| AFSTFNRD | 007C | .. |
| AINCORE | 0340 | .. |
| ALCHAR1 | 0390 | .. |
| ALCHAR2 | 0391 | .. |
| ALINELOC | 036C | .. |
| ALTLIST | 02C4 | .. |
| ALTMODE | 02DC | .. |
| ANUMLOC | 0370 | .. |
| AREA | 0392 | .. |
| ATTN | 0314 | .. |
| ATTNLEN | 0320 | .. |
| AUTOCNT | 037C | .. |
| AUTOCURR | 037E | .. |
| AUTOREG | 0094 | .. |
| BLANK1 | 0597 | .. |
| BLANK2 | 0645 | .. |
| BLANK3 | 06E6 | .. |
| BLOC | 0000 | 00 |
| BUFAD | 0361 | .. |
| BUFFA | 00DC | .. |
| BUFFL | 00D8 | .. |
| BUFFLOC | 0368 | .. |
| BYTE | 039A | .. |
| CANSAV | 00E0 | .. |
| CARDINCR | 0024 | .. |
| CARDNO | 00C8 | .. |
| CASEREAD | 0274 | .. |
| CASESW | 0013 | .. |
| CHGTRUNC | 03B2 | .. |
| CHNGCNT | 0380 | .. |
| CHNGFLAG | 039B | .. |
| CHNGMSG | 039C | .. |
| CHNGNUM | 0264 | .. |
| CMDBLOK | 0360 | .. |
| CMODE | 03C8 | .. |
| CORITEM | 006C | .. |
| COUNT | 00CC | .. |
| CRBIT | 0285 | 80 |
| CTL | 0365 | .. |
| DECIMAL | 01F8 | .. |
| DECLTH | 0348 | .. |
| DITCNT | 0382 | .. |
| DUALNOS | 0104 | .. |
| EDCBEND | 0788 | .. |
| EDCBLTH | 0788 | .. |
| EDCT | 0384 | .. |
| EDLIN | 05B9 | .. |
| EDMSK | 008C | .. |
| EDRET | 0088 | .. |
| EDWORK | 02CC | .. |
| ENDBLOC | 004C | .. |
| ENDTABS | 0048 | .. |
| EPTRCONS | 0094 | .. |
| FILEMS | 03CC | .. |
| FLAG | 002C | .. |
| FLAGLOC | 03E6 | .. |
| FLAG2 | 002D | .. |
| FLAG3 | 058F | .. |
| FLG | 0364 | .. |
| FMODE | 0010 | .. |
| FNAME | 0000 | .. |
| FPTR | 0074 | .. |
| FREEAD | 0084 | .. |
| FREELEN | 0080 | .. |
| FSIZE | 0344 | .. |
| FTYPE | 0008 | .. |
| FV | 0012 | .. |
| GETFLAG | 03E7 | .. |
| GIOPLIST | 0368 | .. |
| HALF | 01FC | .. |
| HOLDFLAG | 03E8 | .. |
| INCRNO | 033C | .. |
| INVLD | 05B2 | .. |
| INVLDHDR | 05A8 | .. |
| IOAD | 02A4 | .. |
| IOID | 0290 | .. |
| IOLIST | 0288 | .. |
| IOMODE | 02A0 | .. |
| ITEM | 0078 | .. |
| JAR | 03E9 | .. |
| LINE | 0646 | .. |
| LINELOC | 0386 | .. |
| LINENO | 0640 | .. |
| LMCURR | 00D0 | .. |
| LMINCR | 002A | .. |
| LMSTART | 0028 | .. |
| MACRO | 05B4 | .. |
| MACROHDR | 05AE | .. |
| MAINAD | 0090 | .. |
| NEWMODE | 0445 | .. |
| NEWNAME | 0435 | .. |
| NEWTYPE | 043D | .. |
| NUMLOC | 0388 | .. |
| PADBUF | 004C | .. |
| PADCHAR | 004B | .. |
| PLSTFLGS | 02AD | .. |
| PLSTFV | 02AC | .. |
| PLSTITEM | 02B4 | .. |
| PTRCONS | 0055 | .. |
| PTR1 | 0058 | .. |
| PTR2 | 0060 | .. |
| PTR3 | 0064 | .. |
| RANGE | 0350 | .. |
| RECS | 02B8 | .. |
| REGSAV | 0200 | .. |
| REGSAVX | 0214 | .. |
| RENLIST | 0324 | .. |
| REPCNT | 0220 | .. |
| RESVD1 | 0358 | .. |
| RPLIST | 032C | .. |
| SAVCNT | 038A | .. |
| SAVCWD | 05A0 | .. |
| SAVEAR | 0224 | .. |
| SCLNO | 0472 | .. |
| SCRBUFAD | 0020 | .. |
| SCRFLGS | 0470 | .. |
| SCRFLG2 | 0471 | .. |
| SEQNAME | 0048 | .. |
| SERSAV | 0447 | .. |
| SERTSEQ | 044F | .. |
| SERTSW | 0452 | .. |
| SIGNAL | 0453 | .. |
| SPARES | 0070 | .. |
| STACKAT | 0304 | .. |
| STACKATL | 0310 | .. |
| STRTNO | 0338 | .. |
| TABLIN | 06E7 | .. |
| TABS | 002E | .. |
| TEMPTAB | 0454 | .. |
| TIN | 0268 | .. |
| TOUT | 0278 | .. |
| TRNCNUM | 0378 | .. |
| TRUNCOL | 0014 | .. |
| TVERCOL1 | 038C | .. |
| TVERCOL2 | 038E | .. |
| TWITCH | 047A | .. |
| TYPFLG | 0285 | .. |
| TYPSCR | 047B | .. |
| UTILFLAG | 046E | .. |
| VERCOL1 | 001A | .. |
| VERCOL2 | 001C | .. |
| VERLEN | 001E | .. |
| WRCOUNT | 0366 | .. |
| XAREA | 047C | .. |
| XXXCWD | 0598 | .. |
| XYCNT | 0260 | .. |
| XYFLAG | 046F | .. |
| YAREA | 0506 | .. |
| ZONE1 | 0016 | .. |
| ZONE2 | 0018 | .. |

## EPLIST: EXTENDED PLIST DSECT

EPLIST is used to map the extended plist. EPLIST is found in the EPLIST macro.

```
     +-----------------------+-----------------------+
   0 |        EPLCMD         |       EPLARGBG        |
     +-----------------------+-----------------------+
   8 |       EPLARGND        | ///////////////////// |
     +-----------------------+-----------------------+
  10 |       EPARGLST        |       EPFUNRET        |
     +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | EPLCMD | 4 | | ADDRESS OF COMMAND TOKEN |
| 4 | EPLARGBG | 4 | | ADDRESS OF BEGINNING OF ARGUMENTS |
| 8 | EPLARGND | 4 | | ADDRESS OF END OF ARGUMENTS |
| | Bits defined in EPLARGND | | | |
| B | EPLCMDFL | | | EXTENDED PLIST AVAILABLE FLAG |
| 5 | EPFUNSUB | | | EXTERNAL FUNCTIOM PLIST AVAILABLE |
| 1 | EPLFNCFL | | | EXTENDED PLIST AVAILABLE FLAG |
| C | | 4 | | RESERVED |
| 10 | EPARGLST | 4 | | ADDRESS OF FUNCTION ARGUMENT LIST |
| 14 | EPFUNRET | 4 | | ADDRESS FOR RETURN OF FUNCTION DATA |

Note: The extended PLIST FLAGS indicates the presence of an extended PLIST in REGISTER 0. The high order byte of REGISTER 1 will contain either EPLCMDFL or EPLFNCFL to indicate that the extended PLIST is available. Only the first 4 words of the extended PLIST are available with these codes.

If the high order byte of REGISTER 1 contains EPFUNSUB, then the invocation is an external function/subroutine called from REX. With this PLIST, all 6 words of the PLIST are avialable. Word 5 points to a list of doublewords ADLENS (ADDRESS-LENGTH PAIRS) that describes the arguments to the routine (EPARGLST). Word 6 (EPFUNRET) is the location for the called routine to store the address of an EVALBLOK to return data to the calling program.

CROSS REFERENCE (Name Disp Value)

```
EPLARGBG 0004 ..  | EPFUNRET 0014 ..  | EPLCMD   0000 ..  | EPLCMDFL 0008 0B
EPARGLST 0010 ..  | EPLARGND 0008 ..  |                   | EPLFNCFL 0008 01
```

## ERDSECT: ERROR HANDLING ROUTINE DSECT

ERDSECT describes the fields in a work area used for giving responses and error via the DMSERR or LINKEDIT macros. The field NUCERT in NUCON points to the DMSERT CSECT in DMSNUC. ERDSECT is invoked by the DMSERT macro.

```
     +-----------------------------------------------+
   0 |                     ERT1                      |
     +-----------------------------------------------+
   8 |                                               |
     |                     ERT2                      |
     |                                               |
     +-----------------------------------------------+
  18 |                                               |
     =                    ERSAVE                     =
     |                                               |
     +-----------------------------------------------+
  58 |                                               |
     =                   ERPAS13                     =
     |                                               |
     +-----+-----+-----------+-----------------------+
  A0 | A*1 | A*2 | ////////// |         ERPTXA        |
     +-----+-----+-----+-----+-----------+-----------+
  A8 |  ERPNUM   | A*3 |      ERPCS      | ////////// |
     +-----------+-----+-----+-----------+-----------+
  B0 |       ERPBFA          |       ERPSBA          |
     +-----------------------+-----+-----+-----------+
  B8 |       ERSBD           | A*4 | A*5 |           |
     +-----------------------+-----+-----+-----------+
  C0 |       ERSSZ           | ////////////////////// |
     +-----------------------+-----------------------+
  C8 |           (Doubleword preceding text)         |
     +-----------------+-----------------+-----------+
  D0 |     ERMESS      |     ERSECT      |   ERNUM   |
     +-----+-----+-----+-----------------+-----------+
  D8 |cont.| A*6 | A*7 |                             |
     +-----+-----+-----+                             |
  E0 |                                               |
     =                   ERTEXT                      =
     |                                               |
     |                                    +-----------+
     |                                    | ////////// |
     +------------------------------------+-----------+
 160 |                     ERTPL                     |
     +-----------------------+-----------------------+
 168 |       ERTPLA          |       ERTPLL          |
     +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ERT1 | 8 | | DOUBLEWORD WORKSPACE |
| 8 | ERT2 | 16 | | TWO DOUBLEWORDS WORKSPACE |
| SAVE AREA | | | | |
| 18 | ERSAVE | 64 | | |
| 58 | ERPAS13 | 72 | | PASS THIS SAVE AREA IN REG 13 TO BALR'ED-TO ROUTINES |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| RECONSRUCTED PLIST AREA | | | | |
| A0 | ERPF1 | 1 | A*1 | FIRST FLAG BYTE |
| Bits defined in ERPF1 | | | | |
| 80 | ERF1TX | | | TEXT ADDRESS IN PLIST |
| 40 | ERF1HD | | | HEADER IN PLIST |
| 20 | ERF1BF | | | BUFFER ADDRESS IN PLIST |
| 10 | ERF1SB1 | | | ONE SUBSTITUTION |
| 08 | ERF1SBN | | | MULTIPLE SUBSTITUTIONS (> 1) |
| A1 | ERPF2 | 1 | A*2 | SECOND FLAG BYTE |
| Bits defined in ERPF2 | | | | |
| first three bits indicate 'DISP' field) | | | | |
| 80 | ERF2CM | | | BLANK COMPRESSION WANTED |
| 40 | ERF2DT | | | DOT AT END OF LINE WANTED |
| 20 | ERF2DI | | | 'DIE = YES' WANTED |
| (Previous three bits indicate 'DISP' field) | | | | |
| 05 | ERF2CP | | | CPCOMM |
| 04 | ERF2PR | | | PRINT |
| 03 | ERF2NO | | | NONE |
| 02 | ERF2SI | | | SIO |
| 01 | ERF2TY | | | TYPE |
| 00 | ERF2ER | | | ERRMSG |
| A2 | | 2 | | RESERVED |
| A4 | ERPTXA | 4 | | TEXT ADDRESS |
| A8 | ERPHDR | 6 | | ERROR MESSAGE HEADER |
| A8 | ERPNUM | 2 | | MESSAGE NUMBER |
| AA | ERPLET | 1 | A*3 | MESSAGE LETTER |
| AB | ERPCS | 3 | | CSECT NAME |
| AE | | 2 | | RESERVED |
| B0 | ERPBFA | 4 | | BUFFER ADDRESS (FOR 'BUFFA') |
| FIELDS FOR SUBSTITUTIONS | | | | |
| B4 | ERPSBA | 4 | | POINTER TO FIRST (NEXT) GROUP OF SUB PARAMS IN ORIGINAL |
| B8 | ERSBD | 4 | | DATA ADDRESS/VALUE OR CURRENT SUB |
| BC | ERSBF | 1 | A*4 | SUB FLAG BYTE FOR CURRENT SUB |
| Bits defined in ERSBF | | | | |
| 80 | ERSFLST | | | THE LAST SUBSTITUTION PARAM |
| 40 | ERSFA | | | 'A'-TYPE OPTION |
| 20 | ERSFL | | | LENGTH SPECIFIED |
| (Previous three bits give option type) | | | | |
| 04 | ERSFC8 | | | CHAR8A |
| 03 | ERSFH4 | | | HEX4A |
| 02 | ERSFC | | | CHARA |
| 01 | ERSFD | | | DEC OR DECA |
| 00 | ERSFH | | | HEX OR HEXA |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | BD | ERSBL | 1 | A*5 | SUB LENGTH BYTE FOR CURRENT SUB |
| \| | BE | | 2 | | RESERVED |
| | C0 | ERSSZ | 4 | | SIZE OF SUB FIELD (# DOTS - 1) |
| \| | C4 | | 4 | | RESERVED |
| | MESSAGE CONSRUCTION AREA | | | | |
| | D0 | ERMESS | 3 | | FIRST LETTERS OF HEADER |
| | D3 | ERSECT | 3 | | DSECT NAME |
| | D6 | ERNUM | 3 | | MESSAGE NUMBER |
| | D9 | ERLE | 1 | A*6 | MESSAGE LEVEL LETTER |
| | DA | ERBL | 1 | A*7 | BLANK |
| | Bits defined in ERBL | | | | |
| | 82 | ERTSIZE | | | MAX TEXT SIZE |
| \| | DB | ERTEXT | 131 | | MESSAGE TEXT AREA |
| | 'TYPLIN'/'PRINTR' PLIST CONSTUCTION AREA | | | | |
| | 160 | ERTPL | 8 | | |
| \| | 168 | ERTPLA | 4 | | MESSAGE TEXT ADDRESS |
| \| | 16C | ERTPLL | 4 | | MESSAGE LENGTH |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| ERBL | 00DA | .. |
| ERF1BF | 00A0 | 20 |
| ERF1HD | 00A0 | 40 |
| ERF1SBN | 00A0 | 08 |
| ERF1SB1 | 00A0 | 10 |
| ERF1TX | 00A0 | 80 |
| ERF2CM | 00A1 | 80 |
| ERF2CP | 00A1 | 05 |
| ERF2DI | 00A1 | 20 |
| ERF2DT | 00A1 | 40 |
| ERF2ER | 00A1 | 00 |
| ERF2NO | 00A1 | 03 |
| ERF2PR | 00A1 | 04 |
| ERF2SI | 00A1 | 02 |
| ERF2TY | 00A1 | 01 |
| ERLET | 00D9 | .. |
| ERMESS | 00D0 | .. |
| ERNUM | 00D6 | .. |
| ERPAS13 | 0058 | .. |
| ERPBFA | 00B0 | .. |
| ERPCS | 00AB | .. |
| ERPF1 | 00A0 | .. |
| ERPF2 | 00A1 | .. |
| ERPHDR | 00A8 | .. |
| ERPLET | 00AA | .. |
| ERPNUM | 00A8 | .. |
| ERPSBA | 00B4 | .. |
| ERPTXA | 00A4 | .. |
| ERSAVE | 0018 | .. |
| ERSBD | 00B8 | .. |
| ERSBF | 00BC | .. |
| ERSBL | 00BD | .. |
| ERSECT | 00D3 | .. |
| ERSFA | 00BC | 40 |
| ERSFC | 00BC | 02 |
| ERSFC8 | 00BC | 04 |
| ERSFD | 00BC | 01 |
| ERSFH | 00BC | 00 |
| ERSFH4 | 00BC | 03 |
| ERSFL | 00BC | 20 |
| ERSFLST | 00BC | 80 |
| ERSSZ | 00C0 | .. |
| ERTEXT | 00DB | .. |
| ERTPL | 0160 | .. |
| ERTPLA | 0168 | .. |
| ERTPLL | 016C | .. |
| ERTSIZE | 00DA | 82 |
| ERT1 | 0000 | .. |
| ERT2 | 0008 | .. |

## EXTSECT: EXTERNAL INTERRUPT WORK AREA

EXTSECT describes the fields in the external interrupt work area referenced by DMSITE. EXTSECT is pointed to by the AEXTSECT field in NUCON. EXTSECT is invoked via the EXTSECT macro.

```
      +-----------------------------------------------+
    0 |                                               |
      =                     EXSAVE                    =
      |                                               |
      +-----------------------------------------------+
   40 |                     TYPLIST                   |
      +-----------------------------------------------+
   48 |                     TIMCCW                    |
      +-----------------------------------------------+
   50 |                     TIMCHAR                   |
      +-----------------------------------------------+
   58 |                      SCAW                     |
      |                       +-----------------------+
   60 |                       |        TIMINIT        |
      +-----------------------+-----------------------+
   68 |                                               |
      =                    EXSAVE1                    =
      |                                               |
      +-----------------------------------------------+
   A8 |                    EXTPSW                     |
      +-----------------------------------------------+
   B0 |                    SAVEXT                     |
      +-----------------------------------------------+
   B8 |                    EXTRET                     |
      +-----------------------+-----------------------+
   C0 |          JR0          |          JR1          |
      +-----------------------+-----+-----------------+
   C8 |        STIMEXIT       | A*1 | /////////////// |
      +-----------------------+-----+-----------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | EXSAVE | 64 | | SAVED REGISTERS |
| 40 | TYPLIST | 8 | | P-LIST TO TYPE BLIP-CHAR'S |
| 48 | TIMCCW | 4 | | |
| 50 | TIMCHAR | 5 | | BLIP-CHARACTER(S) |
| 58 | SCAW | 12 | | SAVED CSW-CAW |
| 64 | TIMINIT | 4 | | VALUE TO SET TIMER = 2 SECONDS |
| STORAGE FOR EXTERNAL (OTHER THAN TIMER) INTERRUPT | | | | |
| 68 | EXSAVE1 | 64 | | SAVED REGISTERS |
| A8 | EXTPSW | 8 | | FILLED-IN PSW... |
| B0 | SAVEXT | 8 | | FIRST 4 BYTE TRANSFER-ADDRESS FOR EXTERNAL INTERRUPT<br>SECOND 4 BYTE ADDRESS OF BMSDBG |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| STORAGE FOR EXTERNAL INTERRUPT SET UP BY 'TRAP' | | | | |
| B8 | EXTRET | 8 | | SAVED EXT-OLD-PSW |
| C0 | JR0 | 4 | | 22 DOUBLEWORDS FOR FPRS & USER-SAVEAREA |
| C4 | JR1 | 4 | | ADDRESS OF FREE STORAGE |
| C8 | STIMEXIT | 4 | | ADDRESS OF STIMER EXIT ROUTINE |
| CC | EXTFLAG | 1 | A*1 | |
| Bits defined in EXTFLAG | | | | |
| 80 | REALTIMR | | | REAL TIMER INDICATOR |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EXSAVE | 0000 | .. | EXTRET | 00B8 | .. | SAVEXT | 00B0 | .. | TIMCHAR | 0050 | .. |
| EXSAVE1 | 0068 | .. | JR0 | 00C0 | .. | SCAW | 0058 | .. | TIMINIT | 0064 | .. |
| EXTFLAG | 00CC | .. | JR1 | 00C4 | .. | STIMEXIT | 00C8 | .. | TYPLIST | 0040 | .. |
| EXTPSW | 00A8 | .. | REALTIMR | 00CC | 80 | TIMCCW | 0048 | .. | | | |

## EXTUAREA: EXTERNAL USER AREA

EXTUAREA is a 96-byte user area generated by the CMSAVE macro. The pointer to the user area is passed to the user via register 13. The USAVEPTR field in CMSAVE also points to the user area.

```
     +-----------------------------------------------+
   0 |                                               |
     =                      GRS                      =
     |                                               |
     +-----------------------------------------------+
  40 |                                               |
     =                      FRS                      =
     |                                               |
     +-----------------------------------------------+
  60 |                    UEXTPSWO                   |
     +-----------------------------------------------+
  68 |                                               |
     =                    USERAREA                   =
     |                                               |
     +-----------------------+-----------------------+
  B0 |       PREVUSER        | ///////////////////// |
     +-----------------------+-----------------------+
  B8 |                    USAREAND                   |
     +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | GRS | 64 | | REGS AT TIME OF INTERRUPT P3048 |
| 40 | FRS | 32 | | FLOAT REGS AT INTERRUPT P3048 |
| 60 | UEXTPSWO | 8 | | EXTERNAL OLD PSW AT INTERRUPT P3048 |
| 68 | USERAREA | 72 | | USER SAVE AREA P3048 |
| B0 | PREVUSER | 4 | | POINTER TO PREVIOUS USER AREA |
| B4 | | 4 | | RESERVED |
| B8 | USAREAND | 8 | | END USER AREA |

CROSS REFERENCE (Name Disp Value)

```
FRS      0040 ..   PREVUSER 00B0 ..   USAREAND 00B8 ..
GRS      0000 ..   UEXTPSWO 0060 ..   USERAREA 0068 ..
```

## FCBSECT: SIMULATED OS CONTROL BLOCKS

FCBSECT consists of the CMS file control block (FCB) used for file management under CMS, the simulated OS job file control block (JFCB), input/output block (IOB), and data extent block (DEB). FCBSECT is invoked via the CMSCB macro. FCBSECT is dynamically allocated from CMS free storage each time the FILEDEF command is issued.

```
    +-----------------------+-----------------------+
  0 |        FCBNEXT        |        FCBPROC        |
    +-----------------------+-----------------------+
  8 |                     FCBDD                     |
    +-----------------------------------------------+
 10 |                     FCBOP                     |
    +-----------------------------------------------+
 18 |                   FCBDSNAM                    |
    +-----------------------------------------------+
 20 |                   FCBDSTYP                    |
    +-----------+-----------+-----------------------+
 28 |  FCBDSMD  | ///////// |        FCBBUFF        |
    +-----------+-----------+-----+-----+-----------+
 30 |        FCBBYTE        | A*1 | A*2 | ///////// |
    +-----------------------+-----+-----+-----------+
 38 |        FCBREAD        |        FCBITEM        |
    +-----------------------+-----------------------+
 40 |        FCBCOUT        |        FCBWPTR        |
    +-----------------------+-----+-----+-----------+
 48 |        FCBRPTR        | A*3 | A*4 | ///////// |
    +-----------+-----+-----+-----+-----+-----------+
 50 |  FCBRECL  | A*5 | A*6 |        FCBR13         |
    +-----------+-----+-----+-----------------------+
 58 |        FCBKEYS        |        FCBPDS         |
    +-----------------------------------------------+
 60 |                   JFCBMASK                    |
    +-----------------+-----------------+-----+-----+
 68 |    JFCBCRDT     |    JFCBXPDT     | A*7 | A*8 |
    +-----+-----+-----+-----+-----+-----+-----+-----+
 70 | A*9 |A*10 |  JFCBUFL  |A*11 |A*12 | /// |A*13 |
    +-----+-----+-----------+-----+-----+-----+-----+
 78 |A*13(cont)| JFCDSORG  |A*14 |A*15 | JFCBLKSI  |
    +-----------+-----+-----+-----+-----+-----------+
 80 | JFCLRECL  |A*16 |A*17 | ///////////////////// |
    +-----------+-----+-----+-----------------------+
 88 |       DEBTCBAD        |        SEBSAV         |
    +-----------------------+-----------------------+
 90 |       DEBOFLGS        |       DEBOPATB        |
    +-----------------------+-----------------------+
 98 |       IOBNXTAD        |        IOBECB         |
    +-----------------------+-----------------------+
 A0 |       DEBDCBAD        |       IOBECBPT        |
    +-----------------------------------------------+
 A8 |                    IOBCSW                     |
    +-----------------------+-----------------------+
 B0 |       IOBSTART        |       IOBDCBPT        |
    +-----------------------------------------------+
 B8 |                   FCBMEMBR                    |
    +-----------------------+-----------------------+
 C0 |       FCBOSFST        |       FCBOSDSN        |
    +-----------------------+-----------------------+
 C8 |       FCBXTENT        |                       |
    +-----------------------------------------------+
 D0 |                    FCBEND                     |
    +-----------------------------------------------+
```

- Format of Location X'24' for Console Device

```
                                  +-----------------------+
   20                             |        FCBIOOUT       |
      +---------------------------+-----------------------+
   28 |   FCBIOOUT (cont.)        |        FCBIOBUF       |
      +-----+-----+---------------+-----------------------+
   30 | A*16| A*17|   FCBIOCNT    |
      +-----+-----+---------------+
```

Size

SIZE OF FCB ENTRY IN DOUBLEWORDS (FCBENSIZ) 1B

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FCBINIT | 1 | | INTERESTING TIDBITS |

Bits defined in FCBINIT

| | | |
|---|---|---|
| 80 | FCBDID | ASSOCIATE DDNAME WITH ENTIRE DISK FOR DISKID USAGE |
| 40 | FCBCATLD | CONCATENATED OS LOADLIB |
| 20 | FCBDOSL | CONCATENATED DOSLIB DATA SET |
| 10 | FCBOS | FCB FOR OS FORMATTED DISK |
| 08 | FCBOPCB | OPEN ACQUIRED THIS CMS BLOCK |
| 04 | FCBPERM | PERMANENT CONTROL BLOCK |
| 02 | FCBBATCH | SPECIAL BATCH DATA SET |
| 01 | FCBCATML | CONCATENATED MACLIB DATA SET |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FCBNEXT | 4 | | AL3(NEXT CMSCB) |
| 4 | FCBPROC | 4 | | A(SPECIAL PROCESSING ROUTINE) |
| 8 | FCBDD | 8 | | DATA DEFINITION NAME |
| 10 | FCBOP | 8 | | CMS OPERATION |
| 18 | IHAJFCB | 0 | | *** JOB FILE CONTROL BLOCK *** |
| 18 | JFCBDSNM | 0 | | 44 BYTES, DATA SET NAME |
| 18 | FCBDSNAM | 8 | | DATA SET NAME |
| 20 | FCBDSTYP | 8 | | DATA SET TYPE |
| 24 | FCBPRPU | | | PRINTER/PUNCH COMMAND LIST |
| 28 | FCBTBSP | 0 | | 2 BYTES, TAPE BACKSPCE COUNT |
| 28 | FCBDSMD | 2 | | DATA SET MODE |
| 2A | | 2 | | RESERVED |
| 2C | FCBBUFF | 4 | | A(INPUT-OUTPUT BUFFER) |
| 30 | FCBBYTE | 4 | | DATA COUNT |
| 34 | FCBFORM | 1 | A*1 | FILE FORMAT: FIXED/VARIABLE RECORDS |
| 35 | FCBEPL | 1 | A*2 | EXTENDED PLIST FLAG |
| 36 | | 2 | | RESERVED |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | 38 | FCBREAD | 4 | | N'BYTES ACTUALLY READ |
| | 3C | FCBITEM | 4 | | EXTENDED PLIST ITEM COUNT |
| | 40 | FCBCOUT | 4 | | EXTENDED PLIST RECORDS / PHYSICAL BLOCK |
| | 44 | FCBWPTR | 4 | | EXTENDED PLIST WRITE POINTER |
| | 48 | FCBRPTR | 4 | | EXTENDED PLIST READ POINTER |
| | 4C | FCBDEV | 1 | A*3 | DEVICE TYPE CODE |
| | | Bits defined in FCBDEV | | | |
| | 1C | FCBCRT | | | CRT |
| | 18 | FCBPCH | | | PUNCH |
| | 14 | FCBDSK | | | DISK |
| | 10 | FCBTAP | | | TAPE |
| | 0C | FCBCON | | | CONSOLE TERMINAL |
| | 08 | FCBRDR | | | READER |
| | 04 | FCBPTR | | | PRINTER |
| | 00 | FCBDUM | | | DUMMY DEVICE |
| | 4D | FCBMODE | 1 | A*4 | MODE: 1,2,3,4,5 |
| \| | 4E | | 2 | | RESERVED |
| | 50 | FCBRECL | 2 | | DCB LRECL AT OPEN TIME |
| | 52 | IOBIOFLG | 1 | A*5 | I/O FLAGS |
| | 53 | FCBDCBCT | 1 | A*6 | NUMBER OF DCB'S USING THIS FCB |
| | 54 | FCBR13 | 4 | | SAVEAREA VECTOR R13 |
| | 58 | FCBKEYS | 4 | | A(DDS IN'CORE KEY TABLE) |
| | 5C | FCBPDS | 4 | | A(PDS IN-CORE DIRECTORY) |
| | 60 | JFCBMASK | 8 | | VARIOUS MASK BITS |
| \| | 68 | JFCBCRDT | 3 | | DATA SET CREATION DATE (YDD) |
| \| | 6B | JFCBXPDT | 3 | | DATA SET EXPIRATION DATE (YDD) |
| | 6E | JFCBIND1 | 1 | A*7 | INDICATOR ONE |
| | 6F | JFCBIND2 | 1 | A*8 | INDICATOR TWO |
| | 70 | JFCBUFNO | 1 | A*9 | NUMBER OF BUFFERS |
| \| | 71 | JFCBFTEK | 0 | | BUFFERING TECHNIQUE |
| | 71 | JFCBFALN | 1 | A*10 | BUFFER ALIGNMENT |
| | 72 | JFCBUFL | 2 | | BUFFER LENGTH |
| | 74 | JFCEROPT | 1 | A*11 | ERROR OPTION |
| | 75 | JFCKEYLE | 1 | A*12 | KEYLENGTH |
| \| | 76 | | 1 | | ---NOT USED--- |
| | 77 | JFCLIMCT | 3 | A*13 | BDAM SEARCH LIMIT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 7A | FCBDSORG | 0 | | DATA SET ORGANIZATION |
| 7A | JFCDSORG | 2 | | |
| 7C | FCBRECFM | 0 | | RECORD FORMAT |
| 7C | JFCRECFM | 1 | A*14 | |
| 7D | JFCOPTCD | 1 | A*15 | OPTION CODES |
| 7E | FCBBLKSZ | 0 | | BLOCK SIZE |
| 7E | JFCBLKSI | 2 | | |
| 80 | FCBLRECL | 0 | | LOGICAL RECORD LENGTH |
| 80 | JFCLRECL | 2 | | |
| 82 | FCBIOSW | 1 | A*16 | I/O OPERATION INDICATOR |
| | Bits defined in FCBIOSW | | | |
| 80 | FCBCLOSE | | | DURING "CLOSE" |
| 40 | FCBCLEAV | | | DISP = LEAVE DURING CLOSE |
| 20 | FCBPROCC | | | GOTO FCBPROC DURING CLOSE |
| 10 | FCBPROCO | | | GOTO FCBPROC DURING OPEN |
| 08 | FCBCASE | | | ON=LOWER CASE CONSOLE I/O |
| 04 | FCBPVMB | | | PUT-MOVE-VAR-BLK |
| 02 | FCBIOWR | | | WRITE/PUT |
| 01 | FCBIORD | | | READ/GET |
| 83 | FCBIOSW2 | 1 | A*17 | I/O OPERATION INDICATORS |
| | Bits defined in FCBIOSW2 | | | |
| 80 | FCBWRTSW | | | INDICATE DCB OPEN FOR WRITE |
| 08 | FCBMVFIL | | | MOVE FILE IS ACTIVE |
| 02 | FCBMMV | | | MOVE PDS SWITCH FOR FIND |
| 01 | FCBMVPDS | | | SW FOR MOVEFILE WITH PDS OPTION |
| 84 | DEBLNGTH | 0 | | LENGTH OF DEB IN DOUBLEWORDS |
| | Bits defined in DEBLNGTH | | | |
| 40 | FCBTCLOS | | | A CLOSE TYPE T WAS DONE |
| 84 | | 4 | | ---NOT USED--- |
| 88 | IHADEB | 0 | | *** DATA EXTENT BLOCK *** |
| 88 | DEBTCBAD | 4 | | A(MOVE-MODE USER BUFFER) |
| 8C | SEBSAV | 4 | | DYNAMIC SAVE FOR RETURN ADDRESS FOR SEB (OS I/O SIM) |
| 90 | DEBOFLGS | 4 | | DATA SET STAUS FLAGS |
| 94 | DEBOPATB | 4 | | OPEN/CLOSE OPTION BYTE |

```
  Disp  Name      Len Key  Description


| 98    IOBFLG     0       (START OF IOBPREFIX FOR NORMAL SCHEDULING)

    Bits defined in IOBFLG

    40 IOBOUT              "WRITE,PUT" IN PROGRESS
    20 IOBIN               "READ,GET" IN PROGRESS
    10 IOBUPD              "QSAM PUTX" IN PROCESS
    00 IOBBFLG             DISPLACEMENT OF IOB FLAG IN IOB

  98    IOBNXTAD   4       A(NEXT BUFFER TO BE USED)

  9C    IOBECB     4       ECB FOR QSAM NORMAL SCHEDULING

| A0    IHAIOB     0       *** INPUT/OUTPUT BLOCK ***

| A0    DEBDEBID   0       DEB IDENTIFICATION

  A0    DEBDCBAD   4       A(DATA CONTROL BLOCK)

| A4    IOBECBCC   0       ECB COMPLETION CODE

    Bits defined in IOBECBCC

    0C IOBBECBC            DISPLACEMENT OF ECB CODE IN IOB
    0C IOBBECBP            DISPLACEMENT OF ECB POINTER IN IOB

  A4    IOBECBPT   4       A(EVENT CONTROL BLOCK)

| A8    IOBFLAG3   0       I/O ERROR FLAG

    Bits defined in IOBFLAG3

    10 IOBBCSW             DISPLACEMENT OF CSW IN IOB

  A8    IOBCSW     8       LAST CCW STORED (I.E., RESIDUAL COUNT)

  B0    IOBSTART   4       X'ID-NEXT BUFFER' ,AL3(INITIAL BUFFER)

  B4    IOBDCBPT   4       A(DATA CONTROL BLOCK)

| B8    IOBEND     0       END-OF-INPUT/OUTPUT BLOCK

  B8    FCBMEMBR   8       OS PDS MEMBER NAME

  C0    FCBOSFST   4       POINTER TO OS FST

  C4    FCBOSDSN   4       POINTER TO OS DSNAME BLOCK

  C8    FCBXTENT   4       NUMBER OF ITEMS IN EXTENT

| CC    FCBTEOV    4       ADDRESS OF TEOVEXIT ROUTINE

  D0    FCBTSAVE   4       ADDRESS OF SYSTEM REGISTER SAVE AREA FOR TEOVEXIT

| D4    FCBFLAG1   1       MISCELLANEOUS FLAG BITS

    Bits defined in FCBFLAG1

|   80 FCBTEOVS 1000 0000 TAPE-END-OF-VOLUME EXIT AVAILABLE
|   40 FCBTEOVA 0100 0000 TEOV EXIT IS ACTIVE

| D8  FCBEND       0       END-OF FCB, JFCB, DEB, IOB BLOCKS
```

SPECIAL FIELDS FOR TAPE FILES ONLY

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 18 | FCBTAPID | 4 | | TAPE IDENTIFICATION |
| 1C | FCBLABT | 1 | | TAPE LABEL TYPE |
| | Bits defined in FCBLABT | | | |
| 20 | FCBNL | | | NO LABELS |
| 10 | FCBNSLMD | | | NSL ROUTINE IS A MODULE |
| 08 | FCBNSL | | | NONSTANDARD USER LABELS |
| 06 | FCBSUL | | | IBM AND USER STANDARD LABELS |
| 04 | FCBUSER | | | USER STANDARD LABELS |
| 02 | FCBSL | | | IBM STANDARD LABELS |
| 01 | FCBBLP | | | BYPASS LABELS - JUST POSITION TAPE |
| 00 | FCBOFF | | | NO LABEL PROCESSING AT ALL |
| 1D | FCBTPSW | 1 | | TAPE SWITCH |
| | Bits defined in FCBTPSW | | | |
| 80 | FCBLEAVE | | | DO NOT REPOSITION TAPE FOR OPEN |
| 40 | FCBNOEOV | | | DO NOT DO ANY EOV PROCESSING AT ALL |
| 1E | FCBPOS | 2 | | POSITION PARAMETER |
| 20 | FCBNSLNM | 8 | | NSL ROUTINE NAME |
| 24 | FCBIOOUT | 8 | | SPECIAL I/O COMMAND LIST |
| 2C | FCBIOBUF | 4 | | A(DATA BUFFER) |
| 30 | FCBCONCR | 1 | A*18 | CONSOLE COLOR CODE |
| 31 | FCBCONMS | 1 | A*19 | CONSOLE MISCELLANEOUS INFORMATION |
| 32 | FCBIOCNT | 2 | | L'DATA BUFFER |
| B8 | FCBLABPT | 4 | | POINTER TO LABSECT |
| BC | FCBBLKCT | 4 | | BLOCK COUNT FOR TAPE FILE |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| DEBDCBAD | 00A0 | .. |
| DEBDEBID | 00A0 | .. |
| DEBLNGTH | 0084 | .. |
| DEBOFLGS | 0090 | .. |
| DEBOPATB | 0094 | .. |
| DEBTCBAD | 0088 | .. |
| FCBBATCH | 0000 | 02 |
| FCBBLKCT | 00BC | .. |
| FCBBLKSZ | 007E | .. |
| FCBBLP | 001C | 01 |
| FCBBUFF | 002C | .. |
| FCBBYTE | 0030 | .. |
| FCBCASE | 0082 | 08 |
| FCBCATLD | 0000 | 40 |
| FCBCATML | 0000 | 01 |
| FCBCLEAV | 0082 | 40 |
| FCBCLOSE | 0082 | 80 |
| FCBCON | 004C | 0C |
| FCBCONCR | 0030 | .. |
| FCBCONMS | 0031 | .. |
| FCBCOUT | 0040 | .. |
| FCBCRT | 004C | 1C |
| FCBDCBCT | 0053 | .. |
| FCBDD | 0008 | .. |
| FCBDEV | 004C | .. |
| FCBDID | 0080 | .. |
| FCBDOSL | 0000 | 20 |
| FCBDSK | 004C | 14 |
| FCBDSMD | 0028 | .. |
| FCBDSNAM | 0018 | .. |
| FCBDSORG | 007A | .. |
| FCBDSTYP | 0020 | .. |
| FCBDUM | 004C | 00 |
| FCBEND | 00D8 | .. |
| FCBENSIZ | 0000 | 1A |
| FCBEPL | 0035 | .. |
| FCBFLAG1 | 00D4 | .. |
| FCBFORM | 0034 | .. |
| FCBINIT | 0000 | .. |
| FCBIOBUF | 002C | .. |
| FCBIOCNT | 0032 | .. |
| FCBIOOUT | 0024 | .. |
| FCBIORD | 0082 | 01 |
| FCBIOSW | 0082 | .. |
| FCBIOSW2 | 0083 | .. |
| FCBIOWR | 0082 | 02 |
| FCBITEM | 003C | .. |
| FCBKEYS | 0058 | .. |
| FCBLABPT | 00B8 | .. |
| FCBLABT | 001C | .. |
| FCBLEAVE | 001D | 80 |
| FCBLRECL | 0080 | .. |
| FCBMEMBR | 00B8 | .. |
| FCBMMV | 0083 | 02 |
| FCBMODE | 004D | .. |
| FCBMVFIL | 0083 | 08 |
| FCBMVPDS | 0083 | 01 |
| FCBNEXT | 0000 | .. |
| FCBNL | 001C | 20 |
| FCBNOEOV | 001D | 40 |
| FCBNSL | 001C | 08 |
| FCBNSLMD | 001C | 10 |
| FCBNSLNM | 0020 | .. |
| FCBOFF | 001C | 00 |
| FCBOP | 0010 | .. |
| FCBOPCB | 0000 | 08 |
| FCBOS | 0000 | 10 |
| FCBOSDSN | 00C4 | .. |
| FCBOSFST | 00C0 | .. |
| FCBPCH | 004C | 18 |
| FCBPDS | 005C | .. |
| FCBPERM | 0000 | 04 |
| FCBPOS | 001E | .. |
| FCBPROC | 0004 | .. |
| FCBPROCC | 0082 | 20 |
| FCBPROCO | 0082 | 10 |
| FCBPRPU | 0020 | 24 |
| FCBPTR | 004C | 04 |
| FCBPVMB | 0082 | 04 |
| FCBRDR | 004C | 08 |
| FCBREAD | 0038 | .. |
| FCBRECFM | 007C | .. |
| FCBRECL | 0050 | .. |
| FCBRPTR | 0048 | .. |
| FCBR13 | 0054 | .. |
| FCBSL | 001C | 02 |
| FCBSUL | 001C | 06 |
| FCBTAP | 004C | 10 |
| FCBTAPID | 0018 | .. |
| FCBTBSP | 0028 | .. |
| FCBTCLOS | 0084 | 40 |
| FCBTEOVA | 00D4 | 40 |
| DCBTEOVS | 00D4 | 80 |
| FCBTPSW | 001D | .. |
| FCBUSER | 001C | 04 |
| FCBWPTR | 0044 | .. |
| FCBWRTSW | 0083 | 80 |
| FCBXTENT | 00C8 | .. |
| IHADEB | 0088 | .. |
| IHAIOB | 00A0 | .. |
| IHAJFCB | 0018 | .. |
| IOBBCSW | 00A8 | 10 |
| IOBBECBC | 00A4 | 0C |
| IOBBECBP | 00A4 | 0C |
| IOBBFLG | 0098 | 00 |
| IOBCSW | 00A8 | .. |
| IOBDCBPT | 00B4 | .. |
| IOBECB | 009C | .. |
| IOBECBCC | 00A4 | .. |
| IOBECBPT | 00A4 | .. |
| IOBEND | 00B8 | .. |
| IOBFLAG3 | 00A8 | .. |
| IOBFLG | 0098 | .. |
| IOBIN | 0098 | 20 |
| IOBIOFLG | 0052 | .. |
| IOBNXTAD | 0098 | .. |
| IOBOUT | 0098 | 40 |
| IOBSTART | 00B0 | .. |
| IOBUPD | 0098 | 10 |
| JFCBCRDT | 0068 | .. |
| JFCBDSNM | 0018 | .. |
| JFCBFALN | 0071 | .. |
| JFCBFTEK | 0071 | .. |
| JFCBIND1 | 006E | .. |
| JFCBIND2 | 006F | .. |
| JFCBLKSI | 007E | .. |
| JFCBMASK | 0060 | .. |
| JFCBUFL | 0072 | .. |
| JFCBUFNO | 0070 | .. |
| JFCBXPDT | 006B | .. |
| JFCDSORG | 007A | .. |
| JFCEROPT | 0074 | .. |
| JFCKEYLE | 0075 | .. |
| JFCLIMCT | 0077 | .. |
| JFCLRECL | 0080 | .. |
| JFCOPTCD | 007D | .. |
| JFCRECFM | 007C | .. |
| SEBSAV | 008C | .. |

## FCHSECT: FETCH WORK AREA

FCHSECT contains a BLDL list, note list address, DCB, DECB, point field, FILEDEF PLIST, read buffer, and register save areas. The NUCAFCHS field in the NUCON control block points to the fetch work area.

```
     +-----------------------+-----------------------+
   0 |        FCHBLDL        |        FCHNAME        |
     +-----------------------+-----------------+-----+
   8 |        (cont.)        |     FCHTTR      | F*1 |
     +-----+-----+-----------+-----+-----+-----+-----+
  10 |     | F*2 |      FCHTXT     |     |  FCHNOTE  |
     +-----+-----+-----+-----+-----+-----+-----+-----+
  18 |cont.| F*3 | F*4 | F*5 |     FCHLENG     | F*6 |
     +-----+-----+-----+-----+-----+-----+-----+-----+
  20 | F*6 |      FHCEPA     | F*7 | F*8 |     | F*9 |
     +-----+-----+-----------+-----+-----+-----+-----+
  28 | F*9(cont) |  FCHAMEM  |                       |
     +-----------+-----------+                       |
     |                                               |
     =                                               =
     |                       +-----------------------+
  40 |                       |       FCHNOTAD        |
     +-----+-----+-----------+-----------------------+
  48 | F*10| F*11|           |       FCHSAV10        |
     +-----+-----+-----------+-----------------------+
  50 |       FCHSAV14        |       FCHPOINT        |
     +-----------------------+-----+-----------------+
  58 |        FCHREGN        | F*12|                 |
     +-----------------------+-----+                 |
     |                                               |
     =                                               =
     |                                               |
     +-----+                                         |
  C0 | F*13|                                         |
     +-----+                                         |
     =                                               =
     |                       +-----------------------+
  D0 |                       |         FDEF          |
     +-----------------------+-----------------------+
  D8 |      FDEF (cont.)     |        FDEFDD         |
     +-----------------------+-----------------------+
  E0 |     FDEFDD (cont.)    |        FDEFDEV        |
     +-----------------------+-----------------------+
  E8 |    FDEFDEV (cont.)    |       FDEFNAME        |
     +-----------------------+-----------------------+
  F0 |    FDEFNAME (cont.)   |       FDEFTYPE        |
     +-----------------------+-----------------------+
  F8 |    FDEFTYPE (cont)    |       FDEFMODE        |
     +-----------------------+-----------------------+
 100 |    FDEFMODE (cont)    |                       |
     +-----------------------+                       |
     =                                               =
     |                       +-----------------------+
 118 |                       |        FSTLIST        |
     |                       +-----------------------+
     |                                               |
     =                                               =
     |                       +-----+                 |
 140 |                       | F*14|                 |
     +-----------------------+-----+-----------------+
     +-----------------------------------------------+
     |                                               |
     |                                               =
     |                                               |
     |                       +-----------------------+
250  |                       |        SBSREGS        |
     |                       +-----------------------+
     |                                               |
     =                                               =
     |                                               |
     |                       +-----------------------+
298  |                       |        FCHREGS        |
     |                       +-----------------------+
     |                                               |
     +-----------------------------------------------+
2E0  |                    FCHEND                     |
     +-----------------------------------------------+

     +-----------------------+-----+-----------------+
140  |                       | F*15|                 |
     +-----------+-----------+-----+-----------------+
148  | FCHCCNT   | FCHRCNT   |      FCHCCWA          |
     +-----+-----+-----------+-----------------------+
150  |     | F*16|           |      FCHCRELP         |
     +-----+-----+-----------+-----------------------+
158  | F*17|                 |                       |
     +-----+-----------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FCHBLDL | 4 | | BLDL LIST |
| 4 | FCHNAME | 8 | | MODULE NAME |
| C | FCHTTR | 3 | | MODULE TTR ADDRESS |
| F | FCHCONC | 1 | F*1 | CONCATENATION NUMBER |
| 11 | FCHMISC | 1 | F*2 | ALIAS INDICATOR AND MISC INFORMATION |
| 12 | FCHTXT | 3 | | TTR OF FIRST TEXT RECORD |
| 16 | FCHNOTE | 3 | | TTR OF NOTE OR SCATTER LIST |
| 19 | FCHNNOTE | 1 | F*3 | NUMBER OF NOTE LIST ENTRIES |

THE FOLLOWING SETTINGS REPRESENT THE 'ON' CONDITION

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1A | FCHATT1 | 1 | F*4 | MODULE ATTRIBUTES |

Bits defined in FCHATT1

| | | |
|---|---|---|
| 80 | FCHRENT | THE MODULE IS REENTERABLE |
| 40 | FCHREUS | THE MODULE IS REUSEABLE |
| 20 | FCHOVLY | THE MODULE IS OVERLAY MODULE |
| 10 | FCHTEST | THE MODULE IS UNDER TEST |
| 08 | FCHLOAD | THE MODULE IS ONLY LOADABLE |
| 04 | FCHSCAT | THE MODULE HAS SCTR FORMAT |
| 02 | FCHEXEC | THE MODULE IS EXECUTABLE |
| 01 | FCH1TXT | THE MODULE HAS 1 TXT, NO RLD |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1B | FCHATT2 | 1 | F*5 | MORE ATTRIBUTES |

Bits defined in FCHATT2

| | | |
|---|---|---|
| 80 | FCHLEDE | THE MODULE NO RELINK BY 'E' |
| 40 | FCHORIG | THE ORIGIN OF 1ST TXT = 0 |
| 20 | FCHENTP | THE MODULE ENTRY POINT = 0 |
| 10 | FCHNRLD | THE MODULE HAS NO RLD RECS |
| 08 | FCHEDIT | THE MODULE CAN'T BE RELINKED |
| 04 | FCHTRAN | THE MODULE HAS TESTRAN RECS |
| 02 | FCHCOMP | THE MODULE LINK-EDITED |
| 01 | FCHREFR | THE MODULE IS REFRESHABLE |

| | | | | |
|---|---|---|---|---|
| 1C | FCHLENG | 3 | | MODULE LENGTH |
| 1F | FCHTXTL | 2 | F*6 | LENGTH OF 1ST TEXT RECORD |
| 21 | FCHEPA | 3 | | ASSIGNED ENTRY POINT ADDRESS |
| 24 | FCHATT3 | 1 | F*7 | ATTRIBUTE FIELD NUMBER 2 |

Bits defined in FCHATT3

| | | |
|---|---|---|
| 80 | FCHLVS | PROCESSED BY OS/VS L.E. |
| 40 | FCHRES1 | RESERVED UNUSED |
| 20 | FCHPAG | PAGE ALIGNMENT REQ'D |
| 10 | FCHSSI | SSI PRESENT |

| | | | | |
|---|---|---|---|---|
| 25 | FCHRES2 | 1 | F*8 | UNUSED ATTRIBUTE BYTES |

THE FOLLOWING FIELDS ONLY APPLY WHEN AN ALIAS IS USED

| | | | | |
|---|---|---|---|---|
| 27 | FCHAENT | 3 | F*9 | ENTRY POINT ADDRESS OF MEMBER |
| 2A | FCHAMEM | 8 | | MEMBER NAME |
| 44 | FCHNOTAD | 4 | | ADDRESS OF NOTE LIST |
| 48 | FCHFLAG | 1 | F*10 | FETCH PROCESS FLAG |
| 49 | FCHOFLG | 1 | F*11 | 2ND FETCH FLAG BYTE |
| 4C | FCHSAV10 | 4 | | SAVE AREA FOR REG 10 |
| 50 | FCHSAV14 | 4 | | SAVE AREA FOR REG 14 |
| 54 | FCHPOINT | 4 | | POINT BUFFER |
| 58 | FCHREGN | 4 | | POINTER TO LAST REGN RELOCATED |
| 5C | FCHDCB | 1 | F*12 | $SYSLIB DCB |
| C0 | FCHDECB | 1 | F*13 | DECB WORK AREA |
| D4 | FDEF | 8 | | CMS COMMAND |
| DC | FDEFDD | 8 | | DDNAME |
| E4 | FDEFDEV | 8 | | DEVICE |
| EC | FDEFNAME | 8 | | DEFAULT FILENAME |
| F4 | FDEFTYPE | 8 | | FILE TYPE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| FC | FDEFMODE | 8 | | ANY MODE |
| 104 | | 8 | | START OF OPTIONS |
| 10C | | 8 | | CONCATENATION |
| 114 | | 1 | | STANDARD FENCE |
| Bits defined in &1 | | | | |
| 48 | FDEFLEN | | | LENGTH OF FILEDEF PLIST |
| 11C | FSTLIST | 8 | | CMS COMMAND |
| 124 | | 8 | | DEFAULT LIBRARY NAME |
| 12C | | 8 | | LIBRARY TYPE |
| 134 | | 8 | | LIBRARY MODE |
| 13C | | 1 | | FENCE |
| Bits defined in &1 | | | | |
| 28 | FSTTLEN | | | LENGTH OF STATE PLIST |
| 144 | FCHRLDBF | 1 | F*14 | BUFFER FOR MODULE INPUT |
| Bits defined in FCHRLDBF | | | | |
| | BUFLEN | | | 270 EQUATE FOR BUFFER LENGTH |
| 254 | SBSREGS | 4 | | REG SAVE AREA FOR READ |
| 29C | FCHREGS | 4 | | REGISTER SAVE AREA |
| 2E0 | FCHEND | 8 | | END OF FETCH WORK AREA DSECT |
| Bits defined in FCHEND | | | | |
| 78 | FCHCLRLN | | | FDEF-FCHDCB: LENGTH OF AREA TO CLEAR |
| 00 | FCHSCTLN | | | FCHEND-FCHSECT: LENGTH OF FETCH WORK AREA |
| 144 | FCHCID | 1 | F*15 | IDENTIFICATION |
| 148 | FCHCCNT | 2 | | BYTE COUNT OF CONTROL INFORMATION |
| 14A | FCHRCNT | 2 | | BYTE COUNT OF RLD INFORMATION |
| 14C | FCHCCWA | 4 | | ADDRESS PORTION OF CCW |
| 151 | FCHCCWL | 1 | F*16 | LENGTH PORTION OF CCW |
| 154 | FCHCRELP | 4 | | R AND P INFORMATION |
| 158 | FCHCFLAG | 1 | F*17 | FLAG BYTE |
| Bits defined in FCHCFLAG | | | | |
| 60 | FLRELOC | | | RECORD TO BE RELOCATED |
| 02 | FLSUBTR | | | SUBTRACT OFFSETS |
| 01 | FLNORP | | | NO R AND P FOLLOWING |

```
CROSS REFERENCE (Name  Disp  Value)

BUFLEN   0144 **    FCHEND   02E0 ..    FCHPAG   0024 20    FCHTRAN  001B 04
FCHAENT  0027 ..    FCHENTP  001B 20    FCHPOINT 0054 ..    FCHTTR   000C ..
FCHAMEM  002A ..    FCHEPA   0021 ..    FCHRCNT  014A ..    FCHTXT   0012 ..
FCHATT1  001A ..    FCHEXEC  001A 02    FCHREFR  001B 01    FCHTXTL  001F ..
FCHATT2  001B ..    FCHFLAG  0048 ..    FCHREGN  0058 ..    FCH1TXT  001A 01
FCHATT3  0024 ..    FCHLEDE  001B 80    FCHREGS  029C ..    FDEF     00D4 ..
FCHBLDL  0000 ..    FCHLENG  001C ..    FCHRENT  001A 80    FDEFDD   00DC ..
FCHCCNT  0148 ..    FCHLOAD  001A 08    FCHRES1  0024 40    FDEFDEV  00E4 ..
FCHCCWA  014C ..    FCHLVS   0024 80    FCHRES2  0025 ..    FDEFLEN  0114 48
FCHCCWL  0151 ..    FCHMISC  0011 ..    FCHREUS  001A 40    FDEFMODE 00FC ..
FCHCFLAG 0158 ..    FCHNAME  0004 ..    FCHRLDBF 0144 ..    FDEFNAME 00EC ..
FCHCID   0144 ..    FCHNNOTE 0019 ..    FCHSAV10 004C ..    FDEFTYPE 00F4 ..
FCHCLRLN 02E0 78    FCHNOTAD 0044 ..    FCHSAV14 0050 ..    FLNORP   0158 01
FCHCOMP  001B 02    FCHNOTE  0016 ..    FCHSCAT  001A 04    FLRELOC  0158 60
FCHCONC  000F ..    FCHNRLD  001B 10    FCHSCTLN 02E0 00    FLSUBTR  0158 02
FCHCRELP 0154 ..    FCHOFLG  0049 ..    FCHSECT  0000 ..    FSTLIST  011C ..
FCHDCB   005C ..    FCHORIG  001B 40    FCHSSI   0024 10    FSTTLEN  013C 28
FCHDECB  00C0 ..    FCHOVLY  001A 20    FCHTEST  001A 10    SBSREGS  0254 ..
FCHEDIT  001B 08
```

## **FCHTAB: FETCH TABLE**

FCHTAB contains a fetch/load parameter list that points to a 34-byte directory list. The fetch table is used when a VSE program issues a FETCH or LOAD request without the LIST= parameter. The IJBFTTAB field in the SYSCOM block in the DOSCON CSECT of NUCON points to the fetch table. FCHTAB is invoked via the FCHTAB macro.

```
    +-----------------------+-----+-----------------+
  0 |       FCHAPHNM        | A*1 |    FCHALSNM     |
    +-----------------------+-----+-----------------+
  8 |                    DIRNAME                    |
    +-----------------+-----+-----------+-----------+
 10 |      DIRTTR     | A*2 |   DIRTT   |   DIRLL   |
    +-----+-----+-----+-----+-----+-----+-----------+
 18 | A*3 |/A*4/|      DIRPPP     |      DIREEE     |
    +-----+-----+-----+-----------+-----+-----+-----+
 20 |   DIRRR   | A*5 |     DIRAAA      |/A*6/|     |
    +-----------+-----+-----------------+-----+-----+
 28 |   DIRVEE  |                                   |
    +-----------+-----------------------------------+
```

Size

TOTAL LENGTH (42) IN BYTES (FCHLENG ) 2A
TOTAL LENGTH IN DOUBLEWORDS (FCHLENDW) 06

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FCHAPHNM | 4 | | ADDRESS OF PHASE NAME |
| 4 | FCHOPT | 1 | A*1 | OPTIONS |
| 5 | FCHALSNM | 3 | | ADDRESS OF LISTNAME |
| 34-BYTE DIRECTORY LIST | | | | |
| 8 | DIRNAME | 8 | | PHASE NAME |
| 10 | DIRTTR | 3 | | PHASE TTR |
| 13 | DIRN | 1 | A*2 | NUMBER HALF WORDS IN DIRECTRY |
| 14 | DIRTT | 2 | | NUMBER TEXT BLOCKS IN PHASE |
| 16 | DIRLL | 2 | | LENGTH LAST TEXT BLOCK |
| 18 | DIRC | 1 | A*3 | FLAG BYTE |

Bits defined in DIRC

| | | |
|---|---|---|
| 80 | SELFREL | PHASE SELF RELOCATABLE |
| 40 | RELPHSE | PHASE TO BE RELOCATED |
| 20 | SVAELIG | PHASE SVA ELIGIBLE |
| 10 | SVAPHSE | PHASE IN SVA |
| 08 | PCLPHSE | PHASE IN PRIV C.I.L. |
| 04 | PNOTFND | PHASE NOT FOUND |
| 02 | DACTIVE | PHASE DIRECTORY ACTIVE |
| 01 | NOTEXT | TEXT = NO SPECIFIED |

| | | | | |
|---|---|---|---|---|
| 19 | DIRT | 1 | A*4 | RESERVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1A | DIRPPP | 3 | | PHASE LOAD POINT |
| 1D | DIREEE | 3 | | PHASE ENTRY POINT |
| 20 | DIRRR | 2 | | NUMBER RLD ITEMS IN PHASE |
| 22 | DIRR | 1 | A*5 | NUMBER ADDITIONAL RLD BLOCKS |
| 23 | DIRAAA | 3 | | PARTITION START ADDRESS |
| 26 | DIRK | 1 | A*6 | UNUSED |
| 27 | DIRVEE | 3 | | PHASE ENTRY POINT IN SVA |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| DACTIVE | 0018 | 02 |
| DIRAAA | 0023 | .. |
| DIRC | 0018 | .. |
| DIREEE | 001D | .. |
| DIRK | 0026 | .. |
| DIRLL | 0016 | .. |
| DIRN | 0013 | .. |
| DIRNAME | 0008 | .. |
| DIRPPP | 001A | .. |
| DIRR | 0022 | .. |
| DIRRR | 0020 | .. |
| DIRT | 0019 | .. |
| DIRTT | 0014 | .. |
| DIRTTR | 0010 | .. |
| DIRVEE | 0027 | .. |
| FCHALSNM | 0005 | .. |
| FCHAPHNM | 0000 | .. |
| FCHLENDW | .... | 06 |
| FCHLENG | .... | 2A |
| FCHOPT | 0004 | .. |
| NOTEXT | 0018 | 01 |
| PCLPHSE | 0018 | 08 |
| PNOTFND | 0018 | 04 |
| RELPHSE | 0018 | 40 |
| SELFREL | 0018 | 80 |
| SVAELIG | 0018 | 20 |
| SVAPHSE | 0018 | 10 |

## FRDSECT: FREE CHAIN ELEMENT HEADER BLOCKS

FRDSECT describes the fields used by DMSFRE to reference the four free chain element header blocks. FRDSECT is invoked by the macro DMSFRT. The DMSFRT DSECT is pointed to by a V-constant in DMSFREE, and also by the ADMSFRT field in NUCON.

```
     +-----------------------------------------------+
   0 |                     FREELN                    |
     |                       +-----------------------+
   8 |                       |                       |
     +-----------------------+-----------------------+
  10 |                     FREELU                    |
     |                       +-----------------------+
  18 |                       |                       |
     +-----------------------+-----------------------+
  20 |                     FREEHN                    |
     |                       +-----------------------+
  28 |                       |                       |
     +-----------------------+-----------------------+
  30 |                     FREEHU                    |
     |                       +-----------------------+
  38 |                       |                       |
     +-----------------------+-----------------------+
  40 |        AFREETAB       |        FREELOW1       |
     +-----------------------+-----+-----+-----------+
  48 |         ACALL         | A*1 | A*2 |           |
     +-----------------------+-----+-----+-----------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FREELN | 0 | | LOWCORE NUCLEUS |
| 10 | FREELU | 0 | | LOWCORE USER CHAIN |
| 20 | FREEHN | 0 | | HIGHCORE NUCLEUS |
| 30 | FREEHU | 0 | | HIGHCORE USER CHAIN |

THE FOLLOWING SYMBOLIC EQUATES DESCRIBE THE FORMAT OF EACH OF THE FOUR FREE CHAIN ELEMENT HEADER BLOCKS.

| | | |
|---|---|---|
| 00 | POINTER | POINT TO FIRST FREE ELEMENT |
| 04 | NUM | NUMBER OF ELEMENTS IN CHAIN |
| 08 | MAX | MAXIMUM SIZE OF AN ELEMENT |
| 0C | FLAGS | FLAG BYTE |
| 0D | SKEY | STORAGE KEY FOR THIS CHAIN |
| 0E | TCODE | FREETAB TABLE CODE |
| 0F | *UNUSED | |
| 10 | BLOCKLEN | SYMBOLIC LENGTH OF BLOCK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|

DEFINITIONS FOR THE 'FLAGS' FLAG BYTE

| | | | | |
|---|---|---|---|---|
| 80 | FLCLN | | | CLEAN-UP FLAG |
| 40 | FLCLB | | | CLOBBERED CHAIN FLAG |
| 20 | FLHC | | | HIGH-CORE FLAG |
| 10 | FLNU | | | NUCLEUS FLAG |
| 08 | FLPA | | | PAGE AVAILABLE ON CHAIN |

DEFINITIONS FOR 'SKEY' STORAGE KEY VALUES

| | | | | |
|---|---|---|---|---|
| F0 | NUCKEY | | | NUCLEUS STORAGE KEY |
| E0 | USERKEY | | | USER STORAGE KEY |

DEFINITIONS FOR 'TCODE' FREETAB TABLE CODE VALUES

| | | | | |
|---|---|---|---|---|
| 05 | SYSCODE | | | SYSTEM PAGE |
| 05 | MAXCODE | | | MAXIMUM POSSIBLE CODE VALUE |
| 04 | USARCODE | | | USER AREA PAGE |
| 03 | TRNCODE | | | TRANSIENT AREA PAGE |
| 02 | NUCCODE | | | NUCLEUS FREE STORAGE PAGE |
| 01 | USERCODE | | | USER FREE STORAGE PAGE |
| 40 | AFREETAB | 4 | | ADDRESS OF FREETAB TABLE |
| 44 | FREELOW1 | 4 | | ORIGINAL VALUE OF FREELOWE (SET BY INIT2) |
| 48 | ACALL | 4 | | ADDRESS OF CALLER (FOR ERRORS) |
| 4C | FREEFLG1 | 0 | | |

Bits defined in FREEFLG1

| | | | | |
|---|---|---|---|---|
| 80 | FRF1C | | | CONDITIONAL REQUEST |
| 40 | FRF1V | | | VARIABLE REQUEST |
| 20 | FRF1N | | | NUCLEUS REQUEST |
| 10 | FRF1E | | | FREE (VS FRET) REQUEST |
| 08 | FRF1L | | | LOW-CORE IS OK |
| 04 | FRF1H | | | HIGH-CORE IS OK |
| 02 | FRF1M | | | MESSAGES WANTED ON ERROR |
| 01 | FRF1B | | | 'TYPCALL' EQUALS 'BALR' IN MACRO |

THE FOLLOWING BYTE HOLDS FLAGS INTERNAL TO THE DMSFRE ROUTINE.

| | | | | |
|---|---|---|---|---|
| 4D | FREEFLG2 | 0 | | |

Bits defined in FREEFLG2

| | | | | |
|---|---|---|---|---|
| 80 | FRF2CL | | | CLEANUP FLAG |
| 40 | FRF2SVP | | | SCHVPGE FLAG |
| 20 | FRF2NOI | | | 2ND INITIALIZATION ROUTINE HAS NOT YET BEEN CALLED |
| 10 | FRF2CKE | | | DO A 'CHECK' EACH TIME FREE OR FRET IS CALLED |
| 08 | FRF2CKT | | | DO A CHECK THIS TIME |
| 04 | FRF2CKX | | | EXECUTING 'CHECK' ROUTINE NOW |

FREE CHAIN ELEMENT DESCRIPTION

| | | | | |
|---|---|---|---|---|
| | *POINTER | 0 | | POINTER TO NEXT FREE ELEMENT |
| | SIZE | 4 | | SIZE OF THIS ELEMENT IN BYTES |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| ACALL | 0048 | .. |
| AFREETAB | 0040 | .. |
| BLOCKLEN | 0030 | 10 |
| FLAGS | 0030 | 0C |
| FLCLB | 0030 | 40 |
| FLCLN | 0030 | 80 |
| FLHC | 0030 | 20 |
| FLNU | 0030 | 10 |
| FLPA | 0030 | 08 |
| FREEFLG1 | 004C | .. |
| FREEFLG2 | 004D | .. |
| FREEHN | 0020 | .. |
| FREEHU | 0030 | .. |
| FREELN | 0000 | .. |
| FREELOW1 | 0044 | .. |
| FREELU | 0010 | .. |
| FRF1B | 004C | 01 |
| FRF1C | 004C | 80 |
| FRF1E | 004C | 10 |
| FRF1H | 004C | 04 |
| FRF1L | 004C | 08 |
| FRF1M | 004C | 02 |
| FRF1N | 004C | 20 |
| FRF1V | 004C | 40 |
| FRF2CKE | 004D | 10 |
| FRF2CKT | 004D | 08 |
| FRF2CKX | 004D | 04 |
| FRF2CL | 004D | 80 |
| FRF2NOI | 004D | 20 |
| FRF2SVP | 004D | 40 |
| MAX | 0030 | 08 |
| MAXCODE | 0030 | 05 |
| NUCCODE | 0030 | 02 |
| NUCKEY | 0030 | F0 |
| NUM | 0030 | 04 |
| POINTER | 0030 | 00 |
| SIZE | 004D | 04 |
| SKEY | 0030 | 0D |
| SYSCODE | 0030 | 05 |
| TCODE | 0030 | 0E |
| TRNCODE | 0030 | 03 |
| USARCODE | 0030 | 04 |
| USERCODE | 0030 | 01 |
| USERKEY | 0030 | E0 |

## FSCBD: FILE SYSTEM CONTROL BLOCK

FSCBD is a PLIST defined for general use by routines that use the CMS file system. FSCBD is generated when the user invokes the FSCBD macro.

```
     +-------------------------------------------------------+
   0 |                       FSCBCOMM                        |
     +-------------------------------------------------------+
   8 |                       FSCBFN                          |
     +-------------------------------------------------------+
  10 |                       FSCBFT                          |
     +------------+-------------+----------------------------+
  18 | FFSCBFM    | FSCBITNO    |          FSCBBUFF          |
     +------------+-------------+--------------+-------------+
  20 |       FSCBSIZE           |   FSCBFV2    |  FSCBNOIT   |
     +--------------------------+--------------+-------------+
  28 |       FSCBNORD           |         FSCBAITN           |
     +--------------------------+----------------------------+
  30 |       FSCBANIT           |         FSCBWPTR           |
     +--------------------------+----------------------------+
  38 |       FSCBRPTR           |
     +--------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FSCBCOMM | 8 | | FILE SYSTEM COMMAND (RDBUF,WRBUF,ETC) |
| 8 | FSCBFN | 8 | | FILENAME |
| 10 | FSCBFT | 8 | | FILETYPE |
| 18 | FSCBFM | 2 | | FILEMODE |
| 1A | FSCBITNO | 2 | | RELATIVE RECORD NUMBER TO BE READ/WRITTEN |
| 1C | FSCBBUFF | 4 | | ADDRESS OF R/W BUFFER OR OF STATEFST |
| 20 | FSCBSIZE | 4 | | LENGTH OF BUFFER |
| 24 | FSCBFV | 2 | | RECFM - C'F' OR C'V' |
| 25 | FSCBFLG | 2 | | FLAG BYTE |
| Bits defined in FSCBFLG | | | | |
| 40 | FSCBITAV | | | ITEM AVAILABLE |
| 20 | FSCBEPL | | | EXTENDED PLIST |
| 01 | FSCBRCAV | | | PREVIOUS RECORD NULL |
| 26 | FSCBNOIT | 2 | | NUMBER OF RECORDS TO BE READ/WRITTEN |
| 28 | FSCBNORD | 4 | | NUMBER OF BYTES ACTUALLY READ |
| 2C | FSCBAITN | 4 | | EXTENDED RECORD NUMBER |
| 30 | FSCBANIT | 4 | | EXTENDED NUMBER OF RECORDS |
| 34 | FSCBWPTR | 4 | | EXTENDED WRITE POINTER |
| 38 | FSCBRPTR | 4 | | EXTENDED READ POINTER |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| FSCBAITN | 002C | .. |
| FSCBANIT | 0030 | .. |
| FSCBBUFF | 001C | .. |
| FSCBCOMM | 0000 | .. |
| FSCBEPL | 0025 | 20 |
| FSCBFLG | 0025 | .. |
| FSCBFM | 0018 | .. |
| FSCBFN | 0008 | .. |
| FSCBFT | 0010 | .. |
| FSCBFV | 0024 | .. |
| FSCBITAV | 0025 | 40 |
| FSCBITNO | 001A | .. |
| FSCBNOIT | 0026 | .. |
| FSCBNORD | 0028 | .. |
| FSCBRCAV | 0025 | 01 |
| FSCBRPTR | 0038 | .. |
| FSCBSIZE | 0020 | .. |
| FSCBWPTR | 0034 | .. |

## FSTD: FILE STATUS TABLE ENTRY DSECT

FSTD describes the fields in a 40-byte file status table entry as found by STATE, STATEW, DMSLF or DMSLFSW. FSTD is functionally equivalent to the FSTSECT DSECT.

```
     +---------------------------------------------------+
   0 |                     FSTFNAME                      |
     +---------------------------------------------------+
   8 |                     FSTFTYPE                      |
     +------------+------------+------------+------------+
  10 |  FSTDATEW  |  FSTTIMEW  |  FSTWRPNT  |  FSTRDPNT  |
     +------------+------------+------------+-----+------+
  18 |  FSTFMODE  |  FSTRECCT  |  FSTFCLPT  | F*1 | F*2  |
     +------------+------------+------------+-----+------+
  20 |         FSTLRECL        |  FSTBLKCT  |  FSTYEARW  |
     +-------------------------+------------+------------+
  28 |          FSTFOP         |         FSTADBC         |
     +-------------------------+-----+------+------------+
  30 |          FSTAIC         | NLVL|PTRSZ |  FSTADATI  |
     +-------------------------+-----+------+------------+
  38 |    FSTADATI (CONT.)     |                         |
     +-------------------------+-------------------------+
```

Size

FST SIZE IN BYTES (FSTDSIZE) 40

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FSTFNAME | 8 | | FILE NAME |
| 8 | FSTFTYPE | 8 | | FILE TYPE |
| 10 | FSTDATEW | 2 | | DATE LAST WRITTEN - MMDD |
| 12 | FSTTIMEW | 2 | | TIME LAST WRITTEN - HHMM |
| 14 | FSTWRPNT | 2 | | WRITE POINTER - ITEM NUMBER |
| 16 | FSTRDPNT | 2 | | READ POINTER - ITEM NUMBER |
| 18 | FSTFMODE | 2 | | FILE MODE - LETTER AND NUMBER |
| 1A | FSTRECCT | 2 | | NUMBER OF LOGICAL RECORDS |
| 1C | FSTFCLPT | 2 | | FIRST CHAIN LINK POINTER |
| 1E | FSTRECFM | 1 | F*1 | RECORD FORMAT - F OR V |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1F | FSTFLAGS | 1 | F*2 | FST FLAG BYTE |
| | Bits defined in FSTFLAGS | | | |
| 00 | FSTRODSK | | | READ/ONLY DISK |
| C0 | FSTXWDSK | | | EXTENSION OF R/W DISK |
| 80 | FSTRWDSK | | | READ/WRITE DISK |
| 40 | FSTXRDSK | | | EXTENSION OF R/O DISK |
| 40 | FSTDIA | | | ITEM AVAILABLE |
| 20 | FSTEPL | | | EXTENDED PLIST |
| 07 | FSTFILEA | | | THE FILE IS ACTIVE |
| 04 | FSTACTRD | | | ACTIVE FOR READING |
| 02 | FSTACTWR | | | ACTIVE FOR WRITING |
| 01 | FSTDRA | | | PREVIOUS RECORD NULL |
| 01 | FSTACTPT | | | ACTIVE FROM A POINT |
| 20 | FSTLRECL | 4 | | LOGICAL RECORD LENGTH |
| 24 | FSTBLKCT | 2 | | NUMBER OF 800 BYTE BLOCKS |
| 26 | FSTYEARW | 2 | | YEAR LAST WRITTEN |
| 28 | FSTFOP | 4 | | ALTERNATE FILE ORIGIN POINTER |
| 2C | FSTADBC | 4 | | ALTERNATE NUMBER OF DATA BLOCKS |
| 30 | FSTAIC | 4 | | ALTERNATE ITEM COUNT |
| 34 | FSTNLVL | 1 | | NUMBER OF POINTER BLOCK LEVELS |
| 35 | FSTPTRSZ | 1 | | LENGTH OF A POINTER ELEMENT |
| 36 | FSTADATI | 6 | | ALTERNATE DATE/TIME(YY MM DD HH MM SS) |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| FSTACTPT | 001F | 01 |
| FSTACTRD | 001F | 04 |
| FSTACTWR | 001F | 02 |
| FSTADATI | 0036 | .. |
| FSTADBC | 002C | .. |
| FSTAIC | 0030 | .. |
| FSTBLKCT | 0024 | .. |
| FSTDATEW | 0010 | .. |
| FSTDIA | 001F | 40 |
| FSTDRA | 001F | 01 |
| FSTDSIZE | .... | 40 |
| FSTEPL | 001F | 20 |
| FSTFCLPT | 001C | .. |
| FSTFILEA | 001F | 07 |
| FSTFLAGS | 001F | .. |
| FSTFMODE | 0018 | .. |
| FSTFNAME | 0000 | .. |
| FSTFOP | 0028 | .. |
| FSTFTYPE | 0008 | .. |
| FSTLRECL | 0020 | .. |
| FSTNLVL | 0034 | .. |
| FSTPTRSZ | 0035 | .. |
| FSTRDPNT | 0016 | .. |
| FSTRECCT | 001A | .. |
| FSTRECFM | 001E | .. |
| FSTRODSK | 001F | 00 |
| FSTRWDSK | 001F | 80 |
| FSTTIMEW | 0012 | .. |
| FSTWRPNT | 0014 | .. |
| FSTXRDSK | 001F | 40 |
| FSTXWDSK | 001F | C0 |
| FSTYEARW | 0026 | .. |

## FSTSECT: FILE STATUS TABLE

FSTSECT defines the file status table (FST) which describes the attributes of a file on a CMS virtual disk. FSTSECT is invoked by the macro FSTB.

The file status tables for all files on the disk are grouped into 800-byte disk records referred to as file status table blocks (FSTBs). Each file status table block can accommodate up to 20 file status tables.

```
     +-------------------------------------------------+
   0 |                       FSTN                      |
     +-------------------------------------------------+
   8 |                       FSTT                      |
     +------------------------+------------+-----------+
  10 |        FSTD            |  FSTWP     |  FSTRP    |
     +------------------------+------------+-----+-----+
  18 |  FSTM      |  FSTIC    |  FSTFCL    | F*1 | F*2 |
     +------------+-----------+------------+-----+-----+
  20 |         FSTIL          |  FSTDBC    |   FSTYR   |
     +------------------------+------------+-----------+
  28 |         FSTFOP         |         FSTADBC        |
     +------------------------+-----+------+-----------+
  30 |         FSTAIC         | F*3 | F*4  |  FSTADATI |
     +------------------------+-----+------+-----------+
  38 |       continue         |
     +------------------------+
```

Size

LENGTH OF AN EDF FST. (FSTL2) 40
LENGTH OF FSTSECT IS (FSTL ) 28

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | FSTN | 8 | | FILE NAME |
| 8 | FSTT | 8 | | FILE TYPE |
| 10 | FSTD | 4 | | DATE/TIME LAST WRITTEN |
| 14 | FSTWP | 2 | | WRITE POINTER (ITEM #) |
| 16 | FSTRP | 2 | | READ POINTER (ITEM #) |
| 18 | FSTM | 2 | | FILE MODE |
| 1A | FSTIC | 2 | | ITEM COUNT |
| 1C | FSTFCL | 2 | | FIRST CHAIN LINK |
| 1E | FSTFV | 1 | F*1 | FIXED(F)/VARIABLE(V) FLAG |
| 1F | FSTFB | 1 | F*2 | FLAG BYTE (IF USED) |

Bits defined in FSTFB

| | | |
|---|---|---|
| 00 | FSTFRO | READ-ONLY DISK |
| C0 | FSTFRWX | READ-ONLY EXTENSION OF READ-ONLY DISK |
| 80 | FSTFRW | READ-WRITE DISK |
| 40 | FSTFROX | READ-ONLY EXTENSION OF READ-WRITE DISK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 40 | FSTITAV | | | ITEM AVAILABLE |
| 20 | FSTEPL | | | EXTENDED PLIST |
| 07 | FSTFACT | | | FILE "ACTIVE" - ONE OF THE FOLLOWING: |
| 04 | FSTFAR | | | FILE ACTIVE FOR READING |
| 02 | FSTFAW | | | FILE ACTIVE FOR WRITING |
| 01 | FSTFAP | | | FILE ACTIVE FROM A "POINT" |
| 01 | FSTRECAV | | | PREVIOUS RECORD NULL |
| 20 | FSTIL | 4 | | (MAXIMUM) ITEM LENGTH |
| 20 | FSTFWDP | 4 | | FORWARD POINTER (TO NEXT HYPERBLOCK IN CORE) |
| 24 | FSTDBC | 2 | | NUMBER OF DATA BLOCKS |
| 24 | FSTBKWD | 2 | | BACKWARD POINTER (TO PREVIOUS HYPERBLK IN CORE) |
| 26 | FSTYR | 2 | | YEAR |
| 28 | FSTFOP | 4 | | ALTERNATE FILE ORIGIN POINTER |
| 2C | FSTADBC | 4 | | ALTERNATE NUMBER OF DATA BLOCKS |
| 30 | FSTAIC | 4 | | ALTERNATE ITEM COUNT |
| 34 | FSTNLVL | 1 | F*3 | NUMBER OF POINTER BLOCK LEVELS |
| 35 | FSTPTRSZ | 1 | F*4 | LENGTH OF A POINTER ELEMENT |
| 36 | FSTADATI | 6 | | ALTERNATE DATE/TIME(YY MM DD HH MM SS) |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| FSTADATI | 0036 | .. |
| FSTADBC | 002C | .. |
| FSTAIC | 0030 | .. |
| FSTBKWD | 0024 | .. |
| FSTD | 0010 | .. |
| FSTDBC | 0024 | .. |
| FSTEPL | 001F | 20 |
| FSTFACT | 001F | 07 |
| FSTFAP | 001F | 01 |
| FSTFAR | 001F | 04 |
| FSTFAW | 001F | 02 |
| FSTFB | 001F | .. |
| FSTFCL | 001C | .. |
| FSTFOP | 0028 | .. |
| FSTFRO | 001F | 00 |
| FSTFROX | 001F | 40 |
| FSTFRW | 001F | 80 |
| FSTFRWX | 001F | C0 |
| FSTFV | 001E | .. |
| FSTFWDP | 0020 | .. |
| FSTIC | 001A | .. |
| FSTIL | 0020 | .. |
| FSTITAV | 001F | 40 |
| FSTL | 0000 | 28 |
| FSTL2 | 0000 | 40 |
| FSTM | 0018 | .. |
| FSTN | 0000 | .. |
| FSTNLVL | 0034 | .. |
| FSTPTRSZ | 0035 | .. |
| FSTRECAV | 001F | 01 |
| FSTRP | 0016 | .. |
| FSTT | 0008 | .. |
| FSTWP | 0014 | .. |
| FSTYR | 0026 | .. |

## FVSECT: FIXED VARIABLE STORAGE WORK AREA FOR CMS FILE SYSTEM

FVSECT is used mainly by file management and I/O routines. FVS contains save areas, work areas, and commonly used constants. A typical use of FVS is when a reentrant I/O routine requires a work area or save area, since the routine cannot modify itself. FVSECT is invoked by the FVS macro.

```
    +-------------------------------------------------+
  0 |                                                 |
    =                    DISK$SEG                     =
    |                                                 |
    |                       +-------------------------+
 38 |                       |                         |
    |-----------------------+                         |
    |                                                 |
    =                    REGSAV3                      =
    1                                                 |
    +-------------------------------------------------+
 78 |                                                 |
    =                    RWFSTRG                      =
    |                                                 |
    +-------------------------------------------------+
 C0 |                                                 |
    =                    ADTFVS                       =
    |                                                 |
    |                       +-------------------------+
 D0 |                       |                         |
    |-----------------------+                         |
    |                                                 |
    =                    REGSAV0                      =
    |                                                 |
    +-----------------+-----+-------------------------+
110 |     TRKLSAVE    | F*1 |                         |
    +-----------------+-----+                         |
    |                                                 |
    =                    REGSAV1                      =
    |                                                 |
    +-----------------+-----+-------------------------+
150 |                 | F*2 |        F65535           |
    +-----------------+-----+-------------------------+
158 |        FW4            |        VFREE            |
    +-----------------------+-------------------------+
160 |        F100           |        VFRET            |
    +-----------------------+-------------------------+
168 |        JSR0           |        JSR1             |
    +-----------------------+-------------------------+
170 |        RWMFD          |        F800             |
    +-----------------------+-------------------------+
178 |                       |        FVSDSKA          |
    +-----------------------+-------------------------+
180 |        DSKLOC         |        RWCNT            |
    +-----------------------+-------------------------+
188 |        DSKADR         |        ADTADD           |
    +-----------------------+-------------------------+
190 |        DSKPTRSZ       |        DSKCHAIN         |
    +-----------------------+-------------------------+
198 |        DSKLOC2        |        RWCNT2           |
    +-----------------------+-------------------------+
1A0 |        DSKADR2        |        ADTADD2          |
    +-----------------------+-------------------------+
1A8 |        DSKPTRS2       |        DSKCHAI2         |
    +-----------------------+-------------------------+
     +-----------------------------------------+
1B0  |                                         |
     =                FINISLST                 =
     |                                         |
     |         +---------+---------+-----------+
1C8  |         |   FFF   |   FFE   |    FFD    |
     +---------+----+----+----+----+-----+-----+
1D0  |  SIGNAL | F*3| F*4| F*5| F*6| F*7 | F*8 |
     +---------+----+----+----+----+-----+-----+
1D8  |      FVSERAS0     |      FVSERAS1       |
     +-------------------+---------------------+
1E0  |      FVSERAS2     |      FVSERAS3       |
     +-------------------+---------------------+
1E8  |      FVSERAS4     |      FVSERAS5       |
     +-------------------+---------------------+
1F0  |      READCNT      |      FVSERAS6       |
     +-------------------+---------------------+
1F8  |                FVSFSTN                  |
     +-----------------------------------------+
200  |                FVSFSTT                  |
     +-------------------+----------+----------+
208  |     FVSFSTDT      | FVSFSTWP | FVSFSTRP |
     +--------+----------+----------+----+-----+
210  | FVSFSTM|  FVSFSTIC | FVSFSTCL | F*9| F*10|
     +--------+----------+----------+----+-----+
218  |     FVSFSTIL      | FVSFSTDB | FVSFSTYR |
     +-------------------+----------+----------+
220  |     FVSFSTAD      |       FVSFSTAC      |
     +-------------------+---------------------+
228  |               FVSFSTHP                  |
     +-----------------------------------------+
230  |                  FVSN                   |
     +-----------------------------------------+
238  |                  FVST                   |
     +-------------------+----------+----------+
240  |       FVSD        |  FVSWP   |  FVSRP   |
     +--------+----------+----------+----+-----+
248  |  FVSM  |  FVSIC   |  FVSFCL  |F*11| F*12|
     +--------+----------+----------+----+-----+
250  |       FVSIL       |  FVSDBC  |  FVSYR   |
     +-------------------+----------+----------+
258  |       FVSFOP      |       FVSADBC       |
     +-------------------+-----+-----+---------+
260  |       FVSAIC      | F*13| F*14| FVSADATI|
     +-------------------+-----+-----+---------+
268  |  FVSADATI (cont'd)|                     |
     +-------------------+---------------------+
270  |                                         |
     =                FVSDIOPL                 =
     |                                         |
     +-----------------------------------------+
2E8  |                                         |
     =                FVS16MOD                 =
     |                                         |
     +-----------------------------------------+
328  |                FVSPATCH                 |
     +-----------------------------------------+
330  |                                         |
     =               Patch area                =
     |                                         |
     +-----------------------------------------+
```

Size

LENGTH OF SHORT FST (FVSL1) 28
LENGTH OF AN EDF FST (FVSL2) 40

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DISK$SEG | 60 | | (1) FOR FSTLKP, FSTLKW, ACTLKP, TRKLKP, QQTRK |
| 3C | REGSAV3 | 60 | | (2) FOR RDBUF, WRBUF, FINIS, STATE, POINT |
| 78 | RWFSTRG | 72 | | (3) REMAINING STORAGE FOR RDBUF, WRBUF, FINIS |
| C0 | ADTFVS | 20 | | ADTLKP |

SAVE AREA FOR LOWEST LEVEL ROUTINES (READMFD, RELUFD, UPDISK, TYPSRCH, ADTLKW)

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| D4 | REGSAV0 | 60 | | (1) SAVED R0-R15 |
| D4 | TRKLSAVE | 0 | | FOR TRKLKP/X ONLY WHEN CALLED BY QQTRK/X |
| | | 3 | | FIRST 3 BYTES OF RETURN-CODE |
| 113 | ERRCOD0 | 1 | F*1 | (3) ERROR-CODE GOES HERE |

SAVE AREA FOR NEXT-TO-LOWEST LEVEL ROUTINES (READFST, ERASE, ALTER, INTSVC-LOADM

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 114 | REGSAV1 | 60 | | (1) |
| | | 3 | | FIRST 3 BYTES OF RETURN CODE |
| 153 | ERRCOD1 | 1 | F*2 | (3) |
| 154 | F65535 | 4 | | = X'0000FFFF' |
| 158 | FW4 | 4 | | |
| 15A | HW4 | | | FW4+2 |
| 15C | VFREE | 4 | | (1) |
| 160 | F100 | 4 | | (2) |
| 164 | VFRET | 4 | | (INTO R15) |
| 168 | JSR0 | 4 | | R0 AND ... |
| 16C | JSR1 | 4 | | R1 SAVED HERE FOR FRET CALLS |

PARAMETER LIST TO READ/WRITE MFD

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 170 | RWMFD | 4 | | CORE-ADDRESS |
| 174 | F800 | 4 | | 800 BYTES |
| 17C | FVSDSKA | 4 | | ADDRESS OF ACTIVE-DISK-TABLE |
| 180 | DSKLST | 0 | | ALL-PURPOSE RDTK/WRTK P-LIST... |
| 180 | DSKLOC | 4 | | CORE LOCATION OF ITEM |
| 184 | RWCNT | 4 | | BYTE-COUNT (USUALLY 800) |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 188 | DSKADR | 4 | | DISK ADDRESS OF ITEM |

Bits defined in DSKADR

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | FWADDR | | | THE HIGH BIT OF DSKADDR INDICATES EXTENDED DIO PLIST (FULLWORD DISK ADDRESS, POINTER SIZE AND PLIST CHAIN POI |
| 18C | ADTADD | 4 | | ADDRESS OF CORRECT ACTIVE-DISK-TABLE |
| 190 | DSKPTRSZ | 4 | | DISK POINTER SIZE IF FULLWORD ADDRESS |
| 194 | DSKCHAIN | 4 | | PLIST CHAIN POINTER |
| 198 | DSKLST2 | 4 | | ALL-PURPOSE RDTK/WRTK P-LIST |
| 198 | DSKLOC2 | 0 | | CORE LOCATION OF ITEM |
| 19C | RWCNT2 | 4 | | BYTE-COUNT |
| 1A0 | DSKADR2 | 4 | | DISK ADDRESS OF ITEM |
| 1A4 | ADTADD2 | 4 | | ADDRESS OF ADT (NOT USED IN CHAINED PLIST) |
| 1A8 | DSKPTRS2 | 4 | | DISK POINTER SIZE IF FULLWORD ADDRESS |
| 1AC | DSKCHAI2 | 4 | | PLIST CHAIN POINTER |
| 1B0 | FINISLST | 26 | | P-LIST TO CLOSE ALL FILES |
| 1CA | FFF | 2 | | MEANS NO SIGNIFICANT DATA PAST 215TH BYTE |
| 1CC | FFE | 2 | | 1968-ERA MFD STILL SUPPORTED ON INPUT ONLY |
| 1CE | FFD | 2 | | NEWEST SIGNAL FOR FULL 2314 HANDLING |

SIGNAL = SCRATCH HALFWORD USED BY READMFD OR ERASE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1D0 | SIGNAL | 2 | | = 0000, X'FFFF', X'FFFE', OR X'FFFD' |
| 1D1 | SWTCH | 1 | | 00, FF, FE, OR FD |
| 1D2 | UFDBUSY | 1 | F*3 | NONZERO MEANS 'UFD IS BUSY BEING UPDATED' |

Bits defined in UFDBUSY

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | WRBIT | | | WRBUF |
| 40 | UPBIT | | | UPDISK - READMFD |
| 20 | FNBIT | | | FINIS |
| 10 | ERBIT | | | ERASE - ALTER - READFST |
| 08 | DIOBIT | | | RDTK/WRTK |

The following bits are for routines that do not update the disk, but can not be interrupted by a KX anyway.

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 02 | ABNBIT | | | DMSABN -- ABEND RECOVERY ROUTINE |
| 01 | ITSBIT | | | DMSITS -- SVC HANDLING ROUTINE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1D3 | KXFLAG | 1 | F*4 | 'KX' FLAGS |
| Bits defined in KXFLAG | | | | |
| 80 | KXWANT | | | KX WANTED ASAP |
| 01 | KXWSVC | | | HOLD KX UNTIL ANY SVC ACTIVITY |
| 1D4 | FVSFLG0 | 1 | F*5 | FLAG FOR GENERAL COMMUNICATION |
| Bits defined in FVSFLG0 | | | | |
| 80 | FVSUFSTC | | | DISK/TAPE DUMP - DMSBRD TO USE FVS FST COPY TO BUILD AFT |
| 1D5 | FLGSAVE | 1 | F*6 | FOR SCRATCH USE (E.G. BY RELUFD) |
| 1D6 | FVSFLAG | 1 | F*7 | (FOR GENERAL USE - AS NEEDED) |
| MISCELLANEOUS STORAGE USED BY ERASE (OR ALTER) | | | | |
| 1D7 | ERSFLAG | 1 | F*8 | FLAG FOR USE BY ERASE OR ALTER |
| 1D8 | FVSERAS0 | 4 | | (1) - R0 TO/FROM FSTLKW (FOR ERASE) |
| 1DC | FVSERAS1 | 4 | | (2) - R1 TO ACTLKP OR FSTLKW (FOR ERASE) |
| 1E0 | FVSERAS2 | 4 | | (3) ADDRESS OF FREE STORAGE USED BY ERASE |
| 1E4 | FVSERAS3 | 4 | | POINTERS PER BLOCK IN FILE BEING ERASED |
| 1E8 | FVSERAS4 | 4 | | POINTER SIZE OF FILE BEING ERASED |
| 1EC | FVSERAS5 | 4 | | HBLK ADDRESS OF FILE BEING ERASED |
| 1F0 | READCNT | 4 | | CURRENT READ COUNT (DMSBRD) |
| 1F4 | FVSERAS6 | 4 | | AFT ADDRESS OF FILE BEING ERASED |
| FILE STATUS TABLE (FST) COPY FROM 'STATE' | | | | |
| 1F8 | STATEFST | 0 | | FST OF 'STATED' FILE |
| CDF FST COPY (40 BYTES) | | | | |
| 1F8 | FVSFSTN | 8 | | FILENAME -0 |
| 200 | FVSFSTT | 8 | | FILETYPE -8 |
| 208 | FVSFSTDT | 4 | | DATE/TIME LAST WRITTEN -16,18 |
| 20C | FVSFSTWP | 2 | | WRITE POINTER (ITEM ID) -20 |
| 20E | FVSFSTRP | 2 | | READ POINTER (ITEM ID) -22 |
| 210 | FVSFSTM | 2 | | FILEMODE -24 |
| 212 | FVSFSTIC | 2 | | N'ITEMS IN FILE -26 |
| 214 | FVSFSTCL | 2 | | DA(FIRST CHAIN LINK) -28 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 216 | FVSFSTFV | 1 | F*9 | FIXED(F) / VARIABLE(V) INDICATOR -30 |
| 217 | FVSFSTFB | 1 | F*10 | FLAG BYTE -31 |
| 218 | FVSFSTIL | 4 | | L'ITEMS -32 |
| 21C | FVSFSTDB | 2 | | N'DATA BLOCKS -36 |
| 21E | FVSFSTYR | 2 | | YEAR LAST WRITTEN -38 |
| POINTERS ASSOCIATED WITH BOTH FST VERSIONS | | | | |
| 220 | FVSFSTAD | 4 | | A(ADT FOR THIS FILE) |
| 220 | STATER0 | 4 | | |
| 224 | FVSFSTAC | 4 | | A(REAL FST ENTRY FOR THIS FILE) |
| 224 | STATER1 | 4 | | |
| 228 | FVSFSTHP | 4 | | A(HBLK HOLDING THIS FST) |
| EDF FST COPY AREA (64 BYTES) | | | | |
| 230 | STATFST2 | 0 | | EDF FORMAT FST COPY |
| FILE STATUS TABLE (FILE DIRECTORY) BLOCK | | | | |
| 230 | FVSN | 8 | | FILE NAME |
| 238 | FVST | 8 | | FILE TYPE |
| 240 | FVSD | 4 | | DATE/TIME LAST WRITTEN |
| 244 | FVSWP | 2 | | WRITE POINTER (ITEM #) |
| 246 | FVSRP | 2 | | READ POINTER (ITEM #) |
| 248 | FVSM | 2 | | FILE MODE |
| 24A | FVSIC | 2 | | ITEM COUNT |
| 24C | FVSFCL | 2 | | FIRST CHAIN LINK |
| 24E | FVSFV | 1 | F*11 | FIXED(F)/VARIABLE(V) FLAG |
| 24F | FVSFB | 1 | F*12 | FLAG BYTE (IF USED) |

Bits defined in FVSFB

(Applicable only to 'STATEFST' copy of FST-entry after successful 'STATE' or 'STATEW' call)

| | | |
|---|---|---|
| C0 | FVSFRWX | READ-ONLY EXTENSION OF READ-ONLY DISK |
| 80 | FVSFRW | READ-WRITE DISK |
| 40 | FVSFROX | READ-ONLY EXTENSION OF READ-WRITE DISK |
| 07 | FVSFACT | FILE "ACTIVE" - ONE OF THE FOLLOWING: |
| 04 | FVSFAR | FILE ACTIVE FOR READING |
| 02 | FVSFAW | FILE ACTIVE FOR WRITING |
| 01 | FVSFAP | FILE ACTIVE FROM A "POINT" |
| 00 | FVSFRO | READ-ONLY DISK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| Applicable to FSCBFLG in plist | | | | |
| 40 | FVSITAV | | | ITEM AVAILABLE |
| 20 | FVSEPL | | | EXTENDED PLIST |
| 01 | FVSRECAV | | | PREVIOUS RECORD NULL |
| 250 | FVSIL | 4 | | (MAXIMUM) ITEM LENGTH |
| 254 | FVSDBC | 2 | | NUMBER OF DATA BLOCKS |
| 256 | FVSYR | 2 | | YEAR |
| FSTEDF EXTENSION | | | | |
| 258 | FVSFOP | 4 | | ALTERNATE FILE ORIGIN POINTER |
| 25C | FVSADBC | 4 | | ALTERNATE NUMBER OF DATA BLOCKS |
| 260 | FVSAIC | 4 | | ALTERNATE ITEM COUNT |
| 264 | FVSNLVL | 1 | F*13 | NUMBER OF POINTER BLOCK LEVELS |
| 265 | FVSPTRSZ | 1 | F*14 | LENGTH OF A POINTER ELEMENT |
| 266 | FVSADATI | 6 | | ALTERNATE DATE/TIME(YY MM DD HH MM SS) |
| 26C | | 4 | | RESERVED |
| FST HYPER-BLOCK PARAMETERS | | | | |
| | FVSBKWD | | | BACKWARD POINTER (TO PREVIOUS HYPERBLK IN CORE) |
| | FVSFWDP | | | FORWARD POINTER (TO NEXT HYPERBLOCK IN CORE) |
| | FVSELMNT | | | NUMBER OF FVS DIO PLISTS IN MULTI-ELEMENT CHAINED PLIST |
| | FVSELMNL | | | LENGTH OF A DIO PLIST ELEMENT |
| 270 | FVSDIOPL | 120 | | DIO MULTI-ELEMENT PLIST |
| 2E8 | FVS16MOS | 64 | | USED BY DMSMOD TO LOAD TRANSIENT UP TO 16 DISK ADDRESS AND SAVED HERE |
| 328 | FVSPATCH | 0 | | PATCH AREA FOR CMS NUCLEUS |
| 328 | | 8 | | EYE CATCHER |
| 330 | | 80 | | PATCH AREA |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ABNBIT | 01D2 | 02 | FVSDBC | 0254 | .. | FVSFSTFV | 0216 | .. | F100 | 0160 | .. |
| ADTADD | 018C | .. | FVSDIOPL | 0270 | .. | FVSFSTHP | 0228 | .. | F65535 | 0154 | .. |
| ADTADD2 | 01A4 | .. | FVSDSKA | 017C | .. | FVSFSTIC | 0212 | .. | F800 | 0174 | .. |
| ADTFVS | 00C0 | .. | FVSELMNL | 0326 | .. | FVSFSTIL | 0218 | .. | HW4 | 015A | .. |
| DIOBIT | 01D2 | 08 | FVSELMNT | 0325 | .. | FVSFSTM | 0210 | .. | ITSBIT | 01D2 | 01 |
| DISK$SEG | 0000 | .. | FVSEPL | 024F | 20 | FVSFSTN | 01F8 | .. | JSR0 | 0168 | .. |
| DSKADR | 0188 | .. | FVSERAS0 | 01D8 | .. | FVSFSTRP | 020E | .. | JSR1 | 016C | .. |
| DSKADR2 | 01A0 | .. | FVSERAS1 | 01DC | .. | FVSFSTT | 0200 | .. | KXFLAG | 01D3 | .. |
| DSKCHAIN | 0194 | .. | FVSERAS2 | 01E0 | .. | FVSFSTWP | 020C | .. | KXWANT | 01D3 | 80 |
| DSKCHAI2 | 01AC | .. | FVSERAS3 | 01E4 | .. | FVSFSTYR | 021E | .. | KXWSVC | 01D3 | 01 |
| DSKLOC | 0180 | .. | FVSERAS4 | 01E8 | .. | FVSFV | 024E | .. | READCNT | 01F0 | .. |
| DSKLOC2 | 0198 | .. | FVSERAS5 | 01EC | .. | FVSFWDP | 0320 | .. | REGSAV0 | 00D4 | .. |
| DSKLST | 0180 | .. | FVSFACT | 024F | 07 | FVSIC | 024A | .. | REGSAV1 | 0114 | .. |
| DSKLST2 | 0198 | .. | FVSFAP | 024F | 01 | FVSIL | 0250 | .. | REGSAV3 | 003C | .. |
| DSKPTRSZ | 0190 | .. | FVSFAR | 024F | 04 | FVSITAV | 024F | 40 | RWCNT | 0184 | .. |
| DSKPTRS2 | 01A8 | .. | FVSFAW | 024F | 02 | FVSL | 0000 | 28 | RWCNT2 | 019C | .. |
| ERBIT | 01D2 | 10 | FVSFB | 024F | .. | FVSL1 | 0000 | 28 | RWFSTRG | 0078 | .. |
| ERRCOD0 | 0113 | .. | FVSFCL | 024C | .. | FVSL2 | 0000 | 40 | RWMFD | 0170 | .. |
| ERRCOD1 | 0153 | .. | FVSFLAG | 01D6 | .. | FVSM | 0248 | .. | SIGNAL | 01D0 | .. |
| ERSFLAG | 01D7 | .. | FVSFLG0 | 01D4 | .. | FVSN | 0230 | .. | STATEFST | 01F8 | .. |
| FFD | 01CE | .. | FVSFOP | 0258 | .. | FVSNLVL | 0264 | .. | STATER0 | 0220 | .. |
| FFE | 01CC | .. | FVSFRO | 024F | .. | FVSPATCH | 02E8 | .. | STATER1 | 0224 | .. |
| FFF | 01CA | .. | FVSFROX | 024F | 40 | FVSPTRSZ | 0265 | .. | STATFST2 | 0230 | .. |
| FINISLST | 01B0 | .. | FVSFRW | 024F | 80 | FVSRECAV | 024F | 01 | SWTCH | 01D1 | .. |
| FLGSAVE | 01D5 | .. | FVSFRWX | 024F | C0 | FVSRP | 0246 | .. | TRKLSAVE | 00D4 | .. |
| FNBIT | 01D2 | 20 | FVSFSTAC | 0224 | .. | FVST | 0238 | .. | UFDBUSY | 01D2 | .. |
| FVSADATI | 0266 | .. | FVSFSTAD | 0220 | .. | FVSUFSTC | 01D4 | 80 | UPBIT | 01D2 | 40 |
| FVSADBC | 025C | .. | FVSFSTCL | 0214 | .. | FVSWP | 0244 | .. | VFREE | 015C | .. |
| FVSAIC | 0260 | .. | FVSFSTDB | 021C | .. | FVSYR | 0256 | .. | VFRET | 0164 | .. |
| FVSBKWD | 0320 | .. | FVSFSTDT | 0208 | .. | FWADDR | 0188 | 80 | WRBIT | 01D2 | 80 |
| FVSD | 0240 | .. | FVSFSTFB | 0217 | .. | FW4 | 0158 | .. | | | |

## IHADECB: DATA EVENT CONTROL BLOCK

IHADECB, which is invoked via the CMSCB macro, is the simulated data event control block used for CMS processing of OS macros and OS access methods. The IOBECBPT field in FCBSECT points to IHADECB.

```
     +------------------------+-----------+-----------+
   0 |        DECSDECB        |  DECTYPE  |  DECLNGTH |
     +------------------------+-----------+-----------+
   8 |        DECDCBAD        |        DECAREA        |
     +------------------------+-----------------------+
  10 |        DECIOBPT        |        DECKYADR       |
     +------------------------+-----------------------+
  18 |        DECRECPT        |
     +------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DECSDECB | 4 | | EVENT CONTROL BLOCK |
| 4 | DECTYPE | 2 | | TYPE OF I/O REQUEST |
| Bits defined in DECTYPE | | | | |
| 80 | DECBRD | | | READ SF |
| 20 | DECBWR | | | WRITE SF |
| 6 | DECLNGTH | 2 | | LENGTH OF KEY & DATA |
| 8 | DECDCBAD | 4 | | V(DATA CONTROL BLOCK) |
| C | DECAREA | 4 | | V(KEY & DATA, BUFFER) |
| 10 | DECIOBPT | 4 | | V(IOB) |
| BDAM EXTENSION | | | | |
| 14 | DECKYADR | 4 | | V(KEY) |
| 18 | DECRECPT | 4 | | V(BLOCK REFERENCE FIELD) |

SOME FREQUENTLY USED EQUATES

| | | |
|---|---|---|
| C0 | UND | RECFM = UNDEFINED FORMAT RECORDS |
| 80 | PREVIOUS | OFLGS = PREVIOUS I/O OPERATION |
| 80 | IS | DSORG = INDEXED SEQUENTIAL |
| 80 | FXD | RECFM = FIXED LENGTH RECORDS |
| 40 | VAR | RECFM = VARIABLE LENGTH RECORDS |
| 40 | QS | MACRF = QSAM |
| 40 | PS | DSORG = PHYSICAL SEQUENTIAL |
| 20 | DA | DSORG = DIRECT ACCESS |
| 20 | BS | MACRF = BSAM |
| 20 | DDNAM | FILETYPE = DATA SET NAME |
| 10 | MOV | MACRF = MOVE MODE |
| 10 | BLK | RECFM = BLOCKED RECORDS |
| 08 | LOC | MACRF = LOCATE MODE |
| 03 | POU | DSORG = PARTIONED UNMOVEABLE |
| 02 | PO | DSORG = PARTIONED ORGANIZATION |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| BLK | 0000 | 10 |
| BS | 0000 | 20 |
| DA | 0000 | 20 |
| DDNAM | 0000 | 20 |
| DECAREA | 000C | .. |
| DECBRD | 0004 | 80 |
| DECBWR | 0004 | 20 |
| DECDCBAD | 0008 | .. |
| DECIOBPT | 0010 | .. |
| DECKYADR | 0014 | .. |
| DECLNGTH | 0006 | .. |
| DECRECPT | 0018 | .. |
| DECSDECB | 0000 | .. |
| DECTYPE | 0004 | .. |
| FXD | 0000 | 80 |
| IS | 0000 | 80 |
| LOC | 0000 | 08 |
| MOV | 0000 | 10 |
| PO | 0000 | 02 |
| POU | 0000 | 03 |
| PREVIOUS | 0000 | 80 |
| PS | 0000 | 40 |
| QS | 0000 | 40 |
| UND | 0000 | C0 |
| VAR | 0000 | 40 |

## IJJHCPL: COMMON VTOC HANDLER PARAMETER LIST

IJJHCPL describes the fields within the common VTOC handler input parameter list and is used in the CMS/DOS environment. IJJHCPL is invoked by the IJJHCPL macro.

```
       +-----+-----+-----+-----+-----------------------+
     0 | C*1 | C*2 | C*3 | /// |       CVHDLIST        |
       +-----+-----+-----+-----+-----------------------+
     8 |       CVHVOLID        |       CVHSYSNO        |
       +-----------------------+-----------------------+
    10 |       CVHWRKA         |       CVHRETA         |
       +-----------------------+-----------------------+
```

### Size

IJJHCPL LENGTH IN BYTES (CPLLEN) 18

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CVHFLAGS | 0 | | PROCESSING INDICATORS |
| 0 | CVHFLG1 | 1 | C*1 | |
| Bits defined in CVHFLG1 | | | | |
| 80 | CVHOPEN | | | OPEN VTOC |
| 40 | CVHCLOSE | | | CLOSE VTOC |
| 20 | CVHRF4 | | | READ F4 LABEL |
| 10 | CVHRF1 | | | READ F1 LABEL |
| 08 | CVHRADR | | | READ BY ADDRESS |
| 04 | CVHRNEXT | | | READ NEXT |
| 02 | CVHRVOL1 | | | READ VOL1 LABEL |
| 1 | CVHFLG2 | 1 | C*2 | |
| Bits defined in CVHFLG2 | | | | |
| 80 | CVHWADR | | | WRITE BY ADDRESS |
| 40 | CVHWANY | | | WRITE IN ANY SLOT |
| 20 | CVHCOV | | | CHECK FOR OVERLAPS |
| 10 | CVHSCR | | | SCRATCH LABEL |
| 08 | CVHREN | | | RENAME LABEL |
| 04 | CVHCOVBP | | | BYPASS COV ON WRITE |
| 02 | CVHSCRBP | | | BYPASS SCRATCH ON COV |
| 01 | CVHPRTBP | | | SCR/REN EVEN IF PROTECTED |
| 2 | CVHFLG3 | 1 | C*3 | |
| Bits defined in CVHFLG3 | | | | |
| 80 | CVHSHROP | | | SHARE OPTION |
| 40 | CVHIRIOE | | | IRRECOVERABLE I/O ERROR OPTION |
| 04 | CVHWORK | | | WORK AREA |
| 4 | CVHDLIST | 4 | | ADDRESS OF DLIST |
| 8 | CVHIOA | 4 | | ADDRESS OF I/O AREA |
| 8 | CVHVOLID | 4 | | ADDRESS OF VOLID (OPEN) |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| C | CVHWORK2 | 4 | | WORKAREA |
| C | CVHNAME | 4 | | ADDRESS OF LABEL NAME |
| C | CVHSYSNO | 4 | | ADDRESS OF SYSNO (OPEN) |
| 10 | CVHNEW | 4 | | ADDRESS OF NEW NAME |
| 10 | CVHWRKA | 4 | | ADDRESS OF WORKAREA (OPEN) |
| 14 | CVHRETA | 4 | | ADDRESS OF RETURN AREA |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CPLLEN | 0000 | 18 |
| CVHCLOSE | 0000 | 40 |
| CVHCOV | 0001 | 20 |
| CVHCOVBP | 0001 | 04 |
| CVHDLIST | 0004 | .. |
| CVHFLAGS | 0000 | .. |
| CVHFLG1 | 0000 | .. |
| CVHFLG2 | 0001 | .. |
| CVHFLG3 | 0002 | .. |
| CVHIOA | 0008 | .. |
| CVHIRIOE | 0002 | 40 |
| CVHNAME | 000C | .. |
| CVHNEW | 0010 | .. |
| CVHOPEN | 0000 | 80 |
| CVHPRTBP | 0001 | 01 |
| CVHRADR | 0000 | 08 |
| CVHREN | 0001 | 08 |
| CVHRETA | 0014 | .. |
| CVHRF1 | 0000 | 10 |
| CVHRF4 | 0000 | 20 |
| CVHRNEXT | 0000 | 04 |
| CVHRVOL1 | 0000 | 02 |
| CVHSCR | 0001 | 10 |
| CVHSCRBP | 0001 | 02 |
| CVHSHROP | 0002 | 80 |
| CVHSYSNO | 000C | .. |
| CVHVOLID | 0008 | .. |
| CVHWADR | 0001 | 80 |
| CVHWANY | 0001 | 40 |
| CVHWORK | 0003 | 04 |
| CVHWORK2 | 000C | .. |
| CVHWRKA | 0010 | .. |

## IJJHDLST: VOLUME DESCRIPTOR LIST

IJJHDLST describes the fields within the common VTOC handler descriptor list and is used in the CMS/DOS environment. IJJHDLST is invoked by the IJJHDLST macro.

```
      +-----+-----+-----------------------------------+
    0 | D*1 | /// |            DLVOLID                |
      +-----+-----+-----+-----+-----------------------+
    8 | D*2 | D*3 | /// | D*4 |        DLVSTRTB       |
      +-----+-----+-----+-----+-----------------------+
   10 |        DLVEND         |        DLWRKA         |
      +-----------------------+-----------------------+
   18 |        DLDEVCAP       |        DLVCISZ        |
      +-----------------------+-----------------------+
   20 |        DLCVHADR       |        DLBTRK         |
      +-----------------------+-----------------------+
   28 |        DLCIARA        |                       |
      +-----------------------+-----------------------+
```

Size

IJJHDLST LENGTH IN DOUBLEWORDS (DLSTDWDS) 06
IJJHDLST LENGTH IN BYTES (DLLEN) 30

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DLFLAGS | 1 | D*1 | PROCESSING FLAGS |
| Bits defined in DLFLAGS | | | | |
| 80 | DLSHROPT | | | SHARE OPTION EXCLUSIVE |
| 40 | DLDEVFBA | | | FBA DEVICE |
| 20 | DLDLGOT | | | DLIST GETVISED BY CVH |
| 10 | DLWAGOT | | | WORKAREA GETVISED BY CVH |
| 08 | DLOPENED | | | VTOC WAS OPENED |
| 04 | DLF4DONE | | | F4 BITS PROCESSED |
| 02 | DLIRIOER | | | ACCEPT IRRECOVERABLE I/O ERROR |
| 2 | DLVOLID | 6 | | VOLUME SERIAL NUMBER |
| 8 | DLSYSNO | 2 | | SYSTEM LOGICAL UNIT NUMBER |
| 8 | DLSYSNO1 | 1 | D*2 | FIRST BYTE OF SYS-NUMBER |
| 9 | DLSYSNO2 | 1 | D*3 | SECOND BYTE OF SYS-NUMBER |
| B | DLVSTART | 5 | | VTOC START ADDRESS (CKD) |
| B | DLBLKCI | 1 | D*4 | BLOCKS PER CI (FBA) |
| C | DLVSTRTB | 4 | | PBN OF VTOC START (FBA) |
| 10 | DLVEND | 4 | | VTOC END ADDRESS |
| 14 | DLWRKA | 4 | | WORKAREA ADDRESS |
| 18 | DLDEVCAP | 4 | | DEVICE CAPACITY |
| 1C | DLVCISZ | 4 | | VTOC CI SIZE (FBA) |
| 20 | DLCVHADR | 4 | | ADDRESS OF CVH TOP MODULE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 24 | DLBTRK | 4 | | BLOCKS PER TRACK FOR FBA |
| 28 | DLCIAREA | 4 | | ADDRESS OF FBA CI AREA |

```
| CROSS REFERENCE (Name  Disp  Value)
|
| DLBLKCI  000B ..  | DLDLGOT  0000 20  | DLSHROPT 0000 80  | DLVEND   0010 ..
| DLBTRK   0024 ..  | DLFLAGS  0000 ..  | DLSTDWDS .... 06  | DLVOLID  0002 ..
| DLCIAREA 0028 ..  | DLF4DONE 0000 04  | DLSYSNO  0008 ..  | DLVSTART 000B ..
| DLCVHADR 0020 ..  | DLIRIOER 0000 02  | DLSYSNO1 0008 ..  | DLVSTRTB 000C ..
| DLDEVCAP 0018 ..  | DLLEN    .... 30  | DLSYSNO2 0009 ..  | DLWAGOT  0000 10
| DLDEVFBA 0000 40  | DLOPENED 0000 08  | DLVCISZ  001C ..  | DLWRKA   0014 ..
```

## IJJHFMT1: FORMAT 1 LABEL

IJJHFMT1 describes the fields within the Format 1 VTOC label and is used in the CMS/DOS environment. IJJHFMT1 is invoked by the IJJHFMT1 macro.

```
    +-----------------------------------------------+
  0 |                                               |
    =                     F1DSN                     =
    |                                               |
    |                       +-----+-----------------+
 28 |                       | F1ID|      F1SER      |
    +-----------------+-----+-----+-----------------+
 30 |  F1SER (cont.)  |   F1VSEQ  |     F1CRDTE     |
    +-----------------+-----+-----+-----+-----------+
 38 |     F1EXPDT     | I*1 | F1D7| F1D8|           |
    +-----------------+-----+-----+-----+           |
    |                    F1SYSCOD                   |
    |                 +-----------------+-----------+
 48 |                 |      F1D10      | F1CISIZE  |
    +-----------+-----+-----+-----+-----+-----+-----+
 50 |  (cont.)  |  F1FTYPE  |F1D12|F1OPT|   F1BLK   |
    +-----------+-----+-----+-----+-----+-----+-----+
 58 |   F1RECL  | I*2 |   F1RKP   |F1DSI| I*3 | I*4 |
    +-----------+-----+-----------+-----+-----+-----+
 60 |I*4 (cont.)|            F1LPR            | ////|
    +-----+-----+-----+-----------------------+-----+
 68 | /// | I*5 | I*6 |        F1START        |F1END|
    +-----+-----+-----+-----------------------+-----+
 70 |      F1END      |                             |
    +-----------------+-----------------------------+
 78 |                                               |
    +-----------------------------------------+-----+
 80 |                                         | I*7 |
    +-----------------------+-----------------+-----+
 88 |         F1PNT         |                       |
    +-----------------------+-----------------------+
```

Size

IJJHFMT1 LENGTH IN DOUBLEWORDS (F1DWDS) 12
IJJHFMT1 LENGTH IN BYTES (F1LEN) 90

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | F1DSN | 44 | | FILE ID |
| 2C | F1ID | 1 | | FORMAT1 ID - X'F1' |
| 2D | F1SER | 6 | | FILE SERIAL NUMBER |
| 33 | F1VSEQ | 2 | | VOLUME SEQUENCE NUMBER |
| 35 | F1CRDTE | 3 | | FILE CREATION DATE (YDD) |
| 38 | F1EXPDT | 3 | | FILE EXPIRATION DATE (YDD) |
| 3B | F1EXCNT | 1 | I*1 | NUM EXTENTS FOR FILE ON VOLUME |
| 3C | F1D7 | 1 | | UNUSED BY DOS/VS (X'40') |
| 3D | F1D8 | 1 | | RESERVED (X'40') |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3E | F1SYSCOD | 13 | | DOS/370 VER 4 |
| 4B | F1D10 | 3 | | RESERVED (X'40') |
| 4E | F1CISIZE | 4 | | CONTROL INTERVAL SIZE (FBA) |
| 52 | F1FTYPE | 2 | | TYPE OF FILE ORGANIZATION |
| 54 | F1D12 | 1 | | UNUSED BY DOS/VS (X'00') |
| 55 | F1OPT | 1 | | ISAM OPTION CODES |
| 56 | F1BLK | 2 | | ISAM BLOCK LENGTH |
| 58 | F1RECL | 2 | | ISAM LRECL |
| 5A | F1KEYL | 1 | I*2 | ISAM KEY LENGTH |
| 5B | F1RKP | 2 | | ISAM KEY POSITION |
| 5D | F1DSI | 1 | | DATA SET INDICATORS |
| Bits defined in F1DSI | | | | |
| 80 | F1LVOL | | | LAST VOL IND |
| 20 | F1BL8 | | | BLOCK MUL 8 (OS/VS) |
| 10 | F1SEC | | | PASSWORD PROTECTION |
| 04 | F1WPW | | | WRITE PASSWORD ONLY |
| 5E | F1SECAL | 4 | | UNUSED BY DOS/VS (X'40') |
| 5E | F1SECOPT | 1 | I*3 | SECONDARY ALLOCATION OPTION |
| 5F | F1SECALL | 3 | I*4 | SECONDARY ALLOCATION VALUE |
| 62 | F1LRP | 5 | | UNUSED BY DOS/VS (X'00') |
| 67 | | 2 | | RESERVED (X'40') |
| 69 | F1EXTS | | | EXTENTS |
| 69 | F1EXTYP | 1 | I*5 | EXTENT TYPE |
| 6A | F1EXSEQ | 1 | I*6 | EXTENT SEQUENCE NUMBER |
| 6B | F1START | 4 | | LOWER CCHH |
| 6F | F1END | 4 | I*7 | UPPER CCHH |
| 73 | | 20 | | ADDITIONAL EXTENTS |
| 87 | F1POINT | 5 | | FORMAT 3 OR 2 POINTER |
| 87 | F1HIORD | 1 | I*14 | ZERO FOR FBA |
| 88 | F1PNT | 4 | | RELATIVE RECORD NUMBER FOR FBA |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| F1BLK | 0056 | .. |
| F1BL8 | 005D | 20 |
| F1CISIZE | 004E | .. |
| F1CRDTE | 0035 | .. |
| F1DSI | 005D | .. |
| F1DSN | 0000 | .. |
| F1DWDS | .... | 12 |
| F1D10 | 004B | .. |
| F1D12 | 0054 | .. |
| F1D21 | 0067 | .. |
| F1D7 | 003C | .. |
| F1D8 | 003D | .. |
| F1END | 006F | .. |
| F1EXCNT | 003B | .. |
| F1EXPDT | 0038 | .. |
| F1EXSEQ | 006A | .. |
| F1EXTS | 0069 | .. |
| F1EXTYP | 0069 | .. |
| F1FTYPE | 0052 | .. |
| F1HIORD | 0087 | .. |
| F1ID | 002C | .. |
| F1KEYL | 005A | .. |
| F1LEN | .... | 90 |
| F1LRP | 0062 | .. |
| F1LVOL | 005D | 80 |
| F1OPT | 0055 | .. |
| F1PNT | 0088 | .. |
| F1POINT | 0087 | .. |
| F1RECL | 0058 | .. |
| F1RKP | 005B | .. |
| F1SEC | 005D | 10 |
| F1SECAL | 005E | .. |
| F1SECALL | 005F | .. |
| F1SECOPT | 005E | .. |
| F1SER | 002D | .. |
| F1START | 006B | .. |
| F1SYSCOD | 003E | .. |
| F1VSEQ | 0033 | .. |
| F1WPW | 005D | 04 |

## IMMBLOK: IMMEDIATE COMMAND SUPPORT

This block is created whenever an immediate command is established; it contains information about the immediate command. IMMBLOK is invoked by the IMMBLOK macro.

```
          +-----------------------+-----------------------+
      0   |        IMMNEXT        |       IMMUWORD        |
          +-----------------------+-----------------------+
      8   |                    IMMNAME                    |
          +-----+-----------------+-----------------------+
     10   | I*1 | /////////////// |        IMMADDR        |
          +-----+-----------------+-----------------------+
     18   |        IMMHIDE        | ///////////////////// |
          +-----------------------+-----------------------+
     20   |                    IMMEND                     |
          +-----------------------------------------------+
```

Size

```
SIZE IN BYTES             (IMMBYTES) 20
SIZE IN DOUBLEWORDS       (IMMDWDS ) 04
IMMNEXT DISP INTO IMMBLOK (IMMNEXTD) 00
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IMMNEXT | 4 | | POINTER TO NEXT IMMBLOK |
| Bits defined in IMMNEXT | | | | |
| 4 | IMMNEXTL | | | LENGTH OF IMMNEXT FIELD |
| 4 | IMMUWORD | 4 | | USER WORD |
| 8 | IMMNAME | 8 | | IMMEDIATE COMMAND NAME |
| 10 | IMMFLAG1 | 1 | I*1 | FLAGS |
| Bits defined in IMMFLAG1 | | | | |
| 80 | IMMSYS | | | IMMEDIATE COMMAND IS A NUCLEUS EXTENSION WITH SYSTEM ATTRIBUTE |
| 40 | IMMCOUNT | | | IMMEDIATE COMMAND ESTABLISHED VIA IMMCMD COMMAND |
| 20 | IMMNUCX | | | IMMEDIATE COMMAND IS A NUCLEUS EXTENSION |
| 11 | IMMFLAG2 | 3 | | RESERVED |
| 14 | IMMADDR | 4 | | ADDRESS OF EXIT ROUTINE |
| 18 | IMMHIDE | 4 | | NUMBER OF NUCLEUS EXTENSIONS THAT ARE HIDING THIS IMMEDIATE COMMAND |
| 20 | IMMEND | 0 | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| IMMADDR | 0014 | .. |
| IMMBYTES | 0000 | 20 |
| IMMCOUNT | 0010 | 40 |
| IMMDWDS | 0000 | 04 |
| IMMEND | 0020 | .. |
| IMMFLAG1 | 0010 | .. |
| IMMFLAG2 | 0011 | .. |
| IMMHIDE | 0018 | .. |
| IMMNAME | 0008 | .. |
| IMMNEXT | 0000 | .. |
| IMMNEXTD | 0000 | 00 |
| IMMNEXTL | 0000 | 04 |
| IMMNUCX | 0010 | 20 |
| IMMSYS | 0010 | 80 |
| IMMUWORD | 0004 | .. |

## IMWKSECT: IMMEDIATE COMMAND WORKAREA

This macro contains information about the CMS immediate commands and is invoked by the IMWKSECT macro.

```
          +------------------------+------------------------+
     0    |        IMWKANCH        |         IMWKCMD        |
          +------------------------+------------------------+
     8    |  IMWKCMD (cont.)       |                        |
          +------------------------+         IMWKBUF        =
          |                                                 |
          =            +------------------------------------+
    90    |            |                                    |
          +------------+            IMWXEXTP                =
          |                                                 |
          =            +------------------------------------+
    B0    |            |                                    |
          +------------+            IMWKTOKP                |
          =                                                 =
          |                                                 |
          |            +------------------------------------+
   2C8    |            |                                    |
          +------------+            IMWKTRTB                =
          |                                                 |
          =                        +------------------------+
   3C8    |                        |                        |
          +------------------------+                        =
          |                     IMWKRGSV                    |
          =                        +------------------------+
   408    |                        |  ////////////////////  |
          +------------------------+------------------------+
   410    |                                                 |
          =                      IMWKSCR                    =
          |                                                 |
          +------------------------+------------------------+
   470    |        IMWKNUCX        |        IMWKHIDE        |
          +-----+------------------+------------------------+
   478    | I*1 |  ////////////////////////////////////////  |
          +-----+------------------+------------------------+
   480    |                     IMWKEND                     |
          +-------------------------------------------------+
```

**Size**

SIZE OF BLOCK IN DOUBLEWORDS (IMWKDWDS) 090
SIZE OF BLOCK IN BYTES (IMWKBYTS) 480

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IMWKANCH | 4 | | POINTER TO IMMBLOK ANCHOR |
| 4 | IMWKCMD | 8 | | CURRENT IMMEDIATE COMMAND |
| C | IMWKBUF | 134 | | COPY OF INPUT LINE AS ENTERED FROM TERMINAL |
| 92 | IMWKEXTP | 32 | | SAVED COPY OF LAST REGULAR COMMAND EXTENDED PLIST |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| B2 | IMWKTOKP | 536 | | SAVED COPY OF LAST REGULAR COMMAND TOKENIZED PLIST |
| 18 | IMWKTOKL | | | LENGTH OF IMWKTOKP FOR MVCL |
| 2CA | IMWKTRTB | 256 | | TRANSLATE TABLE TO DETERMINE LINE LENGTH |
| 3CC | IMWKRGSV | 64 | | DMSCIT REGISTER SAVE AREA |
| F4 | IMWKRG10 | | | LOCATION OF REGISTER 10 IN SAVEAREA |
| 410 | IMWKSCR | 96 | | IMMEDIATE COMMAND EXIT SAVE AREA |
| 470 | IMWKNUCX | 4 | | NUMBER OF IMMEDIATE COMMANDS THAT ARE ALSO NUCLEUS EXTENSIONS |
| 474 | IMWKHIDE | 4 | | TOTAL NUMBER OF NUCLEUS EXTENSIONS THAT ARE CURRENTLY HIDING IMMEDIATE COMMANDS |
| 478 | IMWKFLGS | 1 | | FLAGS |
| Bits defined in IMWKFLGS | | | | |
| 80 | IMCMDACT | | | IMMEDIATE COMMAND IS ACTIVE |
| 40 | IMWKGOT | | | TEMPORARY SWITCH USED BY DMSITS TO DETERMINE IF IT GOT THE WORKAREA |
| 480 | IMWKEND | 0 | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| IMCMDACT | 0478 | 80 |
| IMWKANCH | 0000 | .. |
| IMWKBUF | 000C | .. |
| IMWKBYTS | 0000 | 80 |
| IMWKCMD | 0004 | .. |
| IMWKDWDS | 0000 | 90 |
| IMWKEND | 0480 | .. |
| IMWKEXTP | 0092 | .. |
| IMWKFLGS | 0478 | .. |
| IMWKGOT | 0478 | 40 |
| IMWKHIDE | 0474 | .. |
| IMWKNUCX | 0470 | .. |
| IMWKRGSV | 03CC | .. |
| IMWKRG10 | 03CC | F4 |
| IMWKSCR | 0410 | .. |
| IMWKTOKL | 00B2 | 18 |
| IMWKTOKP | 00B2 | .. |
| IMWKTRTB | 02CA | .. |

## IOSECT: I/O INTERRUPT SAVE AREA

IOSECT describes the fields used by DMSITI for save registers, I/O old PSW, and other data when handling I/O interrupts. IOSECT is pointed to by the AIOSECT field in NUCON. IOSECT is invoked by the IOSECT macro.

```
    +-----------------------------------------------+
 0  |                                               |
    =                    IOSAVE                     =
    |                                               |
    +-----------------------+-----------------------+
40  |        IONTABL        |       AUSRITBL        |
    +-----------------------+-----------------------+
48  |                       |       AUSRILST        |
    +-----------------------+-----------------------+
50  |                                               |
    =                    OLDEST                     =
    |                                               |
    +-----------------------------------------------+
60  |                                               |
    =                     NEXTO                     =
    |                                               |
    +-----------------------------------------------+
70  |                     IOPSW                     |
    +-----------------------------------------------+
78  |                     IOCSW                     |
    +-----------------------+-----------+-----------+
80  |         HOLD          | VSTRANGE  | ///////// |
    +-----------------------+-----------+-----------+
88  | ///////////////////////////////////////////// |
    +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IOSAVE | 64 | | REGISTER SAVE AREA |
| 40 | IONTABL | 4 | | SIZE OF USER INTERRUPT TABLE (DOUBLEWORDS) |
| 44 | AUSRITBL | 4 | | ADDRESS OF USER INTERRUPT TABLE |
| 4C | AUSRILST | 4 | | ADDRESS OF LAST ENTRY IN TABLE |
| 50 | OLDEST | 16 | | OLDEST I/O OLD PSW AND CSW |
| 60 | NEXTO | 16 | | NEXT OLDEST I/O OLD PSW AND CSW |
| 70 | IOPSW | 8 | | NEWEST I/O OLD PSW |
| 78 | IOCSW | 8 | | NEWEST CSW |
| 80 | HOLD | 4 | | HOLDS ENTRY POINTER FOR DEVICE |
| 84 | VSTRANGE | 2 | | UNKNOWN DEVICE ADDRESS SAVED HERE |

<u>CROSS</u> <u>REFERENCE</u> (Name  Disp  Value)

```
AUSRILST 004C ..    IOCSW    0078 ..    IOSAVE   0000 ..    OLDEST   0050 ..
AUSRITBL 0044 ..    IONTABL  0040 ..    NEXTO    0060 ..    VSTRANGE 0084 ..
HOLD     0080 ..    IOPSW    0070 ..
```

## IUCVIDBK: IUCV PROGRAM IDENTIFICATION BLOCK

This block is created each time a program identifies itself as an IUCV program to CMS via the HNDIUCV SET function. IUCVIDBK is invoked by the IUCVIDBU MACRO.

```
          +-----------------------+-----------------------+
     0    |       IUCVIDNX        |       IUCVIDEX        |
          +-----------------------+-----------------------+
     8    |       IUCVIDUW        |       IUCVIDID        |
          +-----------------------+-----------------------+
    10    |    IUCVIDID (cont.)   | ////////////////////  |
          +-----------------------+-----------------------+
```

Size

SIZE OF AREA IN DOUBLEWORDS (IUCVIDSZ) 03

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IUCVIDNX | 4 | | POINTER TO NEXT ENTRY |
| 4 | IUCVIDEX | 4 | | ADDRESS OF THE EXIT |
| 8 | IUCVIDUW | 4 | | ADDRESS OF THE USER FULLWORD |
| C | IUCVIDID | 8 | | IDENTITY OF THE PROGRAM |
| 14 | | 4 | | RESERVED |

CROSS REFERENCE (Name Disp Value)

```
IUCVIDEX 0004 ..  | IUCVIDNX 0000 ..   | IUCVIDSZ 0000 03
IUCVIDID 000C ..                       | IUCVIDUW 0008 ..
```

## IUCVPTBK: IUCV PATH TABLE BLOCK

This block maps an entry in the internal CMS IUCV path table. There is one entry for each IUCV path in the virtual machine. IUCVPTBK is invoked by the IUCVPTBK macro.

```
        +----------------------+----------------------+
   0    |       IUCVPTEX       |       IUCVPTUW       |
        +----------------------+----------------------+
   8    |                   IUCVPTID                  |
        +---------------------------------------------+
```

### Size

SIZE OF AREA IN DOUBLEWORDS (IUCVPTSZ) 02

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IUCVPTEX | 4 | | ADDRESS OF THE PROGRAM EXIT |
| 4 | IUCVPTUW | 4 | | ADDRESS OF THE USER FULLWORD |
| 8 | IUCVPTID | 8 | | ID OF PROGRAM WHO OWN'S THIS PATH |

### CROSS REFERENCE (Name Disp Value)

```
IUCVPTEX 0000 ..  | IUCVPTSZ 0000 02
IUCVPTID 0008 ..  | IUCVPTUW 0004 ..
```

## IUCVTAB: IUCV TABLE

This block is the main IUCV control block; it contains information about the virtual machine's IUCV environment. IUCVTAB is invoked by the IUCVTAB macro.

```
      +-----------------------+-----------------------+
    0 |       IUCVPTAN        |       IUCVSAVE        |
      +-----------------------+-----------------------+
    8 |       IUCVPLST        |       IUCVEXBF        |
      +-----------------------+-----------------------+
   10 |       IUCVBKSZ        |       IUCVIDAN        |
      +-----------+-----------+-----+-----------------+
   18 | IUCVCONN  | ///////////////////////////////// |
      +-----------+-----------------------------------+
```

Size

SIZE OF IUCVTAB IN DOUBLEWORDS (IUCVSIZE) 04

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IUCVPTAN | 4 | | ANCHOR OF PATH TABLE CHAIN |
| 4 | IUCVSAVE | 4 | | POINTER TO A 23 BYTE SAVE AREA |
| 8 | IUCVPLST | 4 | | POINTER TO A PLIST FOR IUCV |
| C | IUCVEXBF | 4 | | POINTER TO EXTERNAL INTERRUPT BUFFER |
| 10 | IUCVBKSZ | 4 | | SIZE OF THE 4 PREVIOUS AREAS IN DOUBLEWORDS |
| 14 | IUCVIDAN | 4 | | ANCHOR OF PROGRAM IDENTITY CHAIN |
| 18 | IUCVCONN | 2 | | MAXIMUM NUMBER OF IUCV CONNECTS |
| 1A | | 6 | | RESERVED |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| IUCVBKSZ | 0010 | .. |
| IUCVCONN | 0018 | .. |
| IUCVEXBF | 000C | .. |
| IUCVIDAN | 0014 | .. |
| IUCVPLST | 0008 | .. |
| IUCVPTAN | 0000 | .. |
| IUCVSAVE | 0004 | .. |
| IUCVSIZE | 0000 | 04 |

## KEYSECT: DISK KEY TABLE DSECT FOR BDAM SIMULATION

KEYSECT defines by key, the key table used for I/O in OS simulation of BDAM files. KEYSECT is built dynamically from CMS free storage. KEYSECT is invoked via the KEYSECT macro.

```
     +-----------------------+-----------------------+
   0 |      KEYLNGTH         |        DATAEND        |
     +-----------------------+-----------------------+
   8 |                     KEYOP                     |
     +-----------------------------------------------+
  10 |                    KEYNAME                    |
     +-----------------------------------------------+
  18 |                    KEYTYPE                    |
     +-----------+-----------+-----------------------+
  20 |  KEYMODE  | ///////// |       KEYTBLAD        |
     +-----------+-----------+-----+-----+-----------+
  28 |        TBLLNGTH       | K*1 | K*2 | ///////// |
     +-----------------------+-----+-----+-----------+
  30 |                       |       KEYTBLNO        |
     +-----------------------+-----------------------+
  38 |       KEYCOUT         |       KEYTABLE        |
     +-----------+-----------+-----------+-----------+
  40 | KEYXTNT1  |  KEYMARK  |  KEYPTR1  | ///////// |
     +-----------+-----------+-----------+-----------+
  48 |       KEYXTNT2        |       KEYPTR2         |
     +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | KEYLNGTH | 4 | | KEY LENGTH |
| 4 | DATAEND | 4 | | ITEM POINTER TO LAST DATA ITEM IN FILE |
| 8 | KEYOP | 8 | | START OF PLIST FOR KEYS FILE |
| 10 | KEYNAME | 8 | | NAME OF KEYS FILE |
| 18 | KEYTYPE | 8 | | FILE TYPE OF KEYS FILE |
| 20 | KEYMODE | 2 | | FILE MODE OF KEYS FILE |
| 24 | KEYTBLAD | 4 | | ADDRESS OF KEY TABLE |
| 28 | TBLLNGTH | 4 | | BYTE SIZE OF KEY TABLE |
| 2C | KEYFORM | 1 | K*1 | FORMAT OF KEYS FILE |
| 2D | KEYCHNG | 1 | K*2 | RDBUF/WRBUF PLIST FLAG |
| Bits defined in KEYCHNG | | | | |
| 20 | KEYEXTPL | | | EXTENDED PLIST FLAG |
| 01 | KEYCHANG | | | INDICATES CHANGE IN KEY TABLE |
| 34 | KEYTBLNO | 4 | | ITEM NUMBER OF KEY TABLE |
| 38 | KEYCOUT | 4 | | BLOCKING FACTOR OF KEY TABLE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3C | KEYTABLE | 4 | | START OF TABLE (ITEM) FULL OF KEYS |
| 3C | KEYEOF | 4 | | EOF MARKER |
| 40 | KEYXTNT1 | 2 | | XTENT AREA IF ≤ 65535 |
| 42 | KEYMARK | 2 | | BDAM KEY INDICATOR |
| 44 | KEYPTR1 | 2 | | POINTER TO KEYS IF ≤ 65535 |
| 48 | KEYXTNT2 | 4 | | XTENT AREA IF > 65535 |
| 4C | KEYPTR2 | 4 | | POINTER TO KEYS IF > 65535 |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| DATAEND | 0004 | .. |
| KEYCHANG | 002D | 01 |
| KEYCHNG | 002D | .. |
| KEYCOUT | 0038 | .. |
| KEYEOF | 003C | .. |
| KEYEXTPL | 002D | 20 |
| KEYFORM | 002C | .. |
| KEYLNGTH | 0000 | .. |
| KEYMARK | 0042 | .. |
| KEYMODE | 0020 | .. |
| KEYNAME | 0010 | .. |
| KEYOP | 0008 | .. |
| KEYPTR1 | 0044 | .. |
| KEYPTR2 | 004C | .. |
| KEYTABLE | 003C | .. |
| KEYTBLAD | 0024 | .. |
| KEYTBLNO | 0034 | .. |
| KEYTYPE | 0018 | .. |
| KEYXTNT1 | 0040 | .. |
| KEYXTNT2 | 0048 | .. |
| TBLLNGTH | 0028 | .. |

## LABREC: DLBL/EXTENT LABEL

LABREC describes the fields within a DLBL/extent record and is used in the CMS/DOS environment. LABREC is invoked via the LABREC macro.

```
    +-----+-----------------------------------------+
  0 | L*1 |                LABFNAME                 |
    +-----+-----------------------------------------+
  8 | L*2 |                                         |
    +-----+                                         |
    |                     LABDSN                    =
    =                                               |
    |                             +-----+-----------+
 30 |                             | L*3 |  LABFSER  |
    +-----------------------+-----+-----+-----------+
 38 |    LABFSER (cont.)    | LABVSEQ   | LABCRDTE  |
    +-----+-----------------+-----------+-----+-----+
 40 |(cont)|    LABEXPDT    | LABRETPD  | L*4 | L*5 |
    +-----+-----------------+-----+-----+-----+-----+
 48 |     L*5 (continued)         |       L*6       |
    +-----------------------+-----+-----------------+
 50 |     LABBUFSP          |       LABVOL          |
    +-----------+-----+-----+-----------+-----------+
 58 |  (cont.)  | L*7 | L*8 |    LCC    |    LHH    |
    +-----------+-----+-----+-----------+-----+-----+
 60 |    UCC    |    UHH    | LABLUBA   | L*9 | /// |
    +-----------+-----------+-----------+-----+-----+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LABEXN | | | NUMBER EXTENTS |
| 0 | LABIND | 1 | L*1 | DLBL/EXTENT INDICATOR |
| Bits defined in LABIND | | | | |
| 80 | LABNPAK | | | NEXT EXTENT ON NEW PACK |
| 40 | LABLAST | | | LAST EXTENT |
| 20 | LABYPAS | | | BYPASS EXTENT |
| 10 | LABNVOL | | | NEW VOL ON SAME UNIT |
| 08 | LABOMIT | | | EXTENT LIMITS OMITTED |
| 04 | LABCONV | | | EXTENT CONVERTED TO DASD ADDRESS |
| 02 | LABNO | | | NO EXTENT CARD |
| 01 | LABSEC | | | SECURED FILE |
| 1 | LABFNAME | 7 | | FILENAME |
| 8 | LABDAISS | 1 | L*2 | DA/IS INDICATORS |
| Bits defined in LABDAISS | | | | |
| 80 | LABADREC | | | ADDRESS LABEL RECORD FOLLOW |
| 40 | LABCISSW | | | CI-SIZE IS SPECIFIED |
| 20 | LABBLKSW | | | BLKSIZE IS SPECIFIED |
| 10 | LABFBAIN | | | FBA INDICATOR |
| 08 | LABOMT | | | EXTENT LIMITS OMITTED |
| 04 | LABCON | | | EXT CONVERTED TO DASD ADDRESS |
| 02 | LABCTREC | | | LABEL CONT. RECORD |

|  | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
|  | 9 | LABDSN | 44 |  | DATA SET NAME |
|  | 35 | LABFID | 1 | L*3 | FORMAT ID |
|  | 36 | LABFSER | 6 |  | VOLID OF FIRST EXTENT |
|  | 3C | LABVSEQ | 2 |  | VOLUME SEQUENTIAL NUMBER |
|  | 3E | LABCRDTE | 3 |  | CREATION DATE |
|  | 41 | LABEXPDT | 3 |  | EXPIRATION DATE |
|  | 44 | LABRETPD | 2 |  | RETENTION PERIOD |
| \| | 46 | LABOPCOD | 1 | L*4 | DOUBLE TYPE |
|  | 47 | LABSYSCD |  |  | SYSTEM CODE |
|  | 47 | LABVSAM |  |  | VSAM OWNED FLD |
| \| | 47 | LABUCNAM | 7 | L*5 | USER CATALOG NAME |
| \| | 4E |  | 2 | L*6 |  |
|  | 4C | LABCISZ | 4 |  | CI-SIZE |
|  | 50 | LABBUFSP | 4 |  | BUFFER SIZE |
|  | 54 | LABEXT |  |  |  |
|  | 54 | LABVOL | 6 |  | VOLID |
| \| | 5A | LABTYP | 1 | L*7 | TYPE OF EXTENT |
| \| | 5B | LABSEQ | 1 | L*8 | EXTENT NUMBER |
|  | 5C | LABST |  |  | START OF EXTENT |
|  | 5C | LABSTBK |  |  |  |
|  | 5C | LCC | 2 |  | LOWER CYL |
|  | 5E | LHH | 2 |  | LOWER HEAD |
|  | 60 | LABED |  |  | EXTENT END |
|  | 60 | LABENDBK |  |  |  |
|  | 60 | UCC | 2 |  | UPPER CYL |
|  | 62 | UHH | 2 |  | UPPER HEAD |
|  | 64 | LABLUBA | 2 |  | LUB UNIT |
| \| | 66 | LABSW | 1 | L*9 | SWITCHES |
|  |  | Bits defined in LABSW |  |  |  |
|  |  | 80 LAB64K |  |  | BLOCK ADDRESS AND/OR NUMBER OF BLOCKS 64K-1 |
| \| | 67 |  | 1 |  | RESERVED |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| LABADREC | 0008 | 80 |
| LABBLKSW | 0008 | 20 |
| LABBLKSZ | 0050 | .. |
| LABBUFSP | 0050 | .. |
| LABCISSW | 0008 | 40 |
| LABCISZ | 004C | .. |
| LABCON | 0008 | 04 |
| LABCONV | 0000 | 04 |
| LABCRDTE | 003E | .. |
| LABCTREC | 0008 | 02 |
| LABDAISS | 0008 | .. |
| LABDSN | 0009 | .. |
| LABED | 0060 | .. |
| LABENDBK | 0060 | .. |
| LABEXN | 0000 | .. |
| LABEXPDT | 0041 | .. |
| LABEXT | 0054 | .. |
| LABFBAIN | 0008 | 10 |
| LABFID | 0035 | .. |
| LABFNAME | 0001 | .. |
| LABFSER | 0036 | .. |
| LABIND | 0000 | .. |
| LABLAST | 0000 | 40 |
| LABLUBA | 0064 | .. |
| LABNO | 0000 | 02 |
| LABNPAK | 0000 | 80 |
| LABNVOL | 0000 | 10 |
| LABOMIT | 0000 | 08 |
| LABOMT | 0008 | 08 |
| LABOPCOD | 0046 | .. |
| LABRETPD | 0044 | .. |
| LABSEC | 0000 | 01 |
| LABSEQ | 005B | .. |
| LABST | 005C | .. |
| LABSTBK | 005C | .. |
| LABSW | 0066 | .. |
| LABSYSCD | 0047 | .. |
| LABTYP | 005A | .. |
| LABUCNAM | 0047 | .. |
| LABVOL | 0054 | .. |
| LABVSAM | 0047 | .. |
| LABVSEQ | 003C | .. |
| LABYPAS | 0000 | 20 |
| LAB64K | 0066 | 80 |
| LCC | 005C | .. |
| LHH | 005E | .. |
| UCC | 0060 | .. |
| UHH | 0062 | .. |

## LABSECT: TAPE LABEL INFORMATION

LABSECT contains user-supplied tape label information used by CMS tape label processing. LABSECT is invoked via the LABSECT macro.

```
     +-----------------------+-----------------------+
   0 |        LABNEXT        |       LABFCBPT        |
     +-----------------------+-----------------------+
   8 |                    LABFILE                    |
     +-----------------------------------------------+
  10 |                                               |
     =                    LABFID                     =
     |                                               |
     |     +-----+-----------+-----------------------+
  20 |     | L*1 |          LABVOLID                 |
     +-----+-----+-----------+-----------------------+
  28 |      LABVSEQ          |       LABFSEQ         |
     +-----------------------+-----------+-----------+
  30 |      LABGENN          |  LABGENV  |  LABCRD   |
     +-----------------------+-----------+-----------+
  38 |      LABCRD (cont.)   |        LABEXD         |
     +-----------+-----+-----+-----------------------+
  40 | (cont.)   | L*2 | L*3 |
     +-----------+-----+-----+
```

Size

LABSECT SIZE IN DOUBLEWORDS (LABSIZE) 09

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LABNEXT | 4 | | FORWARD CHAIN POINTER |
| 4 | LABFCBPT | 4 | | POINTER TO FCBSECT OR ZERO |
| 8 | LABFILE | 8 | | NAME OF FILE (DDNAME) FOR BLOCK |
| 10 | LABFID | 17 | | FILE IDENTIFIER |
| 21 | LABSEC | 1 | L*1 | SECURITY |
| 22 | LABVOLID | 6 | | VOLUME SERIAL NUMBER (VOLID) |
| 28 | LABVSEQ | 4 | | VOLUME SEQUENCE NUMBER |
| 2C | LABFSEQ | 4 | | FILE SEQUENCE NUMBER |
| 30 | LABGENN | 4 | | GENERATION NUMBER |
| 34 | LABGENV | 2 | | GENERATION VERSION |
| 36 | LABCRD | 6 | | CREATION DATE |
| 3C | LABEXD | 6 | | EXPIRATION DATE |

```
 Disp  Name      Len Key  Description


  42   LABFLAG1    1 L*2  DEFAULT FLAGS BYTE:

    Bits defined in LABFLAG1

    80 LABDFID            DEFAULT FILE ID
    40 LABDSEC            DEFAULT SECURITY
    20 LABDVID            DEFAULT VOLUME SERIAL NUMBER
    10 LABDVSEQ           DEFAULT VOLUME SEQUENCE NUMBER
    08 LABDFSEQ           DEFAULT FILE SEQUENCE NUMBER
    04 LABDGENN           DEFAULT GENERATION NUMBER
    02 LABDGENV           DEFAULT GENERATION VERSION
    01 LABDCRD            DEFAULT CREATION DATE

  43   LABFLAG2    1 L*3  MISCELLANEOUS FLAGS BYTE:

    Bits defined in LABFLAG2

    80 LABDEXD            DEFAULT EXPIRATION DATE
    04 LABFDEF            LABSECT GOTTEN BY FILEDEF
    02 LABPERM            PERMANENT SPECIFIED
    01 LABNOCHG           NOCHANGE SPECIFIED
```

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| LABCRD | 0036 | .. |
| LABDCRD | 0042 | 01 |
| LABDEXD | 0043 | 80 |
| LABDFID | 0042 | 80 |
| LABDFSEQ | 0042 | 08 |
| LABDGENN | 0042 | 04 |
| LABDGENV | 0042 | 02 |
| LABDSEC | 0042 | 40 |
| LABDVID | 0042 | 20 |
| LABDVSEQ | 0042 | 10 |
| LABEXD | 003C | .. |
| LABFCBPT | 0004 | .. |
| LABFDEF | 0043 | 04 |
| LABFID | 0010 | .. |
| LABFILE | 0008 | .. |
| LABFLAG1 | 0042 | .. |
| LABFLAG2 | 0043 | .. |
| LABFSEQ | 002C | .. |
| LABGENN | 0030 | .. |
| LABGENV | 0034 | .. |
| LABNEXT | 0000 | .. |
| LABNOCHG | 0043 | 01 |
| LABPERM | 0043 | 02 |
| LABSEC | 0021 | .. |
| LABSIZE | .... | 09 |
| LABVOLID | 0022 | .. |
| LABVSEQ | 0028 | .. |

## LDRST: LOADER STORAGE AREA

LDRST describes the fields of the work area used by the loader. The work area is obtained and built dynamically by DMSLDR from CMS free storage. LDRST is invoked via the LDRST macro.

```
                    +-----------------------------------------------+
                  0 |                    GPRSAV                     |
                    |                       +-----------------------+
                  8 |                       |        LOCSAV         |
                    +-----------------------+-----------------------+
                 10 |         RETT          |        LOCCT          |
                    +-----------------------+-----------------------+
                 18 |         BRAD          |        TBLREF         |
                    +-----+-----+-----------+-----+-----+-----------+
 |               20 |FLAG1|FLAG2|   TBLCT   |FLAG3| /// |/////////// |
                    +-----+-----+-----------+-----+-----+-----------+
                 28 | ///////////////////////////////////////////// |
                    +-----------------------+-----------------------+
                 30 |       RLDCONST        |       PARMLIST        |
                    +-----------------------+-----------------------+
                 38 |        RETREG         |                       |
                    +-----------------------+                       |
                    |                                               |
                    =                    SPEC                       =
                    |                                               |
                    |                       +-----------------------+
                358 |                       |                       |
                    +-----------------------+                       |
                360 |                                               |
                    =                    ESIDTB                     =
                    |                                               |
                    |                       +-----------------------+
                558 |                       |                       |
                    +-----------------------+                       |
                560 |                                               |
                    =                    APSV                       =
                    |                                               |
                    |                       +-----------------------+
                598 |                       |        TEMPST         |
                    +-----------------------+-----------------------+
                5A0 |        TMPLOC         |        CRDPTR         |
                    +-----------------------+-----------------------+
                5A8 |                     FILE                      |
                    +-----------------------------------------------+
                5B0 |                    READBUF                    |
                    +-----------------------------------------------+
                5B8 |                     FNAME                     |
                    +-----------------------------------------------+
                5C0 |                     FTYPE                     |
                    +-----------+-----------+-----------------------+
 |              5C8 |   FMODE   |   CURR    |         RADD          |
                    +-----------+-----------+-----+-----+-----------+
 |              5D0 |         RLENG         |RFIX |REPL | ////////// |
                    +-----------------------+-----+-----+-----------+
                5D8 |        NUMBYTE        |         RITEM         |
                    +-----------------------+-----------------------+
                5E0 |         RNUM          |         RWRPT         |
                    +-----------------------+-----------------------+
      +-----------------------+-----------------------+
  5E8 |         RRDPT         |                       |
      +-----------------------+                       |
  5F0 |                                               |
      =                     FINIS                     =
      |                                               |
      +-----+-----------------+-----------------------+
  608 |FLAGS|       L*1       |                       |
      +-----+-----------------+                       |
      |                                               |
      =                    SYSUT1                     =
      |                                               |
      +-----------------------------------------------+
  638 |                    TYPLIN                     |
      +-----------------------------------------------+
  640 |                    TYPEAD                     |
      +-----------------------------------------------+
  648 |                                               |
      =                    DSKLIN                     =
      |                                               |
      |                       +-----------------------+
  660 |                       |                       |
      +-----------------------+         DSKAD         |
      |                                               |
      |     +-----------------------+-----------------+
  670 |     |          L*2          |       L*3       |
      +-----+-----------------------+-----------------+
      |      L*3 (continued)        |       L*4       |
      +-----+-----------------------------------------+
  680 |cont.|                                         |
      +-----+              HEXCON               +-----+
| 688 |                                         | L*5 |
      +-----------------------------------------+-----+
  690 |                                               |
      =                    OUTBUF                     =
      |                                               |
      |                       +-----------------------+
| 6F0 |                       |        PRVCNT         |
      +-----------------------+-----------------------+
  6F8 |                     SAV67                     |
      +-----------------------------------------------+
  700 |                    ENTNAME                    |
      +-----------------------+-----------------------+
  708 |        ENTADR         |       MEMBOUND        |
      +-----------------------+-----------------------+
  710 |                                               |
      =                   PLISTSAV                    =
      |                                               |
      +-----------------------+-----+-----------------+
| 910 |       REG13SAV        | L*6 |
      +-----------------------+-----+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | GPRSAV | 12 | | REGISTERS 9-12 |
| C | LOCSAV | 4 | | BASE REGISTER A(DMSLDRA) |
| 10 | RETT | 4 | | RETURN REGISTER FOR DMSLSB |
| 14 | LOCCT | 4 | | (LOCCNT) NEXT LOAD LOCATION |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 18 | BRAD | 4 | | (STRTADDR) START EXECUTION ADDRESS |
| 1C | TBLREF | 4 | | (ALDRTBL) TOP OF LOADER TABLE |
| 20 | FLAG1 | 1 | | LOADER SWITCHES (PERMANENT) |
| Bits defined in FLAG1 | | | | |
| 80 | ABSOLUTE | | | ABSOLUTE LOADING |
| 40 | FSTXTADR | | | FIRST TEXT ADDRESS SAVED |
| 20 | COMMOMEX | | | COMMON ENTRIES EXIST IN LOADER TABLE |
| 10 | PREXIST | | | PR ENTRIES EXIST IN LOADER TABLE |
| 08 | ENDCDADR | | | ALLOW END CARD ADDRESS |
| 04 | NOERASE | | | DON'T ERASE THE LOAD MAP |
| 02 | WORKFILE | | | WORK FILE (SYSUT1) EXISTS |
| 01 | NODUP | | | DO NOT TYPE MSG 202W |
| 21 | FLAG2 | 1 | | LOADER SWITCHES (PERMANENT) |
| Bits defined in FLAG2 | | | | |
| 80 | STRINITC | | | CALL STRINIT ON LOADMOD |
| 40 | NOMAP | | | DO NOT CREATE A LOAD MAP |
| 20 | APRILB | | | REP CARD PROCESSING CONTROL |
| 10 | NOAUTO | | | NO AUTOMATIC TEXT DECK CHECKING |
| 08 | TYPE | | | TYPE LOAD MAP AT TERMINAL |
| 04 | NOREP | | | NO REP CARD PRINTING |
| 02 | NOINV | | | NO INVALID CARD TYPEOUT |
| 01 | NOLIBE | | | NO AUTOMATIC TXT LIBRARY SEARCHING |
| 22 | TBLCT | 2 | | NUMBER OF ENTRIES IN LOADER TABLE |
| 24 | FLAG3 | 1 | | MORE FLAGS |
| Bits defined in FLAG3 | | | | |
| 80 | CMD | | | PROCESSING NAMES FROM CMD LIST |
| 25 | | 1 | | RESERVED |
| 26 | | 10 | | RESERVED |
| 30 | RLDCONST | 4 | | RELOCATION CONSTANT |
| 34 | PARMLIST | 4 | | UPDATED PARAMETER LIST POINTER |
| 38 | RETREG | 4 | | RETURN REGISTER |
| 3C | SPEC | 800 | | 10 CARD INPUT BUFFER |
| 35C | ESIDTB | 512 | | 256 ESD ENTRIES/OBJECT DECK |
| 55C | APSV | 64 | | REGISTER SAVE AREA FOR SUBROUTINE CALLS |
| 59C | TEMPST | 4 | | TEMPORARY RLD ROUTINE STORAGE |
| 5A0 | TMPLOC | 4 | | TEMPORARY STORAGE |
| 5A4 | CRDPTR | 4 | | INPUT CARD POINTER |
| 5A8 | FILE | 8 | | SAVE LOCATION FOR DMSLIB |
| 5B0 | READBUF | 8 | | INPUT READ PARAMETER LIST |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 5B8 | FNAME | 8 | | FILE NAME |
| \| | 5C0 | FTYPE | 8 | | FILE TYPE |
| | 5C8 | FMODE | 2 | | FILE MODE |
| \| | 5CA | CURR | 2 | | CURRENT CSECT ID |
| | 5CC | RADD | 4 | | BUFFER ADDRESS |
| | 5D0 | RLENG | 4 | | BUFFER LENGTH |
| | 5D4 | RFIX | 1 | | FIXED/VARIABLE FLAG BYTE |
| | 5D5 | REPL | 1 | | EXTENDED P-LIST FLAG |
| \| | 5D6 | | 2 | | RESERVED |
| | 5D8 | NUMBYTE | 4 | | NUMBER OF BYTES ACTUALLY READ |
| | 5DC | RITEM | 4 | | ITEM NUMBER |
| | 5E0 | RNUM | 4 | | NUMBER OF ITEMS |
| | 5E4 | RWRPT | 4 | | WRITE POINTER |
| | 5E8 | RRDPT | 4 | | READ POINTER |
| \| | 5EC | FINIS | 28 | | FINIS PARAMETER LIST |
| | 608 | FLAGS | 1 | | LOADER SWITCHES (NON PERMANENT) |

Bits defined in FLAGS

| | | |
|---|---|---|
| 80 | START | START EXECUTION REQUESTED |
| 40 | ONEDYNA | ONE CALL TO DYNALOAD PER TEXT FILE |
| 20 | ESD1ST | FIRST ESD DATA ITEM THIS CARD |
| 10 | NOSLCADR | NO ADDRESS FIELD IN SLC CARD |
| 08 | SETLIB | SET UP FOR LIBRARY SEARCHING |
| 04 | CLOSELIB | CLEAR TXT LIB SEARCHING |
| 02 | LUNDEF | UNDEFINED ENTRIES EXIST IN LOADER TABLE |
| 01 | RESET | RESET 'ENTRY' SPECIFIED |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 609 | | 3 | L*1 | LIBRARY SEARCH WORK AREA POINTER |
| \| | 60C | SYSUT1 | 44 | | RLD WORK FILE PLISTS |
| \| | 638 | TYPLIN | 8 | | TYPLIN PARAMETER LIST |
| \| | 640 | TYPEAD | 8 | | TYPLIN BUFFER ADDRESS |
| \| | 648 | DSKLIN | 28 | | DISK PARAMETER LIST FOR LOAD MAP |
| \| | 664 | DSKAD | 13 | | |
| \| | 671 | | 4 | L*2 | |
| \| | 675 | | 81 | L*3 | |
| \| | 67D | | 4 | L*4 | |
| \| | 681 | HEXCON | 14 | | |
| | 68F | OUTPUT | 1 | L*5 | |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| \| | 690 | OUTBUF | 100 | | OUTPUT BUFFER FOR LOAD MAP AND TERMINAL |
| \| | 6F4 | PRVCNT | 4 | | ADDRESS OF NEXT PR 'LOAD ADDRESS' |
| \| | 6F8 | SAV67 | 8 | | TEMPORARY SAVE OF REGS 6 AND 7 |
| | 700 | ENTNAME | 8 | | ENTRY NAME (RESET 'ENTRY' OR ENTRY CONTR |
| | 708 | ENTADR | 4 | | ENTRY NAME'S LOADER TABLE LOCATION |
| | 70C | MEMBOUND | 4 | | LOW EXTEND OF FREE STORAGE (FREELOWE) |
| \| | 710 | PLISTSAV | 512 | | LOAD (INCLUDE) PARAMETER LIST SAVED |
| | 910 | REG13SAV | 4 | | ADDRESS OF LDRST |
| \| | 914 | FRSTSDID | 1 | L×6 | FIRST SECTION DEFINITION ID |
| | 918 | ENDFREE | 8 | | |

THE FOLLOWING EQUATES REFER TO DISPLACEMENTS AND FLAGS IN THE PEFTABLE ENTRY USUALLY POINTED TO BY REGISTER 12.

| | | |
|---|---|---|
| 00 | REFNAME | OFFSET OF 8-BYTE NAME FIELD |
| 90 | REFNOB | LIBE CARD - NONOBLIGATORY |
| 83 | REFWEX | WEAK EXTERNAL REFERENCE |
| 82 | REFCOM | DEFINE COMMON AREA |
| 81 | REFCXD | RESOLVE CXD |
| 80 | REFUND | UNDEFINED SYMBOL |
| 80 | REFCMD | CMD LINE NAME-MUST RESOLVE |
| 7F | REFPRD | PR - DOUBLEWORD ALIGNMENT |
| 7E | REFPRF | PR - FULLWORD ALIGNMENT |
| 7D | REFPRH | PR - HALFWORD ALIGNMENT |
| 7C | REFPRB | PR - BYTE ALIGNMENT |
| 11 | REFADDR | OFFSET OF ADDRESS FIELD |
| 10 | REFLIB | SINGLE BIT FOR NONOBLIG |
| 10 | REFLG2 | OFFSET OF FLAG BYTE TWO |
| 0D | REFVAL | OFFSET OF ABS OR ASGN VALUE |
| 09 | REFINFO | OFFSET OF RELOC FACTOR OR MAX |
| 08 | REFLG1 | OFFSET OF FLAG BYTE ONE |
| 08 | REFICS | ICS - ALTER CSECT LENGTH |
| 04 | REFLBT | TEXT LOCATED IN LIBRARY |
| 02 | REFCSD | DEFINE CONTROL SECTION |
| 01 | REFNEG | NEGATIVE RELOCATION FACTOR |

CROSS REFERENCE (Name  Disp  Value)

```
ABSOLUTE 0020 80    FTYPE    05C0 ..    RADD     05CC ..    RESET    0608 01
APRILB   0021 20    GPRSAV   0000 ..    READBUF  05B0 ..    RETREG   0038 ..
APSV     055C ..    HEXCON   0681 ..    REFADDR  0000 11    RETT     0010 ..
BRAD     0018 ..    LOCCT    0014 ..    REFCMD   0000 80    RFIX     05D4 ..
CLOSELIB 0608 04    LOCSAV   000C ..    REFCOM   0000 82    RITEM    05DC ..
CMD      0024 80    LUNDEF   0608 02    REFCSD   0000 02    RLDCONST 0030 ..
CRDPTR   05A4 ..    MEMBOUND 070C ..    REFCXD   0000 81    RLENG    05D0 ..
DSKAD    0664 ..    NEED     0918 23    REFICS   0000 08    RNUM     05E0 ..
DSKLIN   0648 ..    NOAUTO   0021 10    REFINFO  0000 09    RRDPT    05E8 ..
ENDCDADR 0020 08    NODUP    0020 01    REFLBT   0000 04    RWRPT    05E4 ..
ENDFREE  0918 ..    NOERASE  0020 04    REFLG1   0000 08    SAV67    06F8 ..
ENTADR   0708 ..    NOINV    0021 02    REFLG2   0000 10    SETLIB   0608 08
ENTNAME  0700 ..    NOLIBE   0021 01    REFLIB   0000 10    SPEC     003C ..
ESD1ST   0608 20    NOMAP    0021 40    REFNAME  0000 00    START    0608 80
ESIDTB   035C ..    NOREP    0021 04    REFNEG   0000 01    STRINITC 0021 80
FILE     05A8 ..    NOSLCADR 0608 10    REFNOB   0000 90    SYSUT1   060C ..
FINIS    05EC ..    NUMBYTE  05D8 ..    REFPRB   0000 7C    TBLCT    0022 ..
FLAGS    0608 ..    ONEDYNA  0608 40    REFPRD   0000 7F    TBLREF   001C ..
FLAG1    0020 ..    OUTBUF   0690 ..    REFPRF   0000 7E    TEMPST   059C ..
FLAG2    0021 ..    OUTPUT   068F ..    REFPRH   0000 7D    TMPLOC   05A0 ..
FLAG3    0024 ..    PACK     0681 **    REFUND   0000 80    TYPE     0021 08
FMODE    05C8 ..    PARMLIST 0034 ..    REFVAL   0000 0D    TYPEAD   0640 ..
FNAME    05B8 ..    PLISTSAV 0710 ..    REFWEX   0000 83    TYPLIN   0638 ..
FRSTSDID 0914 ..    PREXIST  0020 10    REG13SAV 0910 ..    UNPACK   0686 **
FSTXTADR 0020 40    PRVCNT   06F4 ..    REPL     05D5 ..    WORKFILE 0020 02
```

## LIBSECT: CMS PDS HEADER

LIBSECT keeps track of the total library size and the address of the CMS PDS directory. LIBSECT is invoked via the LIB macro.

```
         +----------------------------------------+-----+
       0 |              LIBIDENT                  | /// |
         +--------------------+-------------------+-----+
       8 |      LIBDIRSZ      |         LIBDIR          |
         +--------------------+-------------------------+
      10 |                                              |
         = //////////////////////////////////////////// =
         |                                              |
         +----------------------------------------------+
```

### Size

PDS IDENTIFIER LENGTH IN BYTES (LIBIDSIZ) 50

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LIBIDENT | 6 | | CMS PDS LIB IDENTIFIER |
| 8 | LIBDIRSZ | 4 | | TOTAL DIRECTORY SIZE IN BYTES |
| C | LIBDIR | 4 | | DIRECTORY ADDRESS AS FULLWORD EXTENDED ITEM NUMBER |
| MAPPING OF SCP FORMAT HEADER ENTRY | | | | |
| 06 | LIBDIRX | | | SCP HALFWORD DIR ITEM NUMBER |

CROSS REFERENCE (Name Disp Value)

```
LIBDIR   000C ..    LIBDIRX  000C 06    LIBIDENT 0000 ..
LIBDIRSZ 0008 ..                        LIBIDSIZ .... 50
```

## LOCKTAB: LOCK/UNLOCK RESOURCE TABLE

LOCKTAB simulates the VSE LOCK/UNLOCK resource table. LOCKTAB is invoked via the LOCKTAB macro.

```
      +-----------+-----------+-----------------------+
    0 |  LOKBDY   |   LOKOE   |                       |
      +-----------+-----------+                       |
      |                                               |
      =                  (480 bytes)                  =
      |                                               |
      |                       +-----------------------+
  1E0 |                       |       ALOKTABS        |
      +-----------------------+-----------------------+
  1E8 |       LASTUSED        |
      +-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LOKBDY | 2 | | ENTRY FOR LOCKTAB SPACE |
| 2 | LOKOE | 2 | | ENTRY FOR OWNER ELEMENTS |
| 4 | ALOKTABA | | | START OF LOCK TABLE (480 BYTES MAXIMUM) |
| 1E3 | ALOKTABE | | | END OF LOCK TABLE (VARIABLE) |
| 1E4 | ALOKTABS | 4 | | SIZE OF LOCK TABLE (VARIABLE) |
| 1E8 | LASTUSED | 4 | | HIGH WATER MARK (VARIABLE) |

CROSS REFERENCE (Name Disp Value)

```
ALOKTABA 0004 ..    ALOKTABS 01E4 ..    LOKBDY   0000 ..
ALOKTABE 01E3 ..    LASTUSED 01E8 ..    LOKOE    0002 ..
```

## LOGFBFMT: LOG/FORMAT FILE ENTRY

LOGFBFMT describes the format of the programmable operator facility log file and feedback file records. Maximum length for a record is 132. LOGFBFMT is found in PROP copy.

### Size

LENGTH OF RECORD PREFIX (LGFBTDSP) 26

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LGFBSTRT | 0 | | START OF RECORD |
| 0 | LGFBDATE | 8 | | DATE WRITTEN (YY/MM/DD) |
| 9 | LGFBTIME | 8 | | TIME WRITTEN (HH:MM:SS) |
| 12 | LGFBUSER | 8 | | USERID OF ORIGINATOR |
| 1B | LGFBNODE | 8 | | NODEID OF ORIGINATOR |
| 23 | LGFBCOLN | 1 | | DELIMITER OF TEXT |
| 26 | LGFBTEXT | 0 | | MESSAGE TEXT |

### CROSS REFERENCE (Name Disp Value)

LGFBCOLN 0023 ..
LGFBDATE 0000 ..
LGFBNODE 001B ..
LGFBSTRT 0000 ..
LGFBTDSP .... 26
LGFBTEXT 0026 ..
LGFBTIME 0009 ..
LGFBUSER 0012 ..

## LPLDCT: LABEL MACRO PARAMETER LIST

LPLDCT describes the fields within the label macro input parameter list used in the CMS/DOS environment. LPLDCT is invoked via the LPLDCT macro.

```
     +-----------------------+-----------+-----------+
   0 |        LPLAREA        | LPLBFLEN  | LPLLBLEN  |
     +-----------------------+-----------+-----+-----+
   8 |               LPLKEY                    | /// |
     +-----+-----+-----+-----+-----+-----------+-----+
  10 | L*1 | /// | L*2 | L*3 | L*4 |
     +-----+-----+-----+-----+-----+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LPLAREA | 4 | | BUFFER ADDRESS |
| 4 | LPLBFLEN | 2 | | LENGTH OF BUFFER |
| 6 | LPLLBLEN | 2 | | LENGTH OF LABEL |
| 8 | LPLNAM | | | FILE NAME PLUS INT. SEQUENTIAL NUMBER |
| 8 | LPLKEY | 7 | | FILE NAME |
| F | | 1 | | RESERVED |
| 10 | LPLGRP | 5 | | GROUP OF LABELS |
| 10 | LPLPNUM | 1 | L*1 | PARTITION IDENTIFICATION |
| 11 | | 1 | | RESERVED |
| 12 | LPLSTORE | 1 | L*2 | OPTION CODE |
| 13 | LPLINDIC | 1 | L*3 | LPL INDICATORS |
| 14 | LPLSEQNO | 1 | L*4 | EXTENT SEQUENCE NUMBER |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| LPLAREA | 0000 | .. |
| LPLBFLEN | 0004 | .. |
| LPLGRP | 0010 | .. |
| LPLINDIC | 0013 | .. |
| LPLKEY | 0008 | .. |
| LPLLBLEN | 0006 | .. |
| LPLNAM | 0008 | .. |
| LPLPNUM | 0010 | .. |
| LPLSEQNO | 0014 | .. |
| LPLSTORE | 0012 | .. |

## LSCREEN: LOGICAL SCREEN BLOCK

LSCREEN is built by module DMSXSD and is used by the System Product Editor modules to describe the layout of a logical screen on the physical screen and they are changed dynamically each time a SET SCREEN subcommand is issued. LSCREEN is invoked by the LSCREEN macro.

```
 0 +-----------------------+-----------------------+
   |      LSCFWPTR         |       LSCZDEPT        |
 8 +-----------+-----------+-----------+-----------+
   | LSCRDSPH  | LSCRDSPV  | LSCRWIDT  | LSCRULCO  |
10 +-----------+-----------+-----------+-----------+
   | LSCRNBLN  | LSCRSIZE  | LSCRCURL  | LSCRMASK  |
18 +-----------+-----------+-----------+-----------+
   | LSCRTABS  | LSCRINPU  | LSCRSTAT  | LSCRBYTE  |
20 +-----------+-----------+-----------+-----------+
   | LSCRFMSG  | LSCRLMSG  |       LSCRAINP        |
28 +-----------+-----------+-----------+-----------+
   |        LSCRIBUF       |  LSCRMEDS | LSCRWKW1  |
30 +-----------------------+-----------+-----------+
   |                                               |
   =                 TABLE OF LINES                =
   |                                               |
   +-----------------------------------------------+
   |                                               |
   =                   INPUT AREA                  =
   |                                               |
   +-----------------------------------------------+
```

**Size**

LENGTH OF HEADER IN BYTES (LSCLLSCB) 30
LENGTH IN DOUBLEWORDS (LSCLLSCD) 06

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LSCFWPTR | 4 | | POINTER ON NEXT LOGICAL SCREEN |
| 4 | LSCZDEPT | 4 | | ADDRESS OF FILE DESCRIPTOR |
| 8 | LSCRDSPH | 2 | | HORIZONTAL DISPLACEMENT OF LOGICAL SCREE |
| A | LSCRDSPV | 2 | | VERTICAL DISPLACEMENT OF LOGICAL SCREEN |
| C | LSCRWIDT | 2 | | WIDTH OF LOGICAL SCREEN |
| E | LSCRULCO | 2 | | UPPER LEFT CORNER ADDRESS OF LOG SCREEN |
| 10 | LSCRNBLN | 2 | | NUMBER OF LOGICAL LINE IN LOGICAL SCREEN |
| 12 | LSCRSIZE | 2 | | TOTAL NUMBER OF LINES OF LOGICAL SCREEN |
| 14 | LSCRCURL | 2 | | CURRENT LINE NUMBER ON LOGICAL SCREEN |
| 16 | LSCRMASK | 2 | | MASK LINE NUMBER ON LOGICAL SCREEN |
| 18 | LSCRTABS | 2 | | TABULATION LINE NUMBER ON LOGICAL SCREEN |
| 1A | LSCRINPU | 2 | | INPUT AREA LINE NUMBER ON LOGICAL SCREEN |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1C | LSCRSTAT | 2 | | EBCDIC ADDRESS OF STATUS AREA |
| 1E | LSCRBYTE | 2 | | LENGTH OF LSCREEN BLOCK IN BYTES |
| 20 | LSCRFMSG | 2 | | STARTING LINE FOR MESSAGE ON SCREEN |
| 22 | LSCRLMSG | 2 | | LAST LINE CONTAINING MESSAGE |
| 24 | LSCRAINP | 4 | | ADDRESS INPUT AREA IN LOGICAL SCREEN BLOCK |
| 28 | LSCRIBUF | 4 | | ADDRESS OF INPUT AREA IN READ BUFFER |
| 2C | LSCRMEDS | 2 | | MID SCREEN LINE NUMBER |
| 2E | LSCRWKW1 | 2 | | RESERVED |

LSCREEN BLOCK IS FOLLOWED BY A TABLE CONTAINING AS MANY ENTRIES AS THE NUMBER OF LINES OF THE LOGICAL SCREEN. EACH ENTRY CONTAINS...

| | | |
|---|---|---|
| 30 | LSCRLTBL | START OF TABLE |
| 00 | LSCRFLNE | NUMBER OF THE LINE OF THE FILE THAT IS ON THE SCREEN IN THIS SPOT |
| 04 | LSCRFADD | ADDRESS OF THE LINE DESCRIPTOR |
| 08 | LSCRIMAD | ADDRESS OF THE LINE IN IMAGE BUFFER |
| 0C | LSCRLGTH | LINE LENGTH IN IMAGE BUFFER |
| 0E | LSCRCTL | ADDRESS OF END OF LINE |
| 0E | LSCRCTLB | ADDRESS OF BEGINNING OF LINE |
| 12 | LSCRCTLP | ADDRESS OF PREFIX AREA ON RIGHT |
| 14 | LSCRFLG1 | STATUS FLAG 1 |
| 01 | LSCFPROT | .......X PROTECT LINE |
| 02 | LSCFNPRF | ......X. BYPASS PREFIX AREA |
| 04 | LSCFMASK | .....X.. MASK LINE |
| 08 | LSCFTABS | ....X... TABSET LINE |
| 10 | LSCFTOP | ...X.... TOP OF FILE |
| 20 | LSCFEOF | ..X..... END OF FILE |
| 40 | LSCFRST | .X...... LINE SHOULD BE RESET |
| 80 | LSCFCHGD | X....... LINE HAS BEEN CHANGED |
| 15 | LSCRFLG2 | STATUS FLAG 2 |
| 01 | LSCFWRAP | .......X LINE WRAP ON NEXT ENTRY |
| 02 | LSCFRSVD | ......X. LINE IS RESERVED |
| 04 | LSCFHIGH | .....X.. LINE HIGH INTENSITY |
| 08 | LSCFNULL | ....X... NULLS ON FOR THIS FIELD |
| 10 | LSCFMDT | ...X.... FIELD MODIFIED (MDT ON) |
| 20 | LSCFAROW | ..X..... FIELD PRECEDED BY ARROW |
| 40 | | .X...... RESERVED |
| 80 | LSCFSHDW | X....... SHADOW LINE |
| 18 | LSCRLINE | LENGTH OF ONE ENTRY |
| 05 | LSCPFXLG | PREFIX SUBCOMMAND AREA LENGTH |
| 05 | LSCARWLG | ARROW LENGTH |
| 14 | LSCSTALG | STATUS AREA LENGTH |
| 17 | LSCRFLG4 | EXT. HILITE |
| 16 | LSCRFLG3 | COLOR |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3270 CONTROL CHARACTERS | | | | |
| 28 | SA | | | SET ATTRIBUTE |
| 1D | SF | | | START FIELD |
| 29 | SFE | | | START FIELD EXTENDED |
| 2C | MFD | | | MODIFIED FIELD |
| 13 | IC | | | INSERT CURSOR |
| 11 | SBA | | | SET BUFFER ADDRESS |
| 05 | PT | | | PROGRAM TAB |
| 3C | RA | | | REPEAT TO ADDRESS |
| 12 | EUA | | | ERASE UNPROTECT TO ADDRESS |
| 1E | FLDMRK | | | FIELD MARK CODE (SHIFT PA2) |
| 08 | FKE3278 | | | COMPOUND CODE FOR 3278 (APL/TEXT) |
| 3270 FIELD CHARACTERS | | | | |
| 00 | ATRRST | | | RESET ATTRIBUT |
| 20 | ATRPRT | | | PROTECT FIELD |
| 08 | ATRHIGH | | | HIGH INTENSITY |
| 01 | ATRMDT | | | SET/RESET MDT BIT |
| 02 | ATRINIB | | | RESET INPUT INHIBITED |
| 04 | ATRBIP | | | SOUND ALARM |
| C0 | ATRFIELD | | | FIELD |
| 41 | ATREXTHI | | | EXTENDED HILITE |
| 42 | ATRCOLOR | | | COLOR |
| 43 | ATRPSS | | | PROGRAMMABLE SYMBOLS |
| 60 | FLDPRT | | | PROTECT FIELD |
| 40 | FLDNPR | | | NOT PROTECT FIELD |
| C1 | FLDNPRMD | | | NOT PROTECT + MDT ON |
| E8 | FLDHPRT | | | PROTECT + HIGH INTENSITY |
| C8 | FLDHNPR | | | NOT PROTECT + HIGH INTENSITY |
| C3 | STDWCC | | | STANDARD WCC |
| C2 | STDWCCMD | | | STANDARD WCC + NO MDT RESET |
| C7 | BIPWCC | | | BIP |
| C6 | BIPWCCMD | | | BIP + NO MDT RESET |
| 3270 KEYS CODE | | | | |
| 60 | KNOACT | | | NO ACTION (SEND BY CP FOR TEST REQ KEY) |
| 6D | KCLEAR | | | CLEAR |
| 6C | KPA1 | | | DUP PA1 |
| 6E | KPA2 | | | PA2 |
| 6B | KPA3 | | | PA3 |
| F0 | KTSTREQ | | | TEST REQ |
| F1 | KPF1 | | | PF1 |
| F2 | KPF2 | | | PF2 |
| F3 | KPF3 | | | PF3 |
| F4 | KPF4 | | | PF4 |
| F5 | KPF5 | | | PF5 |
| F6 | KPF6 | | | PF6 |
| F7 | KPF7 | | | PF7 |
| F8 | KPF8 | | | PF8 |
| F9 | KPF9 | | | PF9 |
| 7A | KPF10 | | | PF10 |
| 7B | KPF11 | | | PF11 |
| 7C | KPF12 | | | PF12 |
| C1 | KPF13 | | | PF13 |
| C2 | KPF14 | | | PF14 |
| C3 | KPF15 | | | PF15 |
| C4 | KPF16 | | | PF16 |
| C5 | KPF17 | | | PF17 |
| C6 | KPF18 | | | PF18 |
| C7 | KPF19 | | | PF19 |
| C8 | KPF20 | | | PF20 |
| C9 | KPF21 | | | PF21 |

```
 Disp Name      Len Key  Description


    4A KPF22             PF22
    4B KPF23             PF23
    4C KPF24             PF24
    7D KENTER            ENTER
    7E KLGTPEN           LIGHT PEN
    88 KQRYINBD          INBOUND QUERY REPLY
```

CROSS REFERENCE (Name  Disp  Value)

```
  ATRBIP   002E 04    KPF10    002E 7A    LSCFHIGH 002E 04    LSCRFLNE 002E ..
| ATRCOLOR 002E 42    KPF11    002E 7B    LSCFMASK 002E 04  | LSCRFMSG 0020 ..
| ATREXTHI 002E 41    KPF12    002E 7C    LSCFMDT  002E 10    LSCRIBUF 0028 ..
| ATRFIELD 002E C0    KPF13    002E C1    LSCFNPRF 002E 02    LSCRIMAD 002E 08
  ATRHIGH  002E 08    KPF14    002E C2    LSCFNULL 002E 08    LSCRINPU 001A ..
  ATRINIB  002E 02    KPF15    002E C3    LSCFPROT 002E 01    LSCRLGTH 002E 0C
  ATRMDT   002E 01    KPF16    002E C4    LSCFRST  002E 40    LSCRLINE 002E 18
  ATRPRT   002E 20    KPF17    002E C5    LSCFRSVD 002E 02  | LSCRLMSG 0022 ..
| ATRPSS   002E 43    KPF18    002E C6  | LSCFSHDW 002E 80    LSCRLTBL 002E 30
  ATRRST   002E ..    KPF19    002E C7    LSCFTABS 002E 08    LSCRMASK 0016 ..
  BIPWCC   002E C7    KPF2     002E F2    LSCFTOP  002E 10  | LSCRMEDS 002C ..
  BIPWCCMD 002E C6    KPF20    002E C8    LSCFWPTR 0000 ..    LSCRNBLN 0010 ..
  EUA      002E 12    KPF21    002E C9    LSCFWRAP 002E 01    LSCRSIZE 0012 ..
  FKE3278  002E 08    KPF22    002E 4A    LSCLLSCB 00 0 30    LSCRSTAT 001C ..
  FLDHNPR  002E C8    KPF23    002E 4B    LSCLLSCD 002E 06    LSCRTABS 0018 ..
  FLDHPRT  002E E8    KPF24    002E 4C    LSCPFXLG 002E 05    LSCRULCO 000E ..
  FLDMRK   002E 1E    KPF3     002E F3    LSCRAINP 0024 ..    LSCRWIDT 000C ..
  FLDNPR   002E 40    KPF4     002E F4    LSCRBYTE 001E ..    LSCRWKWI 002E ..
  FLDNPRMD 002E C1    KPF5     002E F5    LSCRCTL  002E 10    LSCSTALG 002E 14
  FLDPRT   002E 60    KPF6     002E F6  | LSCRCTLB 002E 0E    LSCZDEPT 0004 ..
  IC       002E 13    KPF7     002E F7    LSCRCTLP 002E 12    MFD      002E 2C
  KCLEAR   002E 6D    KPF8     002E F8    LSCRCURL 0014 ..    PT       002E 05
  KENTER   002E 7D    KPF9     002E F9    LSCRDSPH 0008 ..    RA       002E 3C
  KLGTPEN  002E 7E  | KQRYINBD 002E 88    LSCRDSPV 000A ..    SA       002E 28
  KNOACT   002E 60    KTSTREQ  002E F0    LSCRFADD 002E 04    SBA      002E 11
  KPA1     002E 6C    LSCARWLG 002E 05    LSCRFLG1 002E 14    SF       002E 1D
  KPA2     002E 6E    LSCFAROW 002E 20    LSCRFLG2 002E 15    SFE      002E 29
  KPA3     002E 6B    LSCFCHGD 002E 80  | LSCRFLG3 002E 16    STDWCC   002E C3
  KPF1     002E F1    LSCFEOF  002E 20  | LSCRFLG4 002E 17    STDWCCMD 002E C2
```

## LUBTAB AND LUBPR: LOGICAL UNIT BLOCK TABLE

LUBTAB is a device table that has a 2-byte entry for each symbolic name used by CMS/DOS. The simulated LUB has 255 entries: 14 entries for the system logical units and 241 entries for programmer logical units. System devices (SYSRDR, SYSIPT, SYSPCH, SYSLST, and SYSLOG) can be assigned to alternate devices. The system and programmer tables are defined with separate DSECTs: LUBTAB and LUBPR. LUBTAB is pointed to by the LUBPT field in BGCOM. The address of the first LUB entry is in the first byte of the FICL control block. Both LUBTAB and LUBPR are invoked via the LUBTAB macro.

```
   +-----------+-----------+-----------+-----------+
 0 | LUBRDR    | LUBIPT    | LUBPCH    | LUBLST    |
   +-----------+-----------+-----------+-----------+
 8 | LUBLOG    | LUBLNK    | LUBRES    | LUBSLB    |
   +-----------+-----------+-----------+-----------+
10 | LUBRLB    | LUBUSE    | LUBREC    | LUBCLB    |
   +-----------+-----------+-----------+-----------+
18 | LUBVIS    | LUBCAT    |
   +-----------+-----------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LUBRDR | 2 | | |
| 2 | LUBIPT | 2 | | |
| 4 | LUBPCH | 2 | | |
| 6 | LUBLST | 2 | | |
| 8 | LUBLOG | 2 | | |
| A | LUBLNK | 2 | | |
| C | LUBRES | 2 | | |
| E | LUBSLB | 2 | | |
| 10 | LUBRLB | 2 | | |
| 12 | LUBUSE | 2 | | |
| 14 | LUBREC | 2 | | |
| 16 | LUBCLB | 2 | | |
| 18 | LUBVIS | 2 | | |
| 1A | LUBCAT | 2 | | |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LUBCAT | 001A | .. | LUBLOG | 0008 | .. | LUBREC | 0014 | .. | LUBSLB | 000E | .. |
| LUBCLB | 0016 | .. | LUBLST | 0006 | .. | LUBRES | 000C | .. | LUBUSE | 0012 | .. |
| LUBIPT | 0002 | .. | LUBPCH | 0004 | .. | LUBRLB | 0010 | .. | LUBVIS | 0018 | .. |
| LUBLNK | 000A | .. | LUBRDR | 0000 | .. | | | | | | |

```
      +-------------+-------------+-------------+-------------+
    0 |  LUB000     |  LUB001     |  LUB002     |  LUB003     |
      +-------------+-------------+-------------+-------------+
    8 |                                                       |
      =                  LUB004 through LUB239                =
      |                                                       |
      +------------+------------+-----------------------------+
  1E0 |  LUB240    |  LUB241    |
      +------------+------------+
```

Size

LUB LENGTH IN BYTES (LUBL) 02

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | LUB000 | 2 | | |
| 1E2 | LUB241 | 2 | | |

Bits defined in LUB241

| | | |
|---|---|---|
| 00 | LUBP | DISPLACEMENT TO PUB POINTER |
| 01 | LUBJ | DISPLACEMENT TO JIB POINTER |

CROSS REFERENCE (Name Disp Value)

```
LUBJ      01E2 01    LUBP      01E2 00    LUB000    0000 ..
LUBL      .... 02                         LUB241    01E2 ..
```

## NUCON: NUCLEUS CONSTANT AREA

NUCON is the nucleus constant area of CMS. NUCON is invoked via the NUCON macro.

```
     +-----------------------+-----------------------+
   0 |        RSTNPSW        |        RSTOPSW        |
     +-----------------------+-----------------------+
  10 |  ACMSCVT  |  ASYSREF  |        EXTOPSW        |
     +-----------+-----------+-----------------------+
  20 |        SVCOPSW        |        PGMOPSW        |
     +-----------------------+-----------------------+
  30 |        MCKOPSW        |        IOOPSW         |
     +-----------------------+-----------+-----------+
  40 |          CSW          |    CAW    | ////////// |
     +-----------+-----------+-----------+-----------+
  50 | ////////// |  NUCRSV2 |        EXTNPSW        |
     +-----------+-----------+-----------------------+
  60 |        SVCNPSW        |        PGMNPSW        |
     +-----------------------+-----------------------+
  70 |        MCKNPSW        |        IONPSW         |
     +-----------------------+-----------------------+
  80 |                    NUCRSV3                    |
     +-----------+-----+-----+-----------+-----------+
  90 |  NUCRSV4  | N*1 | N*2 |  PERADDR  |  MONCODE  |
     +-----------+-----+-----+-----------+-----------+
  A0 |                   NUCCOPYR                    |
     +-----------------------------------------------+
  C0 |                                               |
     =                    LOWSAVE                    =
     |                                               |
     +-----------------------------------------------+
 160 |                                               |
     =                    FPRLOG                     =
     |                                               |
     +-----------------------------------------------+
 180 |                                               |
     =                    GPRLOG                     =
     |                                               |
     +-----------------------------------------------+
 1C0 |                                               |
     =                    ECRLOG                     =
     |                                               |
     +-----------------------------------------------+
 200 |                                               |
     =                   SYSTEMID                    =
     |                                               |
     +-----------------------------------------------+
 220 |                                               |
     =                   INSTALID                    =
     |                                               |
     +-----------------------+-----+-----+-----------+
 260 |        SYSNAME        | N*3 | N*4 |  DEVICE   |
     +-----+-----+-----------+-----+-----+-----------+
 270 | N*5 | /// |             FEIBM                   |
     +-----+-----+-----------+-----------------------+
    +-----------------------+-----------------------+
280 |       CURRDATE        |       CURRTIME        |
    +-----------+-----------+-----------+-----------+
290 | CURRVIRT  | CURRCPUT  | LASTVIRT  | LASTCPUT  |
    +-----------+-----------+-----------+-----------+
2A0 |       LASTCMND        |       LASTEXEC        |
    +-----------------------+-----------------------+
2B0 |       LASTLMOD        |       LASTTMOD        |
    +-----------------------+-----------------------+
2C0 |                                               |
    =                                               =
    |                                               |
    +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | IPLPSW | 8 | | INITIAL PROGRAM LOADING PSW |
| 8 | IPLCCW1 | 8 | | INITIAL PROGRAM LOADING CCW1 |
| 10 | IPLCCW2 | 8 | | INITIAL PROGRAM LOADING CCW2 |
| 0 | RSTNPSW | 8 | | PSW RESTART NEW PSW |
| 8 | RSTOPSW | 8 | | PSW RESTART OLD PSW |
| 10 | ACMSCVT | 4 | | ADDRESS OF SIMULATED OS CVT |
| 14 | ASYSREF | 4 | | ADDRESS OF NUCLEUS ADDRESS TABLE |
| 18 | EXTOPSW | 8 | | EXTERNAL OLD PSW |
| 20 | SVCOPSW | 8 | | SUPERVISOR CALL OLD PSW |
| 28 | PGMOPSW | 8 | | PROGRAM OLD PSW |
| 30 | MCKOPSW | 8 | | MACHINE-CHECK OLD PSW |
| 38 | IOOPSW | 8 | | INPUT/OUTPUT OLD PSW |
| 40 | CSW | 8 | | CHANNEL STATUS WORD |
| 48 | CAW | 4 | | CHANNEL ADDRESS WORD |
| 4C | NUCRSV1 | 4 | | RESERVED |
| 50 | TIMER | 4 | | INTERVAL TIMER |
| 54 | NUCRSV2 | 4 | | RESERVED |
| 58 | EXTNPSW | 8 | | EXTERNAL NEW PSW |
| 60 | SVCNPSW | 8 | | SUPERVISOR CALL NEW PSW |
| 68 | PGMNPSW | 8 | | PROGRAM NEW PSW |
| 70 | MCKNPSW | 8 | | MACHINE-CHECK NEW PSW |
| 78 | IONPSW | 8 | | INPUT/OUTPUT NEW PSW |
| 80 | CPULOG | 384 | | CPU LOGOUT AREA |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | NUCRSV3 | 0 | | RESERVED FOR FUTURE USE |
| 90 | NUCRSV4 | 4 | | RESERVED FOR FUTURE USE |
| 94 | MONCLASS | 2 | N*1 | MONITOR CALL CLASS NUMBER |
| 96 | PERCODE | 2 | N*2 | PROGRAM EVENT RECORDER CODE |
| 98 | PERADDR | 4 | | PROGRAM EVENT RECORDER ADDRESS |
| 9C | MONCODE | 4 | | MONITOR CALL CODE |
| A0 | NUCCOPYR | 32 | | IBM VM/SP 5664-167' CMS COPYRIGHT |
| C0 | LOWSAVE | 160 | | SAVE AREA FOR 1ST 160 BYTES OF STORAGE |
| 160 | FPRLOG | 32 | | FLOATING POINT REGISTER LOGOUT AREA |
| 180 | GPRLOG | 64 | | GENERAL PURPOSE REGISTER LOGOUT AREA |
| 1C0 | ECRLOG | 64 | | EXTENDED CONTROL REGISTER LOGOUT AREA |
| SYSTEM USAGE | | | | |
| 200 | SYSTEMID | 32 | | SYSTEM NAME AND DATE |
| 220 | INSTALID | 64 | | INSTALLATION IDENTIFICATION |
| 260 | SYSNAME | 8 | | NAME OF IPLED SAVED SYSTEM |
| 268 | IPLADDR | 2 | N*3 | ADDRESS OF IPLED DEVICE |
| 26A | SYSADDR | 2 | N*4 | ADDRESS OF SYSTEM DISK |
| 26C | DEVICE | 4 | | NAME OF DEVICE CAUSING LAST I/O INTERRUPT |
| 270 | HLPADDR | 2 | N*5 | ADDRESS OF HELP DISK |
| 274 | FEIBM | 12 | | COMPONENT ID-IPCS REFERENCED |
| 280 | DIAGTIME | 24 | | BUFFER FOR DIAGNOSE TIMER |
| 280 | CURRDATE | 8 | | CURRENT DATE - MM/DD/YY |
| 288 | CURRTIME | 8 | | CURRENT TIME - HH.MM.SS |
| 290 | CURRVIRT | 4 | | CURRENT ELAPSED VIRTUAL TIME USED |
| 294 | CURRCPUT | 4 | | CURRENT ELAPSED CPU TIME USED |
| 298 | LASTVIRT | 4 | | PREVIOUS ELAPSED VIRTUAL TIME USED |
| 29C | LASTCPUT | 4 | | PREVIOUS ELAPSED CPU TIME USED |
| 2A0 | LASTCMND | 8 | | LAST COMMAND ISSUED |
| 2A8 | PREVCMND | 8 | | NEXT TO LAST COMMAND |
| 2B0 | LASTEXEC | 8 | | LAST EXEC PROCEDURE |
| 2B8 | PREVEXEC | 8 | | NEXT TO LAST EXEC |
| 2C0 | LASTLMOD | 8 | | LAST MODULE LOADMODED INTO MAIN STORAGE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 2C8 | LASTTMOD | 8 | | LAST MODULE LOADMODED INTO TRANSIENT AREA |
| 2D0 | DATIPCMS | 8 | | DATE (MM/DD/YY) AT LAST IPL CMS |
| 2D8 | CLKVALMD | 8 | | TIME (STCK FORM) AT MIDNIGHT (0000 HOURS) |
| MACRO AND TEXT LIBRARY POINTERS | | | | |
| 2E0 | MACDIRC | 0 | | ADDRESS OF MACRO LIBRARY DIRECTORIES |
| 300 | MACLIBL | 0 | | CURRENT MACRO LIBRARY NAMES |
| 348 | TXLIBSV | 4 | | LIBE SAVE AREA TXTLIBS |
| 34C | MACLBSV | 4 | | LIBE SAVE AREA MACLIBS |
| 350 | TOTLIBS | 4 | | TOTAL GLOBAL CHAINS (BYTES) |
| 354 | TXTDIRC | 4 | | ADDRESS OF TEXT LIBRARY DIRECTORIES |
| 358 | TXTLIBS | 0 | | CURRENT TEXT LIBRARY NAMES |
| DEBUG DUMP PARAMETERS | | | | |
| 3A0 | DUMPLIST | 0 | | DEBUG DUMP PARAMETER LIST |
| 3A0 | GRS015 | 4 | | ADDRESS OF GPR SAVE AREA |
| 3A4 | LOC0176 | 4 | | ADDRESS OF LOW CORE SAVE AREA |
| 3A8 | FIRSTDMP | 4 | | ADDRESS OF FIRST LOCATION TO DUMP |
| 3AC | LASTDMP | 4 | | ADDRESS OF LAST LOCATION TO DUMP |
| 3B0 | FRS06 | 4 | | ADDRESS OF FPR SAVE AREA |
| 3B4 | DMPTIT | 4 | | ADDRESS OF DUMP TITLE LINE |
| 3BC | DMPTITLE | 132 | | DUMP TITLE LINE |
| 440 | GLBLTABL | 4 | | RESERVED |
| 448 | ERR$202 | 4 | | USER WILL FILL IN IF NECESSARY |
| BATCH MONITOR INFORMATION | | | | |
| 450 | BATFLAGS | 1 | | BATCH FLAGS |

Bits defined in BATFLAGS

| | | |
|---|---|---|
| 80 | BATRUN | BATCH MONITOR RUNNING |
| 40 | BATLOAD | LOADING BATCH PROCESSOR |
| 20 | BATNOEX | SUPPRESS USER JOB EXECUTION |
| 10 | BATRERR | BATCH READER ERROR |
| 08 | BATCPEX | CP COMMAND EXECUTING |
| 04 | BATUSEX | USER JOB EXECUTING |
| 02 | BATMOVE | MOVEFILE EXECUTING FROM TERMINAL |
| 01 | BATTERM | USER JOB BEING FLUSHED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 451 | BATFLAG2 | 1 | | MORE BATCH FLAGS |
| Bits defined in BATFLAG2 | | | | |
| 80 | BATXLIM | | | USER JOB LIMIT EXCEEDED |
| 40 | BATXCPU | | | CPU TIME EXCEEDED |
| 20 | BATXPRT | | | NUMBER PRINTED LINES EXCEEDED |
| 10 | BATXPUN | | | NUMBER PUNCHED CARDS EXCEEDED |
| 08 | BATDCMS | | | DISABLED CMS COMMAND CALLED |
| 04 | BATIPLSS | | | BATCH IPLING SAVED SYSTEM |
| 02 | BATSTOP | | | BATCH STOPPING AFTER CURRENT JOB |
| 01 | BATSYSAB | | | SYSTEM ABEND IN PROCESS |
| 452 | BATFLAG3 | 1 | | MORE BATCH FLAGS |
| Bits defined in BATFLAG3 | | | | |
| 80 | BATCPFNG | | | CPF LINK FAILURE |
| 454 | ABATPROC | 4 | | MAIN ENTRY |
| 458 | ABATABND | 4 | | USER JOB ABEND ENTRY |
| 45C | ABATLIMT | 4 | | USER JOB LIMITS TABLE |
| 460 | AUSERRST | 4 | | VIRTUAL MACHINE RESTART ENTRY POINT |
| 464 | NUSERFWD | 4 | | FULLWORD FOR EXCLUSIVE USE OF USER |
| 468 | NUCRSV7 | 4 | | RESERVED FOR FUTURE USE |
| DOS LIBRARY POINTERS | | | | |
| 46C | DOSLBSV | 4 | | LIBE SAVE AREA DOSLIBS |
| 470 | DOSDIRC | 0 | | ADDRESS OF DOS LIBRARY DIRECTORIES |
| 490 | DOSLIBL | 0 | | CURRENT DOS LIBRARY NAMES |
| 4D8 | DOSFLAGS | 1 | | DOS SIMULATION FLAGS |
| Bits defined in DOSFLAGS | | | | |
| 80 | DOSMODE | | | DOS ENVIRONMENT FLAG |
| 40 | DOSSVC | | | DOS SVC SIMULATION FLAG |
| 20 | DOSVSAM | | | DOS VSAM RUNNING FLAG |
| 10 | DOSCOMP | | | DOS COMPILER RUNNING FLAG |
| 08 | DOSPIO | | | DOS PRINTER INDICATOR |
| 04 | VSMINSTL | | | VSAM INSTAL FLAG TO RELOCATE DCSS TABLE |
| 4D9 | DOSRC | 1 | | DOS RETURN CODE TO USER |
| 4DC | ALTASAVE | 4 | | ADDRESS OF LTA SAVE AREA |
| 4E0 | ABGCOM | 4 | | ADDRESS OF PARTITION COMM. REGION |
| 4E4 | ASYSCOM | 4 | | ADDRESS OF SYSTEM COMM. REGION |
| 4E8 | ADOSDCSS | 4 | | ADDRESS OF DOS DCSS |
| 4EC | SVC12SAV | 4 | | WORK AREA FOR SVC12 |
| 4F0 | DOSFIRST | 4 | | ADDRESS OF FIRST DOSCB IN CHAIN |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 4F4 | DOSNUM | 2 | | NUMBER DOSCB'S IN CHAIN |
| 4F6 | DOSKPART | 2 | | NUMBER K-BYTES IN DOS PARTITION |
| 4F8 | APPSAVE | 4 | | ADDRESS OF PROBLEM PROGRAM SAVE AREA |
| 4FC | DOSTRANS | 4 | | ADDRESS OF DOS TRANSIENT AREA |
| FREE STORAGE POINTERS | | | | |
| 500 | MAINLIST | 4 | | ADDRESS OF 1ST BLOCK USER FREE STORAGE |
| 504 | MAINSTRT | 4 | | ADDRESS OF THE START OF USER FREE STORAGE |
| 508 | FREELIST | 4 | | ADDRESS OF 1ST BLOCK OF SYSTEM STORAGE |
| 50C | FREENUM | 4 | | NUMBER OF BLOCKS OF SYSTEM STORAGE |
| 510 | MAINHIGH | 4 | | HIGH EXTEND OF USER FREE STORAGE |
| 514 | FREELOWE | 4 | | LOW EXTEND OF SYSTEM FREE STORAGE |
| 518 | FREELOWR | 4 | | LOWER LIMIT OF SYSTEM FREE STORAGE |
| 51C | FREEUPPR | 4 | | UPPER LIMIT OF SYSTEM FREE STORAGE |
| 520 | ANUCEND | 4 | | ADDRESS OF END OF NUCLEUS STORAGE AREA |
| 524 | AUSRAREA | 4 | | ADDRESS OF BEGINNING OF USER AREA |
| 528 | CURRSAVE | 4 | | ADDRESS OF CURRENT SAVE AREA |
| 52C | CODE203 | 2 | | CODE NUMBER OF LAST SVC 203 |
| 52E | FRERESPG | 2 | | AMOUNT OF USER STORAGE TO RESERVE FOR CMS FREE STORAGE (PAGES: >=2) |
| 530 | ADMSFRT | 4 | | DMSFRE WORK AREA |
| V-CONSTANTS FOR CALLING "ADTLKP/ADTNXT/ADTLKW" VIA BALR CALLS | | | | |
| 534 | VCADTLKP | 4 | | BALR EQUIVALENT OF "ADTLKP" |
| 538 | VCADTNXT | 4 | | BALR EQUIVALENT OF "ADTNXT" |
| 53C | VCADTLKW | 4 | | BALR EQUIVALENT OF "ADTLKW" |
| CONSTANT I/O POINTERS | | | | |
| 540 | CURRIOOP | 4 | | ADDRESS OF CURRENT I/O BUFFER |
| 544 | PENDREAD | 4 | | ADDRESS OF PENDING READ OPERATION |
| 548 | PENDWRIT | 4 | | ADDRESS OF PENDING WRITE OPERATION |
| 54C | FSTFINRD | 4 | | ADDRESS OF FINISHED READ BUFFER |
| 550 | LSTFINRD | 4 | | ADDRESS OF LAST FINISHED READ BUFFER |
| 554 | AINTRTBL | 4 | | ADDRESS OF USER INPUT TRANSLATE TABLE |
| 558 | AOUTRTBL | 4 | | ADDRESS OF USER OUTPUT TRANSLATE TABLE |
| 55C | NUMFINRD | 2 | | NUMBER OF FINISHED READ BUFFERS |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 55E | NUMPNDWR | 2 | | NUMBER OF PENDING WRITE OPERATIONS |
| LOADER INFORMATION | | | | |
| 560 | VMSIZE | 4 | | VIRTUAL MEMORY SIZE |
| 564 | ALDRTBLS | 4 | | ADDRESS OF LOADER TABLES |
| 568 | STRTADDR | 4 | | MODULE STARTING ADDRESS |
| 56C | FRSTLOC | 4 | | MODULE BEGINNING ADDRESS |
| 570 | LASTLOC | 4 | | MODULE ENDING ADDRESS |
| 574 | LOCCNT | 4 | | LOADER LOCATION COUNTER |
| 578 | LDRADDR | 4 | | LOADER RETURN ADDRESS |
| 57C | LDRRTCD | 4 | | LOADER RETURN CODE |
| 580 | PSW | 8 | | USER'S STARTING PSW |
| 588 | LDRFLAGS | 4 | | LOADER FLAGS |
| 58C | PRHOLD | 4 | | PSEUDO REGISTER COUNTER |
| 590 | TBENT | 2 | | INITIALIZE TABLE ENTRIES TO ZEROES |
| 592 | UNRES | 1 | | |
| 593 | MODFLGS | 1 | | MOD FLAGS |
| | Bits defined in MODFLGS | | | |
| | 80 NOMAPFLG | | | NOMAP FLAG |
| | 40 CLEAROP | | | CLEAR OPTION FLAG |
| | 20 MODGNDOS | | | MODULE GENERATED WITH DOS OPTION |
| | 10 MODGNALL | | | MODULE GENERATED WITH ALL OPTION |
| | 08 SYSLOAD | | | ALLOW LOAD >FREELOWE OR <TRANS |
| | 04 MDPCALL | | | INDICATE CALL FROM DMSMDP |
| | 02 MOD6 | | | RESERVED FOR FUTURE USE |
| | 01 MOD7 | | | RESERVED FOR FUTURE USE |
| 594 | GET1 | 4 | | DMSLSY R1 SAVE LOC |
| 598 | DSYM | 8 | | DMSLSY WORK SPACE |
| 5A0 | JSYM | 4 | | DMSLSY UNIQUE SYMBOL BASE |
| 5A4 | NXTSYM | 1 | | 1ST CHARACTER OF UNIQUE SYMBOL |
| 5AC | ALIASENT | 4 | | ALIAS ENTRY POINT (DYNAMIC LOAD) |
| 5B0 | DYNAEND | 4 | | MAXIMUM LOAD LOC (DYNAMIC LOAD) |
| OS SIMULATION POINTERS | | | | |
| 5B4 | | 4 | | RESERVED |
| 5B8 | LABFIRST | 4 | | ADDRESS OF FIRST LABSECT |
| 5BC | LABNUM | 2 | | NUMBER OF LABSECT'S |
| 5C0 | FCBTAB | 0 | | FCB CHAIN ANCHOR |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 5C0 | FCBFIRST | 4 | | ADDRESS OF FIRST FCB |
| 5C4 | FCBNUM | 2 | | NUMBER OF FCB'S IN CHAIN |
| 5C7 | OSSFLAGS | 1 | | OS SIMULATION FLAGS |
| | Bits defined in OSSFLAGS | | | |
| | 80 COMPSWT | | | COMPILER SWITCH |
| | 40 OSSMNU | | | DMSSMN UNCONDITIONAL FLAG |
| | 20 OSRESET | | | |
| | 10 OSWAIT | | | |
| | 08 DYLD | | | DYNAMIC LOADING IN PROCESS |
| | 04 DYLIBO | | | OMIT DYNAMIC LIBRARY SCAN |
| | 02 DYLIBNOW | | | DYNAMIC LIBRARY SCAN |
| | 01 DYMBRNM | | | LINKED VIA MEMBER NAME |
| 5C8 | ATLBMODL | 4 | | ADDRESS OF TAPE LABEL PROCESSOR |
| 5CC | LINKLAST | 4 | | ADDRESS OF LAST OS LINKAGE BLOCK |
| 5D0 | LINKSTRT | 4 | | ADDRESS OF ENTRY POINT OF LAST MODULE |
| 5D4 | TAXEADDR | 4 | | TERMINAL ATTENTION EXIT ELEMENT ADDRESS |
| 5D8 | ATSOCPPL | 4 | | ADDRESS OF TEMPORARY PLIST FOR TSO PROGRAMS |
| 5DC | DCBSAV | 4 | | DCB RESTORATION ADDRESS |
| SWITCHES | | | | |
| 5E0 | OPTFLAGS | 1 | | OPTION FLAGS |
| | Bits defined in OPTFLAGS | | | |
| | 80 NOIMPEX | | | NO IMPLIED EXEC COMMANDS |
| | 40 NOIMPCP | | | NO IMPLIED CP COMMANDS |
| | 20 NOSTDSYN | | | NO STANDARD SYNONYMS |
| | 10 NOABBREV | | | NO COMMAND ABBREVIATIONS |
| | 08 NOPAGREL | | | NO AUTOMATIC PAGE RELEASE |
| | 04 NOVMREAD | | | NO AUTOMATIC VM CONSOLE READ |
| 5E1 | MISFLAGS | 1 | | MISCELLANEOUS FLAGS |
| | Bits defined in MISFLAGS | | | |
| | 80 KXSWITCH | | | KILL EXECUTION SWITCH |
| | 40 KOSWITCH | | | KILL TRACING SWITCH |
| | 20 RELPAGES | | | RELEASE PAGES SWITCH |
| | 10 GRAFDEV | | | GRAPHICS CONSOLE |
| | 08 QSWITCH | | | QUIET SW FOR CRD |
| | 04 NODDSK | | | DON'T ACCESS D DISK.. |
| | 02 NEGITS | | | NEGATIVE RETURN CODE FROM DMSITS |
| | 01 ATTNHIT | | | ATTENTION POSTED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 5E2 | MSGFLAGS | 1 | | MESSAGE FLAGS |
| Bits defined in MSGFLAGS | | | | |
| 80 | NOTYPOUT | | | NO TYPING - SET BY EXEC |
| 40 | NOTYPING | | | NO TYPING - SET BY KT |
| 20 | NORDYMSG | | | NO READY MESSAGE TO BE TYPED |
| 10 | NORDYTIM | | | NO TIME ON READY MESSAGE |
| 08 | REDERRID | | | ERROR CODE TO BE TYPED IN RED |
| 04 | NOERRMSG | | | NO ERROR MESSAGES TO BE TYPED |
| 02 | NOERRTXT | | | NO TEXT ON ERROR MESSAGES |
| 01 | SPECLF | | | LINEFEED FOR TYPEWRITER CCW |
| 5E3 | DBGFLAGS | 1 | | DEBUG FLAGS |
| Bits defined in DBGFLAGS | | | | |
| 80 | DBGEXEC | | | DEBUG EXECUTING |
| 40 | DBGPGMCK | | | DEBUG ENTERED BY A PROGRAM CHECK |
| 20 | DBGEXINT | | | DEGUB ENTERED BY AN EXTERNAL INTERRUPT |
| 10 | DBGABN | | | DEBUG ENTERED FROM DMSABN |
| 08 | DBGNSHR | | | NO SHARED-SEGMENT PRESENT |
| 04 | DBGSHR | | | SHARED-SEGMENT PRESENT |
| 02 | DBGRECUR | | | RECURSION FLAG |
| 5E6 | EXECFLAG | 1 | | EXEC FLAGS |
| Bits defined in EXECFLAG | | | | |
| 80 | EXECRUN | | | EXEC COMMAND RUNNING |
| 5E7 | PROTFLAG | 1 | | STORAGE PROTECTION FLAGS |
| Bits defined in PROTFLAG | | | | |
| 80 | PRFPOFF | | | STORAGE PROTECTION IS SHUT OFF |
| 40 | PRFTSYS | | | SYSTEM ROUTINE IN TRANSIENT AREA |
| 20 | PRFUSYS | | | SYSTEM ROUTINE IN USER AREA |
| 5E8 | TSOFLAGS | 1 | | TSO FLAG BYTE |
| Bits defined in TSOFLAGS | | | | |
| 80 | TSOATCNL | | | READ CANCELED BY ATTENTION |
| 5E9 | SUBFLAG | 1 | | CMS SUBSET FLAG-BYTE |
| Bits defined in SUBFLAG | | | | |
| 08 | SUBREJ | | | SUBSET COMMAND REJECT |
| 04 | SUBRTN | | | SUBSET-RETURN |
| 02 | SUBINIT | | | SUBSET INITIALIZATION |
| 01 | SUBACT | | | SUBSET ACTIVE |
| 5EA | | 1 | | RESERVED |
| 5EC | ASYSNAMS | 4 | | |
| 5F0 | | 4 | | RESERVED |
| 5F4 | ADMSLIO | 4 | | |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| V-CONSTANTS FOR CALLING "FSTLKP/FSTLKW" VIA BALR CALLS | | | | |
| 5F8 | VCFSTLKP | 4 | | BALR EQUIVALENT OF "FSTLKP" |
| 5FC | VCFSTLKW | 4 | | BALR EQUIVALENT OF "FSTLKW" |
| NUCLEUS ADDRESS TABLE | | | | |
| 600 | SYSREF | 0 | | |
| 600 | AFVS | 4 | | |
| 604 | AOPSECT | 4 | | |
| 608 | ADEVTAB | 4 | | |
| 60C | AFSTLKP | 4 | | |
| 610 | AGETCLK | 4 | | |
| 614 | AFSTLKW | 4 | | |
| 618 | APIE | 4 | | |
| 61C | AIADT | 4 | | |
| 620 | AUSER | 4 | | |
| 624 | ARDTK | 4 | | |
| 628 | ASCANN | 4 | | |
| 62C | ASSTAT | 4 | | |
| 630 | ATABEND | 4 | | |
| 634 | ASUBSECT | 4 | | |
| 638 | ADMSSVT | 4 | | ADDRESS OF DMSSVT |
| 63C | AWRTK | 4 | | |
| 640 | ASTRINIT | 4 | | |
| 644 | IADT | 4 | | |
| 648 | AFREE | 4 | | |
| 64C | AFRET | 4 | | |
| 650 | ADMSPIOC | 4 | | |
| 654 | APGMSECT | 4 | | |
| 658 | AIOSECT | 4 | | |
| 65C | ADMPEXEC | 4 | | |
| 660 | ADIOSECT | 4 | | |
| 664 | AABNSVC | 4 | | |
| 668 | ADMSERL | 4 | | |
| 66C | ADMSCRD | 4 | | |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 670 | ADMSFREB | 4 | | |
| 674 | ASVCSECT | 4 | | |
| 678 | AADTLKP | 4 | | |
| 67C | AUPUFD | 4 | | |
| 680 | ASTATEXT | 4 | | |
| 684 | AOSRET | 4 | | |
| 688 | ACMSRET | 4 | | |
| 68C | ASCANO | 4 | | |
| 690 | AEXEC | 4 | | |
| 694 | ASTART | 4 | | |
| 698 | AADTLKW | 4 | | |
| 69C | AUSABRV | 4 | | |
| 6A0 | AEXTSECT | 4 | | |
| 6A4 | ASCBPTR | 4 | | |
| 6A8 | ADMSROS | 4 | | |
| 6AC | LDMSROS | 2 | | |
| 6AE | CDMSROS | 2 | | |
| 6B0 | AACTLKP | 4 | | |
| 6B4 | AACTNXT | 4 | | |
| 6B8 | AACTFREE | 4 | | |
| 6BC | AACTFRET | 4 | | |
| 6C0 | AADTNXT | 4 | | |
| 6C4 | ATRKLKP | 4 | | |
| 6C8 | ATRKLKPX | 4 | | |
| 6CC | AQQTRK | 4 | | |
| 6D0 | AQQTRKX | 4 | | |
| 6D4 | AERASE | 4 | | |
| 6D8 | ATYPSRCH | 4 | | |
| 6DC | AUPDISK | 4 | | |
| 6E0 | AKILLEX | 4 | | |
| 6E4 | ATFINIS | 4 | | |
| 6E8 | ARDBUF | 4 | | |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 6EC | AWRBUF | 4 | | |
| 6F0 | AFINIS | 4 | | |
| 6F4 | ASTATE | 4 | | |
| 6F8 | ASTATEW | 4 | | |
| 6FC | APOINT | 4 | | |
| TERMINAL POINTERS | | | | |
| 710 | CONINBLK | 4 | | |
| 716 | CONINBUF | 134 | | |
| 7A0 | CMNDLINE | 160 | | |
| 848 | CMNDLIST | 536 | | |
| A60 | CONSTACK | 320 | | |
| SAVE AREAS | | | | |
| BA0 | FREESAVE | 64 | | |
| BE0 | BALRSAVE | 64 | | |
| C20 | WAITSAVE | 64 | | |
| PERCENT OF AVAILABLE USER STORAGE TO RESERVE FOR GETVIS/FREEVIS USE WHEN RUNNING VSAM | | | | |
| C60 | PCTVSAM | 2 | | 50 PERCENT FOR CMS/VSAM USE |
| BEGINNING AND END OF "IKQLAB" (WHEN IN STORAGE) | | | | |
| C68 | ADIKQLAB | 4 | | SET TO A(IKQLAB) WHEN IT IS IN STORAGE |
| C6C | NDIKQLAB | 4 | | SET TO END OF IKQLAB WHEN IN STORAGE |
| C70 | ALOKTB | 4 | | LOCK/UNLOCK RESOURCE TABLE |
| C74 | ADMSVIB | 4 | | ADDRESS OF VSAM INTERFACE BOOTSTRAP |
| C78 | AVIPWORK | 4 | | ADDRESS OF DMSVIP WORK AREA |
| C7C | VSAMFLG1 | 1 | | VSAM INFORMATION FLAG |
| Bits defined in VSAMFLG1 | | | | |
| 80 | VSAMRUN | | | VSAM SYSTEM LOADED |
| 40 | VSJOBCAT | | | VSAM JOB CATALOG ACTIVE |
| 20 | VIPINIT | | | DMSVIP HAS BEEN INITIALIZED |
| 10 | VSAMSERV | | | CMS/AMS SYSTEM LOADED (AMSERV RUNNING) |
| 08 | VIPSOP | | | OS INTERFACE SVC 2 CALL |
| 04 | VIPTCLOS | | | OS 'TCLOSE' CALL |
| 02 | VSAMSOS | | | OS AMSERV RUNNING |
| C80 | AVSAMSYS | 4 | | ADDRESS OF VSAM SAVED SYSTEM |
| C84 | AAMSSYS | 4 | | ADDRESS OF CMSAMS SAVED SYSTEM |
| C88 | AVSREOJ | 4 | | DMSVSR ENTRY POINT FROM VSAM $$BACLOS |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| C8C | AVSRWORK | 4 | | ADDRESS OF DMSVSR WORK AREA |
| C90 | ACBLIST | 4 | | ACB LIST BUILT BY OPEN/CLOSE |
| C98 | AABWSECT | 4 | | POINTER FOR IPCS |
| C9C | ADMSZIT | 4 | | POINTER FOR IPCS |
| SECONDARY ADDRESS TABLE | | | | |
| CA0 | ADMSTRKA | 4 | | EDF DISK BLOCK ALLOCATE |
| CA4 | ADMSTRKM | 4 | | EDF DISK BLOCK MARKFUNCTION |
| CA8 | ADMSTRKD | 4 | | EDF DISK BLOCK DEALLOCATE |
| CAC | ADMSALU | 4 | | ADDRESS OF RELEASE SUBROUTINE |
| CB0 | ASORTFST | 4 | | ADDRESS OF SORT FST SUBROUTINE |
| CB4 | ADEVSUP | 4 | | CP TO OS DEVICE TYPE CONV TABLE |
| CB8 | ADEVIND | 4 | | DEVICE CONST TABLE INDEX |
| CBC | ATBLIND | 4 | | DEVICE CONSTANTS TABLE |
| CC0 | ABLKIND | 4 | | DEVICE BLKSIZE INDEX |
| CC4 | ALABELRD | 4 | | ADDRESS OF LABEL READ ROUTINE |
| CC8 | ALABELWR | 4 | | ADDRESS OF LABEL WRITE ROUTINE |
| CCC | ADMSLADN | 4 | | LOCATE/ADD REQUESTED ADT |
| CD0 | ADMSBLKR | 4 | | EDF BLOCK READ ROUTINE |
| CD4 | ADMSBLKW | 4 | | EDF BLOCK WRITE ROUTINE |
| CD8 | AABBREV | 4 | | ABBREVIATION RESOLVER IN DMSINA |
| CDC | ADEVSUP2 | 4 | | DEVICE SUPPORT TABLE FOR FBA |
| CE0 | AESTATE | 4 | | EXTENDED PLIST STATE |
| CE4 | AESTATEW | 4 | | EXTENDED PLIST STATE FOR R/W |
| CE8 | AEPOINT | 4 | | EXTENDED PLIST POINT |
| CEC | ATRUNC | 4 | | FILE TRUNCATE FUNCTION |
| CF0 | ABAMSYS | 4 | | POINTER TO CMSBAM DCSS |
| CF4 | NUCSCBLK | 4 | | SCBLOCK CHAIN ANCHOR |
| CF8 | BAMFLAGS | 1 | | CMSBAM SHARED SEGMENT FLAGS |
| Bits defined in BAMFLAGS | | | | |
| 80 | DOSBAM | | | FB-512 SUPPORT AVAILABLE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| CF9 | NUCOSFLG | 1 | | OS LOADER SUPPORT FLAG |
| | Bits defined in NUCOSFLG | | | |
| 80 | NUCOSRUN | | | OSRUN COMMAND ISSUED |
| 40 | NUCSYSDF | | | $SYSLIB DEFINED BY LDR SUPRT |
| 20 | NUCGLOBL | | | GLOBAL DONE BY OSRUN |
| 10 | NUCOSRLD | | | MEMBER LOADED FOR OSRUN |
| CFA | NUCRSVB2 | 2 | | RESERVED |
| D04 | ASSTATX | 4 | | ADDRESS OF SHARED COPY OF SSTAT |
| D08 | ASSTATZ | 4 | | ADDRESS OF DUMMY 2ND SSTAT HBLK |
| D0C | AYSTATX | 4 | | ADDRESS OF SHARED COPY OF YSTAT |
| D10 | AYSTATZ | 4 | | ADDRESS OF DUMMY 2ND YSTAT HBLK |
| D14 | ADMSIOW | 4 | | DMSIOW |
| D18 | ADBGSECT | 4 | | DEBUG WORK AREA |
| D1C | ADMSABW | 4 | | ABEND WORK AREA |
| D20 | ADMSERR | 4 | | DMSERR |
| D24 | ADMSCWT | 4 | | DMSCWT |
| D28 | ADMSCWR | 4 | | DMSCWR |
| D2C | ADMSIOWR | 4 | | DMSIOWR |
| D30 | ADMSITI | 4 | | DMSITI |
| D34 | ADMSABN | 4 | | DMSABN |
| D38 | AABNGO | 4 | | DMSABNGO |
| D3C | ALADAD | 4 | | DMSLADAD |
| D40 | ACITDB | 4 | | DMSCITDB |
| D44 | ADMSITSR | 4 | | DMSITSR |
| D48 | ADMSFRES | 4 | | DMSFRES |
| D4C | ASTGSB | 4 | | DMSSTGSB |
| D50 | AINTAB | 4 | | DMSINTAB |
| D54 | ADMSCAT | 4 | | DMSCAT |
| D58 | ADMSCPF | 4 | | DMSCPF |
| D5C | AEXCAB | 4 | | ADDRESS OF EXEC ABEND RTN |
| D60 | NUCFSTLN | 4 | | FIRST LINE IN PROGRAM STACK |
| D64 | NUCLSTLN | 4 | | LAST  LINE IN PROGRAM STACK |
| D68 | NUCNLSTK | 4 | | NUMBER OF LINES IN PROGRAM STACK |
| D6C | NUCNBSTK | 4 | | NUMBER OF PROGRAM STACK |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| D70 | NUCTIEIN | 8 | | LISTING TIEIN FIELD |
| D78 | NUCAFCHS | 4 | | ADDRESS OF OS FETCH WORK AREA |
| D7C | NUCCBLKS | 4 | | POINTER TO MODS LOADED BY DMSLOS |
| D80 | NUCLDLIB | 0 | | LIST OF GLOBALED LOADLIBS |
| DC8 | NUCLODSV | 4 | | SAVE AREA FOR LOADLIB TOTALS |
| DCC | NUCLDIRC | 0 | | POINTERS TO LOADLIB DIRECTORIES |
| DEC | NUCAPIO | 4 | | DMSPIO ROUTINE |
| DF0 | ATCBPTR | 4 | | DOS TCB ADDRESS |
| DF4 | AGAMSEG | 4 | | GAM/SP ANCHOR BLOCK ADDRESS |
| DF8 | NUCALPHA | 4 | | ADDRESS(START OF CMS NUCLEUS CODE) |
| DFC | NUCSIGMA | 4 | | ADDRESS(START OF NUCLEUS SHARED STOR) |
| E00 | NUCOMEGA | 4 | | ADDRESS(END OF CMS NUCLEUS CODE) |
| E08 | NUCPLIST | 0 | | UNTOKENIZED PLIST |
| E08 | NUCPLCMD | 4 | | ADDRESS OF COMMAND TOKEN |
| E0C | NUCPLBEG | 4 | | ADDRESS OF START OF ARG STRING |
| E10 | NUCPLEND | 4 | | ADDRESS OF END OF ARG STRING |
| E14 | NUCPLFID | 4 | | ADDRESS OF FN FT FM IDENTIFIER |
| E14 | NUCPLSWT | 1 | | 1-BYTE SWITCH USED IN DMSSCN |
| E28 | NUCSZABV | 4 | | SIZE OF AREA ABOVE NUCLEUS FRETED |
| E2C | NUCADFNC | 4 | | DMSFNC ADDRESS |
| E30 | NUCLDR0S | 4 | | SAVE R0 IN DMSLDR (NEW FORM PL) |
| E34 | NUCUPPER | 4 | | UPPERCASE TRANSLATE TABLE |
| E38 | NUCERT | 4 | | DMSERT WORK AREA ADDRESS |
| E3C | NUCXCBLK | 4 | | ANCHOR FOR NUCLEUS |
| E40 | NUCXFRES | 4 | | CUMULATIVE AMOUNT OF TYPE=NUCLEUS FREE STORAGE THAT WILL BE RETAINED BY NUCLEUS EXTENSIONS THROUGH AN ABEND. THIS DOES NOT INCLUDE STORAGE ACCOUNTED FOR IN SCBLOKS IN THE NUCXCBLK CHAIN. THIS FIELD IS USED BY DMSABN WHEN PERFORMING ABEND RECOVERY. |
| E44 | NUCXCBEE | 4 | | SCBLOCK FREE LIST ANCHOR |
| E48 | NUCUSER1 | 4 | | FW FOR EXCLUSIVE USE OF USERS |
| E4C | NUCUSER2 | 4 | | FW FOR EXCLUSIVE USE OF USERS |
| E50 | NUCUSER3 | 4 | | FW FOR EXCLUSIVE USE OF USERS |
| E54 | NUCUSER4 | 4 | | FW FOR EXCLUSIVE USE OF USERS |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| E58 | USERLVL | 4 | | |
| E5C | CMSLVL | 1 | | RESERVED |
| E5D | CMSPROG | 1 | | UNIQUE PROGRAM PRODUCT ID |
| E5E | CMSSERV | 2 | | CMS SERVICE LEVEL IN BINARY |
| E60 | ACMSLVLM | 4 | | ACMSLVLM IS RESERVED FOR IBM USE ONLY. IT CONTAINS A POINTER TO THE MESSAGE QUERY CMSLEVEL ISSUES. |
| E64 | AIUCVTAB | 4 | | ADDRESS OF IUCV TABLE |
| E68 | NUCXEND | 4 | | COUNTER OF END-OF-COMMAND NUCLEUS EXTENTIONS |
| E6C | ABNXTPTR | 4 | | ABEND EXIT ANCHOR |
| E70 | ADMSABXR | 4 | | ABNEXIT RESET ENTRY |
| E74 | AIMMTABL | 4 | | ADDRESS OF IMMEDIATE COMMAND WORK AREA |
| E78 | IMESCAPE | 2 | | IMMEDIATE COMMAND ESCAPE CHARACTER INFORMATION |

Bits defined in first byte of IMESCAPE

| | | | | |
|---|---|---|---|---|
| 80 | IMACTIVE | | | IMMEDIATE COMMAND ESCAPE CHARACTER ACTIVE |

The following references the second byte of IMESCAPE.

| | | | | |
|---|---|---|---|---|
| | IMCHAR | | | IMMEDIATE COMMAND ESCAPE CHARACTER |
| E7A | | 2 | | RESERVED |
| E7C | SVCWKADR | 4 | | ADDRESS OF DMSDOS SVC WORK AREA |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| AABBREV | 0CD8 | .. |
| AABNGO | 0D38 | .. |
| AABNSVC | 0664 | .. |
| AABWSECT | 0C98 | .. |
| AACTFREE | 06B8 | .. |
| AACTFRET | 06BC | .. |
| AACTLKP | 06B0 | .. |
| AACTNXT | 06B4 | .. |
| AADTLKP | 0678 | .. |
| AADTLKW | 0698 | .. |
| AADTNXT | 06C0 | .. |
| AAMSSYS | 0C84 | .. |
| ABAMSYS | 0CF0 | .. |
| ABATABND | 0458 | .. |
| ABATLIMT | 045C | .. |
| ABATPROC | 0454 | .. |
| ABGCOM | 04E0 | .. |
| ABLKIND | 0CC0 | .. |
| ABNXTPTR | 0E6C | .. |
| ACBLIST | 0C90 | .. |
| ACITDB | 0D40 | .. |
| ACMSCVT | 0010 | .. |
| ACMSLVLM | 0E60 | .. |
| ACMSRET | 0688 | .. |
| ACMSSEG | 05F0 | .. |
| ADBGSECT | 0D18 | .. |
| ADEVIND | 0CB8 | .. |
| ADEVSUP | 0CB4 | .. |
| ADEVSUP2 | 0CDC | .. |
| ADEVTAB | 0608 | .. |
| ADIKQLAB | 0C68 | .. |
| ADIOSECT | 0660 | .. |
| ADMPEXEC | 065C | .. |
| ADMSABN | 0D34 | .. |
| ADMSABW | 0D1C | .. |
| ADMSABXR | 0E70 | .. |
| ADMSALU | 0CAC | .. |
| ADMSBLKR | 0CD0 | .. |
| ADMSBLKW | 0CD4 | .. |
| ADMSCAT | 0D54 | .. |
| ADMSCPF | 0D58 | .. |
| ADMSCRD | 066C | .. |
| ADMSCWR | 0D28 | .. |
| ADMSCWT | 0D24 | .. |
| ADMSERL | 0668 | .. |
| ADMSERR | 0D20 | .. |
| ADMSFREB | 0670 | .. |
| ADMSFRES | 0D48 | .. |
| ADMSFRT | 0530 | .. |
| ADMSIOW | 0D14 | .. |
| ADMSIOWR | 0D2C | .. |
| ADMSITI | 0D30 | .. |
| ADMSITSR | 0D44 | .. |
| ADMSLADN | 0CCC | .. |
| ADMSLIO | 05F4 | .. |
| ADMSPIOC | 0650 | .. |
| ADMSROS | 06A8 | .. |
| ADMSTRKA | 0CA0 | .. |
| ADMSTRKD | 0CA8 | .. |
| ADMSTRKM | 0CA4 | .. |
| ADMSVIB | 0C74 | .. |
| ADMSZIT | 0C9C | .. |
| ADOSDCSS | 04E8 | .. |
| AEPOINT | 0CE8 | .. |
| AERASE | 06D4 | .. |
| AESTATE | 0CE0 | .. |
| AESTATEW | 0CE4 | .. |
| AEXCAB | 0D5C | .. |
| AEXEC | 0690 | .. |
| AEXTSECT | 06A0 | .. |
| AFINIS | 06F0 | .. |
| AFREE | 0648 | .. |
| AFRET | 064C | .. |
| AFSTLKP | 060C | .. |
| AFSTLKW | 0614 | .. |
| AFVS | 0600 | .. |
| AGAMSEG | 0DF4 | .. |
| AGETCLK | 0610 | .. |
| AIADT | 061C | .. |
| AIMMTABL | 0E74 | .. |
| AINTAB | 0D50 | .. |
| AINTRTBL | 0554 | .. |
| AIOSECT | 0658 | .. |
| AIUCVTAB | 0E64 | .. |
| AKILLEX | 06E0 | .. |
| ALABELRD | 0CC4 | .. |
| ALABELWR | 0CC8 | .. |
| ALADAD | 0D3C | .. |
| ALDRTBLS | 0564 | .. |
| ALIASENT | 05AC | .. |
| ALOKTB | 0C70 | .. |
| ALTASAVE | 04DC | .. |
| ANUCEND | 0520 | .. |
| AOPSECT | 0604 | .. |
| AOSMODL | 0638 | .. |
| AOSRET | 0684 | .. |
| AOUTRTBL | 0558 | .. |
| APGMSECT | 0654 | .. |
| APIE | 0618 | .. |
| APOINT | 06FC | .. |
| APPSAVE | 04F8 | .. |
| AQQTRK | 06CC | .. |
| AQQTRKX | 06D0 | .. |
| ARDBUF | 06E8 | .. |
| ARDTK | 0624 | .. |
| ASCANN | 0628 | .. |
| ASCANO | 068C | .. |
| ASCBPTR | 06A4 | .. |
| ASORTFST | 0CB0 | .. |
| ASSTAT | 062C | .. |
| ASSTATX | 0D04 | .. |
| ASSTATZ | 0D08 | .. |
| ASTART | 0694 | .. |
| ASTATE | 06F4 | .. |
| ASTATEW | 06F8 | .. |
| ASTATEXT | 0680 | .. |
| ASTGSB | 0D4C | .. |
| ASTRINIT | 0640 | .. |
| ASUBSECT | 0634 | .. |
| ASVCSECT | 0674 | .. |
| ASYSCOM | 04E4 | .. |
| ASYSNAMS | 05EC | .. |
| ASYSREF | 0014 | .. |
| ATABEND | 0630 | .. |
| ATBLIND | 0CBC | .. |
| ATCBPTR | 0DF0 | .. |
| ATFINIS | 06E4 | .. |
| ATLBMODL | 05C8 | .. |
| ATRKLKP | 06C4 | .. |
| ATRKLKPX | 06C8 | .. |
| ATRUNC | 0CEC | .. |
| ATSOCPPL | 05D8 | .. |
| ATTNHIT | 05E1 | 01 |
| ATYPSRCH | 06D8 | .. |
| AUPDISK | 06DC | .. |
| AUPUFD | 067C | .. |
| AUSABRV | 069C | .. |
| AUSER | 0620 | .. |
| AUSERRST | 0460 | .. |
| AUSRAREA | 0524 | .. |
| AVIPWORK | 0C78 | .. |
| AVSAMSYS | 0C80 | .. |
| AVSREOJ | 0C88 | .. |
| AVSRWORK | 0C8C | .. |
| AWRBUF | 06EC | .. |
| AWRTK | 063C | .. |
| AYSTATX | 0D0C | .. |
| AYSTATZ | 0D10 | .. |
| BALRSAVE | 0BE0 | .. |
| BAMFLAGS | 0CF8 | .. |
| BATCPEX | 0450 | 08 |
| BATCPFNG | 0452 | 80 |
| BATDCMS | 0451 | 08 |
| BATFLAGS | 0450 | .. |
| BATFLAG2 | 0451 | .. |
| BATFLAG3 | 0452 | .. |
| BATIPLSS | 0451 | 04 |
| BATLOAD | 0450 | 40 |
| BATMOVE | 0450 | 02 |
| BATNOEX | 0450 | 20 |
| BATRERR | 0450 | 10 |
| BATRUN | 0450 | 80 |
| BATSTOP | 0451 | 02 |
| BATSYSAB | 0451 | 01 |
| BATTERM | 0450 | 01 |
| BATUSEX | 0450 | 04 |
| BATXCPU | 0451 | 40 |
| BATXLIM | 0451 | 80 |
| BATXPRT | 0451 | 20 |
| BATXPUN | 0451 | 10 |
| CAW | 0048 | .. |
| CDMSROS | 06AE | .. |
| CLEAROP | 0593 | 40 |
| CLKVALMD | 02D8 | .. |
| CMNDLINE | 07A0 | .. |
| CMNDLIST | 0848 | .. |
| CMSLVL | 0E5C | .. |
| CMSPROG | 0E5D | .. |
| CMSSERV | 0E5E | .. |
| CODE203 | 052C | .. |
| COMPSWT | 05C7 | 80 |
| CONINBLK | 0710 | .. |
| CONINBUF | 0716 | .. |
| CONSTACK | 0A60 | .. |
| CPULOG | 0080 | .. |
| CSW | 0040 | .. |
| CURRCPUT | 0294 | .. |
| CURRDATE | 0280 | .. |
| CURRIOOP | 0540 | .. |
| CURRSAVE | 0528 | .. |
| CURRTIME | 0288 | .. |
| CURRVIRT | 0290 | .. |
| DATIPCMS | 02D0 | .. |
| DBGABN | 05E3 | 10 |
| DBGEXEC | 05E3 | 80 |
| DBGEXINT | 05E3 | 20 |
| DBGFLAGS | 05E3 | .. |
| DBGNSHR | 05E3 | 08 |
| DBGPGMCK | 05E3 | 40 |
| DBGRECUR | 05E3 | 02 |
| DBGSHR | 05E3 | 04 |
| DCBSAV | 05DC | .. |
| DCSSAVAL | 05EA | 80 |
| DCSSCPNV | 05EA | 20 |
| DCSSFLAG | 05EA | .. |
| DCSSJLNS | 05EA | 01 |
| DCSSLDED | 05EA | 40 |
| DCSSLDSD | 05EA | 10 |
| DCSSOVLP | 05EA | 02 |
| DCSSVTLD | 05EA | 04 |
| DCSSVTNA | 05EA | 08 |
| DEVICE | 026C | .. |
| DIAGTIME | 0280 | .. |
| DMPTIT | 03B4 | .. |
| DMPTITLE | 03BC | .. |
| DOSBAM | 0CF8 | 80 |
| DOSCOMP | 04D8 | 10 |
| DOSDIRC | 0470 | .. |
| DOSFIRST | 04F0 | .. |
| DOSFLAGS | 04D8 | .. |
| DOSKPART | 04F6 | .. |
| DOSLBSV | 046C | .. |
| DOSLIBL | 0490 | .. |
| DOSMODE | 04D8 | 80 |
| DOSNUM | 04F4 | .. |
| DOSPIO | 04D8 | 08 |
| DOSRC | 04D9 | .. |
| DOSSVC | 04D8 | 40 |
| DOSTRANS | 04FC | .. |
| DOSVSAM | 04D8 | 20 |
| DSYM | 0598 | .. |
| DUMPLIST | 03A0 | .. |
| DYLD | 05C7 | 08 |
| DYLIBNOW | 05C7 | 02 |
| DYLIBO | 05C7 | 04 |
| DYMBRNM | 05C7 | 01 |
| DYNAEND | 05B0 | .. |
| ECRLOG | 01C0 | .. |
| ERR$202 | 0448 | .. |
| EXECFLAG | 05E6 | .. |
| EXECRUN | 05E6 | 80 |
| EXTNPSW | 0058 | .. |
| EXTOPSW | 0018 | .. |
| FCBFIRST | 05C0 | .. |
| FCBNUM | 05C4 | .. |
| FCBTAB | 05C0 | .. |
| FEIBM | 0274 | .. |
| FIRSTDMP | 03A8 | .. |
| FPRLOG | 0160 | .. |
| FREELIST | 0508 | .. |
| FREELOWE | 0514 | .. |
| FREELOWR | 0518 | .. |

| | | |
|---|---|---|
| FREENUM | 050C | .. |
| FREESAVE | 0BA0 | .. |
| FREEUPPR | 051C | .. |
| FRERESPG | 052E | .. |
| FRSTLOC | 056C | .. |
| FRS06 | 03B0 | .. |
| FSTFINRD | 054C | .. |
| GET1 | 0594 | .. |
| GLBLTABL | 0440 | .. |
| GPRLOG | 0180 | .. |
| GRAFDEV | 05E1 | 10 |
| GRS015 | 03A0 | .. |
| HLPADDR | 0270 | .. |
| IADT | 0644 | .. |
| IMACTIVE | 0E78 | 80 |
| IMESCAPE | 0E78 | .. |
| INSTALID | 0220 | .. |
| IONPSW | 0078 | .. |
| IOOPSW | 0038 | .. |
| IPLADDR | 0268 | .. |
| IPLCCW1 | 0008 | .. |
| IPLCCW2 | 0010 | .. |
| IPLPSW | 0000 | .. |
| JSYM | 05A0 | .. |
| KOSWITCH | 05E1 | 40 |
| KXSWITCH | 05E1 | 80 |
| LABFIRST | 05B8 | .. |
| LABNUM | 05BC | .. |
| LASTCMND | 02A0 | .. |
| LASTCPUT | 029C | .. |
| LASTDMP | 03AC | .. |
| LASTEXEC | 02B0 | .. |
| LASTLMOD | 02C0 | .. |
| LASTLOC | 0570 | .. |
| LASTTMOD | 02C8 | .. |
| LASTVIRT | 0298 | .. |
| LDMSROS | 06AC | .. |
| LDRADDR | 0578 | .. |
| LDRFLAGS | 0588 | .. |
| LDRRTCD | 057C | .. |
| LINKLAST | 05CC | .. |
| LINKSTRT | 05D0 | .. |
| LOCCNT | 0574 | .. |
| LOC0176 | 03A4 | .. |
| LOWSAVE | 00C0 | .. |
| LSTFINRD | 0550 | .. |
| MACDIRC | 02E0 | .. |
| MACLBSV | 034C | .. |
| MACLIBL | 0300 | .. |
| MAINHIGH | 0510 | .. |
| MAINLIST | 0500 | .. |
| MAINSTRT | 0504 | .. |
| MCKNPSW | 0070 | .. |
| MCKOPSW | 0030 | .. |
| MDPCALL | 0593 | 04 |
| MISFLAGS | 05E1 | .. |
| MODFLGS | 0593 | .. |
| MODGNALL | 0593 | 10 |
| MODGNDOS | 0593 | 20 |
| MOD6 | 0593 | 02 |
| MOD7 | 0593 | 01 |
| MONCLASS | 0094 | .. |
| MONCODE | 009C | .. |
| MSGFLAGS | 05E2 | .. |
| NDIKQLAB | 0C6C | .. |
| NEGITS | 05E1 | 02 |
| NOABBREV | 05E0 | 10 |
| NODDSK | 05E1 | 04 |
| NOERRMSG | 05E2 | 04 |
| NOERRTXT | 05E2 | 02 |
| NOIMPCP | 05E0 | 40 |
| NOIMPEX | 05E0 | 80 |
| NOMAPFLG | 0593 | 80 |
| NOPAGREL | 05E0 | 08 |
| NORDYMSG | 05E2 | 20 |
| NORDYTIM | 05E2 | 10 |
| NOSTDSYN | 05E0 | 20 |
| NOTYPING | 05E2 | 40 |
| NOTYPOUT | 05E2 | 80 |
| NOVMREAD | 05E0 | 04 |
| NUCADFNC | 0E2C | .. |
| NUCAFCHS | 0D78 | .. |
| NUCALPHA | 0DF8 | .. |
| NUCAPIO | 0DEC | .. |
| NUCCBLKS | 0D7C | .. |
| NUCCOPYR | 00A0 | .. |
| NUCERT | 0E38 | .. |
| NUCFSTLN | 0D60 | .. |
| NUCGLOBL | 0CF9 | 20 |
| NUCLDIRC | 0DCC | .. |
| NUCLDLIB | 0D80 | .. |
| NUCLDROS | 0E30 | .. |
| NUCLODSV | 0DC8 | .. |
| NUCLSTLN | 0D64 | .. |
| NUCNBSTK | 0D6C | .. |
| NUCNLSTK | 0D68 | .. |
| NUCOMEGA | 0E00 | .. |
| NUCOSFLG | 0CF9 | .. |
| NUCOSRLD | 0CF9 | 10 |
| NUCOSRUN | 0CF9 | 80 |
| NUCPLBEG | 0E0C | .. |
| NUCPLCMD | 0E08 | .. |
| NUCPLEND | 0E10 | .. |
| NUCPLFID | 0E14 | .. |
| NUCPLIST | 0E08 | .. |
| NUCPLSWT | 0E14 | .. |
| NUCRSVB2 | 0CFA | .. |
| NUCRSV1 | 004C | .. |
| NUCRSV2 | 0054 | .. |
| NUCRSV3 | 0080 | .. |
| NUCRSV4 | 0090 | .. |
| NUCRSV7 | 0468 | .. |
| NUCSCBLK | 0CF4 | .. |
| NUCSIGMA | 0DFC | .. |
| NUCSYSDF | 0CF9 | 40 |
| NUCSZABV | 0E28 | .. |
| NUCTIEIN | 0D70 | .. |
| NUCUPPER | 0E34 | .. |
| NUCUSER1 | 0E48 | .. |
| NUCUSER2 | 0E4C | .. |
| NUCUSER3 | 0E50 | .. |
| NUCUSER4 | 0E54 | .. |
| NUCXCBEE | 0E44 | .. |
| NUCXCBLK | 0E3C | .. |
| NUCXEND | 0E68 | .. |
| NUCXFRES | 0E40 | .. |
| NUMFINRD | 055C | .. |
| NUMPNDWR | 055E | .. |
| NUSERFWD | 0464 | .. |
| NXTSYM | 05A4 | .. |
| OPTFLAGS | 05E0 | .. |
| OSMODLDW | 05B4 | .. |
| OSRESET | 05C7 | 20 |
| OSSFLAGS | 05C7 | .. |
| OSSMNU | 05C7 | 40 |
| OSWAIT | 05C7 | 10 |
| PCTVSAM | 0C60 | .. |
| PENDREAD | 0544 | .. |
| PENDWRIT | 0548 | .. |
| PERADDR | 0098 | .. |
| PERCODE | 0096 | .. |
| PGMNPSW | 0068 | .. |
| PGMOPSW | 0028 | .. |
| PREVCMND | 02A8 | .. |
| PREVEXEC | 02B8 | .. |
| PRFPOFF | 05E7 | 80 |
| PRFTSYS | 05E7 | 40 |
| PRFUSYS | 05E7 | 20 |
| PRHOLD | 058C | .. |
| PROTFLAG | 05E7 | .. |
| PSW | 0580 | .. |
| QSWITCH | 05E1 | 08 |
| REDERRID | 05E2 | 08 |
| RELPAGES | 05E1 | 20 |
| RSTNPSW | 0000 | .. |
| RSTOPSW | 0008 | .. |
| SPECLF | 05E2 | 01 |
| STRTADDR | 0568 | .. |
| SUBACT | 05E9 | 01 |
| SUBFLAG | 05E9 | .. |
| SUBINIT | 05E9 | 02 |
| SUBREJ | 05E9 | 08 |
| SUBRTN | 05E9 | 04 |
| SVCNPSW | 0060 | .. |
| SVCOPSW | 0020 | .. |
| SVCWKADR | 0E7C | .. |
| SVC12SAV | 04EC | .. |
| SYSADDR | 026A | .. |
| SYSLOAD | 0593 | 08 |
| SYSNAME | 0260 | .. |
| SYSREF | 0600 | .. |
| SYSTEMID | 0200 | .. |
| TAXEADDR | 05D4 | .. |
| TBENT | 0590 | .. |
| TIMER | 0050 | .. |
| TOTLIBS | 0350 | .. |
| TSOATCNL | 05E8 | 80 |
| TSOFLAGS | 05E8 | .. |
| TXLIBSV | 0348 | .. |
| TXTDIRC | 0354 | .. |
| TXTLIBS | 0358 | .. |
| UNRES | 0592 | .. |
| USERLVL | 0E58 | .. |
| VCADTLKP | 0534 | .. |
| VCADTLKW | 053C | .. |
| VCADTNXT | 0538 | .. |
| VCFSTLKP | 05F8 | .. |
| VCFSTLKW | 05FC | .. |
| VIPINIT | 0C7C | 20 |
| VIPSOP | 0C7C | 08 |
| VIPTCLOS | 0C7C | 04 |
| VMSIZE | 0560 | .. |
| VSAMFLG1 | 0C7C | .. |
| VSAMRUN | 0C7C | 80 |
| VSAMSERV | 0C7C | 10 |
| VSAMSOS | 0C7C | 02 |
| VSJOBCAT | 0C7C | 40 |
| VSMINSTL | 04D8 | 04 |
| WAITSAVE | 0C20 | .. |

## OCTS: OPEN/CLOSE TRANSIENT SVA PLIST

OCTS describes the fields in the OPEN/CLOSE transient SVA PLIST used in the CMS/DOS environment. OCTS is invoked by the OCTS macro.

```
               +-----------------------+-----------------------+
             0 |       OCTGVSIZ        |       OCTSPPSV        |
               +-----------------------+-----------------------+
             8 |       OCTMONSV        |       OCTMONAD        |
               +-----------------------+-----------------------+
            10 |       OCTDXBUF        |       OCTDTFLP        |
               +-----------+-----+-----+-----------------------+
            18 | OCTDXLEN  | 0*1 | 0*2 |       OCTSTADR        |
               +-----------+-----+-----+-----------------------+
            20 |                                               |
               =                   USRREGSV                    =
               |                                               |
               +-----------------------------------------------+
            78 |                                               |
               =                   MONREGSV                    =
               |                                               |
               +-----------------------------------------------+
            C8 |                                               |
               =                   DLBLAREA                    =
               |                                               |
|          128 |                                               |
               +-----------------------------------------------+
```

**Size**

| | | |
|---|---|---|
| USER REG SAVE AREA LENGTH IN BYTES | (USRRGLEN) | 058 |
| OCTS LENGTH IN DOUBLEWORDS | (OCTSDWDS) | 026 |
| OCTS LENGTH IN BYTES | (OCTSLEN) | 130 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | OCTSPLST | 0 | | |
| 0 | OCTGVSIZ | 4 | | SIZE OF OCTS |
| 4 | OCTSPPSV | 4 | | PP REG SAVE AREA POINTER |
| 8 | OCTMONSV | 4 | | IJJGMTOP SAVE AREA POINTER |
| C | OCTMONAD | 4 | | ADDRESS OF $IJJGTOP |
| 10 | OCTDXBUF | 4 | | RESERVED FOR VSAM SPACE MANAGEMENT |
| 14 | OCTDTFLP | 4 | | POINTER TO NEXT ENTRY IN DTF LST |
| 18 | OCTDXLEN | 2 | | RESERVED FOR VSAM SPACE MANAGEMENT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1A | OCT1FLAG | 1 | 0*1 | FLAG BYTE |
| Bits defined in OCT1FLAG | | | | |
| 80 | OCTCPDI | | | CP/DI INDICATOR |
| 40 | OCTDITYP | | | DTFDI INDICATOR |
| 20 | OCTSPMGT | | | RESERVED FOR VSAM SPACE MANAGEMENT |
| 1B | OCT2FLAF | 1 | 0*2 | SECOND FLAG BYTE...UNUSED |
| 1C | OCTSTADR | 4 | | ADDRESS OF START OF OCTS PLIST |
| Bits defined in OCTSTADR | | | | |
| 20 | OCTSEXTN | | | |
| 20 | USRREGSV | 88 | | USERS REG SAVE AREA |
| 78 | MONREGSV | 80 | | IJJGMTOP SAVE AREA |
| C8 | WORKAREA | | | |
| C8 | DLBLAREA | 104 | | RESERVED FOR VSAM SPACE MANAGEMENT |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DLBLAREA | 00C8 | .. | OCTDXLEN | 0018 | .. | OCTSEXTN | 001C | 20 | OCT1FLAG | 001A | .. |
| MONREGSV | 0078 | .. | OCTGVSIZ | 0000 | .. | OCTSLEN | .... | ** | OCT2FLAF | 001B | .. |
| OCTCPDI | 001A | 80 | OCTMONAD | 000C | .. | OCTSPLST | 0000 | .. | USRREGSV | 0020 | .. |
| OCTDITYP | 001A | 40 | OCTMONSV | 0008 | .. | OCTSPMGT | 001A | 20 | USRRGLEN | .... | 58 |
| OCTDTFLP | 0014 | .. | OCTSDWDS | .... | 26 | OCTSPPSV | 0004 | .. | WORKAREA | 00C8 | .. |
| OCTDXBUF | 0010 | .. | OCTSEND | 0130 | .. | OCTSTADR | 001C | .. | | | |

## OPSECT: MAJOR CSECT FOR ALL I/O OPERATION LISTS

OPSECT describes the fields that several programs use as parameter lists for reading and writing on disks and other devices. The OPSECT CSECT is pointed to by the AOPSECT field in NUCON. OPSECT is invoked via the IO macro.

```
          +-------------------------------------------------+
        0 |                      CMSOP                      |
          +-------------------------------------------------+
        8 |                    FILENAME                     |
          +-------------------------------------------------+
       10 |                    FILETYPE                     |
          +-----------+-------------------------------------+
       18 | FILEMODE  | ////////// |        FILEBUFF        |
          +-----------+------------+-----------+------------+
       20 |        FILEBYTE        | FILEFORM  | ////////// |
          +------------------------+-----------+------------+
       28 |        FILEREAD        |        FILEITEM        |
          +------------------------+------------------------+
       30 |        FILECOUT        |        FILEWPTR        |
          +------------------------+------------------------+
       38 |        FILERPTR        |        SAVER14         |
          +------------------------+------------------------+
       40 |        SAVER15         |         SAVER0         |
          +------------------------+------------------------+
       48 |         SAVER1         |        CMSNAME         |
          +------------------------+------------------------+
       50 |    CMSNAME (cont.)     |        CONREAD         |
          +------------------------+------------------------+
       58 |    CONREAD (cont.)     |        CONRDBUF        |
          +-----------+------------+------------------------+
       60 | CONRDCOD  |  CONRDCNT  | ////////////////////// |
          +-----------+------------+------------------------+
       68 |                    WAITLIST                     |
          +-------------------------------------------------+
       70 |                    CONWRITE                     |
          +------------------------+-----+-----+------------+
|      78 |        CONWRBUF        | 0*1 | /// |  CONWRCNT  |
          +------------------------+-----+-----+------------+
       80 |                     WAITLST                     |
          +------------------------+------------------------+
|      88 |        WAITDEV         | ////////////////////// |
          +------------------------+------------------------+
       90 | /////////////////////////////////////////////// |
          +-------------------------------------------------+
       98 |                     CONPCCW                     |
          +-------------------------------------------------+
       A0 |                     CONCCWS                     |
          +-------------------------------------------------+
|      A8 |                                                 |
          +-------------------------------------------------+
       B0 |                     READLST                     |
          +------------------------+-----------+------------+
       B8 |         RDBUFF         |   RDCCW   |  RDCOUNT   |
          +------------------------+-----------+------------+
       C0 |                    PUNCHLST                     |
          +------------------------+------------------------+
       C8 |        PUNBUFF         |        PUNCOUNT        |
          +------------------------+------------------------+
       D0 |                    PRINTLST                     |
          +------------------------+------------------------+
        +-------------------------+-------------------------+
     D8 |         PRBUFF          |          PRCNT          |
        +-------------------------+-------------------------+
     E0 |                      TAPELIST                     |
        +-------------------------+-------------------------+
     E8 |                      TAPEOPER                     |
        +-------------------------+------+------------------+
     F0 |         TAPEDEV         | 0*2  |     TAPEBUFF     |
        +-------------------------+------+------------------+
     F8 |         TAPESIZE        |         TAPECOUT        |
        +-------------------------+-------------------------+
    100 |                       CLOSIO                      |
        +---------------------------------------------------+
    108 |                      CLOSIODV                     |
        +---------------------------------------------------+
    110 |                                                   |
        = ////////////////////////////////////////////////  =
        |                                                   |
        +-------------------------+-------------------------+
    148 |         EXLEVEL         |          EXF1           |
        +-------------------------+-------------------------+
    150 |         EXNUM           |          EXADD          |
        +-------------------------+-------------------------+
    158 |         EXGLOBAL        | //////////////////////  |
        +-------------------------+------+------------------+
    160 |         FCBIO           | 0*3  
        +-------------------------+------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PLIST | 0 | | |
| 0 | CMSOP | 8 | | I/O OPERATION COMMAND WORD |
| 8 | FILENAME | 8 | | FILE NAME |
| 10 | FILETYPE | 8 | | FILE TYPE |
| 18 | FILEMODE | 2 | | FILE MODE |
| 1A | | 2 | | RESERVED |
| 1C | FILEBUFF | 4 | | INPUT-OUTPUT BUFFER |
| 1C | AFST | 4 | | |
| 1C | IOAREA | 4 | | BUFFER AREA LOCATION |
| 20 | FILEBYTE | 4 | | DATA COUNT |
| 20 | IOLENGTH | 4 | | BUFFER LENGTH |
| 24 | FILEFORM | 2 | | FILE FORMAT: FIXED/VARIABLE RECORDS |
| 26 | | 2 | | RESERVED |
| 28 | FILEREAD | 4 | | READ DATA COUNT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 2C | FILEITEM | 4 | | ITEM NUMBER |
| 2C | POINTERS | 4 | | |
| 30 | FILECOUT | 4 | | NUMBER OF ITEMS |
| 34 | FILEWPTR | 4 | | WRITE POINTER |
| 38 | FILERPTR | 4 | | READ POINTER |
| IMMEDIATE REGISTER SAVE AREA | | | | |
| 3C | SAVER14 | 4 | | TEMPORARY R14 SAVE |
| 40 | SAVER15 | 4 | | TEMPORARY R15 SAVE |
| 44 | SAVER0 | 4 | | TEMPORARY R0 SAVE |
| 48 | SAVER1 | 4 | | TEMPORARY R1 SAVE |
| 4C | CMSNAME | 8 | | "DEFAULT FILENAME" |
| CONSOLE PARAMETER LISTS READ CONSOLE | | | | |
| 54 | CONREAD | 8 | | TERMINAL READ |
| 5C | CONRDBUF | 4 | | ADDRESS OF INPUT BUFFER |
| 60 | CONRDCOD | 1 | | TRANSLATE CODE |
| 61 | | 1 | | RESERVED |
| 62 | CONRDCNT | 2 | | DATA BYTE COUNT |
| 64 | | 4 | | RESERVED |
| CONSOLE WAIT LIST | | | | |
| 68 | WAITLIST | 8 | | |
| WRITE CONSOLE | | | | |
| 70 | CONWRITE | 8 | | |
| 78 | CONWRBUF | 4 | | LOCATION OF MESSAGE TEXT |
| 7C | CONWRCOD | 1 | 0*1 | COLOR CODE |
| 7D | | 1 | | RESERVED |
| 7E | CONWRCNT | 2 | | LENGTH OF MESSAGE TEXT |
| WAIT PARAMETER LIST | | | | |
| 80 | WAITLST | 8 | | |
| 88 | WAITDEV | 4 | | |
| 8C | | 12 | | RESERVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| INTERACTIVE CONSOLE COMMUNICATION CHANNEL PROGRAM | | | | |
| 98 | CONPCCW | 8 | | WRITE FOR APL ASCII PROMPT |
| A0 | CONCCWS | 8 | | NORMAL READ OR WRITE |
| A8 | | 8 | | NOP TO GET CE AND DE TOGETHER |
| READER PARAMETER LIST | | | | |
| B0 | READLST | 8 | | |
| B8 | RDBUFF | 4 | | BUFFER ADDRESS |
| BC | RDCCW | 2 | | CCW BYTE COUNT |
| BE | RDCOUNT | 2 | | BYTES ACTUALLY READ |
| CARD PUNCH PARAMETER LIST | | | | |
| C0 | PUNCHLST | 8 | | |
| C8 | PUNBUFF | 4 | | PUNCH BUFFER ADDRESS |
| CC | PUNCOUNT | 4 | | PUNCH CCW COUT |
| PRINTER PARAMETER LIST | | | | |
| D0 | PRINTLST | 8 | | |
| D8 | PRBUF | 4 | | PRINTER BUFFER ADDRESS |
| DC | PRCNT | 4 | | PRINT DATA COUNT |
| TAPE PARAMETER LIST | | | | |
| E0 | TAPELIST | 8 | | |
| E8 | TAPEOPER | 8 | | TAPE OPERATION COMMAND |
| F0 | TAPEDEV | 4 | | TAPE SYMBOLIC DEVICE |
| F4 | TAPEMASK | 1 | 0*2 | SET MODE |
| F5 | TAPEBUFF | 3 | | BUFFER LOCATION |
| F8 | TAPESIZE | 4 | | |
| FC | TAPECOUT | 4 | | TAPE COUNTER |
| CLOSE OUT DEVICE DEPENDENT DATA SET ON UNIT RECORD EQUIPMENT | | | | |
| 100 | CLOSIO | 8 | | |
| 108 | CLOSIODV | 8 | | DEVICE TYPE |
| 110 | | 56 | | RESERVED |
| STORAGE FOR EXEC BOOTSTRAP | | | | |
| 148 | EXLEVEL | 4 | | EXEC "LEVEL" |
| 14C | EXF1 | 4 | | (FOLLOWS EXLEVEL) |
| 150 | EXNUM | 4 | | NUMBER DOUBLEWORDS FREE STORAGE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 154 | EXADD | 4 | | ADDRESS OF "EXECTOR" CORE-IMAGE |
| 158 | EXGLOBAL | 4 | | ADDRESS OF EXEC GLOBAL AREA |
| \| 15C | | 4 | | RESERVED |

STORAGE FOR OS MACRO SIMULATION ROUTINES

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 160 | FCBIO | 4 | | ADDRESS OF LAST FCB USED DURING I/O |
| 164 | OSIOTYPE | 1 | 0*3 | OS ACCESS METHOD TYPE |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AFST | 001C | .. | EXF1 | 014C | .. | FILEWPTR | 0034 | .. | READLST | 00B0 | .. |
| CLOSIO | 0100 | .. | \| EXGLOBAL | 0158 | .. | IOAREA | 001C | .. | SAVER0 | 0044 | .. |
| CLOSIODV | 0108 | .. | EXLEVEL | 0148 | .. | IOLENGTH | 0020 | .. | SAVER1 | 0048 | .. |
| CMSNAME | 004C | .. | EXNUM | 0150 | .. | OSIOTYPE | 0164 | .. | SAVER14 | 003C | .. |
| CMSOP | 0000 | .. | FCBIO | 0160 | .. | PLIST | 0000 | .. | SAVER15 | 0040 | .. |
| CONCCWS | 0098 | .. | FILEBUFF | 001C | .. | POINTERS | 002C | .. | TAPEBUFF | 00F5 | .. |
| CONPCCW | 00A0 | .. | FILEBYTE | 0020 | .. | PRBUF | 00D8 | .. | TAPECOUT | 00FC | .. |
| CONRDBUF | 005C | .. | FILECOUT | 0030 | .. | PRCNT | 00DC | .. | TAPEDEV | 00F0 | .. |
| CONRDCNT | 0062 | .. | FILEFORM | 0024 | .. | PRINTLST | 00D0 | .. | TAPELIST | 00E0 | .. |
| CONRDCOD | 0060 | .. | FILEITEM | 002C | .. | PUNBUFF | 00C8 | .. | TAPEMASK | 00F4 | .. |
| CONREAD | 0054 | .. | FILEMODE | 0018 | .. | PUNCHLST | 00C0 | .. | TAPEOPER | 00E8 | .. |
| CONWRBUF | 0078 | .. | FILENAME | 0008 | .. | PUNCOUNT | 00CC | .. | TAPESIZE | 00F8 | .. |
| CONWRCNT | 007E | .. | FILEREAD | 0028 | .. | RDBUFF | 00B8 | .. | WAITDEV | 0088 | .. |
| CONWRCOD | 007C | .. | FILERPTR | 0038 | .. | RDCCW | 00BC | .. | WAITLIST | 0068 | .. |
| CONWRITE | 0070 | .. | FILETYPE | 0010 | .. | RDCOUNT | 00BE | .. | WAITLST | 0080 | .. |
| EXADD | 0154 | .. | | | | | | | | | |

## OSFST: OS FILE STATUS TABLE

OSFST describes the fields of an OS file status table. When an OS disk is accessed, DMSROS obtains storage from CMS free storage, builds and fills in an OSFST block, which is comparable to a CMS FST block. This block is released by DMSALU. OSFST is invoked via the OSFST macro.

```
              +-----------+-----------+-----------+-----------+
            0 |  OSFSTFM  | ////////// | OSFSTBLK  | OSFSTFVF  |
              +-----------+-----------+-----+-----+-----+-----+
            8 |        OSFSTLRL       | A*1 | /// | A*2 | A*3 |
              +-----------------------+-----+-----+-----+-----+
           10 |        OSFSTNXT       |        OSFSTCHR       |
              +-----+-----------------+-----------+-----------+
|          18 |cont.|          OSFSTEND           |           |
              +-----+-----------------------------+           |
           20 |                                               |
              =                   OSFSTDSN                    =
              |                                               |
              |                       +-----------------------+
           48 |                       |                       |
              +-----------------------+                       |
           50 |                                               |
              =                   OSFSTXTN                    =
              |                                               |
              |                       +-----------+-----------+
           F0 |                       | OSFSTDSK  | OSFSTTYP  |
              +-----------------------+-----+-----+-----------+
           F8 |           OSFSTNTE          | /////////////// |
              +-----------------------+-----+-----------------+
          100 |        OSFSTTRK       | ///////////////////// |
              +-----------------------+-----------------------+
          108 | ///////////////////// |        OSFSTMEM       |
              +-----------------------+-----------------------+
          110 |    OSFSTMEM (cont.)   |
              +-----------------------+
```

### Size

OS FST LENGTH IN DOUBLEWORDS (OSFSTLTH) 23

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | OSFSTFM | 2 | | DISK MODE |
| 2 | | 2 | | RESERVED |
| 4 | OSFSTBLK | 2 | | BLOCKSIZE |
| 6 | OSFSTFVF | 2 | | FIXED/VARIABLE FLAG |
| 8 | OSFSTLRL | 4 | | LOGICAL RECORD SIZE |
| C | OSFSTRFM | 1 | A*1 | OS RECORD FORMAT |
| D | | 1 | | RESERVED |
| E | OSFSTFLG | 1 | A*2 | FLAG BYTE |

Bits defined in OSFSTFLG

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | OSFSTALT | | | ALTERNATE TRACK INDICATOR |
| 40 | OSFSTDBK | | | BLOCKSIZE NOT SPECIFIED IN DSCB |
| 08 | OSFSTMVL | | | MULTIPLE VOLUME DATA SET |
| 02 | OSFSTUMV | | | UNMOVEABLE DATA SET |
| 01 | OSFSTRSW | | | INDICATES POINT+1 JUST ISSUED |
| F | OSFSTXNO | 1 | A*3 | NUMBER OF DATA EXTENTS ON DISK |
| 10 | OSFSTNXT | 4 | | NEXT OS FST |
| 14 | OSFSTCHR | 5 | | CCHHR OF LAST I/O OPERATION |
| 19 | OSFSTEND | 5 | | CURRENT EXTENT END |
| 1E | OSFSTDSN | 44 | | DATA SET NAME |
| 4A | OSFSTXTN | 170 | | DATA EXTENTS DESCRIPTION |
| 68 | OSFSTEX4 | | | LOCATION OF 4TH EXTENT FROM DSCB3 |
| F4 | OSFSTDSK | 2 | | DISK ADDRESS (0CUU) |
| F6 | OSFSTTYP | 2 | | DISK DEVICE TYPE (SEE OSADT FOR TYPE FLAGS) |
| F8 | OSFSTNTE | 5 | | USED TO SAVE CCHHR FOR NOTE MACRO |
| FD | | 3 | | RESERVED |
| 100 | OSFSTTRK | 4 | | NUMBER TRACKS PER CYLINDER |
| 104 | | 8 | | RESERVED |
| 10C | OSFSTMEM | 8 | | PARTITIONED DATA SET MEMBER NAME |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OSFSTALT | 000E | 80 | OSFSTEND | 0019 | .. | OSFSTLTH | .... | 23 | OSFSTRSW | 000E | 01 |
| OSFSTBLK | 0004 | .. | OSFSTEX4 | 004A | 68 | OSFSTMEM | 010C | .. | OSFSTTRK | 0100 | .. |
| OSFSTCHR | 0014 | .. | OSFSTFLG | 000E | .. | OSFSTMVL | 000E | 08 | OSFSTTYP | 00F6 | .. |
| OSFSTDBK | 000E | 40 | OSFSTFM | 0000 | .. | OSFSTNTE | 00F8 | .. | OSFSTUMV | 000E | 02 |
| OSFSTDSK | 00F4 | .. | OSFSTFVF | 0006 | .. | OSFSTNXT | 0010 | .. | OSFSTXNO | 000F | .. |
| OSFSTDSN | 001E | .. | OSFSTLRL | 0008 | .. | OSFSTRFM | 000C | .. | OSFSTXTN | 004A | .. |

## OVSECT: DESCRIPTION OF THE FIRST FEW LOCATIONS OF DMSOVS

OVSECT is used by module DMSOVS to provide trace information requested by SVCTRACE. OVSECT is invoked by the OVSECT macro.

```
  +-----------------------+-----------------------+
0 |         OVSGO         |         AERR          |
  +-----------------------+-----------------------+
8 |         AWAIT         |        LENOVS         |
  +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | OVSGO | 4 | | BRANCH TO THIS POINT FOR TRACE |
| 4 | AERR | 4 | | ADDRESS OF DMSERR |
| 8 | AWAIT | 4 | | ADDRESS OF CONWAIT |
| C | LENOVS | 4 | | DMSOVS LENGTH IN DOUBLEWORDS |

**CROSS REFERENCE** (Name Disp Value)

| | | | | | |
|---|---|---|---|---|---|
| AERR | 0004 | .. | LENOVS | 000C | .. |
| AWAIT | 0008 | .. | OVSGO | 0000 | .. |

## PARMLIST: PROP ACTION ROUTINE PARAMETER LIST

PARMLIST is used as a template to describe the parameter list which is passed by programmable operator facility to the action routine. Each fullword points to an element of parameter data. PARMLIST is found in PROP copy.

```
    +-----------------------+-----------------------+
  0 |       PARMMSG         |       PARMMLN         |
    +-----------------------+-----------------------+
  8 |       PARMMSGT        |       PARMNETM        |
    +-----------------------+-----------------------+
 10 |       PARMRUSR        |       PARMRNOD        |
    +-----------------------+-----------------------+
 18 |       PARMPUSR        |       PARMPNOD        |
    +-----------------------+-----------------------+
 20 |       PARMOUSR        |       PARMONOD        |
    +-----------------------+-----------------------+
 28 |       PARMRTFI        |       PARMRTPM        |
    +-----------------------+-----------------------+
 30 |       PARMMTYP        |       PARMARTN        |
    +-----------------------+-----------------------+
 38 |       PARMEND         |
    +-----------------------+
```

Size

PARMLIST SIZE IN DOUBLEWORDS (PARMSIZE) 08

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PARMMSG | 4 | | ORIGINAL MESSAGE TEXT |
| 4 | PARMMLN | 4 | | LENGTH OF MESSAGE TEXT |
| 8 | PARMMSGT | 4 | | TEXT IN 8-BYTE TOKENS |
| C | PARMNETM | 4 | | USERID OF RSCS NET MACHINE |
| 10 | PARMRUSR | 4 | | USERID OF REQUESTING USER |
| 14 | PARMRNOD | 4 | | NODEID OF REQUESTING USER |
| 18 | PARMPUSR | 4 | | USERID OF PROP |
| 1C | PARMPNOD | 4 | | NODEID OF PROP |
| 20 | PARMOUSR | 4 | | USERID OF LOGICAL OPERATOR |
| 24 | PARMONOD | 4 | | NODEID OF LOGICAL OPERATOR |
| 28 | PARMRTFI | 4 | | CURRENT ROUTING TABLE FILEID |
| 2C | PARMRTPM | 4 | | PARAMETER FROM ROUTING TABLE |
| 30 | PARMMTYP | 4 | | MESSAGE TYPE CODE |
| 34 | PARMARTN | 4 | | ACTION ROUTINE ADDRESS |
| 38 | PARMEND | 4 | | PARM LIST END INDICATOR |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| PARMARTN | 0034 | .. |
| PARMEND | 0038 | .. |
| PARMMLN | 0004 | .. |
| PARMMSG | 0000 | .. |
| PARMMSGT | 0008 | .. |
| PARMMTYP | 0030 | .. |
| PARMNETM | 000C | .. |
| PARMONOD | 0024 | .. |
| PARMOUSR | 0020 | .. |
| PARMPNOD | 001C | .. |
| PARMPUSR | 0018 | .. |
| PARMRNOD | 0014 | .. |
| PARMRTFI | 0028 | .. |
| PARMRTPM | 002C | .. |
| PARMRUSR | 0010 | .. |
| PARMSIZE | .... | 08 |

## PDSSECT: DIRECTORY TABLE FOR BPAM SIMULATION

PDSSECT describes the fields of the in-storage directory that is used in OS simulation of BPAM. The in-storage directory is built dynamically by DMSSVT from CMS free storage. PDSSECT is invoked via the PDSSECT macro.

```
    +-----------------------------------+-----+-----+
  0 |             PDSIDENT              | P*1 | P*2 |
    +-----------------------+-----------+-----+-----+
  8 |       PDSDIRSZ        |       PDSDIRIT        |
    +-----------------------+-----------------------+
 10 |       PDSENTSZ        |       DIRNAME         |
    +-----------+-----------+-----+-----+-----------+
 18 | (cont.)   |   DIRPTR  | P*3 | P*4 | CORESIZE  |
    +-----------+-----+-----+-----+-----+-----------+
 20 |  PDSBLKSI | P*5 |/////|        PDSDIR         |
    +-----------+-----+-----+-----------------------+
```

Size

MACLIB/PDS HEADER SIZE IN BYTES (PDSHDRSZ) 10
PDSSECT HEADER LENGTH IN BYTES (PDSLEN) 24

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PDSIDENT | 6 | | MACLIB/PDS IDENTIFIER |
| D7 | PDSFNEW | | | CHECK PDSIDENT+3, OLD VS NEW |
| 6 | PDSFLG1 | 1 | P*1 | MACLIB/PDS FLAG1 |
| 5B | PDSTEMPF | | | PDS DIRECTORY IS IN $PDSTEMP FILE |
| 7 | PDSFLG2 | 1 | P*2 | MACLIB/PDS FLAG2 |
| 8 | PDSDIRSZ | 4 | | MACLIB/PDS DIRECTORY SIZE |
| C | PDSDIRIT | 4 | | MACLIB/PDS DIRECTORY ITEM NUMBER |
| 10 | PDSENTSZ | 4 | | PDS ENTRY SIZE |
| 14 | DIRNAME | 6 | | MACLIB IDENTIFIER |
| 1A | DIRPTR | 2 | | ITEM POINTER TO START OF DIRECTORY |
| 1C | TEMPBYTE | 1 | P*3 | IF $ , THEN PDS IS IN $PDSTEMP FILE |
| 1D | NEWBLKS | 1 | P*4 | NUMBER NEW BLKS ADDED TO PDS BY STOW |
| 1E | CORESIZE | 2 | | SIZE OF DICTIONARY IN BYTES |
| 20 | PDSBLKSI | 2 | | BLOCKSIZE OF DICTIONARY |
| 22 | CHNGBYTE | 1 | P*5 | INDICATES UPDATES TO DICTIONARY |
| 23 | | 1 | | RESERVED |
| 24 | PDSDIR | 0 | | START OF IN CORE DICTIONARY |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CHNGBYTE | 0022 | .. |
| CORESIZE | 001E | .. |
| DIRNAME | 0014 | .. |
| DIRPTR | 001A | .. |
| NEWBLKS | 001D | .. |
| PDSBLKSI | 0020 | .. |
| PDSDIR | 0024 | .. |
| PDSDIRIT | 000C | .. |
| PDSDIRSZ | 0008 | .. |
| PDSENTSZ | 0010 | .. |
| PDSFLG1 | 0006 | .. |
| PDSFLG2 | 0007 | .. |
| PDSFNEW | 0000 | D7 |
| PDSHDRSZ | .... | 10 |
| PDSIDENT | 0000 | .. |
| PDSLEN | .... | 24 |
| PDSTEMPF | 0006 | 5B |
| TEMPBYTE | 001C | .. |

## PIBADR: PROGRAM INFORMATION BLOCK

PIBADR contains a save area address and interrupt information. PIBADR is invoked by the PIBTAB macro and is often referred to by this macro name. The PIBPT field in the BGCOM block points to the PIBTAB CSECT.

```
     +-----+-----+-----------+-----------------------+
   0 | A*1 | A*2 | PIBLOGID  |        PIBSAVE        |
     +-----+-----+-----------+-----+-----+-----+-----+
   8 |        PIBSAV2        | A*3 | A*4 | A*5 | A*6 |
     +-----------------------+-----+-----+-----+-----+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PIBFLG | 1 | A*1 | FLAGS |
| 0 | PIBCOMRA | 2 | | COMMUNICATIONS REGION ADDRESS |
| 1 | PIBCNCL | 1 | A*2 | CANCEL CODE |
| 2 | PIBLOGID | 2 | | SYSLOG ID |
| 2 | SYSLUBX | 2 | | SYSTEM CLASS LUB INDEX |
| 4 | PIBSAVE | 4 | | ADDRESS OF SAVE AREA |
| Bits defined in PIBSAVE | | | | |
| 08 | ARFLG | | | SAVE AREA ADDRESS |
| 4 | PIBMTID | 2 | | TID OF MAINTASK |
| 8 | PIBSAV2 | 4 | | ADDRESS OF SYSTEM SAVE AREA |
| 8 | APCB | 4 | | PCB POINTER |
| C | PIBPUBAS | 1 | A*3 | PUB ASSIGN FLAGS |
| C | PIBPIK | 2 | | PIK OF PARTITION |
| D | PIBLUBID | 1 | A*4 | LUB NUMBER OF FIRST PROBLEM PROGRAM LUB |
| E | PIBLUBNO | 1 | A*5 | NUMBER OF LUBS |
| F | PIBFLG2 | 1 | A*6 | MORE FLAGS |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| APCB | 0008 | .. |
| ARFLG | 0004 | 08 |
| PIBCNCL | 0001 | .. |
| PIBCOMRA | 0000 | .. |
| PIBFLG | 0000 | .. |
| PIBFLG2 | 000F | .. |
| PIBLOGID | 0002 | .. |
| PIBLUBID | 000D | .. |
| PIBLUBNO | 000E | .. |
| PIBMTID | 0004 | .. |
| PIBPIK | 000C | .. |
| PIBPUBAS | 000C | .. |
| PIBSAVE | 0004 | .. |
| PIBSAV2 | 0008 | .. |
| SYSLUBX | 0002 | .. |

## PIB2TAB: PROGRAM INFORMATION BLOCK EXTENSION

PIB2TAB describes the entries in the PIB2TAB block, which is an extension of the PIBTAB block. For each PIB table entry, an entry exists in the PIB table extension block (PIB2TAB). PIB2TAB is invoked via the PIB2TAB macro.

The PIB2PTR field in the BGCOM block points to the PIB2TAB block.

```
   +-----------+-----------+----------------------+
 0 | PIBCOMR1  |  SYSLUBX  |        INTINFO       |
   +-----------+-----------+----------+-----------+
 8 |         PIBECB        |  PIBPIK  | ////////// |
   +-----------------------+----------+-----------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PIBCOMR1 | 2 | | ADDRESS OF COMMUNICATION REGION |
| 2 | SYSLUBX | 2 | | SYSTEM LUB INDEX |
| 4 | INTINFO | 4 | | USED FOR INTERRUPTION CODE |
| Bits defined in INTINFO | | | | |
| 07 | SVCIC | | | SVC INTERRUPT CODE |
| 8 | PIBECB | 4 | | ADDRESS OF TERMINATION ECB, IF ANY |
| C | PIBPIK | 2 | | PIK |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| INTINFO | 0004 | .. |
| PIBCOMR1 | 0000 | .. |
| PIBECB | 0008 | .. |
| PIBPIK | 000C | .. |
| SVCIC | 0004 | 07 |
| SYSLUBX | 0002 | .. |

## PGMSECT: PROGRAM INTERRUPT WORK AREA

PGMSECT describes the fields used by DMSITP for saving registers, old PSW, and other data for handling program interrupts.

The PGMSECT CSECT is pointed to by the APGMSECT field in NUCON. PGMSECT is invoked by the PGMSECT macro.

```
    +-----------------------+-----------------------+
  0 |        DEBPSW         | ///////////////////// |
    +-----------------------+-----------------------+
  8 |        PICADDR        |         OPSW          |
    +-----------------------+-----------------------+
 10 |     OPSW (cont.)      |                       |
    +-----------------------+                       |
 18 |                   Registers                   |
    +-----------------------------------------------+
 28 |                    TEMPOLD                    |
    +-----------------------------------------------+
 30 |                    TEMPNEW                    |
    +-----------------------+-----------------------+
 38 |        R13AREA        |                       |
    +-----------------------+                       |
 40 |                                               |
    =                     PSAVE                     =
    |                                               |
    |                       +-----------------------+
 78 |                       |        SCBPTR         |
    +-----------------------+-----------------------+
 80 |        SCBWORK        |       SCBSAV12        |
    +-----------------------+-----------------------+
 88 |       SCBSAV13        |       SCBSAV14        |
    +-----------------------+-----------------------+
 90 |         AUPIE         |
    +-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | DEBPSW | 4 | | POINT TO DEBUG |
| 8 | PIE | 8 | | ***PROGRAM INTERRUPT ELEMENT*** |
| 8 | PICADDR | 4 | | PICA ADDRESS FROM RECENT "SPIE" |
| C | OPSW | 8 | | OLD PSW AFTER PROGRAM INTERRUPT |
| 28 | TEMPOLD | 8 | | WORK AREA |
| 30 | TEMPNEW | 8 | | |
| 38 | R13AREA | 4 | | SAVED R13 |
| 3C | PSAVE | 64 | | REGS SAVED AT INTERRUPT TIME |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 7C | SCBPTR | 4 | | POINTER TO FIRST STAE CONTROL BLOCK |
| | Bits defined in SCBPTR | | | |
| | 80 STAEBIT | | | |
| | 40 STAIBIT | | | |
| | 20 RETRYBIT | | | |
| 80 | SCBWORK | 4 | | ADDRESS OF WORK AREA FOR STAE EXIT ROUTINE |
| 84 | SCBSAV12 | 4 | | ADDRESS OF REG 12 SAVE AREA FOR DMSSAB |
| 88 | SCBSAV13 | 4 | | ADDRESS OF REG 13 SAVE AREA FOR DMSSAB |
| 8C | SCBSAV14 | 4 | | ADDRESS OF REG 14 SAVE AREA FOR DMSSAB |
| 90 | AUPIE | 4 | | ADDRESS OF USER'S PIE, IN SPIE EXIT |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AUPIE | 0090 | .. | PSAVE | 003C | .. | SCBSAV12 | 0084 | .. | STAEBIT | 007C | 80 |
| DEBPSW | 0000 | .. | RETRYBIT | 007C | 20 | SCBSAV13 | 0088 | .. | STAIBIT | 007C | 40 |
| OPSW | 000C | .. | R13AREA | 0038 | .. | SCBSAV14 | 008C | .. | TEMPNEW | 0030 | .. |
| PICADDR | 0008 | .. | SCBPTR | 007C | .. | SCBWORK | 0080 | .. | TEMPOLD | 0028 | .. |
| PIE | 0008 | .. | | | | | | | | | |

## PROPCOM: PROP COMMUNICATION AREA

PROPCOM describes the contents of the area defined in DMSPOP to allow the communication of flags and other data between the main programmable operator facility module, DMSPOP, and the action routine module, DMSPOR. PROPCOM is found in PROP copy.

```
              +-----------------------+-----------------------+
           0  |       PCOMLOGF        |       PCOMSTBL        |
              +-----------------------+-----------------------+
           8  |       PCOMETBL        |       PCOMTSIZ        |
              +-----------------------+-----------------------+
          10  |       PCOMRDIN        |       PCOMLDMD        |
              +-----------------------+-----------------------+
          18  |       PCOMRSET        |       PCOMRSTL        |
              +-----------------------+-----------+-----+-----+
          20  |               PCOMLMSG            | V*1 | /// |
              +-----------------------+-----------+-----+-----+
|         28  |       PCOMUTBL        |       PCOMSTRC        |
|             +-----------------------+-----------------------+
|         30  |       PCOMSTPC        |       PCOMNLST        |
|             +-----------------------+-----------------------+
|         38  |       PCOMTODI        |       PCOMPREP        |
|             +-----------------------+-----------------------+
|         40  |       PCOMFNOD        |       PCOMABNE        |
|             +-----------------------+-----------------------+
|         48  |       PCOMEXIT        |       PCOMFNDN        |
|             +-----------------------+-----------------------+
|         50  |       PCOMTOKN        |       PCOMTODP        |
|             +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PCOMLOGF | 4 | | ADDRESS OF LOG FILE FSCB |
| 4 | PCOMSTBL | 4 | | START OF ROUTING TABLE |
| 8 | PCOMETBL | 4 | | END OF ROUTING TABLE |
| C | PCOMTSIZ | 4 | | ROUTING TABLE SIZE |
| 10 | PCOMRDIN | 4 | | ADDRESS OF READIN ROUTINE |
| \| 14 | PCOMLDMD | 4 | | ADDRESS OF LOADNUCX ROUTINE |
| 18 | PCOMRSET | 4 | | ADDRESS OF CP SET COMMANDS TO RESET |
| 1C | PCOMRSTL | 4 | | LENGTH OF CP SET COMMANDS TO RESET |
| \| 20 | PCOMLMSG | 6 | | MESSAGE FORMAT FOR LOCAL MESSAGES |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 26 | PCOMFLAG | 1 | V*1 | PROP FLAGS |

Bits defined in PCOMFLAG

| | | |
|---|---|---|
| 80 | PCOMSTOP | STOP THE PROP APPLICATION |
| 40 | PCOMKILL | IMMEDIATE STOP |
| 20 | PCOMLOG | INDICATES LOGGING IS ON |
| 10 | PCOMABNA | INDICATES ABEND IS ACT RTN |
| 08 | PCOMLOGA | INDICATES LOGGING "ALL" |
| 04 | | RESERVED |
| 02 | | RESERVED |
| 01 | | RESERVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 27 | | 1 | | RESERVED |
| 28 | PCOMUTBL | 4 | | ADDRESS OF START OF USER'S PART OF THE ROUTING TABLE |
| 2C | PCOMSTRC | 4 | | ADDRESS OF STARTCHK ROUTINE |
| 30 | PCOMSTPC | 4 | | ADDRESS OF STOPCHK ROUTINE |
| 34 | PCOMNLST | 4 | | ANCHOR ADDRESS FOR NODE LIST |
| 38 | PCOMTODI | 4 | | ADDRESS OF TODISK ROUTINE |
| 3C | PCOMPREP | 4 | | ADDRESS OF BUFPREP ROUTINE |
| 40 | PCOMFNOD | 4 | | ADDRESS OF FRETNODE ROUTINE |
| 44 | PCOMABNE | 4 | | ADDRESS OF ABEND EXIT |
| 48 | PCOMEXIT | 4 | | ADDRESS OF CALLEXIT ROUTINE |
| 4C | PCOMFNDN | 4 | | ADDRESS OF FINDNODE ROUTINE |
| 50 | PCOMTOKN | 4 | | ADDRESS OF TOKENIZE ROUTINE |
| 54 | PCOMTODP | 4 | | PARMLIST FOR SPECIAL LOGGING |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| PCOMABNA | 0026 | 10 |
| PCOMABNE | 0044 | .. |
| PCOMETBL | 0008 | .. |
| PCOMEXIT | 0048 | .. |
| PCOMFLAG | 0026.. | |
| PCOMFNDN | 004C | .. |
| PCOMFNOD | 0040 | .. |
| PCOMKILL | 0026 | 40 |
| PCOMLDMD | 0014 | .. |
| PCOMLMSG | 0020 | .. |
| PCOMLOG | 0026 | 20 |
| PCOMLOGA | 0026 | 8 |
| PCOMLOGF | 0000 | .. |
| PCOMNLST | 0034 | .. |
| PCOMPREP | 003C | .. |
| PCOMRDIN | 0010 | .. |
| PCOMRSET | 0018 | .. |
| PCOMRSTL | 001C | .. |
| PCOMSTBL | 0004 | .. |
| PCOMSTOP | 0026 | 80 |
| PCOMSTPC | 0030 | .. |
| PCOMSTRC | 002C | .. |
| PCOMTODI | 0038 | .. |
| PCOMTODP | 0054 | .. |
| PCOMTOKN | 0050 | .. |
| PCOMTSIZ | 000C | .. |
| PCOMUTBL | 0028 | .. |

## PROPTAB: ROUTING TABLE FILE ENTRY

PROPTAB is used as a template to describe an entry (i.e. a record) in the programmable operator facility routing table file. PROPTAB is found in PROP copy.

### Size

LENGTH OF AN ENTRY IN FILE (PROPLEN ) 44

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | TEXT | 24 | | MESSAGE COMPARISON TEXT |
| 19 | DP | 2 | | DISLACEMENT TO START COMPARISON |
| 1C | LN | 2 | | LENGTH FOR COMPARISON OF TEXT |
| 1F | MSGT | 1 | | IUCV MESSAGE TYPE |
| 21 | USERID | 8 | | AUTHORIZED USER'S USERID |
| 2A | NODEID | 8 | | AUTHORIZED USER'S NODEID |
| 33 | ACTION | 8 | | NAME OF ACTION ROUTINE TO INVOKE |
| 3C | ACTRPARM | 8 | | PARAMETER TO ACTION ROUTINE |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ACTION | 0033 .. | LN | 001C .. | NODEID | 002A .. | TEXT | 0000 .. |
| ACTRPARM | 003C .. | MSGT | 001F .. | PROPLEN | .... 44 | USERID | 0021 .. |
| DP | 0019 .. | | | | | | |

## PRSCB: PRESERVE/RESTORE CONTROL BLOCK

PRSCB is built by module DMSXCT and is used by the System Product Editor subcommands PRESERVE and RESTORE. PRSCB is invoked via the PRSCB macro.

```
      +-------------------+-------------------+
    0 |     PRSFWPTR      |     PRSFNAME      |
      +-------------------+-------------------+
    8 |     PRSFNAME      |     PRSFTYPE      |
      +-------------------+---------+---------+
   10 |     PRSFTYPE      |PRSFMODE |PRSRECFM |
      +-------------------+---------+---------+
   18 |               PRSSERCH                |
      +----+----+----+----+----+----+----+----+
   20 |P*1 |P*2 |P*3 |P*4 |P*5 |P*6 |P*7 |P*8 |
      +----+----+----+----+----+----+----+----|
   28 |P*9 |P*10|P*11|P*12|P*13|P*14|P*15|P*16|
      +----+----+----+----+----+----+----+----|
   30 |P*17|P*18|P*19|P*20|P*21|P*22|P*23|P*24|
      +----+----+----+----+----+----+----+----|
   38 |                                       |
      =               PRSTABCL                =
      |                                       |
      +---------------------------------------+
   A8 |                                       |
      =               PRSVERCL                =
      |                                       |
      +-------------------+-------------------+
  188 |     PRSVERMX      |     PRSVERTR      |
      +-------------------+-------------------+
  190 |                                       |
      =               PRSMSKLN                =
      |                                       |
      +-------------------+-------------------+
  230 |     PRSZONEL      |     PRSZONER      |
      +-------------------+-------------------+
  238 |     PRSZONEC      |     PRSSERIN      |
      +-------------------+-------------------+
  240 |     PRSSERST      |     PRSDISP1      |
      +-------------------+-------------------+
  248 |     PRSDISP2      |     PRSTRUNC      |
      +-------------------+-------------------+
  250 |     PRSLRECL      |     PRSATCNT      |
      +-------------------+-------------------+
  258 |     PRSNSPAN      |     PRSEQBFL      |
      +-------------------+-------------------+
  260 |                                       |
      =               PRSEQBUF                =
      |                                       |
      +-------------------+-------------------+
  300 |     PRSLSTLL      |                   |
      +-------------------+                   =
      |            PRSLSTLC                   |
      =                   +---------+---------+
  3A0 |                   | PRSFCURL| PRSFMASK|
      +-------------------+---------+---------+
     +---------+---------+--------------+----+
 3A8 | PRSFTABS| PRSFCMDL|   PRSCLRAR   |P*25|
     +---------+---------+----+---------+----+
 3B0 | (cont.) |   PRSCLRCU   |   PRSCLRFI   |
     +---------+----+---------+--+-----------+
 3B8 |   PRSCLRID   |  PRSCLRMS  | PRSCLRPR  |
     +----+---------+----+----+--+------+----+
 3C0 |cont|   PRSCLRPW   | PRSCLRSC     |P*26|
     +----+----+---------+----+---------+----+
 3C8 | (cont.) |   PRSCLRST   |   PRSCLRTA   |
     +---------+----+---------+--------------+
 3D0 |   PRSCLRTO   |
     +--------------+
```

**Size**

```
FIRST   SEGMENT SIZE (PRSSGM01) 26
SECOND  SEGMENT SIZE (PRSSGM02) 08
THIRD   SEGMENT SIZE (PRSSGM03) E8
FOURTH  SEGMENT SIZE (PRSSGM04) 0C
FIFTH   SEGMENT SIZE (PRSSGM05) 14
SIXTH   SEGMENT SIZE (PRSSGM06) 08
SEVENTH SEGMENT SIZE (PRSSGM07) 04
EIGHTH  SEGMENT SIZE (PRSSGM08) A4
NINTH   SEGMENT SIZE (PRSSGM09) A4
TENTH   SEGMENT SIZE (PRSSGM10) 27
PRSCB LENGTH IN BYTES       (PRSLPRSB) 3D5
PRSCB LENGTH IN DOUBLEWORDS (PRSLPRSD) 07B
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PRSFWPTR | 4 | | POINTER TO NEXT PRESERVE/RESTORE BLOCK |
| CHARACTER VARIABLES | | | | |
| 4 | PRSFNAME | 8 | | FILENAME |
| C | PRSFTYPE | 8 | | FILETYPE |
| 14 | PRSFMODE | 2 | | FILEMODE |
| 16 | PRSRECFM | 2 | | FIXED OR VARIABLE |
| 18 | PRSSERCH | 8 | | 1 TO 8 CHARACTERS OF SERIALIZATION |
| 20 | PRSSERLG | 1 | P*1 | LENGTH OF SERIALIZATION |
| SPECIAL CHARACTERS | | | | |
| 21 | PRSCFILL | 1 | P*2 | FILLER FOR TABULATIONS |
| 22 | PRSCTABC | 1 | P*3 | RESERVED |
| 23 | PRSATSMD | 1 | P*4 | AUTOSAVE FILEMODE |
| 24 | PRSCESCA | 1 | P*5 | ESCAPE CHARACTER |

| | Disp | Name | Len | Key | Description |
|---|---|---|---|---|---|
| | 25 | PRSCASMU | 1 | P*6 | CASE UPPERCASE OR MIXED |
| | 26 | PRSCASRI | 1 | P*7 | CASE RESPECT OR IGNORE |
| | 27 | PRSARBCH | 1 | P*8 | ARBITRARY CHARACTER |
| | 28 | PRSSPABN | 1 | P*9 | SPAN BLANK/NOBLANK |
| | 29 | PRSLNEND | 1 | P*10 | LINE END CHARACTER |
| | OPTION BYTES | | | | |
| | 2A | PRSFLAG2 | 1 | P*11 | OPTIONS BYTES ZDEFLAG2 |
| | 2B | PRSFLAG3 | 1 | P*12 | ZDEFLAG3 |
| | 2C | PRSFLAG4 | 1 | P*13 | ZDEFLAG4 |
| | 2D | PRSFLAG5 | 1 | P*14 | ZDEFLAG5 |
| | 2E | PRSFLAG6 | 1 | P*15 | ZDEFLAG6 |
| | 2F | PRSFLAG7 | 1 | P*16 | ZDEFLAG7 |
| | 30 | PRSFLAG8 | 1 | P*17 | ZDEFLAG8 |
| | 31 | PRSFLAG9 | 1 | P*18 | ZDEFLAG9 |
| | 32 | | 6 | P*19-24 | RESERVED FOR ALIGNMENT |
| | TABULATIONS | | | | |
| \| | 38 | PRSTABCL | 112 | | TABULATIONS COLUMNS |
| | VERIFY COLUMNS | | | | |
| \| | A8 | PRSVERCL | 224 | | VERIFY COLUMNS |
| \| | 188 | PRSVERMX | 4 | | MAXIMUM VERIFY WIDTH |
| \| | 18C | PRSVERTR | 4 | | VERIFY LEFT/RIGHT TRANSLATION |
| \| | 190 | PRSMSKLN | 160 | | MASK FOR INSERTED LINES |
| | NUMERIC VARIABLES | | | | |
| \| | 230 | PRSZONEL | 4 | | ZONE LEFT |
| \| | 234 | PRSZONER | 4 | | ZONE RIGHT |
| \| | 23C | PRSZONEC | 4 | | MAXIMUM ZONE FOR CHANGE |
| \| | 23A | PRSSERIN | 4 | | INCREMENT OF SERIALIZATION |
| \| | 240 | PRSSERST | 4 | | START OF SERIALIZATION |
| \| | 244 | PRSDISP1 | 4 | | SET DISPLAY N1 |
| \| | 248 | PRSDISP2 | 4 | | SET DISPLAY N2 |
| \| | 24C | PRSTRUNC | 4 | | TRUNCATION COLUMN |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 250 | PRSLRECL | 4 | | LRECL OF THE FILE |
| 254 | PRSATCNT | 4 | | AUTOSAVE COUNT |
| 258 | PRSNSPAN | 4 | | NUMBER OF LINES LOCKED WITH SET SPAN ON = BUFFER |
| 25C | PRSEQBFL | 4 | | LENGTH OF STRING IN = BUFFER |
| 260 | PRSEQBUF | 160 | | = BUFFER |
| LAST LOCATE OR CHANGE | | | | |
| 300 | PRSLSTLL | 4 | | MESSAGE LENGTH |
| 304 | PRSLSTLC | 160 | | BUFFER |
| CURLINE, TABLINE, SCALE | | | | |
| 3A4 | PRSFCURL | 2 | | CURRENT LINE NUMBER ON LOG SCREEN |
| 3A6 | PRSFMASK | 2 | | SCALE LINE NUMBER ON LOG SCREEN |
| 3A8 | PRSFTABS | 2 | | TABS LINE NUMBER ON LOG SCREEN |
| 3AA | PRSFCMDL | 2 | | COMMAND LINE NUMBER ON LOG SCREEN |
| COLOR INFORMATION | | | | |
| 3AC | PRSCLRAR | 3 | | ARROW COLOR AND EXT. HILITE |
| 3AF | PRSCLRCM | 3 | P*25 | CMDLINE COLOR AND EXT. HILITE |
| 3B2 | PRSCLRCU | 3 | | CHRLINE COLOR AND EXT. HILITE |
| 3B5 | PRSCLRFI | 3 | | FILEAREA COLOR AND EXT. HILITE |
| 3B8 | PRSCLRID | 3 | | IDLINE COLOR AND EXT. HILITE |
| 3BB | PRSCLRMS | 3 | | MSGLINE COLOR AND EXT. HILITE |
| 3BE | PRSCLRPR | 3 | | PREFIX COLOR AND EXT. HILITE |
| 3C1 | PRSCLRPW | 3 | | PREFIXW COLOR AND EXT. HILITE |
| 3C4 | PRSCLRSC | 3 | | SCALE COLOR AND EXT. HILITE |
| 3C7 | PRSCLRSH | 3 | P*26 | SHADOW COLOR AND EXT. HILITE |
| 3CA | PRSCLRST | 3 | | STATAREA COLOR AND EXT. HILITE |
| 3CD | PRSCLRTA | 3 | | TABLINE COLOR AND EXT. HILITE |
| 3D0 | PRSCLRTO | 3 | | TOFEOF COLOR AND EXT. HILITE |

<u>CROSS</u> <u>REFERENCE</u> (Name  Disp  Value)

```
  PRSARBCH 0027 ..  | PRSCLRTA 03CD ..    PRSFMODE 0014 ..    PRSSGM01 .... 26
  PRSATCNT 0254 ..  | PRSCLRTO 03D0 ..    PRSFNAME 0004 ..    PRSSGM02 .... 08
  PRSATSMD 0023 ..    PRSCTABC 0022 ..  | PRSFTABS 03A8 ..    PRSSGM03 .... E8
  PRSCASMU 0025 ..  | PRSDISP1 0244 ..    PRSFTYPE 000C ..    PRSSGM04 .... 0C
  PRSCASRI 0026 ..  | PRSDISP2 0248 ..    PRSFWPTR 0000 ..    PRSSGM05 .... 14
  PRSCESCA 0024 ..  | PRSEQBFL 025C ..    PRSLNEND 0029 ..    PRSSGM06 .... 08
  PRSCFILL 0021 ..  | PRSEQBUF 0260 ..    PRSLPRSB .... **    PRSSGM07 .... 04
| PRSCLRAR 03AC ..  | PRSFCMDL 03AA ..    PRSLPRSD .... 18    PRSSGM08 .... A4
| PRSCLRCM 03AF ..  | PRSFCURL 03A4 ..  | PRSLRECL 0250 ..    PRSSPABN 0028 ..
| PRSCLRCU 03B2 ..    PRSFLAG2 002A ..  | PRSLSTLC 0304 ..  | PRSTABCL 0038 ..
| PRSCLRFI 03B5 ..    PRSFLAG3 002B ..  | PRSLSTLL 0300 ..    PRSTRUNC 024C ..
| PRSCLRID 03B8 ..    PRSFLAG4 002C ..  | PRSMSKLN 0190 ..  | PRSVERCL 00A8 ..
| PRSCLRMS 03BB ..    PRSFLAG5 002D ..  | PRSNSPAN 0258 ..  | PRSVERMX 0188 ..
| PRSCLRPR 03BE ..  | PRSFLAG6 002E ..    PRSRECFM 0016 ..  | PRSVERTR 018C ..
| PRSCLRPW 03C1 ..  | PRSFLAG7 002F ..    PRSSERCH 0018 ..  | PRSZONEC 0238 ..
| PRSCLRSC 03C4 ..  | PRSFLAG8 0030 ..  | PRSSERIN 023C ..  | PRSZONEL 0230 ..
| PRSCLRSH 03C7 ..  | PRSFLAG9 0031 ..    PRSSERLG 0020 ..  | PRSZONER 0234 ..
| PRSCLRST 03CA ..  | PRSFMASK 03A6 ..  | PRSSERST 0240 ..
```

## PUBADR: PHYSICAL UNIT BLOCK TABLE

PUBADR defines the fields of a physical unit block table as used by CMS and/or VSE routines. Both DSECTs define the same storage

- For use by the CMS Routines (MAPPUB macro)

The simulated PUBADR DSECT has eighteen 8-byte entries, one for each device supported by CMS. The simulated PUBADR DSECT is invoked by the MAPPUB macro.

```
    +-------------+------+------+------+------+------+------+
  0 |   PUBCUU    |//////| A*1  | A*2  | A*3  | A*4  | A*5  |
    +-------------+------+------+------+------+------+------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PUBCUU | 2 | | CHANNEL AND DEVICE NUMBER |
| 3 | PUBDSKM | 1 | A*1 | DISK MODE IF ASSIGNED DASD |
| 4 | PUBDEVT | 1 | A*2 | DEVICE TYPE CODE |
| 5 | PUBTAPM1 | 1 | A*3 | CMS TAPE SET MODE ATTRIBUTES |
| 6 | PUBTAPM2 | 1 | A*4 | DOS TAPE SET MODE ATTRIBUTES |
| 7 | PUBTAP7 | 1 | A*5 | SEVEN TRACK INDICATOR |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| PUBADR | 0000 | .. |
| PUBCUU | 0000 | .. |
| PUBDEVT | 0004 | .. |
| PUBTAPM1 | 0003 | .. |
| PUBTAPM2 | 0002 | .. |
| PUBTAP7 | 0007 | .. |

- For use by DOS/VS Routines (PUBTAB macro)

The PUBADR DSECT is invoked by the PUBTAB macro. The address of PUBTAB is at displacement X'40' of BGCOM.

```
    +------------+------+------+------+------+------+-------+
  0 |  PUBCHANN  | A*1  |  A*2 |  A*3 |  A*4 |  A*5 |  A*6  |
    +------+-----+------+------+------+------+------+-------+
  8 | A*7  |
    +------+
```

Size

PUB TABLE LENGTH IN BYTES (PUBWIT) 09

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PUBCHANN | 2 | | CHANNEL AND DEVICE NUMBER |
| 2 | PUBCHQPT | 1 | A*1 | CHQ. NUMBER OF FIRST REQUEST FOR PUB |
| 3 | PUBERR | 1 | A*2 | ERROR RETRY COUNTER OR TEB POINTER |
| 4 | PUBDEVTY | 1 | A*3 | DEVICE TYPE CODE |
| 5 | PUBOPTN | 1 | A*4 | SET MODE COMMAND OR OTHER OPTIONS |
| 6 | PUBCSFLG | 1 | A*5 | CHANNEL SCHEDULER FLAGS |
| 7 | PUBJCFLG | 1 | A*6 | JOB CONTROL FLAGS |
| 8 | NEXTPUB | 1 | A*7 | FIRST BYTE OF NEXT PUB ENTRY |

Bits defined in NEXTPUB

| | | |
|---|---|---|
| 08 | PUBPTR | POINTER TO ORIGINAL PUB |

CROSS REFERENCE (Name Disp Value)

```
NEXTPUB  0008 ..    PUBCSFLG 0006 ..    PUBJCFLG 0007 ..    PUBPTR   0008 08
PUBCHANN 0000 ..    PUBDEVTY 0004 ..    PUBOPTN  0005 ..    PUBWIT   .... 09
PUBCHQPT 0002 ..    PUBERR   0003 ..
```

## PUBOWNER: PHYSICAL UNIT BLOCK OWNERSHIP TABLE

PUBOWNER contains a 2-byte entry for each entry in the PUB table. For CMS/DOS, there are eighteen 2-byte entries. The address of the PUBOWNER table is in the SYSCOM block in the DOSCON CSECT of NUCON.

```
     +-------------------------------------------------------+
   0 |                                                       |
     =                      PUBOWNER                         =
     |                                                       |
     |                          +----------------------------+
  20 |                          |
     |                          |
     +--------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | PUBOWNER | 2 | | PUB OWNER |

CROSS REFERENCE (Name Disp Value)

```
PUBOWNER 0000 ..
```

## QEL: PROP QUEUED MESSAGE ELEMENT MAPPING

QEL is used as a template to describe an element in the queue that the programmable operator facility keeps in its virtual storage. QEL is found in PROP copy.

```
        +-----------------------+----------------------+
 0      |        QELNEXT        |       QELMLEN        |
        +-----+-----------------+----------------------+
 8      | V*1 | /////////////////////////////////////// |
        +-----+----------------------------------------+
10      |                   QELMTEXT                   |
        =                                              =
        |                                              |
        +----------------------------------------------+
```

### Size

Q ELEMENT SIZE IN DOUBLEWORDS (QELSIZE) 20

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | QELNEXT | 4 | | ADDRESS OF NEXT Q ELEMENT |
| 4 | QELMLEN | 4 | | LENGTH OF MESSSAGE |
| 8 | QELMTYPE | 1 | V*1 | MESSSAGE TYPE CODE |
| 9 | | 1 | | RESERVED |
| 10 | QELMTEXT | 240 | | MESSAGE TEXT (IUCV FORMAT) |

### CROSS REFERENCE (Name Disp Value)

```
QELMLEN  0004 ..    QELMTYPE 0008 ..    QELNEXT  0000 ..
QELMTEXT 0010 ..                        QELSIZE  .... 20
```

## RECSAVE: MACRO RECURSION AREA DSECT

RECSAVE is built by DMSXMA and is used by the System Product Editor modules to describe the address list for nested macro calls. RECSAVE is invoked by the RECSAVE macro.

```
     +----------------------+----------------------+
   0 |       RECBWPTR       |       RECMCRTN       |
     +----------------------+----------------------+
   8 |                   RECFNAME                  |
     +---------------------------------------------+
  10 |                   RECFTYPE                  |
     +-----------+----------+----------------------+
  18 | RECFMODE  | RECEXTLG |       RECEXEPT       |
     +-----------+----------+----------------------+
  20 |       RECEXELG       |       RECZMAPT       |
     +----------------------+----------------------+
  28 |                                             |
     =                   RECPLIST                  =
     |                                             |
     +----------------------+----------------------+
  38 |                                             |
     =                   RECSAVRG                  =
     |                                             |
     +----------------------+----------------------+
 578 |       RECSAV13       |       RECSIZEB       |
     +----------------------+----------------------+
 580 |       RECMCBFL       |                      |
     +----------------------+                      |
     |                                             |
     =                   RECMCBUF                  =
     |                                             |
     |                      +----------------------+
 620 |                      |       RECPRSBC       |
     +----------------------+----+----+------------+
 628 |      (continue)      |F*1 |F*2 |            |
     +----------------------+----+----+------------+
```

### Size

RECSAVE LENGTH IN BYTES (RECLRECB) 62E
RECSAVE LENGTH IN DOUBLEWORDS (RECLRECD) 0C6
SIZE OF SAVED & RESTORED PART (RECLGHDR) 008

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | RECBWPTR | 4 | | POINTER TO PREVIOUS MACRO RECURSION AREA |
| 4 | RECMCRTN | 4 | | RETURN ADDRESS TO PREVIOUS MACRO, OR 0 |
| 8 | RECFNAME | 8 | | MACRO FILE NAME |
| 10 | RECFTYPE | 8 | | MACRO FILE TYPE |
| 18 | RECFMODE | 2 | | MACRO FILE MODE |
| 1A | RECEXTLG | 2 | | MACRO FILE EXTENSION LENGTH |
| 1C | RECEXEPT | 4 | | BEGINNING OF INCORE EXEC2 MACRO |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 20 | RECEXELG | 4 | | LENGTH OF INCORE MACRO |
| 24 | RECZMAPT | 4 | | ADDRESS OF MACRO CONTROL BLOCK (ZMACST) |
| 28 | RECPLIST | 16 | | NEW-FORM PLIST |
| 38 | RECSAVRG | 1344 | | SAVE THE SAVEAREAS |
| 578 | RECSAV13 | 4 | | SAVE R13 |
| 57C | RECSIZEB | 4 | | SIZE OF RECSAVE BLOCK IN BYTES |
| 580 | RECMCBFL | 4 | | MACRO CALL LENGTH |
| 584 | RECMCBUF | 160 | | COMPLETE MACRO REQUEST STRING |
| 624 | RECORSBC | 8 | | ORIGINAL SUBCOMMAND NAME |
| 62C | RECORSBN | 1 | F*1 | ORIGINAL SUBCOMMAND NAME LENGTH |
| 62D | RECFLAG1 | 1 | F*2 | FLAG BYTE |

Bits defined in RECFLAG1

| | | |
|---|---|---|
| 1 | RECNOSYN | ZFONOSYN BIT SAVED HERE |

CROSS REFERENCE (Name  Disp  Value)

```
  RECBWPTR 0000 ..    RECFNAME 0008 ..  | RECMCBUF 0584 ..    RECPLIST 0028 ..
  RECEXELG 0020 ..    RECFTYPE 0010 ..    RECMCRTN 0004 ..    RECSAVRG 0038 ..
  RECEXEPT 001C ..    RECLGHDR 0000 08  | RECNOSYN 062D 01  | RECSAV13 0578 ..
  RECEXTLG 001A ..    RECLRECB 0000 62E | RECORSBC 0624 ..  | RECSIZEB 057C ..
| RECFLAG1 062D ..    RECLRECD 0000 C6  | RECORSBN 062C ..    RECZMAPT 0024 ..
  RECFMODE 0018 ..  | RECMCBFL 0580 ..
```

## REQDES: SUBCOMMAND DESCRIPTOR

REQDES is defined in DMSXTB and is used by the System Product Editor modules to describe all subcommands and their operands and syntax. REQDES is invoked via the ZREQDES macro.

```
   +-----------------------------------------------+
 0 |                    REQNAME                    |
   +-----------------------+-----+-----+-----+-----+
 8 |         REQADR        | R*1 | R*2 | R*3 | R*4 |
   +-----+-----+-----+-----+-----+-----+-----+-----+
10 | R*5 | R*6 | R*7 | R*8 | R*9 | R*10| ///////// |
   +-----+-----+-----+-----+-----+-----+-----------+
```

Size

REQDES MAXIMUM LENGTH IN BYTES (8 OPERANDS) (REQLREQB) 16
REQDES LENGTH IN DOUBLEWORDS (REQLREQD) 03
REQDES MINIMUM LENGTH IN BYTES (NO OPERANDS) (REQLGMIN) 0E

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | REQNAME | 8 | | SUBCOMMAND NAME |
| 8 | REQADR | 4 | | SUBCOMMAND ADDRESS IN STORAGE |
| C | REQLNAME | 1 | R*1 | MINIMUM LENGTH TO ENTER AT THE TERMINAL |
| D | REQNBOPR | 1 | R*2 | NUMBER OF OPERANDS |
| E | REQPARM1 | 1 | R*3 | OPERAND 1 |
| F | REQPARM2 | 1 | R*4 | OPERAND 2 |
| 10 | REQPARM3 | 1 | R*5 | OPERAND 3 |
| 11 | REQPARM4 | 1 | R*6 | OPERAND 4 |
| 12 | REQPARM5 | 1 | R*7 | OPERAND 5 |
| 13 | REQPARM6 | 1 | R*8 | OPERAND 6 |
| 14 | REQPARM7 | 1 | R*9 | OPERAND 7 |
| 15 | REQPARM8 | 1 | R*10 | OPERAND 8 |

CROSS REFERENCE (Name Disp Value)

```
REQADR   0008 ..    REQLREQD .... 03    REQPARM2 000F ..    REQPARM6 0013 ..
REQLGMIN .... 0E    REQNAME  0000 ..    REQPARM3 0010 ..    REQPARM7 0014 ..
REQLNAME 000C ..    REQNBOPR 000D ..    REQPARM4 0011 ..    REQPARM8 0015 ..
REQLREQB .... 16    REQPARM1 000E ..    REQPARM5 0012 ..
```

## RTDSECT: INTERNAL ROUTING TABLE ENTRY

RTDSECT is used as a template to describe an entry in the programmable operator facility internal routing table. RTDSECT is found in PROP copy.

```
         +------------------------------------------------+
    0    |                                                |
         =                     RTEXT                      =
         |                                                |
         +------------------------------------------------+
   28    |                     RUSER                      |
         +------------------------------------------------+
   30    |                     RNODE                      |
         +------------------------------------------------+
   38    |                    RACTION                     |
         +------------------------------------------------+
   40    |                    RACTPARM                    |
         +-----+-----+-----------+-----+-----+-----+-----+
   48    |   RSTCOL    |  RENDCOL  | V*1 | V*2 | V*3 | V*4 |
         +-----+-----+-----------+-----+-----+-----+-----+
```

### Size

LENGTH OF A ROUTING TABLE ENTRY (ROUTLEN) 40

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | RTEXT | 40 | | MESSAGE COMPARISON TEXT |
| 28 | RUSER | 8 | | AUTHORIZED USER'S ID |
| 30 | RNODE | 8 | | AUTHORIZED USER'S NODE |
| 38 | RACTION | 8 | | NAME OF ACTION ROUTINE |
| 38 | RACTIONB | 4 | | ADDRESS OF INTERNAL ACTION ROUTINE |
| 3C | | 4 | | RESERVED |
| 40 | RACTPARM | 8 | | PARAMETER TO ACTION ROUTINE |
| 48 | RSTRCOL | 2 | | STARTING COLUMN FOR MESSAGE SCAN |
| 4A | RENDCOL | 2 | | ENDING COLUMN FOR MESSAGE SCAN |
| 4C | RTYPE | 1 | V*1 | IUCV MESSAGE TYPE |
| 4D | RNBRSUB | 1 | V*2 | NUMBER OF TEXT SUBFIELDS |
| 4D | RACTFLAG | 1 | V*3 | ACTION ROUTINE FLAGS |

Bits defined in RACTFLAG

| | | |
|---|---|---|
| 80 | RACTBAL | BALR TO ADDRESS IN RACTION FIELD |
| 40 | RACTEXEC | THIS ACTION ROUTINE IS AN EXEC |
| 20 | | RESERVED |
| 10 | | RESERVED |
| 08 | | RESERVED |
| 04 | | RESERVED |
| 02 | | RESERVED |
| 01 | | RESERVED |

CROSS REFERENCE (Name  Disp  Value)

```
| RACTBAL  004E 80  | RACTIONB 0038 ..    RLTEXT   003A ..  | RSTRCOL  0048 ..
| RACTEXEC 004E 40  | RACTPARM 0040 ..  | RNODE    0030 ..    RTEXT    0000 ..
| RACTFLAF 004E ..  | RENDCOL  004A ..  | RNBRSUB  004D ..  | RTYPE    004C ..
| RACTION  0038 ..    RDTEXT   0039 ..    ROUTLEN  .... 40  | RUSER    0028 ..
```

## RTXSBFLD: ROUTING TEXT SUB FIELD

RTXSBFLD is used in combination with RTDSECT to map over the RTEXT field. RTXSBFLD is invoked by itself.

```
          +-----+-----+-----------------------------------+
     0    | V*1 | V*2 |             RTXSBTXT              |
          +-----+-----+-----------------------------------+
```

Size

LENGTH OF SUBFIElD INFORMATION (RTXSBL) 02

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | RTXSBLEN | 1 | V*1 | LENGTH OF SUBFIELD TEXT |
| 2 | RTXSBFLG | 1 | V*2 | TEXT SUBFIELD FLAGS |

Bits defined in RTXSBFLG

| | | |
|---|---|---|
| 80 | RTXARBSC | SCANNING FOR ARB-CHAR SEPARATION |
| 40 | RTXNOTSC | SCANNING FOR NOT-SYMBOL |

CROSS REFERENCE (Name Disp Value)

```
RTXARBSC 0001 40  | RTXSBFLG 0001 ..  | RTXSBLEN 0000 ..
RTXNOTSC 0001 40  | RTXSBL   .... 02  | RTXSBTXT 0002 ..
```

## SAVEREG: SAVE AREA

SAVEREG is used by the System Product Editor modules to save register contents during subroutine calls. Fourteen SAVEREG blocks are allocated in the ZFONC block. SAVEREG is invoked via the ZBLOCKS macro.

```
    +-----------------------+-----------------------+
  0 |       SAVREG0         |        SAVREG1        |
    +-----------------------+-----------------------+
  8 |       SAVREG2         |        SAVREG3        |
    +-----------------------+-----------------------+
 10 |       SAVREG4         |        SAVREG5        |
    +-----------------------+-----------------------+
 18 |       SAVREG6         |        SAVREG7        |
    +-----------------------+-----------------------+
 20 |       SAVREG8         |        SAVREG9        |
    +-----------------------+-----------------------+
 28 |       SAVREG10        |        SAVREG11       |
    +-----------------------+-----------------------+
 30 |       SAVREG12        |        SAVREG13       |
    +-----------------------+-----------------------+
 38 |       SAVREG14        |        SAVREG15       |
    +-----------------------+-----+-----+-----+-----+
 40 |       SAVBWPTR        | S*1 | S*2 | S*3 | S*4 |
    +-----------------------+-----+-----+-----+-----+
 48 |                   SAVDWRD1                    |
    +-----------------------------------------------+
 50 |                   SAVDWRD2                    |
    +-----------------------+-----------------------+
 58 |       SAVWORD1        |        SAVWORD2       |
    +-----------------------+-----------------------+
```

### Size

```
SAVEREG LENGTH IN DOUBLEWORDS (SAVLSAVD) 0C
SAVEREG LENGTH IN BYTES       (SAVLSAVB) 60
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | SAVREG0 | 4 | | R0 |
| 4 | SAVREG1 | 4 | | R1 |
| 8 | SAVREG2 | 4 | | R2 |
| C | SAVREG3 | 4 | | R3 |
| 10 | SAVREG4 | 4 | | R4 |
| 14 | SAVREG5 | 4 | | R5 |
| 18 | SAVREG6 | 4 | | R6 |
| 1C | SAVREG7 | 4 | | R7 |
| 20 | SAVREG8 | 4 | | R8 |
| 24 | SAVREG9 | 4 | | R9 |
| 28 | SAVREG10 | 4 | | R10 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 2C | SAVREG11 | 4 | | R11 |
| 30 | SAVREG12 | 4 | | R12 |
| 34 | SAVREG13 | 4 | | R13 |
| 38 | SAVREG14 | 4 | | R14 |
| 3C | SAVREG15 | 4 | | R15 |
| 40 | SAVBWPTR | 4 | | BACKWARD POINTER TO PREVIOUS SAVEAREA |
| WORK AREA | | | | |
| 44 | SAVBYTE1 | 1 | S*1 | BYTE |
| 45 | SAVBYTE2 | 1 | S*2 | BYTE |
| 46 | SAVBYTE3 | 1 | S*3 | BYTE |
| 47 | SAVBYTE4 | 1 | S*4 | BYTE |
| 48 | SAVDWRD1 | 8 | | DOUBLEWORD |
| 50 | SAVDWRD2 | 8 | | DOUBLEWORD |
| 58 | SAVWORD1 | 4 | | WORD |
| 5C | SAVWORD2 | 4 | | WORD |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| SAVBWPTR | 0040 | .. |
| SAVBYTE1 | 0044 | .. |
| SAVBYTE2 | 0045 | .. |
| SAVBYTE3 | 0046 | .. |
| SAVBYTE4 | 0047 | .. |
| SAVDWRD1 | 0048 | .. |
| SAVDWRD2 | 0050 | .. |
| SAVLSAVB | .... | 60 |
| SAVLSAVD | .... | 0C |
| SAVREG0 | 0000 | .. |
| SAVREG1 | 0004 | .. |
| SAVREG10 | 0028 | .. |
| SAVREG11 | 002C | .. |
| SAVREG12 | 0030 | .. |
| SAVREG13 | 0034 | .. |
| SAVREG14 | 0038 | .. |
| SAVREG15 | 003C | .. |
| SAVREG2 | 0008 | .. |
| SAVREG3 | 000C | .. |
| SAVREG4 | 0010 | .. |
| SAVREG5 | 0014 | .. |
| SAVREG6 | 0018 | .. |
| SAVREG7 | 001C | .. |
| SAVREG8 | 0020 | .. |
| SAVREG9 | 0024 | .. |
| SAVWORD1 | 0058 | .. |
| SAVWORD2 | 005C | .. |

## SCBLOCK: SUBCOMMAND CONTROL BLOCK

SCBLOCK describes the dynamic entry point for the SUBCOM function and is dynamically allocated from free storage by DMSITS. SCBLOCK is invoked via the SCBLOCK macro.

```
 0 +---------------------+---------------------+
   |      SCBFWPTR       |      SCBWKWRD       |
 8 +---------------------+---------------------+
   |                  SCBNAME                  |
10 +-------------------------------------------+
   |                  SCBPSW                   |
18 +---------------------+---------------------+
   |      SCBXORG        |       SCBXLEN       |
   +---------------------+---------------------+
```

**Size**

LENGTH IN DOUBLEWORDS (SCBLOCKD) 04
LENGTH IN BYTES (SCBLOCKB) 20

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | SCBFWPTR | 4 | | CHAIN POINTER TO NEXT SCBLOCK |
| 4 | SCBWKWRD | 4 | | AVAILABLE FOR USER INFORMATION |
| 8 | SCBNAME | 8 | | NAME OF SUBCOMMAND ENVIRONMENT |
| 10 | SCBPSW | 8 | | STARTING PSW FOR SUBCOMMAND |
| 12 | SCBSFLAG | 1 | | SYSTEM FLAG BYTE |

Bits defined in SCBSFLAG

| | | |
|---|---|---|
| 80 | SCBSFSYS | DENOTES "SYSTEM" ROUTINE -- WILL NOT BE AUTOMATICALLY DELETED DURING ABEND PROCESSING |
| 40 | SCBSFSER | DENOTES "SERVICE" ROUTINE -- WILL BE CALLED WITH "PURGE" ARGUMENT DURING ABEND PROCESSING |
| 20 | SCBSFABN | USED DURING ABEND PROCESSING |
| 20 | SCBSFINT | USED DURING END OF COMMAND PROCESSING |
| 10 | SCBSFEND | DENOTES 'END OF COMMAND' ROUTINE |
| 04 | SCBSFIMM | DENOTES THAT THIS NUCLEUS EXTENSION CAN ALSO BE CALLED AS AN IMMEDIATE COMMAND |
| 02 | SCBSFX | DENOTES A LOOK-ASIDE ENTRY POINTING TO A REAL CMS NUCLEUS ROUTINE |
| 01 | SCBSHIDE | USED TO HIDE A NUCLEUS EXTENSION TEMPORARILY |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 13 | SCBUFLAG | 1 | | USER FLAG BYTE |
| 14 | SCBENTR | 1 | | ENTRY POINT ADDRESS IN PSW NUCX FIELDS. THESE ARE PRESENT, BUT NOT USED, IN SCBLOCKS ON THE NUCSCBLK CHAIN. |
| 18 | SCBXORG | 4 | | ADDRESS WHERE NUCLEUS EXTENSION WAS LOADED IN FREE STORAGE |
| 1C | SCBXLEN | 4 | | LENGTH IN BYTES OF NUCLEUS EXTENSION. MAY BE ZERO FOR SECONDARY ENTRY POINTS |

<u>CROSS</u> <u>REFERENCE</u> (Name  Disp  Value)

```
SCBENTR  0014 ..    SCBPSW   0010 ..    SCBSFLAG 0012 ..    SCBUFLAG 0013 ..
SCBFWPTR 0000 ..    SCBSFABN 0010 20    SCBSFSER 0010 40    SCBWKWRD 0004 ..
SCBLOCKB 0000 20  | SCBSFEND 0010 10    SCBSFSYS 0010 80    SCBXLEN  001C ..
SCBLOCKD 001C 04  | SCBSFIMM 0010 04    SCBSFX   0010 02    SCBXORG  0018 ..
SCBNAME  0008 ..  | SCBSFINT 0010 20  | SCBSHIDE 0010 01
```

## SHVBLOCK: LAYOUT OF SHARED-VARIABLE ACCESS CONTROL BLOCK

The control blocks for accessing shared variables are chained as a list terminated by a null pointer. The list is addressed via the 'private interface' plist in a subcommand call to a public variable-sharing environment (e.g. as set up by the EXEC 2 interpreter).

```
     +-----------------------+-----------------------+
   0 |        SHVNEXT        |        SHVUSER        |
     +-----+-----+-----------+-----------------------+
   8 | S*1 | S*2 |           |        SHVBUFL        |
     +-----+-----+-----------+-----------------------+
  10 |        SHVNAMA        |        SHVNAML        |
     +-----------------------+-----------------------+
  18 |        SHVVALA        |        SHVVALL        |
     +-----------------------+-----------------------+
```

Size

SHVBLOK LENGTH IN BYTES (SHVBLEN ) 20

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | SHVNEXT | 4 | | CHAIN POINTER (0 IF LAST) |
| 4 | SHVUSER | 4 | | NOT USED, AVAILABLE FOR PRIVATE USE |
| 8 | SHVCODE | 1 | S*1 | INDIVIDUAL FUNCTION CODE |
| Function codes defined in SHVCODE | | | | |
| E2 | SHVSTORE | | | STORE GIVEN VALUE IN SHARED VARIABLE |
| C6 | SHVFETCH | | | COPY VALUE OF SHARED VAR TO BUFFER |
| 9 | SHVRET | 1 | S*2 | INDIVIDUAL RETURN CODE FLAG |
| Return code flags in SHVRET | | | | |
| 80 | SHVBADF | | | INVALID FUNCTION CODE (SHVCODE) |
| 10 | SHVBADV | | | INVALID VARIABLE VALUE (E.G. TOO LONG) |
| 08 | SHVBADN | | | INVALID VARIABLE NAME (E.G. TOO LONG) |
| 04 | SHVTRUNC | | | TRUNCATION OCCURRED FOR 'FETCH' |
| C | SHVBUFL | 4 | | LENGTH OF 'FETCH' VALUE BUFFER |
| 10 | SHVNAMA | 4 | | ADDRESS OF PUBLIC VARIABLE NAME |
| 14 | SHVNAML | 4 | | LENGTH OF PUBLIC VARIABLE NAME |
| 18 | SHVVALA | 4 | | ADDRESS OF VALUE BUFFER (0 IF NONE) |
| 1C | SHVVALL | 4 | | LENGTH OF VALUE (SET BY 'FETCH') |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SHVBADF | 0009 | 80 | SHVBUFL | 000C | .. | SHVNAML | 0014 | .. | SHVTRUNC | 0009 | 04 |
| SHVBADN | 0009 | 08 | SHVCODE | 0008 | .. | SHVNEXT | 0000 | .. | SHVUSER | 0004 | .. |
| SHVBADV | 0009 | 10 | SHVFETCH | 0008 | C6 | SHVRET | 0009 | .. | SHVVALA | 0018 | .. |
| SHVBLEN | .... | 20 | SHVNAMA | 0010 | .. | SHVSTORE | 0008 | E2 | SHVVALL | 001C | .. |

## SSAVE: SYSTEM SAVE AREA

SSAVE is used by DMSITS to save the value of the SVC old PSW, the caller's registers, and other necessary control information required to process the SVC and return to the caller. Since SVC calls can be nested, several of these save areas can exist at one time. The system save area is dynamically allocated in protected free storage. SSAVE is invoked via the CMSAVE macro.

```
     +-----+-----+-----------+-----------------------+
  0  | A*1 | A*2 |   CODE    |        CALLER         |
     +-----+-----+-----------+-----------------------+
  8  |                   CALLEE                      |
     +-----------------------------------------------+
 10  |                   OLDPSW                      |
     +-----------------------+-----------------------+
 18  |        NRMRET         |         ERRET         |
     +-----------------------+-----------------------+
 20  |        EGPR0          |         EGPR1         |
     +-----------------------+-----------------------+
 28  |        EGPR2          |         EGPR3         |
     +-----------------------+-----------------------+
 30  |        EGPR4          |         EGPR5         |
     +-----------------------+-----------------------+
 38  |        EGPR6          |         EGPR7         |
     +-----------------------+-----------------------+
 40  |        EGPR8          |         EGPR9         |
     +-----------------------+-----------------------+
 48  |        EGPR10         |         EGPR11        |
     +-----------------------+-----------------------+
 50  |        EGPR12         |         EGPR13        |
     +-----------------------+-----------------------+
 58  |        EGPR14         |         EGPR15        |
     +-----------------------+-----------------------+
 60  |                    EFPR0                      |
     +-----------------------------------------------+
 68  |                    EFPR2                      |
     +-----------------------------------------------+
 70  |                    EFPR4                      |
     +-----------------------------------------------+
 78  |                    EFPR6                      |
     +-----------------------+-----------------------+
 80  |        CHKWRD1        |        SSAVENXT       |
     +-----------------------+-----------------------+
 88  |        SSAVEPRV       |        USAVEPTR       |
     +-----------------------+-----+-----------------+
 90  |        OSTEMP         | A*3 |       KEYS      |
     +-----------------------+-----+-----------------+
 98  |     KEYS (cont.)      |         XGPR0         |
     +-----------------------+-----------------------+
 A0  |        XGPR1          |         XGPR15        |
     +-----------------------+-----------------------+
 A8  |        XCOUNT         |        CHKWRD2        |
     +-----------------------+-----------------------+
```

Size

SYSTEM SAVE AREA SIZE IN DOUBLEWORDS (SSAVESZ) 16

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | OVIND | 1 | A*1 | OVERRIDE INDICATOR: 0,1,2,3 |
| 1 | TYPFLAG | 1 | A*2 | SVC TYPE FLAG BYTE |
| Bits defined in TYPFLAG | | | | |
| 80 | TPFERT | | | ERROR RETURN DESIRED |
| 40 | TPFNS | | | NO SAVE AREA ALLOCATED |
| 20 | TPFR01 | | | RETURN CALLEE'S R0-R1 TO CALLER |
| 10 | TPFUSR | | | 'USER' SVC CALL |
| 08 | TPFACB | | | OS VSAM SVC REQUEST |
| 02 | TPFSV3 | | | SVC 203 |
| 01 | TPFSVO | | | OS SIMULATION SVC |
| 2 | CODE | 2 | | SVC 203 CODE VALUE |
| 4 | CALLER | 4 | | ADDRESS OF SVC CALLER |
| 8 | CALLEE | 8 | | NAME OF ROUTINE BEING CALLED |
| 10 | OLDPSW | 8 | | SVC OLDPSW OF CALLER |
| 18 | NRMRET | 4 | | ADDRESS FOR NORMAL RETURN |
| 1C | ERRET | 4 | | ADDRESS FOR ERROR RETURN |
| 20 | EGPRS | 4 | | GENERAL REGS AT ENTRY TO SVC |
| 20 | EGPR0 | 4 | | R0 |
| 24 | EGPR1 | 4 | | R1 |
| 28 | EGPR2 | 4 | | R2 |
| 2C | EGPR3 | 4 | | R3 |
| 30 | EGPR4 | 4 | | R4 |
| 34 | EGPR5 | 4 | | R5 |
| 38 | EGPR6 | 4 | | R6 |
| 3C | EGPR7 | 4 | | R7 |
| 40 | EGPR8 | 4 | | R8 |
| 44 | EGPR9 | 4 | | R9 |
| 48 | EGPR10 | 4 | | R10 |
| 4C | EGPR11 | 4 | | R11 |
| 50 | EGPR12 | 4 | | R12 |
| 54 | EGPR13 | 4 | | R13 |
| 58 | EGPR14 | 4 | | R14 |
| 5C | EGPR15 | 4 | | R15 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 60 | EFPRS | 8 | | FLOATING POINT REGS AT ENTRY |
| 60 | EFPR0 | 8 | | FPR0 |
| 68 | EFPR2 | 8 | | FPR2 |
| 70 | EFPR4 | 8 | | FPR4 |
| 78 | EFPR6 | 8 | | FPR6 |
| 80 | CHKWRD1 | 4 | | CHECK WORD ONE |
| 84 | SSAVENXT | 4 | | ADDRESS OF NEXT SSAVE AREA |
| 88 | SSAVEPRV | 4 | | ADDRESS OF PREVIOUS SSAVE AREA |
| 8C | USAVEPTR | 4 | | ADDRESS OF CORRESPONDING USER SAVE AREA |
| 90 | OSTEMP | 4 | | TEMPORARY FOR OS SIMULATION ROUTINES |
| 94 | KEYP | 1 | A*3 | NUMBER OF KEYS ON STACK |
| 95 | KEYS | 1 | | KEY STACK |

'DMSKEY' KEY STACK

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 07 | KEYMAX | | | MAXIMUM NUMBER OF KEYS IN STACK |

THE FOLLOWING FIELDS ARE FILLED IN ONLY BY DMSOVS, THE SVCTRACE SUBROUTINE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 9C | XGPR0 | 4 | | EXTRA COPY OF EGPR0 |
| A0 | XGPR1 | 4 | | EXTRA COPY OF EGPR1 |
| A4 | XGPR15 | 4 | | EXTRA COPY OF EGPR15 |
| A8 | XCOUNT | 4 | | EXTRA COPY OF SVCOUNT |
| AC | CHKWRD2 | 4 | | SECOND CHECK WORD |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CALLEE | 0008 | .. |
| CALLER | 0004 | .. |
| CHKWRD1 | 0080 | .. |
| CHKWRD2 | 00AC | .. |
| CODE | 0002 | .. |
| EFPRS | 0060 | .. |
| EFPR0 | 0060 | .. |
| EFPR2 | 0068 | .. |
| EFPR4 | 0070 | .. |
| EFPR6 | 0078 | .. |
| EGPRS | 0020 | .. |
| EGPR0 | 0020 | .. |
| EGPR1 | 0024 | .. |
| EGPR10 | 0048 | .. |
| EGPR11 | 004C | .. |
| EGPR12 | 0050 | .. |
| EGPR13 | 0054 | .. |
| EGPR14 | 0058 | .. |
| EGPR15 | 005C | .. |
| EGPR2 | 0028 | .. |
| EGPR3 | 002C | .. |
| EGPR4 | 0030 | .. |
| EGPR5 | 0034 | .. |
| EGPR6 | 0038 | .. |
| EGPR7 | 003C | .. |
| EGPR8 | 0040 | .. |
| EGPR9 | 0044 | .. |
| ERRET | 001C | .. |
| KEYMAX | 0090 | 07 |
| KEYP | 0094 | .. |
| KEYS | 0095 | .. |
| NRMRET | 0018 | .. |
| OLDPSW | 0010 | .. |
| OSTEMP | 0090 | .. |
| OVIND | 0000 | .. |
| SSAVENXT | 0084 | .. |
| SSAVEPRV | 0088 | .. |
| SSAVESZ | .... | 16 |
| TPFACB | 0001 | 08 |
| TPFERT | 0001 | 80 |
| TPFNS | 0001 | 40 |
| TPFR01 | 0001 | 20 |
| TPFSV0 | 0001 | 01 |
| TPFSV3 | 0001 | 02 |
| TPFUSR | 0001 | 10 |
| TYPFLAG | 0001 | .. |
| USAVEPTR | 008C | .. |
| XCOUNT | 00A8 | .. |
| XGPR0 | 009C | .. |
| XGPR1 | 00A0 | .. |
| XGPR15 | 00A4 | .. |

## SUBSECT: SUBSET WORK AREA

SUBSECT defines the fields in the SUBSET work area which is used by CMS SUBSET command processing and abend recovery. The SUBSECT block is pointed to by the ASUBSECT field in NUCON. SUBSECT is invoked via the SUBSECT macro.

```
      +-----------------------------------------------+
    0 |                                               |
      =                    RMSGBUF                    =
      |                                               |
      +-----------------------------------------------+
   28 |                                               |
      =                    CMSTIM                     =
      |                                               |
      +-----------------------------------------------+
   40 |                                               |
      =                     STARS                     =
      |                                               |
      |           +-----------+-----------------------+
   50 |           | ///////// |        ASUBRET        |
      +-----------+-----------+-----------------------+
   58 |        STAESAV        |        SPIESAV        |
      +-----------------------+-----------------------+
   60 |        SWTCHSAV       |        STAXSAV        |
      +-----------------------+-----------------------+
   68 |        ASUBFST        |        ASUBSTAT       |
      +-----------------------+-----------------------+
   70 |                     ERRNUM                    |
      +-----------------------------------------------+
   78 |                                               |
      =                     TIMBUF                    =
      |                                               |
      |                                               |
      +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | RMSGBUF | 40 | | READY/TIME MESSAGE FORMATTING AREA |

PLIST FOR GETTING TIMES FROM DMSINM

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 28 | CMSTIM | 24 | | |

PLIST FOR ACTLKP AS USED BY SUBSET

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 40 | STARS | 18 | | |
| 52 | | 2 | | RESERVED |

SUBSET ADDRESS STORAGE AREAS

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 54 | ASUBRET | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 58 | STAESAV | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 5C | SPIESAV | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 60 | SWTCHSAV | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 64 | STAXSAV | 4 | | SUBSET ADDRESS STORAGE AREAS |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 68 | ASUBFST | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 6C | ASUBSTAT | 4 | | SUBSET ADDRESS STORAGE AREAS |
| 70 | ERRNUM | 8 | | WORK AREA FOR ERROR RETURN-CODE |
| 78 | TIMBUF | 32 | | WORK AREA FOR DMSINM TO STORE DATE AND TIME |

CROSS REFERENCE (Name Disp Value)

```
ASUBFST  0068 ..    CMSTIM   0028 ..    SPIESAV  005C ..    STAXSAV  0064 ..
ASUBRET  0054 ..    ERRNUM   0070 ..    STAESAV  0058 ..    SWTCHSAV 0060 ..
ASUBSTAT 006C ..    RMSGBUF  0000 ..    STARS    0040 ..    TIMBUF   0078 ..
```

## SVCSECT: SVC INTERRUPT STORAGE

SVCSECT describes the fields used by DMSITS in handling SVC interrupts. An SVCSECT block is built dynamically when an SVC is issued. The first SVCSECT is pointed to by the ASVCSECT field in NUCON; if SVCs are nested, the chain of SVCSECT blocks is processed using current the CURRALOC and LASTALOC fields. SVCSECT is invoked via the SVCSECT macro.

```
     +-----------------------+-----------------------+
   0 |         JNUMB         |        JFIRST         |
     +-----------------------+-----------------------+
   8 |          JF4          |         JLAST         |
     +-----+-----+-----------+-----------------------+
  10 | S*1 | /// |   SVCAB   |       CURRALOC        |
     +-----+-----+-----------+-----------------------+
  18 |       LASTALOC        |         DEPTH         |
     +-----------------------+-----------+-----------+
  20 |        ADMSOVS        |   OVBPF   |   OVBTF   |
     +-----------+-----------+-----+-----+-----------+
  28 |   OVAPF   |   OVATF   | S*2 | /////////////// |
     +-----------+-----------+-----+-----------------+
  30 |                                               |
     =                    SVCSAVE                    =
     |                                               |
     +-----------------------------------------------+
  78 |                                               |
     =                    NRMSAV                     =
     |                                               |
     +-----------------------+-----------------------+
 158 | ///////////////////// |        SVCOUNT        |
     +-----------------------+-----------------------+
 160 |        SVCSTOP        |         SVLAD         |
     +-----------------------+-----------------------+
 168 |        SVLADW         |         SVLFS         |
     +-----------------------+-----------------------+
 170 |                   LOADLIST                    |
     +-----------------------------------------------+
 178 |                   LOADNAME                    |
     +-----------------------------------------------+
 180 |     (Literals are loaded into this area)      |
     +-----------------------------------------------+
 188 |    (The literals here are from the origin)    |
     +-----------------------------------------------+
 190 |                   LOADSTRT                    |
     +-----------------------------------------------+
 198 |    (Hexadecimals are entered in this area)    |
     +-----------------------+-----------------------+
 1A0 | ///////////////////////////////////////////// |
     +-----------------------+-----------------------+
 1A8 |                    MODLIST                    |
     +-----------------------------------------------+
 1B0 |                    DUMCOM                     |
     +-----+-----------------+-----------------------+
 1B8 | S*3 |      ZERO3      |        TRANSRT        |
     +-----+-----------------+-----+-----------------+
 1C0 |    TRANSRT (cont.)    | S*4 |     ADTRANS     |
     +-----------------------+-----+-----------------+
 1C8 |                    TEMP02                     |
     +-----------------------+-----------------------+
     +-----------------------+-----------------------+
 1D0 |                                               |
     = ///////////////////////////////////////////// =
     |                                               |
     +-----------------------+-----------------------+
 1E0 |        RGPR0          |        RGPR1          |
     +-----------------------+-----------------------+
 1E8 |        RGPR2          |        RGPR3          |
     +-----------------------+-----------------------+
 1F0 |        RGPR4          |        RGPR5          |
     +-----------------------+-----------------------+
 1F8 |        RGPR6          |        RGPR7          |
     +-----------------------+-----------------------+
 200 |        RGPR8          |        RGPR9          |
     +-----------------------+-----------------------+
 208 |        RGPR10         |        RGPR11         |
     +-----------------------+-----------------------+
 210 |        RGPR12         |        RGPR13         |
     +-----------------------+-----------------------+
 218 |        RGPR14         |        RGPR15         |
     +-----------------------+-----------------------+
 220 |                     RFPR0                     |
     +-----------------------------------------------+
 228 |                     RFPR2                     |
     +-----------------------------------------------+
 230 |                     RFPR4                     |
     +-----------------------------------------------+
 238 |                     RFPR6                     |
     +-----------------------------------------------+
 240 |                                               |
     =                    NRMUSAV                    =
     |                                               |
     +-----------------------------------------------+
```

```
Disp  Name      Len Key  Description

  0   USVCTBL    4       A 'HANDLE' FOR THE FOLLOWING

KEEP NEXT FOUR IN ORDER

  0   JNUMB      4       NUMBER OF DOUBLEWORDS IN SVC-NUMBER TABLE

  4   JFIRST     4       ADDRESS OF FIRST ITEM (IF ANY) IN TABLE

  8   JF4        4       (FOR BXLE)

  C   JLAST      4       ADDRESS OF LAST ITEM IN TABLE

START-UP FLAGS -- INDICATE WHAT MODE THE CALLEE IS TO BE STARTED UP.

 10   SFLAG      1 S*1   FLAG BYTE

   Bits defined in SFLAG

   80 SFSYS              SYSTEM FLAG -- SVC PROTECT KEY IS ZERO
   40 SFTRN              TRANSIENT AREA ROUTINE -- SYSTEM MASK IS OFF
   20 SFNUC              NUCLEUS ROUTINE -- SYS MASK OFF
   02 SFNONUCX           SUPPRESS NUCLEUS EXTENSION
   01 SFREN              ILLEGAL RE-ENTRY FLAG

 12   SVCAB      2       SVC ABEND CODE, IF ANY
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 14 | CURRALOC | 4 | | CURRENT ALLOCATED SAVE AREA |
| 18 | LASTALOC | 4 | | LAST ALLOCATED SAVE AREA |
| 1C | DEPTH | 4 | | NESTED SVC DEPTH |

INFORMATION FOR SVCTRACE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 20 | ADMSOVS | 4 | | ADDRESS OF DMSOVS |
| 24 | OVBPF | 2 | | 'BEFORE PRINT' FLAGS |
| 26 | OVBTF | 2 | | 'BEFORE TYPE' FLAGS |
| 28 | OVAPF | 2 | | 'AFTER PRINT' FLAGS |
| 2A | OVATF | 2 | | 'AFTER TYPE' FLAGS |

DEFINITIONS OF FLAGS FOR EACH PAIR OF FLAG BYTES

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | OVF1ON | | | THIS OPTION IS ON |
| 40 | OVF1GB | | | GPRS BEFORE CALL WANTED |
| 20 | OVF1GA | | | GPRS AFTER CALL WANTED |
| 10 | OVF1GS | | | GPRS RETURNED FROM SVC CALLEE |
| 04 | OVF1F | | | FLOATING POINT REGS WANTED |
| 01 | OVF1FS | | | FPRS RETURNED FROM SVC CALLEE |
| 08 | OVF1PA | | | PARAMETER LIST WANTED |
| 80 | OVF2ST | | | 'STOP' WANTED |
| 40 | OVF2CM | | | CMS SVC TRACE WANTED |
| 20 | OVF2NR | | | NORMAL RETURN CMS SVC'S WANTED |
| 10 | OVF2OS | | | OS SVC'S WANTED |
| 08 | OVF2WA | | | 'WAIT' CMS SVC'S WANTED |
| 2C | OVSTAT | 1 | S*2 | CURRENT STATUS OF SVCTRACE |

Bits defined in OVSTAT

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 80 | OVSON | | | OVERRIDES ARE ON |
| 40 | OVSPREV | | | 'SVCTRACE SAME' IS LEGAL |
| 20 | OVSAFT | | | 'AFTER' BIT, SET BY DMSITS |
| 10 | OVSHO | | | 'HALT OVERRIDES' FLAG |
| 08 | OVSSO | | | 'SUSPEND OVERRIDES' FLAG |
| 30 | SVCSAVE | 72 | | INTSVC WORK AREA |
| 78 | NRMSAV | 224 | | NORMAL STANDARD INFORMATION |
| 158 | | 4 | | RESERVED |
| 15C | SVCOUNT | 4 | | CURRENT SVC COUNT |
| 160 | SVCSTOP | 4 | | FOR DMSITS DEBUGGING |
| 164 | SVLAD | 4 | | SAVE REG 14 FOR DMSLAD |
| 168 | SVLADW | 4 | | SAVE REG 14 FOR DMSLADW |
| 16C | SVLFS | 4 | | SAVE REG 14 FOR DMSLFS |
| 170 | LOADLIST | 8 | | |
| 178 | LOADNAME | 8 | | |
| 190 | LOADSTRT | 8 | | |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 1A0 | | 8 | | RESERVED |
| KEEP NEXT FIVE IN ORDER | | | | |
| 1A8 | MODLIST | 8 | | ROUTINE NAME |
| 1B0 | DUMCOM | 8 | | MODULE 'FILENAME' FILLED IN HERE |
| 1B8 | SSMON | 1 | S*3 | 'FENCE' AND ALLOWS ALL INTERRUPTS |
| 1B9 | ZERO3 | 3 | | THREE-BYTE ZERO |
| 1BC | TRANSRT | 8 | | HOLDS FILENAME OF TRANSIENT ROUTINE |
| 1C4 | TRANMSK | 1 | S*4 | |
| 1C5 | ADTRANS | 3 | | |
| 1C8 | TEMP02 | 8 | | (FOR 'CVD' & OTHER SCRATCH-USE) |
| 1D0 | | 16 | | RESERVED |
| 1E0 | RGPRS | 4 | | RETURNED GPRS |
| 1E0 | RGPR0 | 4 | | R0 |
| 1E4 | RGPR1 | 4 | | R1 |
| 1E8 | RGPR2 | 4 | | R2 |
| 1EC | RGPR3 | 4 | | R3 |
| 1F0 | RGPR4 | 4 | | R4 |
| 1F4 | RGPF5 | 4 | | R5 |
| 1F8 | RGPR6 | 4 | | R6 |
| 1FC | RGPR7 | 4 | | R7 |
| 200 | RGPR8 | 4 | | R8 |
| 204 | RGPR9 | 4 | | R9 |
| 208 | RGPR10 | 4 | | R10 |
| 20C | RGPR11 | 4 | | R11 |
| 210 | RGPR12 | 4 | | R12 |
| 214 | RGPR13 | 4 | | R13 |
| 218 | RGPR14 | 4 | | R14 |
| 21C | RGPR15 | 4 | | R15 |
| 220 | RFPRS | 8 | | RETURNED FLOATING POINT REGS |
| 220 | RFPR0 | 8 | | FPR0 |
| 228 | RFPR2 | 8 | | FPR2 |
| 230 | RFPR4 | 8 | | FPR4 |
| 238 | RFPR6 | 8 | | FPR6 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 240 | NRMUSAV | 96 | | 'NRMSAV' USER SAVE AREA |

CROSS REFERENCE (Name Disp Value)

```
ADMSOVS  0020 ..    OVF1F    002A 04    RFPR2    0228 ..   SFLAG    0010 ..
ADTRANS  01C5 ..    OVF1FS   002A 01    RFPR4    0230 .. | SFNONUCX 0010 02
CURRALOC 0014 ..    OVF1GA   002A 20    RFPR6    0238 ..   SFNUC    0010 20
DEPTH    001C ..    OVF1GB   002A 40    RGPF5    01F4 ..   SFREN    0010 01
DUMCOM   01B0 ..    OVF1GS   002A 10    RGPRS    01E0 ..   SFSYS    0010 80
JFIRST   0004 ..    OVF1ON   002A 80    RGPR0    01E0 ..   SFTRN    0010 40
JF4      0008 ..    OVF1PA   002A 08    RGPR1    01E4 ..   SSMON    01B8 ..
JLAST    000C ..    OVF2CM   002A 40    RGPR10   0208 ..   SVCAB    0012 ..
JNUMB    0000 ..    OVF2NR   002A 20    RGPR11   020C ..   SVCOUNT  015C ..
LASTALOC 0018 ..    OVF2OS   002A 10    RGPR12   0210 ..   SVCSAVE  0030 ..
LOADLIST 0170 ..    OVF2ST   002A 80    RGPR13   0214 ..   SVCSTOP  0160 ..
LOADNAME 0178 ..    OVF2WA   002A 08    RGPR14   0218 ..   SVLAD    0164 ..
LOADSTRT 0190 ..    OVSAFT   002C 20    RGPR15   021C ..   SVLADW   0168 ..
MODLIST  01A8 ..    OVSHO    002C 10    RGPR2    01E8 ..   SVLFS    016C ..
NRMSAV   0078 ..    OVSON    002C 80    RGPR3    01EC ..   TEMP02   01C8 ..
NRMUSAV  0240 ..    OVSPREV  002C 40    RGPR4    01F0 ..   TRANMSK  01C4 ..
OVAPF    0028 ..    OVSSO    002C 08    RGPR6    01F8 ..   TRANSRT  01BC ..
OVATF    002A ..    OVSTAT   002C ..    RGPR7    01FC ..   USVCTBL  0000 ..
OVBPF    0024 ..    RFPRS    0220 ..    RGPR8    0200 ..   ZERO3    01B9 ..
OVBTF    0026 ..    RFPR0    0220 ..    RGPR9    0204 ..
```

## SVCWORK: SVC WORKAREA

SVCWORK is a workarea and register savearea for the CMS DOS simulation modules. SVCWORK is invoked by itself.

```
             +-------------------------------------------+
       0     |                                           |
             =                  SVCREGS                  =
             |                                           |
             +-------------------------------------------+
      10     |                  SVCPACK                  |
             +-------------------------------------------+
      18     |                  SVCCONV                  |
             +-------------------------------------------+
      20     |                                           |
             =                 Save area                 =
             |                                           |
             |                     +---------------------+
             |                     |       SVCRG14       |
             +---------------------+---------------------+
      38     |                  SVCGVCE                  |
             +-------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | SVCREGS | 16 | | REGISTER SAVE AREA |
| 10 | SVCPACK | 8 | | PACK/UNPACK WORK AREA |
| 18 | SVCCONV | 8 | | CONVERT WORKAREA |
| 20 | | 20 | | SAVEAREA |
| 34 | SVCRG14 | 4 | | DMSGMF R14 SAVEAREA |
| 38 | SVCGVCE | 0 | | GETVCE PARAMETER LIST |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| SVCCONV | 0018 | .. |
| SVCGVCE | 0038 | .. |
| SVCPACK | 0010 | .. |
| SVCREGS | 0000 | .. |
| SVCRG14 | 0034 | .. |

## SVEARA: LTA AND PP SAVE AREA DSECT

SVEARA describes the fields in a VSE Logical Transient Area (LTA) and Problem Program (PP) save area. SVEARA is invoked via the DOSAVE macro. These areas are used by DOS/VS routines to save the value of the PSW and registers for purposes such as linkage to and from transient routines.

```
   +------------------------+------------------------+
 0 | ////////////////////// | ////////////////////// |
   +------------------------+------------------------+
 8 |         SVEPSW         |        SVEPSW2         |
   +------------------------+------------------------+
10 |         SVER09         |        SVER0A          |
   +------------------------+------------------------+
18 |         SVER0B         |        SVER0C          |
   +------------------------+------------------------+
20 |         SVER0D         |        SVER0E          |
   +------------------------+------------------------+
28 |         SVER0F         |        SVER00          |
   +------------------------+------------------------+
30 |         SVER01         |        SVER02          |
   +------------------------+------------------------+
38 |         SVER03         |        SVER04          |
   +------------------------+------------------------+
40 |         SVER05         |        SVER06          |
   +------------------------+------------------------+
48 |         SVER07         |        SVER08          |
   +------------------------+------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 8 | SVEPSW | 4 | | FIRST HALF PSW |
| 8 | SVEASM | 1 | | SYSTEM MASK |
| 9 | SVEAKA | 1 | | KEY AND AMWP |
| A | SVEAIC | 2 | | INTERRUPT CODE |
| C | SVEPSW2 | 4 | | SECOND HALF PSW |
| C | SVEAICP | 1 | | ILC, CC, PROGRAM MASK |
| D | SVEAIA | 3 | | INSTRUCTION ADDRESS |
| 10 | SVEA0908 | | | REGISTERS 9-8 |
| 10 | SVEA0915 | | | REGS 9-15 |
| 10 | SVER09 | 4 | | SAVE AREA FOR REGISTER 9 |
| 14 | SVER0A | 4 | | SAVE AREA FOR REGISTER 10 |
| 18 | SVER0B | 4 | | SAVE AREA FOR REGISTER 11 |
| 1C | SVER0C | 4 | | SAVE AREA FOR REGISTER 12 |
| 20 | SVER0D | 4 | | SAVE AREA FOR REGISTER 13 |
| 24 | SVER0E | 4 | | SAVE AREA FOR REGISTER 14 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 28 | SVER0F | 4 | | SAVE AREA FOR REGISTER 15 |
| 2C | SVEA0008 | | | REGS 0-8 |
| 2C | SVER00 | 4 | | SAVE AREA FOR REGISTER 0 |
| 30 | SVER01 | 4 | | SAVE AREA FOR REGISTER 1 |
| 34 | SVER02 | 4 | | SAVE AREA FOR REGISTER 2 |
| 38 | SVER03 | 4 | | SAVE AREA FOR REGISTER 3 |
| 3C | SVER04 | 4 | | SAVE AREA FOR REGISTER 4 |
| 40 | SVER05 | 4 | | SAVE AREA FOR REGISTER 5 |
| 44 | SVER06 | 4 | | SAVE AREA FOR REGISTER 6 |
| 48 | SVER07 | 4 | | SAVE AREA FOR REGISTER 7 |
| 4C | SVER08 | 4 | | SAVE AREA FOR REGISTER 8 |

CROSS REFERENCE (Name Disp Value)

```
SVEAIA    000D ..    SVEA0915 0010 ..    SVER0E   0024 ..    SVER04   003C ..
SVEAIC    000A ..    SVEPSW   0008 ..    SVER0F   0028 ..    SVER05   0040 ..
SVEAICP   000C ..    SVEPSW2  000C ..    SVER00   002C ..    SVER06   0044 ..
SVEAKA    0009 ..    SVER0A   0014 ..    SVER01   0030 ..    SVER07   0048 ..
SVEASM    0008 ..    SVER0B   0018 ..    SVER02   0034 ..    SVER08   004C ..
SVEA0008  002C ..    SVER0C   001C ..    SVER03   0038 ..    SVER09   0010 ..
SVEA0908  0010 ..    SVER0D   0020 ..
```

## SYNSUB: SUBCOMMAND SYNONYM CONTROL BLOCK

SYNSUB blocks are used by the System Product Editor modules to describe the synonyms defined for System Product Editor subcommands. A SYNSUB block is built dynamically by DMSDC each time a synonym is defined. SYNSUB is invoked via the SYNSUB macro.

```
     +-----------------------+-----------+-----------+
   0 |       SYNFWPTR        | SYNABBR   | SYNNARG   |
     +-----------------------+-----------+-----------+
   8 |                    SYNNAME                    |
     +-----------------------------------------------+
  10 |                                               |
     =                    SYNARGS                    =
     |                                               |
     +-----+-----------------------------------------+
  20 | S*1 |                                         |
     +-----+                                         |
     |                    SYNBUFF                    |
     =                                               =
     |                                               |
     |     +-----+-----------------------------------+
  C0 |     | S*2 |                                   |
     +-----+-----+                                   |
     |                                               |
     =                    SYNOBUFF                   =
     |                                               |
     |           +-----+-----+-----------------------+
 160 |           | S*3| S*4|
     +-----------+----+----+
```

### Size

SYNSUB LENGTH IN DOUBLEWORDS (SYNLSYND) 02D
SYNSUB LENGTH IN BYTES (SYNLSYNB) 164

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | SYNFWPTR | 4 | | FORWARD SUBCOMMAND SYN. BLOCK POINTER |
| 4 | SYNABBR | 2 | | DEFINED SUBCOMMAND MINIMUM ABBREVIATION LENGTH-1 |
| 6 | SYNNARG | 2 | | NUMBER OF DEFINED SUBCOMMAND ARGMENTS |
| 8 | SYNNAME | 8 | | DEFINED SUBCOMMAND NAME |
| 10 | SYNARGS | 16 | | ARGMUMENT DEFINITION MAP (2 BITS/ARGMENT) |

Bits defined in SYNARGS

| | | |
|---|---|---|
| 00 | SYNARG0 | ARGUMENT TYPE 0 - BLANK-DELIMITED |
| 04 | SYNNBTYP | 4 ARGUMENT TYPES |
| 03 | SYNARG3 | ARGUMENT TYPE 3 - REMAINING DATA |
| 02 | SYNARG2 | ARGUMENT TYPE 2 - DUAL-STRING-DELIMITED |
| 01 | SYNARG1 | ARGUMENT TYPE 1 - SINGLE-STRING-DELIMITE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 20 | SYNSYNL | 1 | S*1 | LENGTH OF SUBCOMMAND SYNONYM STRING |
| 21 | SYNBUFF | 160 | | SUBCOMMAND SYNONYM STRING |

```
 Disp  Name      Len Key  Description


|  C1  SYNOSYNL    1 S*2  LENGTH OF ORIGINAL DEFINITION

|  C2  SYNOBUFF 160       ORIGINAL DEFINITION

     Bits defined in SYNOBUFF

|    40 SYNMAXAR          MAXIMUM PERMISSIBLE ARGUMENTS

| 162  SYNFLAG1    1 S*3  FLAG BYTE

     Bits defined in SYNFLAG1

|    01 SYNLNLND          .......X LINEND SPECIFIED

  163  SYNLNOCH    1 S*4  LINEND CHARACTER
```

```
 CROSS REFERENCE (Name  Disp  Value)

 SYNABBR  0004 ..    SYNARG3  0010 03  | SYNLNLND 0162 01    SYNNARG  0006 ..
 SYNARGS  0010 ..    SYNBUFF  0021 ..  | SYNLSYNB ....164    SYNNBTYP 0010 04
 SYNARG0  0010 00  | SYNFLAG1 0162 ..  | SYNLSYND .... 2D  | SYNOBUFF 00C2 ..
 SYNARG1  0010 01    SYNFWPTR 0000 ..  | SYNMAXAR 00C2 40  | SYNOSYNL 00C1 ..
 SYNARG2  0010 02  | SYNLNDCH 0163 ..    SYNNAME  0008 ..    SYNSYNL  0020 ..
```

## SYSCOM: SYSTEM COMMUNICATION REGION

SYSCOM describes the fields in the SYSCOM block which is the CMS/DOS equivalent of the VSE System Communication Region (SYSCOM). The ASYSCOM field in NUCON points to the SYSCOM block in DMSNUC. SYSCOM is invoked via the SYSCOM macro.

```
             +-----------------------+-----------------------+
          0  |        IJBERBLC       | ///////////////////// |
             +-----------------------+-----------------------+
|         8  |        IJBERR19       |        IJBPUBRS       |
             +-----------------------+-----------------------+
|        10  | ///////////////////////////////////////////// |
             +-----------------------+-----------------------+
|        18  | ///////////////////// |         IJBLTA        |
             +-----------------------+-----------------------+
         20  |        IJBPPBEG       |        IJBCHANQ       |
             +-----------+-----------+-----------+-----+-----+
|        28  | IJBQSIZE  |  IJBQLNG  | IJBNPART  | S*1 | S*2 |
             +-----------+-----------+-----------+-----+-----+
         30  | ///////////////////// |        IJBCONSP       |
             +-----------------------+-----------------------+
         38  |        IJBOCFCM       | ///////////////////// |
             +-----+-----+-----+-----+-----------------------+
|        40  | S*3 | S*4 | S*5 | S*6 | ///////////////////// |
             +-----+-----+-----+-----+-----------------------+
         48  | ///////////////////// |        IJBTKHLD       |
             +-----------------------+-----------------------+
         50  | ///////////////////////////////////////////// |
             +-----------+-----------+-----------------------+
         58  |  IJBLIK   |  IJBTIK   |         IJBPWR        |
             +-----------+-----------+-----------------------+
         60  |        IJBTCAVT       |        IJBRFTAB       |
             +-----------------------+-----------------------+
|        68  | ///////////////////// |        IJBOLTEP       |
             +-----------------------+-----------------------+
         70  |        IJBRASLN       |        IJBTRTAB       |
             +-----------------------+-----------------------+
         78  |        IJBPBOWN       |        IJBJATAB       |
             +-----------------------+-----------------------+
         80  | ///////////////////// |        IJBCCWT        |
             +-----------------------+-----------------------+
         88  |        IJBSAVSD       |        IJBLNSTB       |
             +-----------------------+-----------------------+
         90  |        IJBARBUF       |        IJBAPTA        |
             +-----------------------+-----------------------+
         98  | ///////////////////////////////////////////// |
             +-----------------------+-----------------------+
         A0  | ///////////////////////////////////////////// |
             +-----------------------+-----------------------+
         A8  | ///////////////////////////////////////////// |
             +-----------------------+-----------------------+
         B0  |        IJBTTAB        | ///////////////////// |
             +-----------------------+-----------+-----------+
         B8  | ///////////////////// | IJBTPBAL  | IJBTTPID  |
             +-----------------------+-----------+-----------+
         C0  |                    IJBMFCER                   |
             |                 +-----+-----------+-----------+
|        C8  |                 | S*7 |  IJPUBLN  |  IJBAPNO  |
             +-----------------+-----+-----------+-----------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 70 | IJBRASLN | 4 | | POINTER TO RAS LINKAGE AREA |
| 74 | IJBTRTAB | 4 | | ADDRESS OF ASCII TABLE |
| 78 | IJBPBOWN | 4 | | ADDRESS OF PUB OWNERSHIP TABLE |
| 7C | IJBJATAB | 4 | | ADDRESS OF JOB ACCOUNTING COMM. AREA |
| 80 | | 4 | | RESERVED |
| 84 | IJBCCWT | 4 | | ADDRESS OF CCW TRANS WORK |
| 88 | IJBSAVSD | 4 | | PNTR TO SDAID COMM. AREA |
| 8C | IJBLNSTB | 4 | | ADDRESS OF LINE MODE TABLE |
| 90 | IJBARBUF | 4 | | ADDRESS OF ATTN INPUT BUFFER |
| 94 | IJBAPTA | 4 | | ADDRESS OF PTA |
| 98 | | 24 | | RESERVED |
| B0 | IJBTTAB | 4 | | ADDRESS OF TTIMER TABLE |
| B4 | | 4 | | RESERVED |
| B8 | | 4 | | RESERVED |
| BC | IJBTPBAL | 2 | | TPBALANCING INFORMATION |
| BE | IJBTTPID | 2 | | TASK TIMER OWNER |
| C0 | IJBMFCER | 11 | | REPOSITE INFORMATION MFCM AND MFCU ERP |
| CB | IJBNERQ | 1 | S*7 | NUMBER OF ERROR QUEUE ENTRIES |
| CC | IJBPUBLN | 2 | | LENGTH OF PUB TABLE |
| CE | IJBAPNO | 2 | | NUMBER OF ACTIVE PARTITIONS |
| D0 | IJBSEGT | 4 | | ADDRESS OF SEGMENT TABLE |
| D4 | | 4 | | RESERVED |
| D8 | IJBBOX | 4 | | POINTER TO BOUNDARY BOX |
| DC | IJBASMCB | 4 | | ADDRESS OF STORAGE MGMT |
| E0 | IJBDPDTB | 4 | | POINTER TO DPD TABLE |
| E4 | IJBOCDEV | 2 | | CUU OF SYSTEM'S OP. CON. |
| E6 | IJBNTASK | 2 | | NUMBER OF SUBTASKS SUPPORTED |
| E8 | | 4 | | RESERVED |
| EC | IJBEOR | 4 | | END OF REAL STORAGE |
| F0 | IJBFTTAB | 4 | | ADDRESS OF THE FETCH TABLE |
| F4 | IJBSVA | 4 | | ADDRESS OF THE SVA START |
| F8 | IJBSVIS | 4 | | ADDRESS OF SVA GETVIS AREA |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| FC | IJBARPSL | 4 | | ADDRESS OF RPS DIRECTORY LIST |
| 100 | IJBARPSR | 4 | | SDDR OF SECTOR CALC ROUTINE |
| 104 | IJBDLAB | 4 | | POINTER TO SYSTEM CODE NAME |
| 108 | IJBASY | 4 | | ADDRESS OF ASYN OP COM TAB |
| 108 | IJBASYFL | | | FLAGBYTE FOR ASYN OP COM |
| 10C | IJBSLACB | 4 | | ADDRESS OF LABEL AREA |
| 110 | IJBSVIPL | 4 | | ADDRESS OF IPL SUPERVISOR |
| 114 | IJBAMSVA | 4 | | ADDRESS OF SVA MOD AREA |
| 118 | | 4 | | RESERVED |
| 11C | IJBETSS | 4 | | POINTER TO ETSS VECTOR TABLE |
| 120 | IJBSCTAB | 4 | | POINTER TO SEC VECTOR TABLE |
| 124 | IJBPCSAV | 4 | | SAVE AREA FOR REG IF PC IN SVA |
| 128 | IJBSUNIT | 4 | | TABLE OF SYSTEM UNITS |
| 12C | IJBPLCT | 4 | | POINTER LIBRARY CONTROL TABLE |
| 130 | SYS$CODE | 13 | | SYSTEM CODE NAME |

CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| IJBAF | 002E | 80 | IJBERR19 | 0008 | .. | IJBNPART | 002C | .. | IJBSCTAB | 0120 | .. |
| IJBAMSVA | 0114 | .. | IJBETSS | 011C | .. | IJBNTASK | 00E6 | .. | IJBSEGT | 00D0 | .. |
| IJBAPNO | 00CE | .. | IJBEUECB | 0068 | .. | IJBOCDEV | 00E4 | .. | IJBSLACB | 010C | .. |
| IJBAPTA | 0094 | .. | IJBFBA | 002F | 02 | IJBOCFCM | 0038 | .. | IJBSUNIT | 0128 | .. |
| IJBARBUF | 0090 | .. | IJBFINSC | 013D | .. | IJBOCFLG | 0034 | .. | IJBSVA | 00F4 | .. |
| IJBARPSL | 00FC | .. | IJBFLG01 | 0040 | .. | IJBOLTEP | 006C | .. | IJBSVIPL | 0110 | .. |
| IJBARPSR | 0100 | .. | IJBFLG02 | 0041 | .. | IJBPBOWN | 0078 | .. | IJBSVIS | 00F8 | .. |
| IJBASMCB | 00DC | .. | IJBFLG03 | 0042 | .. | IJBPCSAV | 0124 | .. | IJBTCAVT | 0060 | .. |
| IJBASY | 0108 | .. | IJBFLG04 | 0043 | .. | IJBPLCT | 012C | .. | IJBTHPTR | 004C | .. |
| IJBASYFL | 0108 | .. | IJBFLG05 | 002E | .. | IJBPPBEG | 0020 | .. | IJBTIK | 005A | .. |
| IJBBOX | 00D8 | .. | IJBFLG06 | 002F | .. | IJBPUBLN | 00CC | .. | IJBTKHLD | 004C | .. |
| IJBCCWT | 0084 | .. | IJBFLPTR | 0024 | .. | IJBPUBRS | 000C | .. | IJBTPBAL | 00BC | .. |
| IJBCHANQ | 0024 | .. | IJBFTTAB | 00F0 | .. | IJBPWR | 005C | .. | IJBTRTAB | 0074 | .. |
| IJBCKD | 002F | 04 | IJBITDWN | 0040 | 01 | IJBQLNG | 002A | .. | IJBTTAB | 00B0 | .. |
| IJBCONSP | 0034 | .. | IJBJATAB | 007C | .. | IJBQSIZE | 0028 | .. | IJBTTPID | 00BE | .. |
| IJBDLAB | 0104 | .. | IJBLIK | 0058 | .. | IJBRASLN | 0070 | .. | IJBVSE | 002E | 40 |
| IJBDPDTB | 00E0 | .. | IJBLNSTB | 008C | .. | IJBRFTAB | 0064 | .. | IJB3800 | 002F | 01 |
| IJBEMODE | 002F | 80 | IJBLTA | 001C | .. | IJBRMS | 0040 | 40 | SYS$CODE | 0130 | .. |
| IJBEOR | 00EC | .. | IJBMFCER | 00C0 | .. | IJBRMSR | 0040 | 80 | TID | 005A | .. |
| IJBERBLC | 0000 | .. | IJBNERQ | 00CB | .. | IJBSAVSD | 0088 | .. | TIDBYTE | 005B | .. |

## SYSNAMES: SAVED SYSTEMS NAMES

SYSNAMES defines the names of any saved systems that may be loaded by CMS routines. SYSNAMES describes the entries in the SYSNAMES table which is pointed to by the ASYSNAMES field in NUCON. SYSNAMES is invoked via the SYSNAMES macro.

```
      +------------------------------------------------+
    0 |                    CMSVSAM                     |
      +------------------------------------------------+
    8 |                    CMSAMS                      |
      +------------------------------------------------+
   10 |                    CMSDOS                      |
      +------------------------------------------------+
   18 |                    CMSBAM                      |
      +------------------------------------------------+
   20 |                    SYSNEND                     |
      +------------------------------------------------+
```

Size

SIZE IN DOUBLEWORDS (SYSNCNT) 04

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CMSVSAM | 8 | | VSAM SHARED SYSTEM NAME |
| 8 | CMSAMS | 8 | | AMS SHARED SYSTEM NAME |
| 10 | CMSDOS | 8 | | DOS SHARED SYSTEM NAME |
| 18 | CMSBAM | 8 | | DOSVS/BAM SHARED SEGMENT NAME |
| 20 | SYSNEND | 8 | | |

CROSS REFERENCE (Name Disp Value)

```
CMSAMS   0008 ..  | CMSDOS   0010 ..  | SYSNCNT  0020 04
CMSBAM   0018 ..  | CMSVSAM  0000 ..  | SYSNEND  0020 ..
```

## TCBADR: TASK CONTROL BLOCK

TCBADR simulates the VSE task control block. TCBADR is invoked via the BGTCB macro.

```
    +-----------------+-----+-----------+-----+-----+
 0  |                 | T*1 | FATHERID  | T*2 | T*3 |
    +-----------------+-----+-----------+-----+-----+
 8  |        TCBTIB         |        TCBSAVE        |
    +-----------------------+-----------------------+
10  |        TCBINFO        |        TCBECB         |
    +-----------------------+-----------------------+
18  |        TCBSAV2        |        TCBITPTR       |
    +-----------------------+-----------------------+
20  |        TCBITSAV       |        TCBABPTR       |
    +-----------------------+-----------------------+
28  |        TCBABSAV       |        TCBPCPTR       |
    +-----------------------+-----------------------+
30  |        TCBPCSAV       |
    +-----------------------+
```

### Size

SHORT SYSTEM TASK TCB LENGTH IN BYTES (SSTCBLNG) 24

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 3 | TCBRID | 1 | T*1 | RID |
| 4 | FATHERID | 2 | | TID OF ATTACHING TASK |
| 6 | TCBFLAGS | 1 | T*2 | FLAG BYTE |
| Bits defined in TCBFLAGS | | | | |
| 80 | SYSRESW | | | 0 WRITE ON SYSRES ALLOWED<br>1-2 RESERVED |
| 10 | ACLOSE | | | 3 VSAM AUTO. CLOSE IN PROCESS |
| 08 | VSAMOPEN | | | 4 VSAM ACB'S OPEN IN PARTITION |
| 7 | TCBFLAG2 | 1 | T*3 | FLAG BYTE |
| 8 | TCBTIB | 4 | | TIB POINTER |
| C | TCBSAVE | 4 | | TASK SAVE AREA ADDRESS |
| 10 | INTINFO | 4 | | INTERRUPT INFORMATION |
| 14 | AERREXIT | 0 | | ERROR EXITS |
| 14 | TCBECB | 4 | | USER TASKS: ADDRESS OF ATTACH ECB |
| 18 | TCBSAV2 | 4 | | ADDRESS OF SECOND SAVE AREA |
| 1C | TCBITPTR | 4 | | ADDRESS OF EXIT ROUTINE OR TECB |
| 20 | TCBITSAV | 4 | | ADDRESS OF EXIT SAVE AREA |
| 24 | TCBABPTR | 4 | | ADDRESS OF AB EXIT ROUTINE |
| 28 | TCBABSAV | 4 | | ADDRESS OF AB EXIT SAVE AREA |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 2C | TCBPCPTR | 4 | | ADDRESS OF PC EXIT ROUTINE |
| 30 | TCBPCSAV | 4 | | ADDRESS OF PC EXIT SAVE AREA |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ACLOSE | 0006 | 10 | SYSRESW | 0006 | 80 | TCBFLAG2 | 0007 | .. | TCBRID | 0003 | .. |
| AERREXIT | 0014 | .. | TCBABPTR | 0024 | .. | TCBITPTR | 001C | .. | TCBSAVE | 000C | .. |
| FATHERID | 0004 | .. | TCBABSAV | 0028 | .. | TCBITSAV | 0020 | .. | TCBSAV2 | 0018 | .. |
| INTINFO | 0010 | .. | TCBECB | 0014 | .. | TCBPCPTR | 002C | .. | TCBTIB | 0008 | .. |
| SSTCBLNG | .... | 24 | TCBFLAGS | 0006 | .. | TCBPCSAV | 0030 | .. | VSAMOPEN | 0006 | 08 |

## TLBBLOK: TAPE LABEL PROCESSING INFORMATION

TLBBLOK contains information used by the CMS tape label processing routines. TLBBLOK is invoked via the TLBBLOK macro.

```
              +-------------------------------------------------+
            0 |                     TLBNAME                      |
              +-----+-----+-----+-----+-------------------------+
            8 | T*1 | T*2 | T*3 | T*4 |        TLBTAPID          |
              +-----+-----+-----+-----+-------------------------+
           10 |                     TLBLABID                     |
              +------------------------+------------------------+
|          18 |        TLBBLKCT        |
              +------------------------+
```

- For nonstandard labels, the following is the format:

```
              +-------------------------------------------------+
           18 |                     TLBNSLNM                     |
              +-------------------------------------------------+
```

**Size**

```
TLBBLOK SIZE IN DOUBLEWORDS (TLBDWSZ) 04
TLBBLOK SIZE IN BYTES       (TLBSIZE) 20
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | TLBNAME | 8 | | CALLED RTNE NAME - DMSTLB |
| 8 | TLBTYPE | 1 | T*1 | TYPE OF CALL |
| Bits defined in TLBTYPE | | | | |
| 00 | TLBOPIN | | | OPEN INPUT |
| 10 | TLBEOV | | | EOV LABEL CALL |
| 0C | TLBCLOUT | | | CLOSE OUTPUT |
| 08 | TLBCLIN | | | CLOSE INPUT |
| 04 | TLBOPOUT | | | OPEN OUTPUT |
| 9 | TLBCALL | 1 | T*2 | CALLER ID |
| Bits defined in TLBCALL | | | | |
| 80 | TLBOS | | | OS SIMULATION |
| 40 | TLBDOS | | | DOS SIMULATION |
| 20 | TLBCMS | | | CMS (COMMAND OR MACRO) |
| 10 | TLBCMAC | | | CMS MACRO |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| A | TLBLABT | 1 | T*3 | LABEL TYPE |

Bits defined in TLBLABT

| | | |
|---|---|---|
| 00 | TLBNONE | NONE SPECIFIED |
| 20 | TLBMSPC | CMS MACRO SPACE TO TM OR WTM |
| 10 | TLBNSLMD | NSL ROUTINE IS MODULE |
| 08 | TLBNSL | NON STANDARD LABELS |
| 06 | TLBSUL | STANDARD USER LABELS |
| 04 | TLBUSER | USER BIT |
| 02 | TLBSL | |
| 01 | TLBBLP | NO LABEL PROCESSING |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| B | TLBMODE | 1 | T*4 | TAPE MODESET BYTE |
| C | TLBTAPID | 4 | | TAPEID |
| 10 | TLBDTFPT | 4 | | DTF POINTER FOR DOS |
| 10 | TLBFCBPT | 4 | | FCB POINTER FOR OS |
| 10 | TLBLABID | 8 | | LABSECT NAME (OR ID) FOR CMS |
| 18 | TLBBLKCT | 4 | | BLOCK COUNT FOR CMS |

MAPPING BELOW IS FOR NSL LABEL ONLY. IT OVERLAYS PART OF SL INTERFACE.

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 18 | TLBNSLNM | 8 | | NSL ROUTINE FILE NAME |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| TLBBLKCT | 0018 | .. |
| TLBBLP | 000A | 01 |
| TLBCALL | 0009 | .. |
| TLBCLIN | 0008 | 08 |
| TLBCLOUT | 0008 | 0C |
| TLBCMAC | 0009 | 10 |
| TLBCMS | 0009 | 20 |
| TLBDOS | 0009 | 40 |
| TLBDTFPT | 0010 | .. |
| TLBDWSZ | .... | 04 |
| TLBEOV | 0008 | 10 |
| TLBFCBPT | 0010 | .. |
| TLBLABID | 0010 | .. |
| TLBLABT | 000A | .. |
| TLBMODE | 000B | .. |
| TLBMSPC | 000A | 20 |
| TLBNAME | 0000 | .. |
| TLBNONE | 000A | 00 |
| TLBNSL | 000A | 08 |
| TLBNSLMD | 000A | 10 |
| TLBNSLNM | 0018 | .. |
| TLBOPIN | 0008 | 00 |
| TLBOPOUT | 0008 | 04 |
| TLBOS | 0009 | 80 |
| TLBSIZE | .... | 20 |
| TLBSL | 000A | 02 |
| TLBSUL | 000A | 06 |
| TLBTAPID | 000C | .. |
| TLBTYPE | 0008 | .. |
| TLBUSER | 000A | 04 |

## TOKLIST: CMS-TYPE TOKENIZED LIST

TOKLIST is used as a template to describe a list of eight-byte tokens. TOKLIST is found in PROP copy.

```
          +-----------------------------------------------+
      0   |                    TOKEN1                     |
          +-----------------------------------------------+
      8   |                    TOKEN2                     |
          +-----------------------------------------------+
     10   |                    TOKEN3                     |
          +-----------------------------------------------+
     18   |                    TOKEN4                     |
          +-----------------------------------------------+
     20   |                    TOKEN5                     |
          +-----------------------------------------------+
     28   |                    TOKEN6                     |
          +-----------------------------------------------+
     30   |                    TOKEN7                     |
          +-----------------------------------------------+
     38   |                    TOKEN8                     |
          +-----------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | TOKEN1 | 8 | | FIRST TOKEN |
| 8 | TOKEN2 | 0 | | SECOND TOKEN |
| 8 | TOKEN2F1 | 4 | | FIRST FULLWORD |
| C | TOKEN2F2 | 4 | | SECOND FULLWORD |
| 10 | TOKEN3 | 8 | | THIRD TOKEN |
| 18 | TOKEN4 | 8 | | FOURTH TOKEN |
| 20 | TOKEN5 | 8 | | FIFTH TOKEN |
| 28 | TOKEN6 | 8 | | SIXTH TOKEN |
| 30 | TOKEN7 | 8 | | SEVENTH TOKEN |
| 38 | TOKEN8 | 8 | | EIGHTH TOKEN |
| Bits defined in TOKEN8 | | | | |
| 08 | TLEN | | | LENGTH OF A TOKEN |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TLEN | 0038 | 08 | TOKEN2F1 | 0008 | .. | TOKEN4 | 0018 | .. | TOKEN7 | 0030 | .. |
| TOKEN1 | 0000 | .. | TOKEN2F2 | 000C | .. | TOKEN5 | 0020 | .. | TOKEN8 | 0038 | .. |
| TOKEN2 | 0008 | .. | TOKEN3 | 0010 | .. | TOKEN6 | 0028 | .. | | | |

## TSOBLKS: TSO CONTROL BLOCKS

TSOBLKS DSECT describes the entries in the TSOBLKS block which contains OS control information used by CMS, that is, the command program parameters list (CCPL), user profile table (UPT), protected step control block (PSCB), and the environment control table (ECT). The ATSOCPPL field in NUCON points to TSOBLKS block. TSOBLOKS is invoked via the TSOBLOKS macro.

```
     +-----------------------+-----------------------+
   0 |        CPPLOBUF       |        CPPLUPT        |
     +-----------------------+-----------------------+
   8 |        CPPLPSCB       |        CPPLECT        |
     +-----------+-----------+-----------------------+
  10 | ///////// |           UPTUSER                 |
     +-----------+-----------+-----+-----+-----+-----+
  18 |   UPTUSER (cont.)     | T*1 | T*2 | T*3 | /// |
     +-----------------------+-----+-----+-----+-----+
  20 |                 PSCBUSER                | T*4 |
     +-----------------------------------------+-----+
  28 |                   PSCBGPNM                    |
     +-----------+-----------+-----------------------+
  30 | PSCBATR1  | PSCBATR2  |                       |
     +-----------+-----------+                       |
     |                                               |
     =                                               =
     |                       +-----------------------+
  48 |                       |       PSCBTCOL        |
     +-----------------------+-----------------------+
  50 |        PSCBRLGB       |        PSCBUPT        |
     +-----------+-----------+-----------------------+
  58 | PSCBUPTL  | ///////// |        PSCBRSZ        |
     +-----------+-----------+-----------------------+
  60 |                     PSCBU                     |
     +-----+-----------------+-----------------------+
  68 | T*5 |     ECTRTCD     |        ECTIOWA        |
     +-----+-----------------+-----------------------+
  70 | T*6 |     ECTSMSG     |        ECTPCMD        |
     +-----+-----------------+-----------------------+
  78 |   ECTPCMD (cont.)     |        ECTSCMD        |
     +-----------------------+-----+-----------------+
  80 |   ECTSCMD (cont.)     | T*7 |    ECTDDNUM     |
     +-----------------------+-----+-----------------+
  88 |        ECTUSER        | ///////////////////// |
     +-----------------------+-----------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | CPPL | 0 | | TEMPORARY PLIST TO CP PROGRAMS |
| 0 | CPPLOBUF | 4 | | ADDRESS OF COMMAND LINE |
| 4 | CPPLUPT | 4 | | ADDRESS OF DUMMY UPT |
| 8 | CPPLPSCB | 4 | | ADDRESS OF DUMMY PSCB |
| C | CPPLECT | 4 | | ADDRESS OF DUMMY ECT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| THE FOLLOWING ARE FACSIMILE TSO CONTROL BLOCKS | | | | |
| 10 | UPT | 4 | | USER PROFILE TABLE |
| 12 | UPTUSER | 10 | | RESERVED FOR INSTALLATION USE |
| 1C | UPTSWS | 1 | T*1 | USER'S ENVIRONMENT SWITCH |
| Bits defined in UPTSWS | | | | |
| 40 | UPTNPRM | | | NO PROMPTING IS TO BE DONE |
| 20 | UPTMID | | | PRINT MESSAGE IDENTIFIERS |
| 10 | UPTNCOM | | | NO USER COMMUNICATION ALLOWED VIA SEND |
| 08 | UPTPAUS | | | PAUSE FOR '?' WHEN IN NON-INTERFACE MODE |
| 04 | UPTALD | | | ATTN HAS BEEN SPECIFIED AS LINE DELETE |
| 1D | UPTCDEL | 1 | T*2 | CHAR DELETE CHARACTER |
| 1E | UPTDEL | 1 | T*3 | LINE DELETE CHARACTER |
| 20 | PSCB | 4 | | PROTECTED STEP CONTROL BLOCK |
| 20 | PSCBUSER | 7 | | USER ID PADDED WITH BLANKS |
| 27 | PSCBUSRL | 1 | T*4 | LENGTH OF USER ID |
| 28 | PSCBGPNM | 8 | | ESOTERIC GROUP NAME INIT BY LOGON |
| 30 | PSCBATR1 | 1 | T*5 | 15 BIT STRING OF USER ATTRIBUTES |
| Bits defined in PSCBATR1 | | | | |
| 80 | PSCBCTRL | | | OPERATOR COMMAND USER |
| 40 | PSCBACCT | | | ACCOUNT COMMAND USER |
| 20 | PSCBJCL | | | SUBMIT COMMAND USER |
| 31 | | 1 | | RESERVED |
| 32 | PSCBATR2 | 1 | T*6 | 15 BIT STRING RESERVED FOR INSTRUCTION USE |
| 33 | | 1 | | RESERVED |
| THE FOLLOWING 6 FULL WORDS ARE USED IN TSO FOR ACCOUNTING. THEY WILL BE LEFT INITIALLY TO ZERO. | | | | |
| 4C | PSCBTCOL | 4 | | |
| 50 | PSCBRLGB | 4 | | |
| 54 | PSCBUPT | 4 | | POINTER TO THE USER PROFILE TABLE |
| 58 | PSCBUPTL | 2 | | LENGTH OF THE UPT |
| 5C | PSCBRSZ | 4 | | REGION SIZE REQUESTED IN 2K UNITS |
| 60 | PSCBU | 8 | | RESERVED FOR INSTALLATION USE |
| 68 | ECT | 4 | | ENVIRONMENT CONTROL BLOCK |
| 68 | ECTRCDF | 1 | T*5 | HIGH ORDER BIT INDICATES CP ABENDED |
| 69 | ECTRTCD | 3 | | RETURN CODE FROM LAST CP |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 6C | ECTIOWA | 4 | | ADDRESS OF I/O SERVICE ROUTINE WORK AREA |

THIS FIELD MUST BE INITIALIZED BY USER AT START OF HIS PROGRAM.

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 70 | ECTMSGF | 1 | T*6 | HIGH ORDER BIT MEANS DELETE 2ND LEVEL MESSAGES |
| 71 | ECTSMSG | 3 | | ADDRESS OF SECOND LEVEL MESSAGE CHAIN |
| 74 | ECTPCMD | 8 | | PRIMARY COMMAND NAME |
| 7C | ECTSCMD | 8 | | SUBCOMMAND NAME |
| 84 | ECTSWS | 1 | T*7 | ECT SW |

Bits defined in ECTSWS

| | | |
|---|---|---|
| 80 | ECTNOPD | 0 BIT=ON, NO OPERANDS EXIST IN COMMAND |
| 20 | ECTATRM | CP TERMINATED BY TMP DETACH W/ STAE |
| 10 | ECTLOGF | LOGON/OFF REQUESTED TMP TO LOG OFF |
| 08 | ECTNMAL | NO USER MESSAGES RECEIVED AT LOGON |
| 04 | ECTNNOT | NO BRDCST NOTICES TO BE RECEIVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 85 | ECTDDNUM | 3 | | COUNTER FOR GEN TEMPORARY DDNAMS |
| 88 | ECTUSER | 4 | | RESERVED FOR INSTALL |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| CPPL | 0000 | .. |
| CPPLECT | 000C | .. |
| CPPLOBUF | 0000 | .. |
| CPPLPSCB | 0008 | .. |
| CPPLUPT | 0004 | .. |
| ECT | 0068 | .. |
| ECTATRM | 0084 | 20 |
| ECTDDNUM | 0085 | .. |
| ECTIOWA | 006C | .. |
| ECTLOGF | 0084 | 10 |
| ECTMSGF | 0070 | .. |
| ECTNMAL | 0084 | 08 |
| ECTNNOT | 0084 | 04 |
| ECTNOPD | 0084 | 80 |
| ECTPCMD | 0074 | .. |
| ECTRCDF | 0068 | .. |
| ECTRTCD | 0069 | .. |
| ECTSCMD | 007C | .. |
| ECTSMSG | 0071 | .. |
| ECTSWS | 0084 | .. |
| ECTUSER | 0088 | .. |
| PSCB | 0020 | .. |
| PSCBACCT | 0030 | 40 |
| PSCBATR1 | 0030 | .. |
| PSCBATR2 | 0032 | .. |
| PSCBCTRL | 0030 | 80 |
| PSCBGPNM | 0028 | .. |
| PSCBJCL | 0030 | 20 |
| PSCBRLGB | 0050 | .. |
| PSCBRSZ | 005C | .. |
| PSCBTCOL | 004C | .. |
| PSCBU | 0060 | .. |
| PSCBUPT | 0054 | .. |
| PSCBUPTL | 0058 | .. |
| PSCBUSER | 0020 | .. |
| PSCBUSRL | 0027 | .. |
| UPT | 0010 | .. |
| UPTALD | 001C | 04 |
| UPTCDEL | 001D | .. |
| UPTDEL | 001E | .. |
| UPTMID | 001C | 20 |
| UPTNCOM | 001C | 10 |
| UPTNPRM | 001C | 40 |
| UPTPAUS | 001C | 08 |
| UPTSWS | 001C | .. |
| UPTUSER | 0012 | .. |

## USAVE: USER SAVE AREA

USAVE is used by DMSITS to allocate and free save areas for other routines during SVC processing; it is pointed to by the USAVEPTR field in SSAVE. USAVE is invoked via the SVCSAVE macro.

```
         +-----------------------------------------------------+
       0 |                                                     |
         =                                                     =
      58 |                                                     |
         +-----------------------------------------------------+
```

### Size

USER SAVE AREA SIZE IN DOUBLEWORDS (USAVESZ) 0C

### CROSS REFERENCE (Name Disp Value)

USAVESZ .... 0C

## USERSECT: USER WORK AREA

USERSECT describes the USERSECT block which is a general scratch storage area provided for user-defined purposes. It may be redefined to suit installation requirements. USERSECT is pointed to by the AUSER field in NUCOM.

```
     +-------------------------------------------------------+
   0 |                                                       |
     =                        USCRTCH                        =
  40 |                                                       |
     +-------------------------------------------------------+
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | USCRTCH | 72 | | |

CROSS REFERENCE (Name  Disp  Value)

```
USCRTCH  0000 ..
USERSECT 0000 ..
```

## ZDESC: FILE DESCRIPTOR BLOCK

ZDESC is used by System Product Editor modules to describe file characteristics. A ZDESC block is built dynamically when the System Product Editor command or subcommand is executed. ZDESC is invoked via the ZBLOCKS macro.

```
         +-----------------------+-----------------------+
       0 |       ZDEFWPTR        |       ZDEBWPTR        |
         +-----------------------+-----------------------+
       8 |       ZDELSCPT        |       ZDEZDEPT        |
         +-----------------------+-----------------------+
      10 |                    ZDEFNAME                   |
         +-----------------------------------------------+
      18 |                    ZDEFTYPE                   |
         +-----------+-----------+-----------------------+
      20 | ZDEFMODE  | ZDERECFM  |       ZDESERCH        |
         +-----------+-----------+-----+-----+-----+-----+
      28 |       ZDESERCH        | D*1 | D*2 | D*3 | D*4 |
         +-----+-----+-----+-----+-----+-----+-----+-----+
      30 | D*5 | D*6 | D*7 | D*8 | D*9 | D*10| D*11| D*12|
         +-----+-----+-----+-----+-----+-----+-----+-----+
      38 | D*13| D*14| D*15| D*16| D*17| D*18| D*19| D*20|
         +-----+-----+-----+-----+-----+-----+-----+-----+
      40 | D*21| D*22| D*23| D*24| D*25| D*26| D*27| D*28|
         +-----+-----+-----+-----+-----+-----+-----+-----+
      48 |                                               |
         =                    ZDETABCL                   =
         |                                               |
         +-----------------------+-----------------------+
      B8 |                                               |
         =                    ZDEVERCL                   =
         |                                               |
         +-----------------------+-----------------------+
     198 |       ZDEVERMX        |       ZDEVERTR        |
         +-----------------------+-----------------------+
     1A0 |                                               |
         =                    ZDEMSKLN                   =
         |                                               |
         +-----------------------+-----------------------+
     240 |       ZDECLTGT        |       ZDECLTG1        |
         +-----------------------+-----------------------+
     248 |       ZDECLTG2        |       ZDECURLN        |
         +-----------------------+-----------------------+
     250 |       ZDECURCL        |       ZDECSLIN        |
         +-----------------------+-----------------------+
     258 |       ZDECSCOL        |       ZDECSSCX        |
         +-----------------------+-----------------------+
     260 |       ZDECSSCY        |       ZDEZONEL        |
         +-----------------------+-----------------------+
     268 |       ZDEZONER        |       ZDEZONEC        |
         +-----------------------+-----------------------+
     270 |       ZDEWIDTH        |       ZDETOPRG        |
         +-----------------------+-----------------------+
     278 |       ZDEENDRG        |       ZDESERIN        |
         +-----------------------+-----------------------+
     280 |       ZDESERST        |       ZDEDISP1        |
         +-----------------------+-----------------------+
     288 |       ZDEDISP2        |       ZDETRUNC        |
         +-----------------------+-----------------------+
    +-----------------------+-----------------------+
290 |       ZDEFLSIZ        |       ZDELRECL        |
    +-----------------------+-----------------------+
298 |       ZDEATCNT        |       ZDECGCNT        |
    +-----------------------+-----------------------+
2A0 |       ZDEGGTOT        |       ZDESERCL        |
    +-----------------------+-----------------------+
2A8 |       ZDESTYLN        |       ZDEUPINC        |
    +-----------------------+-----------------------+
2B0 |       ZDENSPAN        |       ZDEPRSPT        |
    +-----------------------+-----------------------+
2B8 |                    ZDEATSID                   |
    +-----------------------+-----------------------+
2C0 |                                               |
    =                   ZDEPFKPT                    =
    |                                               |
    +-----------------------+-----------------------+
320 |       ZDEPA1PT        |       ZDEPA2PT        |
    +-----------------------+-----------------------+
328 |       ZDEPA3PT        |       ZDEENTER        |
    +-----------------------+-----------------------+
330 |       ZDEACURL        |       ZDEACURD        |
    +-----------------------+-----------------------+
338 |       ZDETOPPT        |       ZDEDELPT        |
    +-----------------------+-----------------------+
340 |                    ZDESIDCD                   |
    +-----------------------+-----------------------+
348 |                    ZDEUNTFN                   |
    +-----------------------+-----------------------+
350 |                    ZDEBFTYP                   |
    +-----------------------+-----------------------+
358 |                    ZDEEFNAM                   |
    +-----------------------+-----------------------+
360 |                    ZDEEFTYP                   |
    +----------+------------------------------------+
368 |ZDEEFMOD  |           ZDEEDATE                 |
    +----------+-----------------------+-----------+
370 |     ZDECDATE                     |RESERVED   |
    +-----------------------+----------+-----------+
378 |       ZDECHOMC        |       ZDECHOML        |
    +-----------------------+-----------------------+
380 |       ZDEORCSL        |       ZDEORCSC        |
    +-----------------------+-----------------------+
388 |       ZDEORCSX        |       ZDEORCSY        |
    +-----------------------+-----------------------+
390 |       ZDECSPRI        |       ZDEPRFPT        |
    +-----------------------+-----------------------+
398 |       ZDEFLPRX        |       ZDELLPRX        |
    +-----------------------+-----------------------+
3A0 |       ZDEFLSCR        |       ZDELLSCR        |
    +-----------------------+-----------------------+
3A8 |       ZDEPRFW1        |       ZDEPRFW2        |
    +-----------------------+-----------------------+
3B0 |       ZDELSTCG        |       ZDECLNSC        |
    +-----------------------+-----------------------+
3B8 |       ZDEFLDCL        |       ZDEFLDLN        |
    +-----------------------+-----------------------+
               +-----------------------+-----------------------+
           3C0 |       ZDEMSGPT        |       ZDEXSTPT        |
               +-----------------------+-----------------------+
           3C8 |       ZDEEQBFL        |                       |
               +-----------------------+                       |
|          3D0 |                                               |
               =                   ZDEEQBUF                    =
|              |                                               |
|              |                       +-----------------------+
|          468 |                       |       ZDEMSBFL        |
               +-----------------------+-----------------------+
           470 |                                               |
               =                   ZDEMSBUF                    =
               |                                               |
               +-----------------------+-----------------------+
           510 |       ZDELSTLL        |                       |
               +-----------------------+                       |
           514 |                                               |
               =                   ZDELSTLC                    =
               |                                               |
               |                       +-----------------------+
|          5B0 |                       |       ZDEQMPTR        |
               +-----------------------+-----------------------+
           5B8 |                                               |
               =                   ZDEQMBUF                    =
               |                                               |
               +-----------+-----------+-----------+-----------+
           680 | ZDEFCURL  | ZDEFMASK  | ZDEFTABS  | ZDEFINPU  |
               +-----------+-----------+-----------+-----------+
           688 | ZDEFMSG   | ZDEFIDLN  |       ZDEMSGCT        |
               +-----------+-----------+-----------+-----------+
           690 |       ZDERSVPT        | ZDEVRIND  | ZDEVREND  |
               +-----------------+-----+-----------+-----------+
           698 |    ZDECLRAR     |    ZDECLRCM     | ZDECLRCU  |
               +-----+-----------+-----+-----------+-----+-----+
           6A0 |cont.|    ZDECLRFI     |     ZDECLRID    |D*30 |
               +-----+-----+-----+-----+-----------+-----+-----+
           6A8 | continue  |    ZDECLRPR     |    ZDECLRPW     |
               +-----------+-----+-----+-----+-----+-----------+
           6B0 |   ZDESCLRSC     |    ZDECLRSH     | ZDECLRST  |
               +-----+-----+-----+-----+-----------+-----+-----+
           6B8 |cont.|    ZDECLRTA     |     ZDECLRTO    |/////|
               +-----+-----------------+-----------------+-----+
|          6C0 |                                               |
|              |                  ZDECSSBP                     |
|              +-----------------------+-----------------------+
|          6D0 |       ZDEPRFCL        |
|              +-----------------------+
```

**Size**

```
| ZDESC LENGTH IN DOUBLEWORDS (ZDELZDED) 0DB
| ZDESC LENGTH IN BYTE        (ZDELZDEB) 6D4
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ZDEFWPTR | 4 | | POINTER TO NEXT DESCRIPTOR BLOCK |
| 4 | ZDEBWPTR | 4 | | POINTER TO PREVIOUS DESCRIPTOR BLOCK |
| 8 | ZDELSCPT | 4 | | POINTER TO LOGICAL SCREEN BLOCK |
| C | ZDEZDEPT | 4 | | POINTER TO DUPLICATE FILE DESCRIPTOR BLOCK |
| CHARACTERS VARIABLES | | | | |
| 10 | ZDEFNAME | 8 | | FILENAME |
| 18 | ZDEFTYPE | 8 | | FILETYPE |
| 20 | ZDEFMODE | 2 | | FILEMODE |
| 22 | ZDERECFM | 2 | | FIXED OR VARIABLE |
| 24 | ZDESERCH | 8 | | 1 TO 8 CHARS OF SERIALIZATION |
| 2C | ZDESERLG | 1 | D*1 | LENGTH OF SERIALIZATION |
| SPECIAL CHARACTERS (KEEP IN ORDER) | | | | |
| 2D | ZDECFILL | 1 | D*2 | FILLER FOR TABULATIONS |
| 2E | ZDECTABC | 1 | D*3 | LOGICAL TABULATION CHARACTER |
| 2F | ZDEATSMD | 1 | D*4 | FILEMODE FOR AUTOSAVE FILE |
| 30 | ZDECESCA | 1 | D*5 | ESCAPE CHARACTER |
| 31 | ZDECASMU | 1 | D*6 | CASE UPPERCASE OR MIXED |
| 32 | ZDECASRI | 1 | D*7 | CASE RESPECT OR IGNORE |
| 33 | ZDEARBCH | 1 | D*8 | ARBITRARY CHARACTER |
| 34 | ZDESPABN | 1 | D*9 | SPAN BLANK/NOBLANK |
| 35 | ZDELNEND | 1 | D*10 | LINE END CHARACTER |
| FILE STATUS BYTE | | | | |
| 36 | ZDEFLAG1 | 1 | D*11 | |

Bits defined in ZDEFLAG1

```
80 ZDEFSINP            X....... FULL SCREEN INPUT MODE
40 ZDEOSDSN            .X...... OS DATA SET EDITING
20 ZDESHFLG            ..X..... TRUE/FALSE (AFTER A SEARCH)
10 ZDESRPNG            ...X.... ./ S CARD PENDING
08 ZDEFLLEF            ....X... CHARACTER POINTER TO LEFT
04 ZDEFLRIG            .....X.. CHARACTER POINTER TO RIGHT
02 ZDEFLEOF            ......X. LINE POINTER TO END OF FILE
01 ZDEFLTOF            .......X LINE POINTER TO TOP OF FILE
```

```
Disp  Name      Len Key  Description

OPTIONS BYTES

 37   ZDEFLAG2   1 D*12

   Bits defined in ZDEFLAG2

   80 ZDESYNON           X....... SET SYNONYM ON
   40 ZDETAYON           .X...... SET STAY ON
   20 ZDEWRPON           ..X..... SET WRAP ON
   10 ZDEMRGUP           ...X.... UPDATE WITH MERGE OPTION
   08 ZDENUMON           ....X... SET NUMBER ON
   04 ZDEVERON           .....X.. VERIFY ON/OFF
   02 ZDECANON           ......X. IMAGE CANON (SCRIPT)
   01 ZDEIMGON           .......X IMAGE ON/OFF

 38   ZDEFLAG3   1 D*13

   Bits defined in ZDEFLAG3

   80 ZDELNDON           X....... SET LINEND ON/OFF
   40 ZDECMSON           .X...... SET CPCMS ON/OFF
   20 ZDEHEXON           ..X..... SET HEX ON/OFF
   10 ZDESIDON           ...X.... SID CODE (OPTION SID)
   08 ZDECTLON           ....X... MULTI LEVEL UPDATE
   04 ZDESQ8ON           .....X.. SEQ8 OR NOSEQ8
   02 ZDEUPDON           ......X. UPDATE MODE
   01 ZDEPCKON           .......X SET PACK ON/OFF

 39   ZDEFLAG4   1 D*14

   Bits defined in ZDEFLAG4

   80 ZDEMCRON           X....... SET MACRO ON/OFF
   40 ZDETFLIN           .X...... SET TOFLINE EOFLINE ON/OFF
   20 ZDESHMSG           ..X..... SET MSGMODE SHORT/LONG
   10 ZDEMSGMD           ...X.... SET MSGMODE ON/OFF
   08 ZDESTMON           ....X... SET STREAM ON/OFF
   04 ZDEVRBON           .....X.. SET VARBLANK ON/OFF
   02 ZDESPNON           ......X. SET SPAN ON/OFF
   01 ZDEARBON           .......X SET ARBCHAR ON/OFF

 3A   ZDEFLAG5   1 D*15

   Bits defined in ZDEFLAG5

   80 ZDEESCON           X....... SET ESCAPE ON/OFF
   40 ZDE2INPT           .X...... TWO INPUT LINES
   20 ZDEPRFRG           ..X..... PREFIX SUBCOMMAND RIGHT/LEFT
   10 ZDEPRFON           ...X.... PREFIX SUBCOMMAND ON/OFF
   08 ZDETBSON           ....X... SET TABLINE ON/OFF
   04 ZDESCLON           .....X.. SET SCALE ON/OFF
   02 ZDECLPON           ......X. SET COLPTR ON/OFF
   01 ZDENULON           .......X SET NULL ON/OFF
 Disp  Name      Len Key  Description


|  3B   ZDESFLG6    1 D*16

     Bits defined in ZDESFLG6

|    80 ZDEFLCHG             X....... FILE HAS BEEN CHANGED
|    40 ZDEQUITM             .X...... QUIT FRPM A MACRO
|    20 ZDEPRNFL             ..X..... PREFIX ON NULL
|    10 ZDESHDON             ...X.... SET SHADOW ON/OFF
|    08 ZDERDNLY             ....X... FILE IS READ ONLY
|    04 ZDESPLWD             .....X.. SET SPILL ON WORD
|    02 ZDESPLON             ......X. SET SPILL ON/OFF
|    01 ZDELINTR             .......X LINE TRUNCATED BIT

|  3C   ZDESFLG7    1 D*17

     Bits defined in ZDESFLG7

|    80 ZDEAUTOS             X....... SET AUTOSAVE ON/OFF
|    40 ZDETBLMD             .X...... TABLINE DEFINE AS M+/-N
|    20 ZDESCLMD             ..X..... SCALE DEFINES AS M+/-N
|    10 ZDECURMD             ...X.... CURLINE DEFINED AS M+/-N
|    08 ZDECMDON             ....X... COMMAND LINE ON
|    04 ZDESCPDP             .....X.. SET SCOPE DISPLAY/ALL
|    02                      ......X. RESERVED
|    01                      .......X RESERVED

|  3D   ZDESFLG8    1 D*18 RESERVED

|  3E   ZDEALTLN    1 D*19 ALTERNATE LINEND

 SCREEN STATUS BYTES

|  3F   ZDESFLG1    1 D*20 READ SUBCOMMAND FLAG

     Bits defined in ZDESFLG1

|    80                      X....... RESERVED
|    40                      .X...... RESERVED
|    20                      ..X..... RESERVED
|    10 ZDERDTAG             ...X.... READ TAG/NOTAG
|    08 ZDERDINP             ....X... READ INPUT AREA ONLY
|    04 ZDERDNUM             .....X.. PREFIX LINE CHANGED WITH LINE NUMBER
|    02 ZDERDNCH             ......X. READ BUT DO NOT CHANGE FILE
|    01 ZDERDALL             .......X READ CHANGED LINES ON SCREEN

|  40   ZDESFLG2    1 D*21 SCREEN STATUS

     Bits defined in ZDESFLG2

|    80 ZDERFRSH             X....... REFRESH THE SCREEN
|    40 ZDEATSET             .X...... AUTOSAVE FILE IS SET UP
     20 ZDESCHGD             ..X..... SOMETHING CHANGED ON SCREEN
     10 ZDEINHLD             ...X.... SUBCOMMAND HOLD IN INPUT AREA
     08 ZDESBCOM             ....X... A SUBCOMMAND HAS BEEN EXECUTED
     04 ZDEWRMSG             .....X.. MESSAGE HAS BEEN WRITTEN
     02 ZDESCABV             ......X. SCREEN UPPER THE CURRENT LINE CHANGED
     01 ZDESCBLW             .......X SCREEN BELOW THE CURRENT LINE HAS BEEN
                                      CHANGED
 Disp  Name      Len Key  Description


 41    ZDESFLG3    1 D*22 SCREEN STATUS

    Bits defined in ZDESFLG3

    80 ZDEKYEXC           X....... EXECUTING ENTER/PF/PA
    40 ZDEENTKY           .X...... ENTER KEY DEPRESSED
    20 ZDECSFIL           ..X..... CURSOR ON FILE
    10 ZDECSSCR           ...X.... CURSOR ON SCREEN
    08 ZDECSCMD           ....X... CURSOR ON CMDLINE
    04 ZDEPFKEY           .....X.. PF KEY HAS BEEN DEPRESSED
    02 ZDETODSP           ......X. SCREEN TO BE DISPATCHED
    01 ZDELCHGD           .......X LINE MODIFIED ON THE SCREEN

 42    ZDESFLG4    1 D*23 SUBCOMMAND STATUS BYTE

    Bits defined in ZDESFLG4

    80                    X....... RESERVED
    40                    .X...... RESERVED
    20 ZDEPXEXM           ..X..... EXECUTING A PREFIX MACRO
    10 ZDEPXEXC           ...X.... EXECUTING PREFIX COMMAND
    08 ZDEPXPNG           ....X... PREFIX PENDING
    04                    .....X.. RESERVED
    02 ZDECSPRF           ......X. CURSOR SET BY PREFIX
    01 ZDEPRFEX           .......X X PREFIX SUBCOMMAND TO BE EXECUTED

 43    ZDESFLG5    1 D*24 SCREEN STATUS

    Bits defined in ZDESFLG5

    80                    X....... RESERVED
    40                    .X...... RESERVED
    20                    ..X..... RESERVED
    10                    ...X.... RESERVED
    08                    ....X... RESERVED
    04 ZDECHOMF           .....X.. CURSOR HOME ON THE FILE
    02                    ......X. RESERVED
    01                    .......X RESERVED

 44    ZDESFLG6    1 D*25 RESERVED

 45    ZDESFLG7    1 D*26 RESERVED

 46    ZDEUFLAG    1 D*27 AVAILABLE FOR USER

 47    ZDEPFCOD    1 D*28 CODE OF PROGRAM FUNCTION KEY
TABULATIONS


    Bits defined in ZDEPFCOD

    1C ZDENBTBC           28 COLUMNS OF TABS

 48    ZDETABCL 112       TABULATIONS COLUMNS
VERIFY COLUMNS

    Bits defined in ZDETABCL

    38 ZDENBVRC           56 COLUMNS OF VERIFY
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| B8 | ZDEVERCL | 224 | | VERIFY COLUMNS |
| Bits defined in ZDEVERCL | | | | |
| BC | ZDEVERC2 | | | ..... |
| B8 | ZDEVERC1 | | | FIRST PAIR OF COLUMN |
| 198 | ZDEVERMX | 4 | | MAXIMUM VERIFY WIDTH |
| 19C | ZDEVERTR | 4 | | VERIFY LEFT/RIGHT TRANSLATION |
| 1A0 | ZDEMSKLN | 160 | | MASK FOR INSERTED LINES |
| NUMERIC VARIABLES | | | | |
| 240 | ZDECLTGT | 4 | | COLUMN INTO WHICH A TARGET HAS BEEN FOUND |
| 244 | ZDECLTG1 | 4 | | LINE NUMBER WHERE TARGET ENDS |
| 248 | ZDECLTG2 | 4 | | COLUMN NUMBER WHERE TARGET ENDS |
| 24C | ZDECURLN | 4 | | CURRENT LINE NUMBER |
| 250 | ZDECURCL | 4 | | CURRENT COLUMN NUMBER |
| 254 | ZDECSLIN | 4 | | LINE OF THE FILE POINTED BY THE CURSOR |
| 258 | ZDECSCOL | 4 | | CHARACTER OF A LINE POINTED BY THE CURSOR |
| 25C | ZDECSSCX | 4 | | COORDINATES OF THE CURSOR X=COLUMN |
| 260 | ZDECSSCY | 4 | | COORDINATES OF THE CURSOR Y=LINE |
| 264 | ZDEZONEL | 4 | | ZONE LEFT |
| 268 | ZDEZONER | 4 | | ZONE RIGHT |
| 26C | ZDEZONEC | 4 | | MAXIMUM ZONE FOR CHANGE |
| 270 | ZDEWIDTH | 4 | | WIDTH OF RECORDS INTO STORAGE |
| 274 | ZDETOPRG | 4 | | TOP OF RANGE |
| 278 | ZDEENDRG | 4 | | END OF RANGE |
| 27C | ZDESERIN | 4 | | INCREMENT OF SERIALIZATION |
| 280 | ZDESERST | 4 | | START OF SERIALIZATION |
| 284 | ZDEDISP1 | 4 | | SET DISPLAY N1 |
| 288 | ZDEDISP2 | 4 | | SET DISPLAY N2 |
| 28C | ZDETRUNC | 4 | | TRUNCATION COLUMN |
| 290 | ZDEFLSIZ | 4 | | NUMBER OF RECORDS OF THE FILE |
| 294 | ZDELRECL | 4 | | LRECL OF THE FILE |
| 298 | ZDEATCNT | 4 | | AUTOSAVE COUNT |
| 29C | ZDECGCNT | 4 | | NUMBER OF CHANGES SINCE LAST AUTOSAVE |
| 2A0 | ZDECGTOT | 4 | | NUMBER OF CHANGE SINCE LAST SAVE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 2A4 | ZDESERCL | 4 | | COLUMN OF SERIALIZATION |
| 2A8 | ZDESTYLN | 4 | | LINE NUMBER WHERE WE STAY IF 'NOT FOUND' |
| 2AC | ZDEUPINC | 4 | | MINIMUM INCREMENT FOR UPDATE SEQUENCE NUMBER |
| 2B0 | ZDENSPAN | 4 | | NUMBER OF LINES SEARCHED WITH SPAN ON |
| 2B4 | ZDEPRSPT | 4 | | PRESERVE/RESTORE CHAIN ANCHOR |
| 2B8 | ZDEATSID | 8 | | AUTO SAVE FILENAME |
| 2C0 | ZDEPFKPT | 96 | | USER DEFINED PFKEYS |
| 320 | ZDEPA1PT | 4 | | PA1 DEFINITION |
| 324 | ZDEPA2PT | 4 | | PA2 DEFINITION |
| 328 | ZDEPA3PT | 4 | | PA3 DEFINITION |
| 32C | ZDEENTER | 4 | | ENTER KEY DEFINITION |

Bits defined in ZDEENTER

| | | |
|---|---|---|
| 00 | PFKFLAG1 | PFKEY FLAG1 |
| 80 | | RESERVED |
| 40 | | RESERVED |
| 20 | PFKRELSE | KEY SHOULD BE RELEASED |
| 10 | PFKINEXC | PF KEY IN EXECUTION |
| 08 | PFKYONLY | EXECUTE PFK ONLY |
| 04 | PFKIGNOR | IGNORE IF CMDLINE TYPED |
| 02 | | RESERVED |
| 01 | PFKAFTER | AFTER/BEFORE CMDLINE |
| 01 | PFKFLAG2 | RESERVED |
| 02 | PFKFLAG3 | RESERVED |
| 03 | PFKDEFLG | PFKEY DEFINITION LENGTH |
| 04 | PFKLDATA | BEGINING OF DEFINITION |

POINTER ON THE FILE LINES IN STORAGE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 330 | ZDEACURL | 4 | | ADDRESS OF THE CURRENT LINE |
| 334 | ZDEACURD | 4 | | ADDRESS OF THE DESCRIPTOR OF THE CURRENT LINE |
| 338 | ZDETOPPT | 4 | | ADDRESS OF THE TOP OF FILE |

POINTER ON THE DELETED LINES WHILE IN UPDATE MODE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 33C | ZDEDELPT | 4 | | ADDRESS OF DELETED LINES |
| 340 | ZDESIDCD | 8 | | SID CODE |
| 348 | ZDEUNTFN | 8 | | UNTIL FNAME OPTION |
| 350 | ZDEBFTYP | 8 | | BASE FILETYPE (FOR UPDATE MODE) |

ORIGINAL FN FT FM AMD DATE/TIME FOR PSAVE/PFILE

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 358 | ZDEEFNAM | 8 | | ORIGINAL FILENAME |
| 360 | ZDEEFTYP | 8 | | ORIGINAL FILETYPE |
| 368 | ZDEEFMOD | 2 | | ORIGINAL FILEMODE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 36A | ZDEEDATE | 6 | | FILE DATE YY MM DD HH MM SS |
| 370 | ZDECDATE | 6 | | CURRENT FILE DATE |
| 376 | | 2 | | RESERVED |
| SCREEN HANDLING AND PREFIX SUBCOMMAND WORK AREA | | | | |
| 378 | ZDECHOML | 4 | | HOME COORDINATES OF THE CURSOR |
| 37C | ZDECHOMC | 4 | | HOML = LINE AND HOMC = COLUMN<br>ORIGINAL CURSOR POSITION: |
| 380 | ZDEORSCL | 4 | | IN THE FILE: LINE |
| 384 | ZDEORCSC | 4 | | IN THE FILE: COLUMN |
| 388 | ZDEORCSX | 4 | | ON THE SCREEN : X=COLUMN |
| 38C | ZDEORCSY | 4 | | ON THE SCREEN : Y=LINE |
| 390 | ZDECSPRI | 4 | | CURSOR PRIORITY |
| 394 | ZDEPRFPT | 4 | | POINTER ON PREFIX LIST |
| 398 | ZDEFLPRX | 4 | | FIRST LINE HOLDING A PREFIX SUBCOMMAND |
| 39C | ZDELLPRX | 4 | | LAST LINE HOLDING A PREFIX SUBCOMMAND |
| 3A0 | ZDEFLSCR | 4 | | FIRST LINE NUMBER ON SCREEN |
| 3A4 | ZDELLSCR | 4 | | LAST LINE NUMBER ON SCREEN |
| 3A8 | ZDEPRFW1 | 4 | | WORK AREA |
| 3AC | ZDEPRFW2 | 4 | | WORK AREA |
| 3B0 | ZDELSTCG | 4 | | NUMBER OF LAST LINE CHANGED ON LOGICAL SCREEN |
| 3B4 | ZDECLNSC | 4 | | CURRENT LINE NUMBER ON THE SCREEN |
| 3B8 | ZDEFLDCL | 4 | | CURRENT FIELD COLUMN NUMBER |
| 3BC | ZDEFLDLN | 4 | | CURRENT FIELD LINE NUMBER |
| 3C0 | ZDEMSGPT | 4 | | MESSAGE LINE POINTER |
| 3C4 | ZDEXSTPT | 4 | | RESERVED |
| = BUFFER | | | | |
| 3C8 | ZDEEQBFL | 4 | | LENGTH OF = STRING |
| 3CC | ZDEEQBUF | 160 | | BUFFER USED BY = SUBCOMMAND |
| MESSAGE BUFFER | | | | |
| 46C | ZDEMSBFL | 4 | | MESSAGE LENGTH |
| 470 | ZDEMSBUF | 160 | | MESSAGE BUFFER |
| LAST LOCATE OR CHANGE | | | | |
| 510 | ZDELSTLL | 4 | | MESSAGE LENGTH |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 514 | ZDELSTLC | 160 | | BUFFER |
| INPUT RING BUFFER | | | | |
| 5B4 | ZDEQMPTR | 4 | | QUESTION MARK POINTER |
| 5B8 | ZDEQMBUF | 200 | | BUFFER TO HOLD INPUTS FROM THE TERMINAL |
| LOGICAL SCREEN INFORMATION KEPT SEPARATE PER FILE | | | | |
| 680 | ZDEFCURL | 2 | | CURRENT LINE NUMBER ON LOGICAL SCREEN |
| 682 | ZDEFMASK | 2 | | SCALE LINE NUMBER ON LOGICAL SCREEN |
| 684 | ZDEFTABS | 2 | | TABS LINE NUMBER ON LOGICAL SCREEN |
| 686 | ZDEFINPU | 2 | | CMDLINE LINE NUMBER ON LOGICAL SCREEN |
| 688 | ZDEFMSG | 2 | | MESSAGE LINE NO ON LOGICAL SCREEN |
| 68A | ZDEFIDLN | 2 | | ID LINE NO ON LOGICAL SCREEN |
| 68C | ZDEMSGCT | 4 | | MESSAGE COUNT ON SCREEN |
| 690 | ZDERSVPT | 4 | | POINTER ON RESERVED LINES |
| Bits defined in ZDERSVPT | | | | |
| 00 | RSVFWPTR | | | POINTER ON NEXT RESERVED LINE |
| 04 | RSVFLAG1 | | | STATUS FLAG1 |
| 80 | | | | X....... RESERVED |
| 40 | | | | .X...... RESERVED |
| 20 | RSVSTDLN | | | ..X..... STANDARD LINE |
| 10 | RSVCMDLN | | | ...X.... COMMAND LINE |
| 08 | RSVTABLN | | | ....X... TAB LINE |
| 04 | RSVSCALN | | | .....X.. SCALE LINE |
| 02 | RSVMSGLN | | | ......X. MSG LINE |
| 01 | RSVIDLIN | | | .......X ID LINE |
| 05 | RSVFLAG2 | | | STATUS FLAG2 |
| 10 | RSVMSGOF | | | ...X.... MESSAGE LINE OFF |
| 08 | RSVSCRMD | | | ....X... LINE # RELATIVE TO SCR-N |
| 04 | RSVSCRNB | | | .....X.. LINE # RELATIVE TO MIDDLE |
| 02 | RSVEXTLN | | | ......X. RSRVD LINE EXT. ON NEXT |
| 01 | RSVLHIGH | | | .......X HIGH INTENSITY |
| 06 | RSVFLAG3 | | | LINE COLOR |
| 07 | RSVFLAG4 | | | EXTENDED HIGHLIGHTING |
| 08 | RSVLINEN | | | LINE NUMBER ON LOG. SCREEN |
| 0A | RSVDEFLG | | | ENTRY LENGTH |
| 0C | RSVLINLG | | | LINE LENGTH |
| 0E | RSVLDATA | | | BEGINNING OF RESERVED LINE |
| 0E | ZDERSVLG | | | HEADER LENGTH |
| 694 | ZDEVRIND | 2 | | INDEX TO VERIFY PAIR WITH CURSOR |
| 696 | ZDEVREND | 2 | | INDEX TO LAST VERIFY PAIR DEFINED |
| COLOR INFORMATION | | | | |
| 698 | ZDECLRAR | 3 | | ARROW COLOR AND EXT. HILITE |
| 69B | ZDECLRCM | 3 | | CMDLINE COLOR AND EXT. HILITE |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 69E | ZDECLRCU | 3 | | CURLINE COLOR AND EXT. HILITE |
| 6A1 | ZDECLRFI | 3 | | FILEAREA COLOR AND EXT. HILITE |
| 6A4 | ZDECLRID | 3 | | IDLINE COLOR AND EXT. HILITE |
| 6A7 | ZDECLRMS | 3 | D*30 | MSGLINE COLOR AND EXT. HILITE |
| 6AA | ZDECLRPR | 3 | | PREFIX COLOR AND EXT. HILITE |
| 6AD | ZDECLRPW | 3 | | PREFIXW COLOR AND EXT. HILITE |
| 6B0 | ZDECLRSC | 3 | | SCALE COLOR AND EXT. HILITE |
| 6B3 | ZDECLRSH | 3 | | SHADOW COLOR AND EXT. HILITE |
| 6B6 | ZDECLRST | 3 | D*31 | STATAREA COLOR AND EXT. HILITE |
| 6B9 | ZDECLRTA | 3 | | TABLINE COLOR AND EXT. HILITE |
| 6BC | ZDECLRTO | 3 | | TOFEOF COLOR AND EXT. HILITE |
| 6C0 | ZDECSSBP | 16 | | CURSOR POSITION SET BY PREFIX |
| 6D0 | ZDEPRFCL | 4 | | POINER ON PREFIX TO BE CLEARED |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value |
|---|---|---|
| PFKAFTER | 032C | 01 |
| PFKDEFLG | 032C | 03 |
| PFKFLAG1 | 032C | 00 |
| PFKFLAG2 | 032C | 01 |
| PFKFLAG3 | 032C | 02 |
| PFKIGNOR | 032C | 04 |
| PFKINEXC | 032C | 10 |
| PFKLDATA | 032C | 04 |
| PFKYONLY | 032C | 08 |
| PFKRELSE | 032C | 20 |
| RSVCMDLN | 0690 | 10 |
| RSVDEFLG | 0690 | 0A |
| RSVEXTLN | 0690 | 02 |
| RSVFLAG1 | 0690 | 04 |
| RSVFLAG2 | 0690 | 05 |
| RSVFLAG3 | 0690 | 06 |
| RSVFLAG4 | 0690 | 07 |
| RSVFWPTR | 0690 | 00 |
| RSVIDLIN | 0690 | 01 |
| RSVLDATA | 0690 | 0E |
| RSVLHIGH | 0690 | 01 |
| RSVLINEN | 0690 | 08 |
| RSVLINLG | 0690 | 0C |
| RSVMSGLN | 0690 | 02 |
| RSVMSGOF | 0690 | 10 |
| RSVSCALN | 0690 | 04 |
| RSVSCRMD | 0690 | 08 |
| RSVSCRNB | 0690 | 04 |
| RSVSTDLN | 0690 | 20 |
| RSVTABLN | 0690 | 08 |
| ZDEACURD | 0334 | .. |
| ZDEACURL | 0330 | .. |
| ZDEALTLN | 003E | .. |
| ZDEARBCH | 0033 | .. |
| ZDEARBON | 0039 | 01 |
| ZDEATCNT | 0298 | .. |
| ZDEATSET | 0040 | 40 |
| ZDEATSID | 02B8 | .. |
| ZDEATSMD | 002F | .. |
| ZDEAUTOS | 003C | 80 |
| ZDEBFTYP | 0350 | .. |
| ZDEBWPTR | 0004 | .. |
| ZDECANON | 0037 | 02 |
| ZDECASMU | 0031 | .. |
| ZDECASRI | 0032 | .. |
| ZDECESCA | 0030 | .. |
| ZDECDATE | 0370 | .. |
| ZDECFILL | 002D | .. |
| ZDECGCNT | 029C | .. |
| ZDECGTOT | 02A0 | .. |
| ZDECHOMC | 037C | .. |
| ZDECHOMF | 0043 | 04 |
| ZDECHOML | 0378 | .. |
| ZDECLNSC | 03B4 | .. |
| ZDECLPON | 003A | 02 |
| ZDECLRAR | 0698 | .. |
| ZDECLRCM | 069B | .. |
| ZDECLRCU | 069E | .. |
| ZDECLRFI | 06A1 | .. |
| ZDECLRID | 06A4 | .. |
| ZDECLRMS | 06A7 | .. |
| ZDECLRPR | 06AA | .. |
| ZDECLRPW | 06AD | .. |
| ZDECLRSC | 06B0 | .. |
| ZDECLRSH | 06B3 | .. |
| ZDECLRST | 06B6 | .. |
| ZDECLRTA | 06B9 | .. |
| ZDECLRTO | 06BC | .. |
| ZDECLTGT | 0240 | .. |
| ZDECLTG1 | 0244 | .. |
| ZDECLTG2 | 0248 | .. |
| ZDECMDON | 003C | 08 |
| ZDECMSON | 0038 | 40 |
| ZDECSCMD | 0041 | 08 |
| ZDECSCOL | 0258 | .. |
| ZDECSFIL | 0041 | 20 |
| ZDECSLIN | 0254 | .. |
| ZDECSPRF | 0042 | 02 |
| ZDECSPRI | 0390 | .. |
| ZDECSSBP | 06C0 | .. |
| ZDECSSCR | 0041 | 10 |
| ZDECSSCX | 025C | .. |
| ZDECSSCY | 0260 | .. |
| ZDECTABC | 002E | .. |
| ZDECTLON | 0038 | 08 |
| ZDECURCL | 0250 | .. |
| ZDECURLN | 024C | .. |
| ZDECURMD | 003C | 10 |
| ZDEDELPT | 033C | .. |
| ZDEDISP1 | 0284 | .. |
| ZDEDISP2 | 0288 | .. |
| ZDEEDATE | 036A | .. |
| ZDEEFMOD | 0368 | .. |
| ZDEEFNAM | 0358 | .. |
| ZDEEFTYP | 0360 | .. |
| ZDEENDRG | 0278 | .. |
| ZDEENTER | 032C | .. |
| ZDEENTKY | 0041 | 40 |
| ZDEEQBFL | 03C8 | .. |
| ZDEEQBUF | 03CC | .. |
| ZDEESCON | 003A | 80 |
| ZDEFCURL | 0680 | .. |
| ZDEFIDLN | 068A | .. |
| ZDEFINPU | 0686 | .. |
| ZDEFLAG1 | 0036 | .. |
| ZDEFLAG2 | 0037 | .. |
| ZDEFLAG3 | 0038 | .. |
| ZDEFLAG4 | 0039 | .. |
| ZDEFLAG5 | 003A | .. |
| ZDEFLAG6 | 003B | .. |
| ZDEFLAG7 | 003C | .. |
| ZDEFLAG8 | 003D | .. |
| ZDEFLCHG | 003B | 80 |
| ZDEFLDCL | 03B8 | .. |
| ZDEFLDLN | 03BC | .. |
| ZDEFLEOF | 0036 | 02 |
| ZDEFLLEF | 0036 | 08 |
| ZDEFLPRX | 0398 | .. |
| ZDEFLRIG | 0036 | 04 |
| ZDEFLSCR | 03A0 | .. |
| ZDEFLSIZ | 0290 | .. |
| ZDEFLTOF | 0036 | 01 |
| ZDEFMASK | 0682 | .. |
| ZDEFMODE | 0020 | .. |
| ZDEFMSG | 0688 | .. |
| ZDEFNAME | 0010 | .. |
| ZDEFSINP | 0036 | 80 |
| ZDEFTABS | 0684 | .. |
| ZDEFTYPE | 0018 | .. |
| ZDEFWPTR | 0000 | .. |
| ZDEHEXON | 0038 | 20 |
| ZDEIMGON | 0037 | 01 |

| | | |
|---|---|---|
| ZDEINHLD | 0040 | 10 |
| ZDEKYEXC | 0041 | 80 |
| ZDELCHGD | 0041 | 01 |
| ZDELINTR | 003B | 01 |
| ZDELLPRX | 039C | .. |
| ZDELLSCR | 03A4 | .. |
| ZDELNDON | 0038 | 80 |
| ZDELNEND | 0035 | .. |
| ZDELRECL | 0294 | .. |
| ZDELSCPT | 0008 | .. |
| ZDELSTCG | 03B0 | .. |
| ZDELSTLC | 0514 | .. |
| ZDELSTLL | 0510 | .. |
| ZDELZDEB | .... | 6D4 |
| ZDELZDED | .... | DB |
| ZDEMCRON | 0039 | 80 |
| ZDEMRGUP | 0037 | 10 |
| ZDEMSBFL | 046C | .. |
| ZDEMSBUF | 0470 | .. |
| ZDEMSGCT | 068C | .. |
| ZDEMSGMD | 0039 | 10 |
| ZDEMSGPT | 03C0 | .. |
| ZDEMSKLN | 01A0 | .. |
| ZDENBTBC | 0047 | 1C |
| ZDENBVRC | 0048 | 38 |
| ZDENSPAN | 02B0 | .. |
| ZDENULON | 003A | 01 |
| ZDENUMON | 0037 | 08 |
| ZDEORCSC | 0384 | .. |
| ZDEORCSL | 0380 | .. |
| ZDEORCSX | 0388 | .. |
| ZDEORCSY | 038C | .. |
| ZDEOSDSN | 0036 | 40 |
| ZDEPA1PT | 0320 | .. |
| ZDEPA2PT | 0324 | .. |
| ZDEPA3PT | 0328 | .. |
| ZDEPCKON | 0038 | 01 |
| ZDEPFCOD | 0047 | .. |
| ZDEPFKEY | 0041 | 04 |
| ZDEPFKPT | 02C0 | .. |
| ZDEPRFCL | 06D0 | .. |
| ZDEPRFEX | 0042 | 01 |
| ZDEPRFNL | 003B | 20 |
| ZDEPRFPT | 0394 | .. |
| ZDEPRFON | 003A | 10 |
| ZDEPRFRG | 003A | 20 |
| ZDEPRFW1 | 03A8 | .. |
| ZDEPRFW2 | 03AC | .. |
| ZDEPRSPT | 02B4 | .. |
| ZDEPXEXC | 0042 | 10 |
| ZDEPXEXM | 0042 | 20 |
| ZDEPXPNG | 0042 | 08 |
| ZDEQMBUF | 05B8 | .. |
| ZDEQMPTR | 05B4 | .. |
| ZDEQUITM | 003B | 40 |
| ZDERDALL | 003F | 01 |
| ZDERDINP | 003F | 08 |
| ZDERDNCH | 003F | 02 |
| ZDERDNLY | 003B | 08 |
| ZDERDNUM | 003F | 04 |
| ZDERDTAG | 003F | 10 |
| ZDERECFM | 0022 | .. |
| ZDERFRSH | 0040 | 80 |
| ZDERSVLG | 0690 | 0E |
| ZDERSVPT | 0690 | .. |
| ZDESBCOM | 0040 | 08 |
| ZDESCABV | 0040 | 02 |
| ZDESCBLW | 0040 | 01 |
| ZDESCHGD | 0040 | 20 |
| ZDESCLON | 003A | 04 |
| ZDESCLMD | 003C | 20 |
| ZDESCPDP | 003C | 04 |
| ZDESERCH | 0024 | .. |
| ZDESERIN | 027C | .. |
| ZDESERCL | 02A4 | .. |
| ZDESERLG | 002C | .. |
| ZDESERST | 0280 | .. |
| ZDESFLG1 | 003F | .. |
| ZDESFLG2 | 0040 | .. |
| ZDESFLG3 | 0041 | .. |
| ZDESFLG4 | 0042 | .. |
| ZDESFLG5 | 0043 | .. |
| ZDESFLG6 | 0044 | .. |
| ZDESFLG7 | 0045 | .. |
| ZDESHDON | 003B | 10 |
| ZDESHFLG | 0036 | 20 |
| ZDESHMSG | 0039 | 20 |
| ZDESIDCD | 0340 | .. |
| ZDESIDON | 0038 | 10 |
| ZDESPABN | 0034 | .. |
| ZDESPLON | 003B | 02 |
| ZDESPLWD | 003B | 04 |
| ZDESPNON | 0039 | 02 |
| ZDESQ8ON | 0038 | 04 |
| ZDESRPNG | 0036 | 10 |
| ZDESTMON | 0039 | 08 |
| ZDESTYLN | 02A8 | .. |
| ZDESYNON | 0037 | 80 |
| ZDETABCL | 0048 | .. |
| ZDETAYON | 0037 | 40 |
| ZDETBLMD | 003C | 40 |
| ZDETBSON | 003A | 08 |
| ZDETFLIN | 0039 | 40 |
| ZDETODSP | 0041 | 02 |
| ZDETOPPT | 0338 | .. |
| ZDETOPRG | 0274 | .. |
| ZDETRUNC | 028C | .. |
| ZDEUFLAG | 0046 | .. |
| ZDEUNTFN | 0348 | .. |
| ZDEUPDON | 0038 | 02 |
| ZDEUPINC | 02AC | .. |
| ZDEVERCL | 00B8 | .. |
| ZDEVERC1 | 00B8 | B8 |
| ZDEVERC2 | 00B8 | BC |
| ZDEVERMX | 0198 | .. |
| ZDEVERON | 0037 | 04 |
| ZDEVERTR | 019C | .. |
| ZDEVRBON | 0039 | 04 |
| ZDEVREND | 0696 | .. |
| ZDEVRIND | 0694 | .. |
| ZDEWIDTH | 0270 | .. |
| ZDEWRMSG | 0040 | 04 |
| ZDEWRPON | 0037 | 20 |
| ZDEXSTPT | 03C4 | .. |
| ZDEZDEPT | 000C | .. |
| ZDEZONEC | 026C | .. |
| ZDEZONEL | 0264 | .. |
| ZDEZONER | 0268 | .. |
| ZDE2INPT | 003A | 40 |

## ZFONC: SYSTEM PRODUCT EDITOR WORK AREA

ZFONC is built by DMSXBG only once in an editing session and is used by System Product Editor modules as a common workarea. ZFONC is invoked via the ZBLOCKS macro.

```
     +-----------------------+-----------------------+
   0 |       ZFOOPNB1        |       ZFOOPNB2        |
     +-----------------------+-----------------------+
   8 |       ZFOOPNB3        |       ZFOOPNB4        |
     +-----------------------+-----------------------+
  10 |       ZFOOPNB5        |       ZFOOPNB6        |
     +-----------------------+-----------------------+
  18 |       ZFOOPNB7        |       ZFOPONB8        |
     +-----------------------+-----------------------+
  20 |       ZFOLRBUF        |                       |
     +-----------------------+                       |
     |                                               |
     =                   ZFORDBUF                    =
     |                                               |
     |                       +-----------------------+
 120 |                       |       ZFOLGOP1        |
     +-----------------------+-----------------------+
 128 |                                               |
     |                   ZFOOPST1                    |
     |                   ........                    |
     =                   ........                    =
     |                                               |
     +-----------------------+-----------------------+
 5A0 |       ZFOLGOP8        |                       |
     +-----------------------+                       |
 5A8 |                                               |
     =                   ZFOOPST8                    =
     |                                               |
     |                       +-----+-----+-----+-----+
 640 |                       | F*1 | F*2 | F*3 | F*4 |
     +-----+-----+-----+-----+-----+-----+-----+-----+
 648 | F*5 | F*6 | F*7 | F*8 | F*9 | F*10| F*11| F*12|
     +-----+-----+-----+-----+-----+-----+-----+-----+
 650 | F*13| F*14| F*15| F*16| F*17| F*18| F*19| F*20|
     +-----+-----+-----+-----+-----+-----+-----+-----+
 658 |       ZFOXSTPT        |       ZFOCSRFL        |
     +-----------------------+-----------------------+
 660 |       ZFOCURFL        |       ZFORTCOD        |
     +-----------------------+-----------------------+
 668 |                   ZFOSUBCM                    |
     +-----------------------+-----------------------+
 670 |       ZFOSYNPT        |       ZFOZMAPT        |
     +-----------------------+-----------------------+
                       XEDIT - WORKAREA

      +------------------------+------------------------+
  678 |        ZFORECPT        |        ZFORETMC        |
      +------------------------+------------------------+
  680 |        ZFOSHVPT        |        ZFOBUFPT        |
      +------------------------+------------------------+
  688 |        ZFOLOCPT        |        RESERVED        |
      +------------------------+------------------------+
  690 |        ZFOBLKCR        |        ZFOFREPT        |
      +------------------------+------------------------+
  698 |        ZFOBLKPT        |        ZFOPRFPT        |
      +------------------------+------------------------+
  6A0 |        ZFOUFLDS        |        ZFONFILE        |
      +------------------------+------------+-----------+
  6A8 |        ZFOATSID        | ZFOATERM   | ZFOCSRAD  |
      +------------------------+------------+-----------+
  6B0 |        RESERVED        |        ZFOBUFIM        |
      +------------------------+------------------------+
  6B8 |        ZFOBUFIO        |        ZFOMSGCT        |
      +------------------------+------------------------+
  6C0 |                                                 |
      = /////////////////////////////////////////////// =
      |                                                 |
      +------------------------+------------------------+
  710 |                    ZFOORSBC                     |
      +------------------------+------------------------+
  718 |        ZFOTBSPT        |        ZFOTBSLG        |
      +------------------------+------------+-----------+
  720 |        ZFOLSCPT        | ZFONROWS   | ZFONCOLS  |
      +------------------------+------------+-----------+
  728 |        ZFOSINDX        |        ZFOLGSCB        |
      +------------------------+------------------------+
  730 |        ZFOIOTBL        |        ZFOIOCMP        |
      +------------------------+------------------------+
  738 |        ZFOTRDUP        |        ZFOTRDLW        |
      +------------------------+------------------------+
  740 |                                                 |
      =                    ZFOCSSTK     +---------------+
  748 |                                 |   ZFOCSRSZ    |
      +-----------+-------------------------------------+
  750 | ZFONSPAR  | ////////////////////////////////////|
      +-----------+------------+------------------------+
  758 |        ZFOLSTSV        |        ZFOXSUFL        |
      +------------------------+------------------------+
  760 |        ZFOXER          |        ZFOCURSV        |
      +------------------------+------------------------+
  768 |                    ZFOPLIST                     |
      +------------------------+------------------------+
  770 |                    ZFOFNAME                     |
      +------------------------+------------------------+
  778 |                    ZFOFTYPE                     |
      +-----------+------------+------------------------+
  780 | ZFOFMODE  | ZFOITNO    |        ZFOABUFF        |
      +-----------+------------+------+-----+-----------+
  788 |        ZFOLBUFF        |F*21  |F*22 | ZFONOIT   |
      +------------------------+------+-----+-----------+
  790 |        ZFONOBRD        |        ZFOAITNO        |
      +------------------------+------------------------+
        +------------------------+------------------------+
    798 |        ZFOANOIT        |                        |
        +------------------------+                        |
    7A0 |                                                 =
        =                    ZFOWKBUF                     |
        |                                                 |
        |                        +------------------------+
        |                        |                        |
        +------------------------+                        |
    8A0 |                                                 |
        =                    ZFOWKTBL                     +
        |                                                 |
        |                        +------------------------+
        |                        |                        |
        +------------------------+                        |
    9A0 |                                                 |
        =                    ZFOSPCVC                     =
        |                                                 |
        +-------------------------------------------------+
    9B0 |                                                 |
        =                                                 =
        |                                                 |
        +------------------------+------------------------+
    9D8 |    ZFOSYNBL            |                        |
        +------------------------+                        |
    9E0 |                                                 |
        =                    ZFOSYNBF                     =
        |                                                 |
        |                        +------------------------+
        |                        | ////////////////////// |
        +------------------------+------------------------|
    AE0 |                                                 |
        =                    ZFOSAVSV                     =
        |                                                 |
        +-------------------------------------------------+
    B40 |                    ZFOSAV01                     |
        =                       ..                        =
        |                       ..                        |
        =                       ..                        =
        |                    ZFOSAV13                     |
        +-------------------------------------------------+
    FC0 |                                                 |
        =                    ZFOSVEND                     =
        |                                                 |
        +-------------------------------------------------+
```

Size

ZFONC LENGTH IN DOUBLEWORDS (ZFOLZFOD) 0210
ZFONC LENGTH IN BYTES (ZFOLZFOB) 1080

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ZFOOPNB1 | 4 | | OPERAND 1 |
| 4 | ZFOOPNB2 | 4 | | OPERAND 2 |
| 8 | ZFOOPNB3 | 4 | | OPERAND 3 |
| C | ZFOOPNB4 | 4 | | OPERAND 4 |
| 10 | ZFOOPNB5 | 4 | | OPERAND 5 |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 14 | ZFOOPNB6 | 4 |  | OPERAND 6 |
| 18 | ZFOOPNB7 | 4 |  | OPERAND 7 |
| 1C | ZFOOPNB8 | 4 |  | OPERAND 8 |
| SUBCOMMAND INPUT/OUTPUT BUFFER |  |  |  |  |
| 20 | ZFOLRBUF | 4 |  | LENGTH OF INPUTTED LINE |
| 24 | ZFORDBUF | 256 |  | INPUT OUTPUT BUFFER SUBCOMMAND BUFFER |
| CHARACTER STRINGS OPERAND |  |  |  |  |
| A0 | MAXBUFLG |  |  | MAXIMUM BUFFER LENGTH |
| 124 | ZFOLGOP1 | 4 |  | STRING LENGTH |
| 1C8 | ZFOLGOP2 | 4 |  | STRING LENGTH |
| 26C | ZFOLGOP3 | 4 |  | STRING LENGTH |
| 310 | ZFOLGOP4 | 4 |  | STRING LENGTH |
| 3B4 | ZFOLGOP5 | 4 |  | STRING LENGTH |
| 458 | ZFOLGOP6 | 4 |  | STRING LENGTH |
| 4FC | ZFOLGOP7 | 4 |  | STRING LENGTH |
| 5A0 | ZFOLGOP8 | 4 |  | STRING LENGTH |
| OPERAND FLAGS |  |  |  |  |
| 128 | ZFOOPST1 | 160 |  | OPERAND 1 |
| 1CC | ZFOOPST2 | 160 |  | OPERAND 2 |
| 270 | ZFOOPST3 | 160 |  | OPERAND 3 |
| 314 | ZFOOPST4 | 160 |  | OPERAND 4 |
| 3B8 | ZFOOPST5 | 160 |  | OPERAND 5 |
| 45C | ZFOOPST6 | 160 |  | OPERAND 6 |
| 500 | ZFOOPST7 | 160 |  | OPERAND 7 |
| 5A4 | ZFOOPST8 | 160 |  | OPERAND 8 |
| 644 | ZFOOPFL1 | 1 | F*1 | OPERAND 1 |
| 645 | ZFOOPFL2 | 1 | F*2 | OPERAND 2 |
| 646 | ZFOOPFL3 | 1 | F*3 | OPERAND 3 |
| 647 | ZFOOPFL4 | 1 | F*4 | OPERAND 4 |
| 648 | ZFOOPFL5 | 1 | F*5 | OPERAND 5 |
| 649 | ZFOOPFL6 | 1 | F*6 | OPERAND 6 |
| 64A | ZFOOPFL7 | 1 | F*7 | OPERAND 7 |

```
 Disp  Name      Len Key  Description


 64B   ZFOOPFL8    1 F*8  OPERAND 8

    Bits defined in ZFOOPFL8

    20 ZFOOPTGT           ..X..... OPERAND IS A TARGET
    10 ZFOOPAST           ...X.... OPERAND SPECIFIED AS *
    08 ZFOOPNEG           ....X... OPERAND IS A STRING WITH ¬
    04 ZFOOPABS           .....X.. OPERAND WAS NOT SPECIFIED
    02 ZFOOPNUM           ......X. OPERAND IS A NUMBER
    01 ZFOOPSTR           .......X OPERAND IS A STRING

 XEDIT STATUS BYTES

 64C   ZFOFLAG1    1 F*9  TERMINAL MANAGEMENT BYTE

    Bits defined in ZFOFLAG1

    80 ZFORDSVR           X....... READ A SUBCOMMAND IN ANY LOG SCR
    40 ZFOMCRNG           .X...... MACRO RUNNING
    20 ZFOTWRMD           ..X..... TERMINAL 3270 USED IN 3215
    10 ZFORMTUB           ...X.... REMOTE DISPLAY
    08 ZFOC3278           ....X... TERMINAL 3278
    04 ZFOC3270           .....X.. TERMINAL 3270
    02 ZFOC3215           ......X. TERMINAL 3215
    01 ZFOC2741           .......X TERMINAL 2741

 64D   ZFOFLAG2    1 F*10 STATUS BYTE

    Bits defined in ZFOFLAG2

    80 ZFOALARM           X....... ALARM SET IN FULL-SCREEN MODE
    40 ZFORFRSH           .X...... REFRESH THE SCREEN
    20 ZFOSCRRD           ..X..... SCREAD SUBCOMMAND
    10 ZFOCLRLG           ...X.... LOGICAL SCREEN CLEAR
    08 ZFOCLRSC           ....X... SCREEN NEEDS TO BE ERASED
    04 ZFOSUSED           .....X.. SCREEN HAS BEEN USED
    02 ZFOSCBLD           ......X. BUILDING THE REAL SCREEN
    01 ZFOTABS1           .......X XEDFNCSP COMPUTE TABS IN COLUMN 1

 64E   ZFOFLAG3    1 F*11 STATUS BYTE

    Bits defined in ZFOFLAG3

    80 ZFOPRFER           X....... ERROR DURING PROFILE
    40                    .X...... RESERVED
    20 ZFOMOVUP           ..X..... MOVE LINE POINTER TO TOP OF FILE
    10 ZFOPROFL           ...X.... EXECUTING PROFILE MACRO
    08 ZFOPRVTB           ....X... PRIVATE SUBCOMMAND TABLE
    04                    .....X.. RESERVED
    02 ZFOTXTON           ......X. TEXT ON
    01 ZFOAPLON           .......X APL ON

 64F   ZFOFLAG4    1 F*12 STATUS BYTE

    Bits defined in ZFOFLAG4

    80                    X....... RESERVED
    40                    .X...... RESERVED
    20 ZFOFULRD           ..X..... SET FULLWORD ON/OFF
    10 ZFCOLCMD           ...X.... COLUMN COMMAND FLAG
    08 ZFOSBCMD           ....X... SUBCOMMAND RECEIVED VIA SUBCOM
    04 ZFORDSTK           .....X.. LINE READ FROM PROGRAM STACK
    02 ZFOIMPCM           ......X. IMPLIED CP/CMS COMMAND
    01 ZFONDSPC           .......X SET NONDISP HAS BEEN ISSUED
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  Disp  Name      Len Key  Description

| 650   ZFOFLAG5   1 F*13 STATUS BYTE

     Bits defined in ZFOFLAG5

|    80 ZFOPSSET           X....... PROGRAMMABLE SYMBOLS
|    40 ZFOKYEXC           .X...... EXECUTING ENTER/PF/PA
|    20 ZFOQUITM           ..X..... QUIT IN PROGRESS
|    10 ZFONOSYN           ...X.... NO SYNONYM PROCESSING
|    08 ZFO14BIT           ....X... 14 BITS ADDRESSING
|    04 ZFOCOLOR           .....X.. 3279 WITH 7 COLORS
|    02 ZFOEXTHI           ......X. TERMINAL WITH HILITE
|    01 ZFOTRSET           .......X USER TRANSLATE TABLES

| 651   ZFOFLAG6   1 F*14 RESERVED
|
|    Bits defined in ZFOFLAG6

|    80                    X....... RESERVED
|    40                    .X...... RESERVED
|    20                    ..X..... RESERVED
|    10                    ...X.... RESERVED
|    08                    ....X... RESERVED
|    04 ZFOSCRDF           .....X.. SCREEN DEFINE ISSUED
|    02 ZFOSCRWD           ......X. SCREEN WIDTH ISSUED
|    01 ZFOSCRSZ           .......X SCREEN SIZE ISSUED

| 652   ZFOFLAG7   1 F*15 RESERVED

| 653   ZFOORSBN   1 F*16 ORIGINAL SUBCOMMAND NAME LENGTH

| 654   ZFOUFLAG   1 F*17 FLAG AVAILABLE FOR USER

| 655   ZFOFKCOD   1 F*18 CONTROL CODE FOR COMPOUND CHARACTERS

| 656   ZFOERCOD   1 F*19 WRITE ERASE OR WRITE ERASE ALTERNATE

| 657   ZFOKYCOD   1 F*20 TABULATION PFKEY CODE (TABKEY)
|
| POINTER TO DISPATCH FILE IN SEVERAL LOGICAL SCREENS

| 658   ZFOXSTPT   4      RESERVED

| 65C   ZFOCSRFL   4      FILE THAT OWNS THE PHYSICAL CURSOR

| 660   ZFOCURFL   4      CURRENT FILE EDITED
|
| INFORMATION SUBCOMMAND AND MACRO-SUBCOMMAND

| 664   ZFORTCOD   4      SUBCOMMAND RETURN CODE
|
|    Bits defined in ZFORTCOD

|    667 ZFORTBYT          LAST BYTE OF RETURN CODE

| 668   ZFOSUBCM   8      NAME OF THE LAST SUBCOMMAND EXECUTED

| 670   ZFOSYNPT   4      ADDRESS OF SYNONYM SUBCOMMAND TABLE

| 674   ZFOZMAPT   4      ADDRESS OF FIRST MACRO-SUBCOMMAND IN STORAGE

| 678   ZFORECPT   4      POINTER TO CURRENT MACRO-RECURSION AREA

| 67C   ZFORETMC   4      RETURN ADDRESS TO PREVIOUS MACRO
```

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 680 | ZFOSHVPT | 4 | | POINTER TO FIRST SHVBLOCK FOR EXECCOMM |
| 684 | ZFOBOFPT | 4 | | POINTER TO EXTRACT BUFFER |
| 688 | ZFOLOCPT | 4 | | POINTER TO CURRENT LOCATION IN EXTRACT BUFFER |
| 68C | | 4 | | RESERVED |
| LINE DESCRIPTOR | | | | |
| 80 | ZFOLNDSP | | | X....... LINE TO BE REDISPLAYED ON SCREEN |
| 40 | ZFOPRFIN | | | .X...... LINE INSERTED BY PREFIX SUBCOMMAND |
| 20 | ZFOLNEXT | | | ..X..... LINE SHOULD BE EXTENDED |
| 10 | ZFOLNCSR | | | ...X.... SET CURSOR ON THIS LINE |
| 08 | ZFOLNCUR | | | ....X... CURRENT LINE AFTER PRF EXEC |
| 04 | ZFOLNDEL | | | .....X.. LINE FOLLOWED BY DELETED LINE(S) |
| 02 | ZFOLNCHG | | | ......X. CHANGED LINE |
| 01 | ZFOLNNEW | | | .......X INSERTED LINE |
| 1C | ZFOLDSCR | | | LINE DESCRIPTOR LENGTH |
| 18 | ZFOLSELC | | | SELECTION LEVEL |
| 14 | ZFOLPNDG | | | POINTER ON PREFIX INFORMATION |
| 10 | ZFOLNAME | | | ADDRESS OF LINE NAME (.XXXXX) |
| 0F | | | | RESERVED |
| 0E | ZFOLSPRI | | | CURSOR PRIORITY LEVEL |
| 0D | ZFOLFLG1 | | | LINE STATUS |
| 0C | ZFOLFLAG | | | LINE STATUS |
| 08 | ZFOLADDR | | | LINE ADDRESS |
| 04 | ZFOLBWPT | | | BACKWARD POINTER |
| 00 | ZFOLFWPT | | | FORWARD POINTER |
| PREFIX AREA DESCRIPTION | | | | |
| 28 | ZFOPRFXR | | | REAL NAME AFTER SYNONYM RESOLUTION |
| 06 | ZFOPRFXL | | | LENGTH IN DOUBLEWORDS |
| 20 | ZFOPRFXN | | | PREFIX NAME |
| 1F | ZFOPXFL1 | | | PREFIX FLAG |
| 04 | ZFOPXAMP | | | .....X.. START BY & |
| 02 | ZFOPXPNG | | | ......X.. CREATED BY SET PENDING |
| 01 | ZFOPXUSD | | | .......X. ENTRY IN USE |
| 1E | ZFOPXFLG | | | PREFIX FLAG |
| 80 | ZFOPXOP3 | | | X....... OP3 SPECIFIED |
| 40 | ZFOPXOP2 | | | .X...... OP2 SPECIFIED |
| 20 | ZFOPXOP1 | | | ..X..... OP1 SPECIFIED |
| 10 | ZFOPXINV | | | ...X.... INV OP FOR BUILT IN COMMAND |
| 08 | ZFOPXCMD | | | ....X... PREFIX BUILD IN |
| 04 | ZFOPXMAC | | | .....X.. PREFIX MACRO |
| 02 | ZFOPXSHD | | | ......X. PREFIX ON SHADOW LINE |
| 01 | ZFOPXBLK | | | .......X BLOCK PREFIX COMMAND |
| 1D | ZFOPRFNL | | | PREFIX COMMAND NAME LENGTH |
| 18 | ZFOPRFXA | | | PREFIX COMMAND AS TYPED |
| 14 | ZFOPRFX3 | | | OPERAND3 |
| 10 | ZFOPRFX2 | | | OPERAND2 |
| 0C | ZFOPRFX1 | | | OPERAND1 |
| 08 | ZFOPRFLP | | | POINTER TO THE LINE DESCRIPTION |
| 04 | ZFOPRFBW | | | BACKWARD POINTER |
| 00 | ZFOPRFFW | | | FORWARD POINTER |
| STORAGE MANAGEMENT (SEE DMSXST) | | | | |
| 690 | ZFOBLKCR | 4 | | ADDRESS OF BLOCK CONTAINING THE MOST SPACE |
| 694 | ZFOFREPT | 4 | | ADDRESS OF FREE DESCRIPTOR CHAIN |
| 698 | ZFOBLKPT | 4 | | ADDRESS OF FIRST BLOCK OF FREE LINES |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 69C | ZFOPRFPT | 4 | | PREFIX SYNONYM TABLE POINTER |
| 6A0 | ZFOUFLDS | 4 | | USER DEFINED FIELDS TABLE POINTER |
| 6A4 | ZFONFILE | 4 | | NUMBER OF FILES EDITED SIMULTANEOUSLY |
| 6A8 | ZFOATSID | 4 | | UNIQUE AUTOSAVE ID |
| TERMINAL MANAGEMENT | | | | |
| 6AC | ZFOATERM | 2 | | TERMINAL ADDRESS (CUU) |
| 6AE | ZFOCSRAD | 2 | | EBCDIC ADDRESS OF CURSOR (2 CHARACTERS) |
| 6B0 | | 4 | | RESERVED |
| 6B4 | ZFOBUFIM | 4 | | ADDRESS OF SCREEN BUFFER |
| 6B8 | ZFOBUFIO | 4 | | ADDRESS OF INPUT/OUTPUT BUFFER |
| 6BC | ZFOMSGCT | 4 | | NUMBER OF MESSAGES ON SCREEN |
| 6C0 | | 80 | | RESERVED |
| 710 | ZFOORSBC | 8 | | ORIGINAL SUB COMMAND NAME |
| 718 | ZFOTBSPT | 4 | | TABSET BUFFER ADDRESS |
| 71C | ZFOTBSLG | 4 | | TABSET BUFFER LENGTH |
| 720 | ZFOLSCPT | 4 | | ADDRESS OF FIRST LOGICAL SCREEN |
| 724 | ZFONROWS | 2 | | NUMBER OF LINES OF PHYSICAL SCREEN |
| 726 | ZFONCOLS | 2 | | NUMBER OF COLUMNS OF PHYSICAL SCREEN |
| 728 | ZFOSINDX | 4 | | INDEX ON SCREEN BUFFER |
| 72C | ZFOLGSCB | 4 | | SIZE IN BYTES OF SCREEN BUFFER (NUMBER OF DATA-BYTES AND CTL CHARACTERS) |
| | Bits defined in ZFOLGSCB | | | |
| | 05 ZFOCTLSZ | | | SBA, EBCDIC ADDRESS, SF, ATTRIBUT |
| 730 | ZFOIOTBL | 4 | | INPUT/OUTPUT TRANSLATE TABLE |
| 734 | ZFOIOCMP | 4 | | INPUT/OUTPUT COMPOUND TABLE |
| 738 | ZFOTRDUP | 4 | | UPPERCASE TRANSLATE TABLE |
| 73C | ZFOTRDLW | 4 | | LOWERCASE TRANSLATE TABLE |
| 740 | ZFOCSSTK | 14 | | CURSOR STACK (/SOS PUSH & POP) |
| | Bits defined in ZFOCSSTK | | | |
| | 07 ZFOCSDPT | | | LENGTH OF STACK |
| 74E | ZFOCSRSZ | 2 | | SIZE IN BYTE OF PHYSICAL SCREEN |
| 750 | ZFONBPAR | 2 | | NUMBER OF PARTITIONS |
| 752 | | 6 | | RESERVED |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| SAVE AREA POINTERS | | | | |
| 758 | ZFOLSTSV | 4 | | LAST SAVE AREA ADDRESS |
| 75C | ZFOXSUFL | 4 | | A(DMSXSUFL) : HANDLE STACK OVERFLOW |
| 760 | ZFOXER | 4 | | A(DMSXER) : HANDLE ERROR MESSAGE |
| 764 | ZFOCURSV | 4 | | CURRENT SAVE AREA |
| CMS PLIST | | | | |
| 768 | ZFOFSCB | 0 | | PLIST CMS |
| 768 | ZFOPLIST | 8 | | FILE SYSTEM COMMAND (RDBUF, WRBUF, ETC.) |
| 770 | ZFOFNAME | 8 | | FILENAME |
| 778 | ZFOFTYPE | 8 | | FILETYPE |
| 780 | ZFOFMODE | 2 | | FILEMODE |
| 782 | ZFOITNO | 2 | | RELATIVE RECORD NUMBER TO BE READ/WRITTEN |
| 784 | ZFOABUFF | 4 | | ADDRESS OF R/W BUFFER OR OF STATEFST |
| 788 | ZFOLBUFF | 4 | | LENGTH OF BUFFER |
| 78C | ZFORECFM | 1 | F*21 | RECFM - C'F' OR C'V' |
| 78D | ZFOFLAG | 1 | F*22 | FSCB FLAG |
| 78E | ZFONOIT | 2 | | NUMBER OF RECORDS TO BE READ/WRITTEN |
| 790 | ZFONOBRD | 4 | | NUMBER OF BYTES ACTUALLY READ |
| 794 | ZFOAITNO | 4 | | ALTERNATE ITEM NUMBER (FULLWORD) |
| 798 | ZFOANOIT | 4 | | ALTERNATE NUMBER OF ITEM (FULLWORD) |
| WORK AREAS | | | | |
| 79C | ZFOWKBUF | 256 | | WORK BUFFER |
| 89C | ZFOWKTBL | 256 | | 256 BYTES TABLE USED BY TRTS |
| 99C | ZFOSPCVC | 20 | | BINARY/EBCDIC CONVERSION AREA |
| 9B0 | ZFOWKBFD | 40 | | DOUBLEWORD ALIGNED WORK BUFFER |
| SYNONYM BUFFER | | | | |
| 9D8 | ZFOSYNBL | 4 | | BUFFER LENGTH |
| 9DC | ZFOSYNBF | 256 | | WORK BUFFER FOR SYNONYMS |
| STACK OF SAVE AREA (16 WORDS + BACKWARD POINTER + 28 BYTES WORKAREA) | | | | |
| AE0 | ZFOSTKSV | 0 | | |
| AE0 | ZFOSAVSV | 96 | | CALL DMSXSU FROM DMSXBG |
| B40 | ZFOSAV01 | 96 | | ROUTINES CALLED FROM DMSXSU |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| BA0 | ZFOSAV02 | 96 | | ROUTINES CALLED FROM DMSXSU |
| C00 | ZFOSAV03 | 96 | | ROUTINES CALLED FROM DMSXSU |
| C60 | ZFOSAV04 | 96 | | ROUTINES CALLED FROM DMSXSU |
| CC0 | ZFOSAV05 | 96 | | ROUTINES CALLED FROM DMSXSU |
| D20 | ZFOSAV06 | 96 | | ROUTINES CALLED FROM DMSXSU |
| D80 | ZFOSAV07 | 96 | | ROUTINES CALLED FROM DMSXSU |
| DE0 | ZFOSAV08 | 96 | | ROUTINES CALLED FROM DMSXSU |
| E40 | ZFOSAV09 | 96 | | ROUTINES CALLED FROM DMSXSU |
| EA0 | ZFOSAV10 | 96 | | ROUTINES CALLED FROM DMSXSU |
| F00 | ZFOSAV11 | 96 | | ROUTINES CALLED FROM DMSXSU |
| F60 | ZFOSAV12 | 96 | | ROUTINES CALLED FROM DMSXSU |
| FC0 | ZFOSAV13 | 96 | | ROUTINES CALLED FROM DMSXSU |
| 1020 | ZFOSVEND | 96 | | |

Bits defined in ZFOSVEND

| | | |
|---|---|---|
| F | ZFOSAVNB | NUMBER OF SAVE AREA |

EQUATES

| | | |
|---|---|---|
| 80 | DELCOM | COMMON DELIMITER BETWEEN TWO STRINGS |
| 40 | TYPTRGT | TYPE TARGET |
| C0 | TYPTRGTC | TYPE COLUMN TARGET |
| 20 | DEF2P31 | DEFAULT 2**31 |
| 10 | DEFNBUN | DEFAULT 1 |
| 30 | DEFABS | OPERAND CAN BE OMITTED |
| 08 | TYPLIGNE | LINE IMAGE |
| 04 | TYPCHDEL | STRING WITH DELIMITEUR |
| 02 | TYPCHAIN | STRING |
| 01 | TYPNUM | NUMBER |
| 00 | D0 | DISPLACEMENT |
| 01 | D1 | DISPLACEMENT |
| 02 | D2 | DISPLACEMENT |
| 03 | D3 | DISPLACEMENT |
| 04 | D4 | DISPLACEMENT |
| 05 | D5 | DISPLACEMENT |
| 06 | D6 | DISPLACEMENT |
| 07 | D7 | DISPLACEMENT |
| 08 | D8 | DISPLACEMENT |
| 09 | D9 | DISPLACEMENT |
| 0A | D10 | DISPLACEMENT |
| 0C | D12 | DISPLACEMENT |
| 0D | D13 | DISPLACEMENT |
| 0E | D14 | DISPLACEMENT |
| 10 | D16 | DISPLACEMENT |
| 18 | D24 | DISPLACEMENT |
| 1B | D27 | DISPLACEMENT |
| 1C | D28 | DISPLACEMENT |
| 20 | D32 | DISPLACEMENT |
| 28 | D40 | DISPLACEMENT |
| 32 | D50 | DISPLACEMENT |
| 40 | D64 | DISPLACEMENT |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 58 | D88 | | | DISPLACEMENT |
| 60 | D96 | | | DISPLACEMENT |
| 64 | D100 | | | DISPLACEMENT |
| 68 | D104 | | | DISPLACEMENT |
| 01 | L1 | | | LENGTH |
| 02 | L2 | | | LENGTH |
| 03 | L3 | | | LENGTH |
| 04 | L4 | | | LENGTH |
| 05 | L5 | | | LENGTH |
| 06 | L6 | | | LENGTH |
| 07 | L7 | | | LENGTH |
| 08 | L8 | | | LENGTH |
| 0A | L10 | | | LENGTH |
| 0C | L12 | | | LENGTH |
| 10 | L16 | | | LENGTH |
| 11 | L17 | | | LENGTH |
| 12 | L18 | | | LENGTH |
| 18 | L24 | | | LENGTH |
| 20 | L32 | | | LENGTH |
| 50 | L80 | | | LENGTH |
| 84 | L132 | | | LENGTH |
| 00 | L256 | | | LENGTH |
| 01 | M1 | | | MASK |
| 02 | M2 | | | MASK |
| 03 | M3 | | | MASK |
| 07 | M7 | | | MASK |
| 08 | M8 | | | MASK |
| 0C | MC | | | MASK |
| 0E | ME | | | MASK |
| 0F | MF | | | MASK |
| 00 | X00 | | | |
| 01 | X01 | | | |
| 16 | X16 | | | |
| 80 | X80 | | | |
| FF | XFF | | | |

CROSS REFERENCE (Name Disp Value)

| Name | Disp | Value | Name | Disp | Value | Name | Disp | Value | Name | Disp | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEFABS | 0000 | 30 | D64 | 0000 | 40 | MAXBUFLG | 0024 | A0 | ZFOANOIT | 0798 | .. |
| DEFNBUN | 0000 | 10 | D7 | 0000 | 07 | MC | 0000 | 0C | ZFOAPLON | 064E | 01 |
| DEF2P31 | 0000 | 20 | D8 | 0000 | 08 | ME | 0000 | 0E | ZFOATERM | 06AE | .. |
| DELCOM | 0000 | 80 | D88 | 0000 | 58 | MF | 0000 | 0F | ZFOATSID | 06A8 | .. |
| D0 | 0000 | .. | D9 | 0000 | 09 | M1 | 0000 | 01 | ZFOBLKCR | 0690 | .. |
| D1 | 0000 | 01 | D96 | 0000 | 60 | M2 | 0000 | 02 | ZFOBLKPT | 0698 | .. |
| D10 | 0000 | 0A | L1 | 0000 | 01 | M3 | 0000 | 03 | ZFOBUFIM | 06B4 | .. |
| D100 | 0000 | 64 | L10 | 0000 | 0A | M7 | 0000 | 07 | ZFOBUFIO | 06B8 | .. |
| D104 | 0000 | 68 | L12 | 0000 | 0C | M8 | 0000 | 08 | ZFOBUFPT | 0684 | .. |
| D12 | 0000 | 0C | L132 | 0000 | 84 | TYPCHAIN | 0000 | 02 | ZFOCLRLG | 064D | 10 |
| D13 | 0000 | 0D | L16 | 0000 | 10 | TYPCHDEL | 0000 | 04 | ZFOCLRSC | 064D | 08 |
| D14 | 0000 | 0E | L17 | 0000 | 11 | TYPLIGNE | 0000 | 08 | ZFOCOLOR | 0650 | 04 |
| D16 | 0000 | 10 | L18 | 0000 | 12 | TYPNUM | 0000 | 01 | ZFOCSDPT | 0740 | 07 |
| D2 | 0000 | 02 | L2 | 0000 | 02 | TYPTRGT | 0000 | 40 | ZFOCSPRI | 068C | 0E |
| D24 | 0000 | 18 | L24 | 0000 | 18 | TYPTRGTC | 0000 | C0 | ZFOCSRAD | 06AE | ..b |
| D27 | 0000 | 1B | L256 | 0000 | .. | XFF | 0000 | FF | ZFOCSRFL | 065C | .. |
| D28 | 0000 | 1C | L3 | 0000 | 03 | X00 | 0000 | 00 | ZFOCSRSZ | 074E | .. |
| D3 | 0000 | 03 | L32 | 0000 | 20 | X01 | 0000 | 01 | ZFOCSSTK | 0740 | .. |
| D32 | 0000 | 20 | L4 | 0000 | 04 | X16 | 0000 | 16 | ZFOCTLSZ | 072C | 05 |
| D4 | 0000 | 04 | L5 | 0000 | 05 | X80 | 0000 | 80 | ZFOCURFL | 0660 | .. |
| D40 | 0000 | 28 | L6 | 0000 | 06 | ZFCOLCMD | 064F | 10 | ZFOCURSV | 0764 | .. |
| D5 | 0000 | 05 | L7 | 0000 | 07 | ZFOABUFF | 0784 | .. | ZFOC2741 | 064C | 01 |
| D50 | 0000 | 32 | L8 | 0000 | 08 | ZFOAITNO | 0794 | .. | ZFOC3215 | 064C | 02 |
| D6 | 0000 | 06 | L80 | 0000 | 50 | ZFOALARM | 064D | 80 | ZFOC3270 | 064C | 04 |

| | | |
|---|---|---|
| ZFOC3278 | 064C | 08 |
| ZFOERCOD | 0656 | .. |
| ZFOEXTHI | 0650 | 02 |
| ZFOFKCOD | 0655 | .. |
| ZFOFLAG | 078D | .. |
| ZFOFLAG1 | 064C | .. |
| ZFOFLAG2 | 064D | .. |
| ZFOFLAG3 | 064E | .. |
| ZFOFLAG4 | 064F | .. |
| ZFOFLAG5 | 0650 | .. |
| ZFOFLAG6 | 0651 | .. |
| ZFOFLAG7 | 0652 | .. |
| ZFOFMODE | 0780 | .. |
| ZFOFNAME | 0770 | .. |
| ZFOFREPT | 0694 | .. |
| ZFOFSCB | 0768 | .. |
| ZFOFTYPE | 0778 | .. |
| ZFOFULRD | 064F | 20 |
| ZFOIMPCM | 064F | 02 |
| ZFOIOCMP | 0734 | .. |
| ZFOIOTBL | 0730 | .. |
| ZFOITNO | 0782 | .. |
| ZFOKYCOD | 0657 | .. |
| ZFOKYEXC | 0650 | 40 |
| ZFOLADDR | 068C | 08 |
| ZFOLBUFF | 0788 | .. |
| ZFOLBWPT | 068C | 04 |
| ZFOLDSCR | 068C | 1C |
| ZFOLFLAG | 068C | 0C |
| ZFOLFLG1 | 068C | 0D |
| ZFOLFWPT | 068C | 00 |
| ZFOLGOP1 | 0124 | .. |
| ZFOLGOP2 | 01C8 | .. |
| ZFOLGOP3 | 026C | .. |
| ZFOLGOP4 | 0310 | .. |
| ZFOLGOP5 | 03B4 | .. |
| ZFOLGOP6 | 0458 | .. |
| ZFOLGOP7 | 04FC | .. |
| ZFOLGOP8 | 05A0 | .. |
| ZFOLGSCB | 072C | .. |
| ZFOLNAME | 068C | 10 |
| ZFOLNCHG | 068C | 02 |
| ZFOLNCSR | 068C | 10 |
| ZFOLNCUR | 068C | 08 |
| ZFOLNDEL | 068C | 04 |
| ZFOLNDSP | 068C | 80 |
| ZFOLNEXT | 068C | 20 |
| ZFOLNNEW | 068C | 01 |
| ZFOLOCPT | 0688 | .. |
| ZFOLPNDG | 068C | 14 |
| ZFOLRBUF | 0020 | .. |
| ZFOLSCPT | 0720 | .. |
| ZFOLSELC | 068C | 18 |
| ZFOLSTSV | 0758 | .. |
| ZFOLZFOB | .... | ** |
| ZFOLZFOD | .... | ** |
| ZFOMCRNG | 064C | 40 |
| ZFOMOVUP | 064E | 20 |
| ZFOMSGCT | 06BC | .. |
| ZFONBPAR | 0750 | .. |
| ZFONCOLS | 0726 | .. |
| ZFONDSPC | 064F | 01 |
| ZFONFILE | 06A4 | .. |
| ZFONOBRD | 0790 | .. |
| ZFONOIT | 078E | .. |
| ZFONOSYN | 0650 | 10 |
| ZFONROWS | 0724 | .. |
| ZFOOPABS | 064B | 04 |
| XFOOPAST | 064B | 10 |
| XFOOPEND | 0644 | .. |
| ZFOOPFL1 | 0644 | .. |
| ZFOOPFL2 | 0645 | .. |
| ZFOOPFL3 | 0646 | .. |
| ZFOOPFL4 | 0647 | .. |
| ZFOOPFL5 | 0648 | .. |
| ZFOOPFL6 | 0649 | .. |
| ZFOOPFL7 | 064A | .. |
| ZFOOPFL8 | 064B | .. |
| ZFOOPNB1 | 0000 | .. |
| ZFOOPNB2 | 0004 | .. |
| ZFOOPNB3 | 0008 | .. |
| ZFOOPNB4 | 000C | .. |
| ZFOOPNB5 | 0010 | .. |
| ZFOOPNB6 | 0014 | .. |
| ZFOOPNB7 | 0018 | .. |
| ZFOOPNB8 | 001C | .. |
| ZFOOPNEG | 064B | 08 |
| ZFOOPNUM | 064B | 02 |
| ZFOOPSTR | 064B | 01 |
| ZFOOPST1 | 0128 | .. |
| ZFOOPST2 | 01CC | .. |
| ZFOOPST3 | 0270 | .. |
| ZFOOPST4 | 0314 | .. |
| ZFOOPST5 | 03B8 | .. |
| ZFOOPST6 | 045C | .. |
| ZFOOPST7 | 0500 | .. |
| ZFOOPST8 | 05A4 | .. |
| ZFOOPTGT | 064B | 20 |
| ZFOORSBC | 0710 | .. |
| ZFOORSBN | 0653 | .. |
| ZFOPFKPT | 06C0 | .. |
| ZFOPLIST | 0768 | .. |
| ZFOPRFBW | 068C | 04 |
| ZFOPRFER | 064E | 80 |
| ZFOPRFFW | 068C | .. |
| ZFOPRFIN | 068C | 40 |
| ZFOPRFLP | 068C | 08 |
| ZFOPRFNL | 068C | 1D |
| ZFOPRFPT | 069C | .. |
| ZFOPRFXA | 068C | 18 |
| ZFOPRFXL | 068C | 06 |
| ZFOPRFXN | 068C | 20 |
| ZFOPRFXR | 068C | 28 |
| ZFOPRFX1 | 068C | 0C |
| ZFOPRFX2 | 068C | 10 |
| ZFOPRFX3 | 068C | 14 |
| ZFOPROFL | 064E | 10 |
| ZFOPRVTB | 064E | 08 |
| ZFOPSSET | 0650 | 80 |
| ZFOPXAMP | 068C | 04 |
| ZFOPXBLK | 068C | 01 |
| ZFOPXCMD | 068C | 08 |
| ZFOPXFLG | 068C | 1E |
| ZFOPXFL1 | 068C | 1F |
| ZFOPXINV | 068C | 10 |
| ZFOPXMAC | 068C | 04 |
| ZFOPXOP1 | 068C | 20 |
| ZFOPXOP2 | 068C | 40 |
| ZFOPXOP3 | 068C | 80 |
| ZFOPXPNG | 068C | 02 |
| ZFOPXSHD | 068C | 02 |
| ZFOPXUSD | 068C | 01 |
| ZFOQUITM | 0650 | 20 |
| ZFORDBUF | 0024 | .. |
| ZFORDSTK | 064F | 04 |
| ZFORDSVR | 064C | 80 |
| ZFORECFM | 078C | .. |
| ZFORECPT | 0678 | .. |
| ZFORETMC | 067C | .. |
| ZFORFRSH | 064D | 40 |
| ZFORMTUB | 064C | 10 |
| ZFORTBYT | 0664 | 667 |
| ZFORTCOD | 0664 | .. |
| ZFOSAVNB | 1020 | 0F |
| ZFOSAVSV | 0AE0 | .. |
| ZFOSAV01 | 0B40 | .. |
| ZFOSAV02 | 0BA0 | .. |
| ZFOSAV03 | 0C00 | .. |
| ZFOSAV04 | 0C60 | .. |
| ZFOSAV05 | 0CC0 | .. |
| ZFOSAV06 | 0D20 | .. |
| ZFOSAV07 | 0D80 | .. |
| ZFOSAV08 | 0DE0 | .. |
| ZFOSAV09 | 0E40 | .. |
| ZFOSAV10 | 0EA0 | .. |
| ZFOSAV11 | 0F00 | .. |
| ZFOSAV12 | 0F60 | .. |
| ZFOSAV13 | 0FC0 | .. |
| ZFOSBCMD | 064F | 08 |
| ZFOSCBLD | 064D | 02 |
| ZFOSCRDF | 0651 | 04 |
| ZFOSCRDW | 0651 | 02 |
| ZFOSCRRD | 064D | 20 |
| ZFOSCRSZ | 0651 | 01 |
| ZFOSHVPT | 0680 | .. |
| ZFOSINDX | 0728 | .. |
| ZFOSPCVC | 099C | .. |
| ZFOSTKSV | 07AE0 | .. |
| ZFOSUBCM | 0668 | .. |
| ZFOSUSED | 064D | 04 |
| ZFOSVEND | 1020 | .. |
| ZFOSYNBF | 09DC | .. |
| ZFOSYNBL | 09D8 | .. |
| ZFOSYNPT | 0670 | .. |
| ZFOTABS1 | 064D | 01 |
| ZFOTBSLG | 071C | .. |
| ZFOTBSPT | 0718 | .. |
| ZFOTRDLW | 073C | .. |
| ZFOTRDUP | 0738 | .. |
| ZFOTRSET | 0650 | 01 |
| ZFOTWRMD | 064C | 20 |
| ZFOTXTON | 064E | 02 |
| ZFOUFLAG | 0654 | .. |
| ZFOUFLDS | 06A0 | .. |
| ZFOWKBFD | 09B0 | .. |
| ZFOWKBUF | 079C | .. |
| ZFOWKTBL | 089C | .. |
| ZFOXER | 0760 | .. |
| ZFOXSTPT | 0658 | .. |
| ZFOXSUFL | 075C | .. |
| ZFOZMAPT | 0674 | .. |
| ZFO14BIT | 0650 | 08 |

## ZMACST: MACRO DESCRIPTOR BLOCK

ZMACST is used by the System Product Editor modules to describe a System Product Editor macro in storage. It is built dynamically by DMSXMA each time a macro is invoked.

```
  0 +---------------------------------------+
    |               ZMAFNAME                |
  8 +-------------------+-------------------+
    |     ZMAEXEPT      |     ZMAEXELG      |
 10 +-------------------+-------------------+
    |     ZMAFWPTR      |     ZMANBMST      |
 18 +-------------------+-------------------+
    | A(1ST MACRO-STAT) | F'LENGTH 1TS MAC' |
 20 +-------------------+----+----+----+----+
    |     ZMACRECLV     |F*1 |F*2 |F*3 |F*4 |
 28 +-------------------+----+----+----+----+
    |                                       |
    =       AS MANY ENTRIES AS NEEDED       =
    |                                       |
    +---------------------------------------+
```

Size

LENGTH OF THE HEADER IN DOUBLEWORDS (ZMALZMAD) 03
LENGTH OF THE HEADER IN BYTES (ZMALZMAB) 20

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ZMAFNAME | 8 | | MACRO NAME |
| 8 | ZMAEXEPT | 4 | | POINTER ON THE MACRO-STATEMENTS |
| C | ZMAEXELG | 4 | | LENGTH MACRO-STATEMENT LIST |
| 10 | ZMAFWPTR | 4 | | POINTER TO THE NEXT MACRO IN STORAGE |
| 14 | ZMANBMST | 4 | | NUMBER OF MACRO-STATEMENT |
| 18 | ZMARECLV | 4 | | RECURSION LEVEL |
| 1C | ZMAFLAG1 | 1 | | STATUS FLAG |
| Bits defined in ZMAFLAG1 | | | | |
| 1 | ZMATMPRY | | | TEMPORARY MACRO |
| 1D | ZMAFLAG2 | 1 | | STATUS FLAG |
| 1E | ZMAFLAG3 | 1 | | STATUS FLAG |
| 1F | ZMAFLAG4 | 1 | | STATUS FLAG |
| 20 | ZMAMCLST | 0 | | LIST OF MACRO-STATEMENT |

CROSS REFERENCE (Name  Disp  Value)

```
  ZMAEXELG 000C ..  | ZMAFLAG3 001E ..    ZMALZMAB 0000 20    ZMANBMST 0014 ..
  ZMAEXEPT 0008 ..  | ZMAFLAG4 001F ..    ZMALZMAD 0020 04  | ZMARECLV 0018 ..
| ZMAFLAG1 001C ..    ZMAFNAME 0000 ..    ZMAMCLST 0020 ..  | ZMATMPRY 001C 01
| ZMAFLAG2 001D ..    ZMAFWPTR 0010 ..
```

## ZPACK: PACK/UNPACK WORK AREA

ZPACK is built by DMSXIN or DMSXFD and is used by the System Product Editor modules when a file is being packed or unpacked. ZPACK is invoked via the ZPACK macro.

```
     +-----------------------+-----------------------+
   0 |       ZPAPKBXE        |       ZPAOKBX2        |
     +-----------------------+-----------------------+
   8 |       ZPAPKBX3        |       ZPAPKBX4        |
     +-----------+-----+-----+-----------------------+
  10 |  ZPAPKCC  | P*1 | P*2 | ///////////////////// |
     +-----------+-----+-----+-----------------------+
  18 |                                               |
     =                   ZPAPKBUF                    =
     |                                               |
 418 +-----------------------------------------------+
```

### Size

ZPACK LENGTH IN DOUBLEWORDS (ZPALZPAD) 083
ZPACK LENGTH IN BYTES (ZPALZPAB) 418

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 0 | ZPAPKBXE | 4 | | POINTER TO THE END OF BUFFER |
| 4 | ZPAPKBX2 | 4 | | ZPAPKBXE - 2 |
| 8 | ZPAPKBX3 | 4 | | ZPAPKBXE - 3 |
| C | ZPAPKBX4 | 4 | | ZPAPKBXE - 4 |
| 10 | ZPAPKCC | 2 | | 2 FILL CHARACTERS |
| 12 | ZPAPKFIL | 1 | P*1 | FILL CHARACTER |
| 13 | ZPAFLAG1 | 1 | P*2 | FLAG BYTE |

Bits defined in ZPAFLAG1

| | | |
|---|---|---|
| 80 | ZPAPKDAF | DATA FIELD |
| 78 | ZPAPKFFF | MAX LENGTH IN 1 BYTE IS 119+1 |
| 04 | ZPAPKERF | END OF RECORD FOR RECFM=V |
| 02 | ZPAPKSCF | SPECIAL (NON-FILL) CHARACTER BIT |
| 01 | ZPAPKELF | EXTRA LONG FILED BUT (MORE THAN 256) |

| Disp | Name | Len | Key | Description |
|---|---|---|---|---|
| 14 | | 4 | | RESERVED |
| 18 | ZPAPKBUF | 1024 | | 1024 BYTES INPUT/OUTPUT BUFFER |

### CROSS REFERENCE (Name Disp Value)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ZPAFLAG1 | 0013 | .. | ZPAPKBXE | 0000 | .. | ZPAPKCC | 0010 | .. | ZPAPKFFF | 0013 | 78 |
| ZPALZPAB | .... | 418 | ZPAPKBX2 | 0004 | .. | ZPAPKDAF | 0013 | 80 | ZPAPKFIL | 0012 | .. |
| ZPALZPAD | .... | 83 | ZPAPKBX3 | 0008 | .. | ZPAPKELF | 0013 | 01 | ZPAPKSCF | 0013 | 02 |
| ZPAPKBUF | 0018 | .. | ZPAPKBX4 | 000C | .. | ZPAPKERF | 0013 | 04 | | | |

# APPENDIXES

Information in the following appendixes supplements the text in this publication:

- "Appendix A. CMS Equate Symbols" contains Assembler language equate symbols used in CMS to reference data.
- "Appendix B. Data Areas and Control Block References" lists the names of the CMS control blocks. This appendix shows: (1) module references to data areas and/or control blocks, and (2) gives information on how certain data areas or control blocks are created and released.

# APPENDIX A. CMS EQUATE SYMBOLS

This Appendix contains Assembler language equate symbols used in CMS to reference data for:

- CMS usage
- CMS registers

## CMS USAGE EQUATES

Name | | | Description
---|---|---|---

### Bits defined in the Program Status Word (PSW)

| | | | |
|---|---|---|---|
| CHAN0 | EQU | X'80' | Bit 00 - channel 0 mask |
| CHAN1 | EQU | X'40' | Bit 01 - channel 1 mask |
| CHAN2 | EQU | X'20' | Bit 02 - channel 2 mask |
| CHAN3 | EQU | X'10' | Bit 03 - channel 3 mask |
| CHAN4 | EQU | X'08' | Bit 04 - channel 4 mask |
| CHAN5 | EQU | X'04' | Bit 05 - channel 5 mask |
| CHANM | EQU | X'02' | Bit 06 - input/output mask |
| EXTM | EQU | X'01' | Bit 07 - external mask |
| ECMM | EQU | X'08' | Bit 12 - extended control mode mask |
| MCKM | EQU | X'04' | Bit 13 - machine check mask |
| WAIT | EQU | X'02' | Bit 14 - wait state mask |
| PROB | EQU | X'01' | Bit 15 - problem state mask |
| FOFM | EQU | X'08' | Bit 36 - fixed-point overflow mask |
| DOFM | EQU | X'04' | Bit 37 - decimal overflow mask |
| EUFM | EQU | X'02' | Bit 38 - exponent underflow mask |
| SIGM | EQU | X'01' | Bit 39 - significance mask |

### Bits defined in the Channel Status Word (CSW)

| | | | |
|---|---|---|---|
| ATTN | EQU | X'80' | Bit 32 - attention |
| SM | EQU | X'40' | Bit 33 - status modifier |
| CUE | EQU | X'20' | Bit 34 - control unit end |
| BUSY | EQU | X'10' | Bit 35 - busy |
| CE | EQU | X'08' | Bit 36 - channel end |
| DE | EQU | X'04' | Bit 37 - device end |
| UC | EQU | X'02' | Bit 38 - unit check |
| UE | EQU | X'01' | Bit 39 - unit exception |
| PCI | EQU | X'80' | Bit 40 - program-controlled interrupt |
| ICL | EQU | X'40' | Bit 41 - incorrect length |
| PGC | EQU | X'20' | Bit 42 - program check |
| PTC | EQU | X'10' | Bit 43 - protection check |
| CDC | EQU | X'08' | Bit 44 - channel data check |
| CCC | EQU | X'04' | Bit 45 - channel control check |
| ICC | EQU | X'02' | Bit 46 - interface control check |
| CHC | EQU | X'01' | Bit 47 - chaining check |

### Common Channel Command Codes

| | | | |
|---|---|---|---|
| WRITE | EQU | X'01' | Write |
| READ | EQU | X'02' | Read |
| NOP | EQU | X'03' | No operation |
| SENSE | EQU | X'04' | Sense |
| WRDATA | EQU | X'05' | Write data |
| RDDATA | EQU | X'06' | Read data |
| SEEK | EQU | X'07' | Seek |
| TIC | EQU | X'08' | Transfer in channel |
| WRITE1 | EQU | X'09' | Write and space 1 |
| RDCONS | EQU | X'0A' | Read from console |
| SETSEC | EQU | X'23' | Set sector |
| SEARCH | EQU | X'31' | Search ID equal |

```
Name                          Description
```

### Bits defined in a Channel Command Word (CCW)

```
CD       EQU   X'80'          Bit 32 - chain data
CC       EQU   X'40'          Bit 33 - command chain
SILI     EQU   X'20'          Bit 34 - suppress incorrect length
SKIP     EQU   X'10'          Bit 35 - suppress data transfer
PCIF     EQU   X'08'          Bit 36 - cause program control interrupt
IDA      EQU   X'04'          Bit 37 - indirect data address
```

## CMS REGISTER EQUATES

### General Purpose Registers

```
R0       EQU    0
R1       EQU    1
R2       EQU    2
R3       EQU    3
R4       EQU    4
R5       EQU    5
R6       EQU    6
R7       EQU    7
R8       EQU    8
R9       EQU    9
R10      EQU   10
R11      EQU   11
R12      EQU   12
R13      EQU   13
R14      EQU   14
R15      EQU   15
```

### Floating-point Registers

```
F0       EQU    0
F2       EQU    2
F4       EQU    4
F6       EQU    6
```

### Extended Control Registers

```
C0       EQU    0
C1       EQU    1
C2       EQU    2
C3       EQU    3
C4       EQU    4
C5       EQU    5
C6       EQU    6
C7       EQU    7
C8       EQU    8
C9       EQU    9
C10      EQU   10
C11      EQU   11
C12      EQU   12
C13      EQU   13
C14      EQU   14
C15      EQU   15
```

# APPENDIX B. CMS DATA AREAS AND CONTROL BLOCK REFERENCES

This appendix is a listing of the CMS data areas and control blocks. Appendix B contains the following references:

- Module references to data areas and control blocks.
- Information on how certain data areas or control blocks are created and released.

## CMS DATA AREAS AND CONTROL BLOCK REFERENCES

ABWSECT

Assembled as part of DMSNUC

Referenced by:

DMSABN, DMSDBG, DMSFRE, DMSITI, DMSITP, DMSITS

ADTSECT

Assembled as part of DMSNUC.

Referenced by:

DMSABN, DMSACC, DMSACF, DMSACM, DMSALU, DMSAMS, DMSARE, DMSARN, DMSARX, DMSASM, DMSASN, DMSAUD, DMSBOP, DMSBRD, DMSBWR, DMSCMP, DMSCPY, DMSCVH, DMSDIO, DMSDLB, DMSDLK, DMSDOS, DMSDSK, DMSDSL, DMSERS, DMSEXC, DMSEXT, DMSFNS, DMSFOR, DMSGND, DMSIFC, DMSINS, DMSINT, DMSLAD, DMSLAF, DMSLBM, DMSLBT, DMSLDS, DMSLFS, DMSLKD, DMSLLU, DMSLST, DMSMOD, DMSMVE, DMSPUN, DMSPNT, DMSQRY, DMSRNM, DMSROS, DMSSET, DMSSOP, DMSSTT, DMSSVT, DMSSVU, DMSTMA, DMSTPE, DMSTPF, DMSTPG, DMSTQQ, DMSTRK, DMSUPD, DMSXCP, DMSXFD

AFTSECT

Assembled as part of DMSNUC; also created and released dynamically by DMSLAF.

Referenced by:

DMSBRD, DMSBWR, DMSERD, DMSERS, DMSFNS, DMSINT, DMSLAF, DMSPNT, DMSRNM, DMSSOP, DMSSTT, DMSTPE

ANCHSECT

Built by: DMSSTG

Released by: Not released

Referenced by:

DMSDOS, DMSSTG

AVRADR

Built by: CMSBAM

Released by: CMSBAM

Referenced by:

DMSDOS

BATLSECT

Assembled as part of DMSBTP.

Referenced by:

DMSCIO, DMSITE, DMSPIO

BBOX

Assembled as part of DMSNUC.

Referenced by:

DMSSTG. This block is used by the DOS supervisor.

BGCOM

Assembled as part of DMSNUC.

Referenced by:

DMSAMS, DMSASN, DMSBAB, DMSBOP, DMSCLS, DMSCVH, DMSDAS, DMSDLB, DMSDLK, DMSDMP, DMSDOS, DMSDSV, DMSETR, DMSFCH, DMSFET, DMSINS, DMSITP, DMSLLU, DMSOPL, DMSOPT, DMSPRV, DMSQRY, DMSRRV, DMSSET, DMSSMN, DMSSRV, DMSSTG, DMSVLT, DMSVSR, DMSXCP

BGTCB

Assembled as part of DMSNUC.

Referenced by:

DMSAMS, DMSBAB, DMSDOS, DMSITP, DMSSET, DMSVSR file

CMSTAXE

Built by: DMSSVT

Released by: DMSSVT

Referenced by:

DMSCIT, DMSITE, DMSITI, DMSSVT

CVTSECT

Assembled as part of DMSNUC.

Referenced by:

DMSINS

DBGSECT

Assembled as part of DMSNUC.

Referenced by:

DMSDBD, DMSDBG, DMSITE.

DCHSECT

Built by: FORMAT, ACCESS, RDBUF, WRBUF

Released by: RELEASE, FINIS

Referenced by:

DMSABN, DMSACC, DMSACF, DMSACM, DMSALU, DMSAUD, DMSDSK, DMSERD, DMSERS, DMSFNS, DMSFOR, DMSINS, DMSLAD, DMSLFS, DMSLST, DMSRNM, DMSTPE, DMSTPF, DMSTPG, DMSTRK

DESTYP

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXIN

DEVSECT

Assembled as part of DMSNUC.

Referenced by:

DMSLAB, DMSMVE, DMSPRE, DMSTIO, DMSTLB, DMSTMA, DMSTPD, DMSTPE, DMSTPF, DMSTPG

DEVTAB

Assembled as part of DMSNUC.

Referenced by:

DMSASN, DMSDBD, DMSEDI, DMSEDX, DMSINI, DMSIOW, DMITI, DMSLLU, DMSSVT

DIOSECT

Assembled as part of DMSNUC.

Referenced by:

DMSACM, DMSDIO, DMSFNS, DMSITI

DIRSECT

Built by: DMKSVT, TXTLIB, MACLIB

Released by: DMSSVT, TXTLIB, MACLIB

Referenced by:

DMSLBM, DMSLIB, DMSPRT

DMSCCB

Built by: N/A

Released by: N/A

Referenced by:

DMSXCP

DOSSECT

Built by: DMSDLB

Released by: DMSDLB, DMSABN

Referenced by:

DMSAMS, DMSBOP, DMSCLS, DMSCVH, DMSDLB, DMSDLK, DMSDOS, DMSDSV, DMSFCH, DMSLAB, DMSOPL, DMSQRY, DMSROS, DMSRRV, DMSSRV, DMSSVT, DMSVIP, DMSVLT, DMSXCP

DTFSD

Assembled as part of user program (and DOS simulation).

Referenced by:

DMSBOP, DMSCLS, DMSLAB, DMSOR1, DMSVLT, DMSXCP

DTFX

Built by: CMSBAM

Released by: DMSVLT

Referenced by:

DMSVLT, DMSXCP, DMSBOP, DMSCLS

EDCB

Built by: DMSEDX

Released by: DMSEDI

Referenced by:

DMSEDC, DMSEDI, DMSEDX, DMSGIO, DMSSCR

EPLIST

Referenced by:

DMSASM, DMSCPF, DMSDLB, DMSEIO, DMSEXI, DMSGLO, DMSITS, DMSLDR, DMSLDS, DMSNAM, DMSSTG

ERDSECT

Assembled as part of DMSNUC.

Referenced by:

DMSERR

EXTSECT

Assembled as part of DMSNUC.

Referenced by:

DMSINS, DMSINT, DMSIOW, DMSITE, DMSQRY, DMSSET, DMSSTG, DMSSVN, DMSSVT

EXTUAREA

Assembled as part of DMSNUC.

Released by: N/A

Referenced by:

DMSITE

FCBSECT

Built by: DMSFLD

Released by: DMSFLD, DMSABN

Referenced by:

DMSALU, DMSARN, DMSARX, DMSASM, DMSBWR, DMSDSL, DMSFCH, DMSFLD, DMSFLE, DMSLBD, DMSLDS, DMSLOS, DMSMVE, DMSMVG, DMSQRY, DMSROS, DMSSAB, DMSSBD, DMSSBS, DMSSCT, DMSSEB, DMSSOP, DMSSQS, DMSSVN, DMSSVT, DMSSVU, DMSTLB, DMSUTL, DMSXDS

FCHTAB

Assembled as part of DMSNUC.

Referenced by:

DMSDOS, DMSFET

FRDSECT

Assembled as part of DMSNUC.

Referenced by:

DMSFRE, DMSSET

FSCBD

Built by: N/A

Released by: N/A

Referenced by:

DMSBRD, DMSDLK, DMSERS, DMSEXE, DMSIFC, DMSUPD, DMSZAP, and user programs that access the CMS file system.

FSTD

Built by: N/A

Released by: N/A

Referenced by:

DMSCPY, DMSEDI, DMSEDX, DMSEXC,
DMSFNS, DMSGND, DMSHLS, DMSLAD,
DMSLBT, DMSLST, DMSNCP, DMSSOP,
DMSTPE, DMSTPF, DMSTPG, DMSTYP,
DMSUPD, DMSUTL, DMSXED, DMSXGT,
DMSXIN, DMSXMA, DMSXPT, DMSXSU,
DMSXUP

FSTSECT

Built by: DMSACF

Released by: DMSALU

Referenced by:

DMSACF, DMSAMS, DMSARN, DMSARX,
DMSASM, DMSBOP, DMSBRD, DMSBWR,
DMSCPY, DMSDLK, DMSDSK, DMSDSL,
DMSERS, DMSIFC, DMSLAF, DMSLBM,
DMSLKD, DMSMDP, DMSMVE, DMSRNM,
DMSSTT, DMSTPE, DMSUPD, DMSZAP

FVSECT

Assembled as part of DMSNUC.

Referenced by:

DMSABN, DMSACC, DMSACF, DMSACM,
DMSALU, DMSARN, DMSARX, DMSASM,
DMSAUD, DMSBRD, DMSBTB, DMSBTP,
DMSBWR, DMSCIT, DMSCMP, DMSCRD,
DMSCWR, DMSCWT, DMSDIO, DMSDOS,
DMSDSK, DMSDSL, DMSERD, DMSERS,
DMSFNS, DMSGND, DMSINT, DMSITE,
DMSITI, DMSITP, DMSITS, DMSLAD,
DMSLBM, DMSLFS, DMSMOD, DMSPNT,
DMSPUN, DMSQRY, DMSRNM, DMSSLN,
DMSSOP, DMSSTT, DMSTPE, DMSTPF,
DMSTPG, DMSTQQ, DMSUPD, DMSXIN,
DMSXMA, DMSXUP

IHADECB

Built by: N/A

Released by: N/A

Referenced by:

DMSSBD, DMSSBS, DMSSCT, DMSSEB,
DMSSVT

IJJHCPL

Built by: CMSBAM

Released by: CMSBAM

Referenced by:

DMSCVH

IJJHDLST

Built by: CMSBAM

Released by: CMSBAM

Referenced by:

DMSCVH

IJJHFMT1

Built by: CMSBAM

Released by: CMSBAM

Referenced by:

DMSCVH

IOSECT

Assembled as part of DMSNUC.

Referenced by:

DMSABN, DMSHDI, DMSINT, DMSITI

KEYSECT

Built by: DMSSVT

Released by: DMSSVT

Referenced by:

DMSSBD, DMSSVT, DMSSVU

LABREC

Built by: CMSBAM

Released by: CMSBAM

Referenced by:

DMSLAB

LABSECT

Built by: DMSLBD

Released by: DMABN, DMSLBD

Referenced by:

DMSFLD, DMSLBD, DMSQRY, DMSTLB

LDRST

Built by: DMSLDR

Released by: DMSLDR

Referenced by:

DMSLDR, DMSLGT, DMSLIB. DMSLIO,
DMSLSB, DMSOLD

LIBSECT

Assembled as part of the LIB macro.

Referenced by:

DMSLBM, DMSLGT, DMSLIB, DMSPRT,
DMSPUN, DMSSVT, DMSTMA, DMSTYP

LOCKTAB

Built by: DMSSET

Released by: DMSSET, DMSABN

Referenced by:

DMSABN, DMSLCK

LOGFBFMT

Referenced by:

DMSPOP, DMSPOR

LSCREEN

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXBG, DMSXCT, DMSXED, DMSXFC,
DMSXIO, DMSXMA, DMSXMC, DMSXMD,
DMSXML, DMSXPO, DMSXPX, DMSXSC,
DMSXSD, DMSXSE, DMSXSS, DMSXSU

LUBPR

Assembled as part of DMSNUC.

Referenced by:

DMSAMS, DMSBOP, DMSCLS, DMSDLB,
DMSDLK, DMSDSV, DMSFCH, DMSLLU,
DMSOPL, DMSPRV, DMSRRV, DMKSET,
DMSSRV, DMSXCP

LUBTAB

Assembled as part of DMSNUC.

Referenced by:

DMSAMS, DMSBOP, DMSCLS, DMSDLB,
DMSFCH, DMSLLU, DMSOPL, DMSPRV,
DMSRRV, DMSSET, DMSSRV, DMSXCP

NUCON

Assembled as part of DMSNUC.

Referenced by:

DMSABN, DMSACC, DMSACF, DMSACM,
DMSALU, DMSAMS, DMSARE, DMSARN,
DMSARX, DMSASM, DMSASN, DMSAUD,
DMSBAB, DMSBOP, DMSBRD, DMSBTB,
DMSBTP, DMSBWR, DMSCAT, DMSCIO,
DMSCIT, DMSCLS, DMSCMP, DMSCPF,
DMSCPY, DMSCRD, DMSCVH, DMSCWR,
DMSCWT, DMSDAS, DMSDBD, DMSDBG,
DMSDIO, DMSDLB, DMSDLK, DMSDMP,
DMSDOS, DMSDSK, DMSDSL, DMSDSV,
DMSEDI, DMSEDX, DMSERD, DMSERR,
DMSERS, DMSETR, DMSEXC, DMSEXE,
DMSEXI, DMSEXT, DMSFCH, DMSFET,
DMSFLD, DMSFNS, DMSFOR, DMSFRE,
DMSGIO, DMSGLB, DMSGND, DMSHDI,
DMSHDS, DMSHLI, DMSHLL, DMSHLS,
DMSIFC, DMSIMA, DMSINA, DMSINI,
DMSINM, DMSINS, DMSINT, DMSIOW,
DMSITE, DMSITI, DMSITP, DMSITS,
DMSLAB, DMSLAD, DMSLAF, DMSLBD,
DMSLBM, DMSLBR, DMSLBT, DMSLCK,
DMSLDR, DMSLDS, DMSLFS, DMSLGT,
DMSLIB, DMSLIO, DMSLKD, DMSLLU,
DMSLOa, DMSLOS, DMSLSB, DMSLST,
DMSLSY, DMSMDP, DMSMOD, DMSMVE,
DMSMVG, DMSNCP, DMSOLD, DMSOPL,
DMSOPT, DMSOR1, DMSOSR, DMSOVR,
DMSOVS, DMSPIO, DMSPNT, DMSPRE,
DMSPRT, DMSPRV, DMSPUN, DMSQRY,
DMSRDC, DMSRNE, DMSRNM, DMSROS,
DMSRRV, DMSSAB, DMSSBS, DMSSCN,
DMSSCT, DMSSEB, DMSSET, DMSSFF,
DMSSLN, DMSSMN, DMSSOP, DMSSPR,
DMSSQS, DMSSRT, DMSSRV, DMSSSK,
DMSSTG, DMSSTT, DMSSVN, DMSSVT,
DMSSVU, DMSSYN, DMSTIO, DMSTLA,

DMSTLB, DMSTMA, DMSTPD, DMSTPE, DMSTPF, DMSTPG, DMSTQQ, DMSTRK, DMSTYP, DMSUPD, DMSUTL, DMSVIB, DMSVIP, DMSVLT, DMSVSR, DMSXBG, DMSXCM, DMSXCP, DMSXDC, DMSXDS, DMSXED, DMSXFD, DMSXGT, DMSXHL, DMSXIN, DMSXIO, DMSXMA, DMSXMD, DMSXMS, DMSXPO, DMSXPT, DMSXRE, DMSXSC, DMSXSD, DMSXSE, DMSXSG, DMSXSS, DMSXSU, DMSXUP, DMSZAP, DMSZES

### OCTS

Built by: DMSBOP

Released by: DMSVLT

Referenced by:

DMSBOP, DMSCLS, DMSVLT

### OPSECT

Assembled as part of DMSNUC.

Referenced by:

DMSABN, DMSARX, DMSASM, DMSCPY, DMSEXI, DMSCRD, DMSCWR, DMSCWT, DMSDBG, DMSEXC, DMSEXT, DMSINS, DMSINT, DMSROS, DMSSBD, DMSSBS, DMSSCT, DMSSEB, DMSSOP, DMSSQS, DMSSVN, DMSSVT, DMSSVU

### OSFST

Built by: DMSROS

Released by: DMSALU

Referenced by:

DMSABN, DMSALU, DMSBOP, DMSDLK, DMSDSV, DMSFCH, DMSMVE, DMSMVG, DMSOPL, DMSROS, DMSRRV, DMSSOP, DMSSRV, DMSSTT

### OVSECT

Built by: N/A

Released by: N/A

Referenced by:

DMSITS, DMSOVR

### PARMLIST

Referenced by:

DMSGRN, DMSHLP, DMSLDR, DMSLIB, DMSLIO, DMSOLD, DMSPOP, DMSPOR

### PDSSECT

Built by: DMSSVT

Released by: DMSSVT

Referenced by:

DMSDOS, DMSDSL, DMSFCH, DMSFET, DMSGND, DMSSTG, DMSSVT

### PGMSECT

Assembled as part of DMSNUC.

Referenced by:

DMSITP, DMSSAB, DMSSLN, DMSSTG, DMSSVT

### PIBADR

Assembled as part of DMSNUC.

Referenced by:

DMSBAB, DMSCVH, DMSDOS, DMSITP

### PIB2TAB

Assembled as part of DMSNUC.

Referenced by:

DMSDOS, DMSVSR

### PROPCOM

Referenced by:

DMSPOR

### PROPTAB

Referenced by:

DMSPOP

PRSCB

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXCT

PUBADR

Assembled as part of DMSNUC.

Referenced by:

DMSBOP, DMSCLS, DMSCVH, DMSDLK, DMSDOS, DMSDSV, DMSLLU, DMSPRV, DMSRRV, DMSSRV, DMSXCP

PUBOWNER

Assembled as part of DMSNUC.

Referenced by:

DMSBOP, DMSCLS, DMSDLK, DMSLLU, DMSXCP

QEL

Referenced by:

DMSPOP

RECSAVE

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXMA

REQDES

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXDC, DMSXHL

RTDSECT

Referenced by:

DMSDDL, DMSPOP, DMSPOR

SAVEREG

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXBG, DMSXCG, DMSXCM, DMSXCN, DMSXCT, DMSXDC, DMSXDS, DMSXED, DMSXER, DMSXFC, DMSXFD, DMSXGT, DMSXHL, DMSXIN, DMSXIO, DMSXMA, DMSXMC, DMSXMD, DMSXML, DMSXPO, DMSXPT, DMSXPX, DMSXSC, DMSXSD, DMSXSE, DMSXSS, DMSXST, DMSXSU, DMSXUP

SCBLOCK

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSINT, DMSITS, DMSXIN, DMSXMA, DMSXMS

SHVBLOCK

Referenced by:

DMSEXE

SSAVE

Built by: DMSITS

Released by: DMSITS

Referenced by:

DMSABN, DMSACC, DMSBAB, DMSBOP, DMSCLS, DMSDBG, DMSDLB, DMSDOS, DMSERR, DMSFLD, DMSFRE, DMSIFC, DMSITP, DMSITS, DMSLDR, DMSOVS, DMSSAB, DMSSLN, DMSSMN, DMSSOP, DMSSTG, DMSSVN, DMSSVT, DMSXVU, DMSTLB, DMSVIP, DMSXCP, DMSXMA

SUBSECT

Assembled as part of DMSNUC.

Referenced By: DMSABN, DMSINM, DMSINT

SVCSECT

Assembled as part of DMSNUC.

Referenced by:

DMSCIT, DMSFRE, DMSHDS, DMSINT, DMSITE, DMSITS, DMSLAD, DMSLFS, DMSOVR, DMSOVS, DMSSLN, DMSXMA

SVEARA

Assembled as part of DMSNUC.

Referenced by:

DMSBAB, DMSBOP, DMSCLS, DMSDOS, DMSITP, DMSVLT

SYNSUB

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXBG, DMSXDC, DMSXIN, DMSXSE

SYSCOM

Assembled as part of DMSNUC.

Referenced by:

DMSBAB, DMSBOP, DMSDOS, DMSETR, DMSFET, DMSITP, DMSQRY, DMSSET, DMSSTG, DMSSYN

SYSNAMES

Assembled as part of DMSNUC.

Referenced by:

DMSAMS, DMSBOP, DMSBPT, DMSDOS, DMSEDX, DMSEXC, DMSHLL, DMSINS, DMSINT, DMSITS, DMSQRY, DMSSET, DMSTLA, DMSVIB, DMSVSr, DMSXSG

TCBADR

DSECT name generated by BGTCB.

Referenced by:

DMSAMS, DMSBAB, DMSDOS, DMSITP, DMSSET, DMSVSR

TLBBLOK

Built by: DMSBOP, DMSCLS, DMSSEB, DMSSOP, DMSTLB, DMSTMA, DMSTPD

Released by: DMSBOP, DMSCLS, DMSSEB, DMSSOP, DMSTLB, DMSTMA, DMSTPD

Referenced by:

DMSBOP, DMSCLS, DMSSEB, DMSSOP, DMSTLB, DMSTMA, DMSTPD

TOKLIST

Referenced by:

DMSPOP, DMSPOR

TSOBLKS

Assembled as part of DMSNUC.

Referenced by:

DMSSET

USAVE

Built by: N/A

Released by: N/A

Referenced by:

DMSITS

USERSECT

Assembled as part of DMSNUC.

Released by: N/A

No CMS references.

ZDESC

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXBG, DMSXCG, DMSXCM, DMSXCN,
DMSXCT, DMSXDC, DMSXDS, DMSXED,
DMSXER, DMSXFC, DMSXFD, DMSXGT,
DMSXHL, DMSXIN, DMSXIO, DMSXMA,
DMSXMC, DMSXMD, DMSXML, DMSXMS,
DMSXPO, DMSXPT, DMSXPX, DMSXRE,
DMSXSC, DMSXSD, DMSXSE, DMSXSS,
DMSXST, DMSXSU, DMSXUP

ZFONC

Built by: XEDIT

Released by: XEDIT

Referenced by:

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DMSXCT, DMSXDC, DMSXDS, DMSXED,
DMSXER, DMSXFC, DMSXFD, DMSXGT,
DMSXHL, DMSXIN, DMSXIO, DMSXMA,
DMSXMC, DMSXMD, DMSXML, DMSXMS,
DMSXPO, DMSXPT, DMSXPX, DMSXSC,
DMSXSD, DMSXSE, DMSXSS, DMSXST,
DMSXSU, DMSXUP

ZMACST

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXBG, DMSXCT, DMSXMA

ZPACK

Built by: XEDIT

Released by: XEDIT

Referenced by:

DMSXFD, DMSXIN

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