DIAGNOSTIC
SOFTWARE RELEASE BULLETIN
CML Level 716

Control Data Corporation recommends that the Diagnostic Software Release Bulletin be read in its entirety prior to any CML installation.

SMD800443

Table of Contents

Introduction

The Concurrent Maintenance Library (CML) L716 executes under NOS 2.x and NOS/BE 1.5 operating systems and replaces all previously released versions of CML.

The CML L716 tape is labeled CMLVSN, recorded in Scope Internal (SI) format, and contains thirteen logical files.

File 1 CML installation procedure described in the CML Reference Manual, publication number 60455980, revision W.

File 2 CML L716 program library in UPDATE format with a master control character of *.

File 3 BUCAL binary of the buffer controller diagnostic MY8 (MY8BC) in a form compatible with the downline load requirements of MALET MY8.

File 4 BUCAL binary of the buffer controller diagnostic BCX (BCXBC) in a form compatible with the downline load requirements of MALET BCX.

File 5 TFL 2550 scratch file binaries.

File 6 CR1 scratch file binary.

File 7 Binaries of LCN tests NDM, NDP, and NDT in a form compatible with the downline load requirements of NLM.

File 8 MCCOMP-Absolute binary of the microcode utility for NOS which compares two list files that were previously generated by program MCDUMP.

File 9 MCDUMP-Absolute binary of the microcode utility for NOS which reads a control store dump from an EDD tape and converts it to hexadecimal digits.

File 10 MTPLOT-Absolute binary of the program which works with HPA to plot tape drive characteristics.

DSPLOT-Absolute binary of the program which works with HPA to plot disk drive characteristics.

DKDATA-Data file used for symptom codes for DSPLOT.

File 11 Absolute binary of SKEDULAR which is used to submit maintenance programs to the NOS or NOS/BE input queue.

File 12 Absolute binary of MLTDOC which is used to format MALET diagnostic documentation.

File 13 Assembled MALET diagnostic binaries for usage by NOS only:
ATC, BCX, CCM, CIU, CLM, CPE, CP1, CRE, CRP, CR1, DFU, DH8, DL8, DM8, DMA, DTC, DTI, D44, D88, ELR, FEP, FFU, FHC, FHD, FLD, FLM, FMC, FMD, FMU, FSD, FSM, FTP, F44, F7X, F88, IST, ITU, LCI, LCM, LCN, LPE, LP1, MSD, MSM, MY8, NIP, NLM, PDP, RT3, RT5, TFE, TFF, TFL, TT3, T5X, T6X, and T7X.

CML Support

This release of CML is called CML L716. Each release is named CML Lxxx, where the xxx represents the PSR level number of a particular release. Please report the PSR level when initiating PSRs. To communicate problems verbally, contact Customer Service Support: 1-800-345-9903 for the United States and Canada, and 1-612-851-4131 for international customers.

Features of this Release

CML L716 contains all the diagnostics on CML L700, PSR code, and the new features listed below.

CML L716 Features

- Support for NOS 2.7.1 L716 release.
- CMSI CDCNET support.
- Resolution of CMSI PSRs.

HPA L716 Features

- HPA 9853 (XMD3) support.
- HPA CYBER 994 support.
- HPA DFT Version 5 support.

MALET L716 Features

- PSR code only.

Reference Materials

Reference materials that are available for use with CML which are not provided with the CML kit are listed below:

NOS/BE OLMS Reference Manual	Publication Number	60453900	Revision L
NOS OLMS Reference Manual	Publication Number	60454200	Revision L
MALET Reference Manual	Publication Number	60456020	Revision V
HPA User Reference Manual	Publication Number	60459460	Revision H
CML L716 Diagnostic Microfiche	Part Number	12361055	Revision W
REL2B L716 Microfiche Listing	Part Number	12361063	Revision T
PL5A L650 Microfiche Listing	Part Number	12361064	Revision K

Installation Notes

The CML program library installation instructions may be found in the CML Reference Manual, publication number 60455980, Revision W.

CML was tested to ensure it works with the following levels of the operating system:

NOS	2.5.2	L678/670
NOS	2.5.3	L688
NOS	2.6.1	L700/L688
NOS	2.6.1	L710
NOS	2.7.1	L716
NOS/BE	1.5	L664

The CML installation process replaces all existing copies of MALET diagnostics with new versions. These new versions may not execute properly if used with the older version of MALET and requires the installation of MALET, MLD, and SBP from this tape.

CML Notes / Cautions

A. HPA field length requirements can be reduced using the HPSORT parameter within the installation procedure. Usage of this parameter increases the execution time of HPA.

B. The CMSI procedures are assembled for use with NOS 2.4.1 and higher. If CMSI is to be used on a system prior to NOS 2.4.1, use the CMLINST job to reassemble CML procedures from the release tape and include NOS23 as the SYSVER parameter. The CMSI procedures were developed by Engineering Services and problems found are identified using CMSI as the program name on PSRs. They are being provided as a convenience and their usage is not required to run CML products.

C. At NOS/BE sites, a local library (HPALIB) became necessary for the CML L173 release, at which time the structure of HPA changed from overlays to OVCAPS. Apply modset INB0213 against your current DECKS program library if you have not already added HPALIB. Please note that the modset introduces a new build option, CML, which must be turned on with a =DEFINE CML in order to have HPALIB built.

```
=IDENT,INB0213
=I DST1.47
=IF DEF,CML,2
ATTACH(CML,CMLBIN,ID=CDCCE)
ATTACH(MLD,MLDBIN,ID=CDCCE)
=I DST1.135
=IF DEF,CML,2
PURGE(CML,CMLBIN,ID=CDCCE)
PURGE(MLD,MLDBIN,ID=CDCCE)
=I DST1.108
=IF DEF,CML,1
RETURN(CML,MLD)
=I DST1.170
=IF DEF,CML,1
ADD(*,MLD)
=I DST1.529
=IF DEF,CML
REPLACE(MALET,CML,AL=3,FL=25000,FLO=0)
REPLACE(HPA,CML,AL=3,FL=65000,FLO=0)
REPLACE(REGEN,CML,AL=7777,FL=45000,FLO=1)
REPLACE(TIO,CML,AL=7777,FL=53300,FLO=0)
=ENDIF
=I DST1.547
=IF DEF,CML,2
REWIND(CML)
REPLACE(MALET10+MALET40,CML,AL=0,FL=25000,FLO=0)
=B DST1.630
=IF DEF,CML
LIBRARY(HPALIB,NEW)
REPLACE(SETFLDS+GRAPH9,CML,AL=0,FL=65000,FLO=0)
FINISH
=ENDIF
=COMPILE,DST1
=B DST2.226
=IF DEF,CML,1
INCLUDE(HPALIB,SYSTEM,DS)
=COMPILE,DST2
=B DST3.132
=IF DEF,CML,1
INCLUDE(HPALIB,SYSTEM,DS)
=COMPILE,DST3
```

Peripheral Microcode Levels

These are the levels of peripheral microcode with which CML was tested.

Name	Version	Description
MA401	08	844FT disk peripheral microcode
MA454	04	FSC disk peripheral microcode
MA462	06	ISD disk adapter peripheral microcode
MA464	10	895 disk peripheral microcode
MA466	03	5870 NIP peripheral microcode
MA710	13	844HT disk peripheral microcode
MA721	12	885/FMD disk peripheral microcode
MA722	03	885/FMD DEMA disk peripheral microcode
MB301	05	IPI tape peripheral microcode
MB401	04	FSC tape peripheral microcode
MB434	14	66X tape peripheral microcode
MB465/CW63X	04	639 ISMT tape control module peripheral microcode
MB466	03	7990 mass storage subsystem peripheral microcode
MB467	02	698 CMTS tape peripheral microcode
MD422	07	834 disk diagnostics
MD424	03	836 disk diagnostics
MG401	05	LCN peripheral microcode
MH422	07	834 disk COS
MH424	03	836 disk COS
MH426	08	9853 disk COS

Field Change Announcement (FCA) Index Levels

Mainframe Model	Mainframe Index	Mainframe Model	Mainframe Index
CYBER 170-815	10	CYBER 180-810/810A	7
CYBER 170-825	11	CYBER 180-830/830A	7
CYBER 170/180-835	11	CYBER 180-840/840A	7
CYBER 170/180-845	10	CYBER 180-850/850A	7
CYBER 170/180-855	13	CYBER 180-860/860A/870A	7
CYBER 170-865	1	CYBER 960	1
CYBER 170-875	1	CYBER 990/995	14
		CYBER 994	1

Deck List as read from CML L716 OLDPL

YANK$$$	HISTORY	REASON	CDCMLI1	CDCMLI2	COMMTAL	COMMTDC	CMLINST
CAUTIONS	VERS	ASSYTAG	CDNDM	CDNDP	CDNDT	CPYCOM	CPYFTN
HPACOM1	HPACOM2	HPACOM3	HPACOM4	COMHPAERT	COMHPASPE	HPADEFDSA	MALCOM
MALCD1	MALCD2	MALNK10	MALNK11	MALNK12	MALNK20	MALNK30	MALMAC
MALCMP	MALETP0	MALETP1	MALETP2	MALETP3	MALETP4	MALETP6	MALETP7
MALETP8	MALETP9	MALETPA	MALETPB	MALETPC	MALETPD	MALETPE	MALETPF
MALETPG	MALETPH	MALETPI	MALETPJ	MALETPK	MALETPL	MALETPP	MALETPR
MALETPS	TIOCOM	CWEOR1	MALET	MALET10	MALET11	MALET12	MALET20
MALET21	MALET22	MALET23	MALET24	MALET25	MALET26	MALET27	MALET28
MALET29	MALET2A	MALET2B	MALET2C	MALET2D	MALET2E	MALET2F	MALET2G
MALET2H	MALET2I	MALET2J	MALET2K	MALET2L	MALET2P	MALET2Q	MALETPQ
MALET2R	MALET2S	MALET2Z	MALET30	MALET40	CWEOR2	MLTDOC	CWEOR3
ATC	BCX	CIU	CCM	CLM	CRP	CR1	CRE
CP1	CPE	DMA	DFU	DM8	DTC	DTI	D44
D88	FLM	FEP	FFU	ELR	FMCDS	FMCXX0	FHC
FMC	FMD	FMU	FSD	FSM	FSS	F88	FTP
F44	F7X	IST	ITU	LCI	LCN	LCM	LP1
LPE	MSD	MSM	MY8	NIP	NLM	PDP	RT3
RT5	SKEDULR	TFE	TFF	TFL	TT3	T5X	T6X
T7X	DSPLOT	DKDATA	MCCOMP	MCDUMP	MTPLOT	CWEOR4	HPACOM9
HPA	HPA1	HPA2	HPA21	HPA22	HPA23	HPA3	HPA31
HPA32	HPA33	HPA34	HPA35	HPA36	HPA37	HPA38	HPA39
HPA310	HPA311	HPA312	HPA313	HPA314	HPA315	HPA4	HPA5
HPA8	HPA9	CWEOR5	HPTEXT	CWEOR7	REGEN	TIO	CWEOR6
LOW	LCN1	LCN2	MUX	DEMA1	DEMA2	DEMA3	ISD
ISD1	LSFMD1	LSFMD2	580	65X	66X	67X	841
844HT	844FT	MSSCSU	FMDHT	FMDFT	MSSMST	MSSMSC	DESM
D895	P895D	MLD	SBP	CWEOR99			

Appendix A

PSR List

The following PSRs have been corrected since CML L700 and are included in this release:

CIP0145

CMLA862	CMLA879	CMLA922	CMLA925	CMLA926	CMLA932	CMLA943	CMLA944
CMLA945	CMLA946	CMLA949	CMLA953	CMLA955	CMLA956	CMLA958	CMLA959
CMLA960	CMLA962	CMLA963	CMLA964	CMLA966	CMLA968	CMLA969	CMLA972
CMLA975	CMLA976	CMLA977	CMLA980	CMLA981			

CML0908	CML0911	CML0914	CML0915	CML0916	CML0920

MAVA093	MAVA104	MAVA107

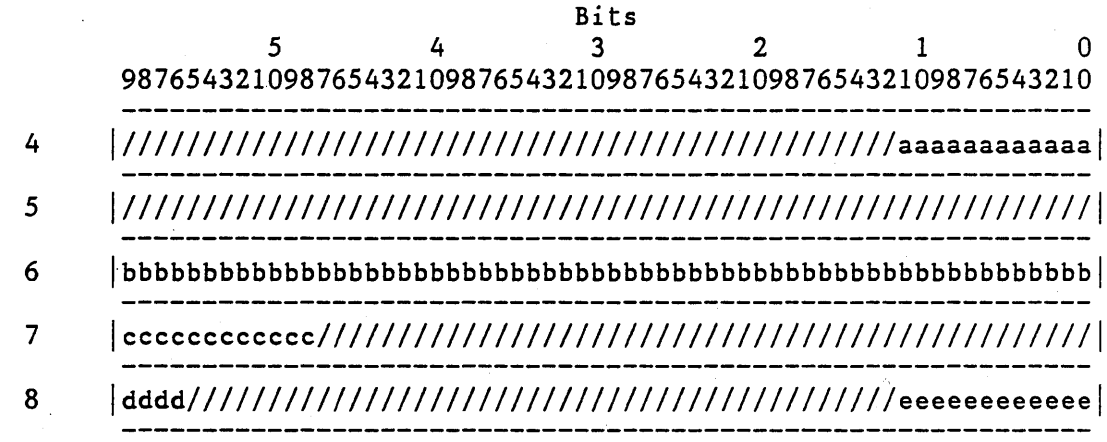
Appendix B

Hardware Performance Analyzer Reference Manual Changes

The following changes for the Hardware Performance Analyzer Reference Manual, publication number 60459460, replace page C-4.2 for the L716 release.

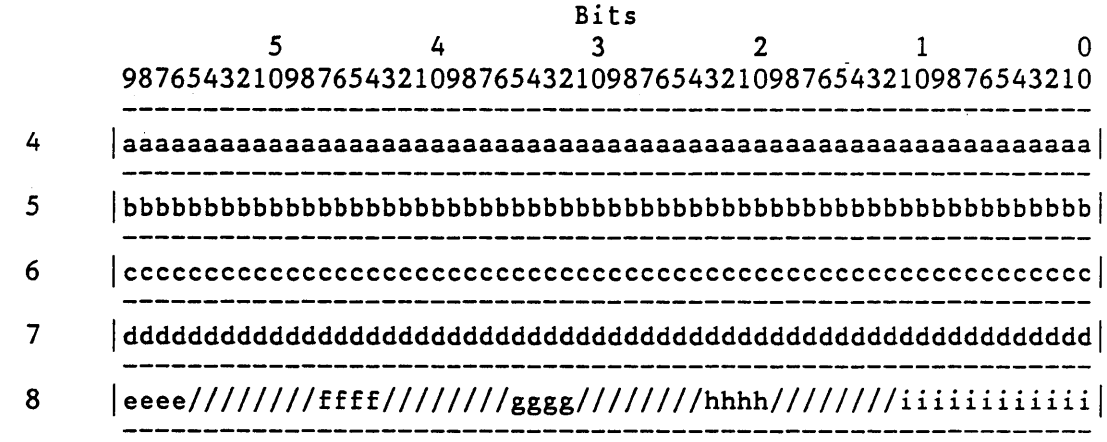
HPA error codes 4314 and 4315:

Symptom codes 2001B - 2007B, 2401B - 2403B, 3003B - 3046B (record 1 of 3):



a Non-Reg Stat Data Block Length, upper. Word 4, bits 11 through 00. Length value can be from 4 (for no Non-Reg Stat Data Block Words) to 10 (for 6 Non-Reg Stat Data Block Words).
b Fault symptom code, upper. Word 6, bits 59 through 00.
c Fault symptom code, lower. Word 7, bits 59 through 48.
d Non-Reg Stat Data Block Length, lower. Word 8, bits 59 through 56.
e BML symptom code (2001B - 2007B, 2401B - 2403B, 3003B - 3046B). Word 8, bits 11 through 00.

Symptom codes 2001B - 2007B, 2401B - 2403B (record 2 of 3):



a Non-Reg Stat Data Block Word 0, upper. Word 4, bits 59 through 00.
b Non-Reg Stat Data Block Word 1, upper. Word 5, bits 59 through 00.
c Non-Reg Stat Data Block Word 2, upper. Word 6, bits 59 through 00.
d Non-Reg Stat Data Block Word 3, upper. Word 7, bits 59 through 00.
e Non-Reg Stat Data Block Word 0, lower. Word 8, bits 59 through 56.

(continued next page)

f Non-Reg Stat Data Block Word 1, lower. Word 8, bits 47 through 44.
g Non-Reg Stat Data Block Word 2, lower. Word 8, bits 35 through 32.
h Non-Reg Stat Data Block Word 3, lower. Word 8, bits 23 through 20.
i BML symptom code (2001B - 2007B, 2401B - 2403B).
Word 8, bits 11 through 00.

Symptom codes 2001B - 2007B, 2401B - 2403B (record 3 of 3):

a Non-Reg Stat Data Block Word 4, upper. Word 4, bits 59 through 00.
b Non-Reg Stat Data Block Word 5, upper. Word 5, bits 59 through 00.
c Non-Reg Stat Data Block Word 4, lower. Word 8, bits 59 through 56.
d Non-Reg Stat Data Block Word 5, lower. Word 8, bits 47 through 44.
e BML symptom code (2001B - 2007B, 2401B - 2403B).
Word 8, bits 11 through 00.