


```

MM      MM  PPPPPPP  CCCCCCCC  LL      RRRRRRRR  PPPPPPPP  FFFFFFFFFF  MM      MM
MM      MM  PPPPPPP  CCCCCCCC  LL      RRRRRRRR  PPPPPPPP  FFFFFFFFFF  MM      MM
MMM     MMM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MMM     MMM
MMM     MMM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MMM     MMM
MM      MM  MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RRRRRRRR  PPPPPPPP  FFFFFFFFFF  MM      MM
MM      MM  PPPPPPP  CCCCCCCC  LL      RRRRRRRR  PPPPPPPP  FFFFFFFFFF  MM      MM
MM      MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM
MM      MM  PP      PP      CC  RR      RR  RR      RR  RR      RR  PP      PP  FF      FF  MM      MM

```

```

LL      IIIII  SSSSSSS
LL      IIIII  SSSSSSS
LL      II     SS
LL      II     SS
LL      II     SS
LL      II     SS
LL      II     SSSSSS
LL      II     SSSSSS
LL      II     SS
LL      II     SS
LL      II     SS
LL      IIIII  SSSSSSS
LLLLLLLLLLLL IIIIII SSSSSSS
LLLLLLLLLLLL IIIIII SSSSSSS

```

```
0000 1      .TITLE MPCLRPFM
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5      *****
0000 6      *
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0000 24     *
0000 25     *
0000 26     *****
0000 27     :
0000 28
0000 29     :++
0000 30
0000 31     : Facility: Multi-processor performance measurement tool to re-init data cells
0000 32
0000 33     : Abstract: This module resets all performance accumulators to zero.
0000 34
0000 35     : Environment: MODE=Kernel
0000 36
0000 37     : Author: Kathleen D. Morse, Creation date: 27-Aug-1981
0000 38
0000 39     : Modified by:
0000 40
0000 41     :           V03-002 KDM0032           Kathleen D. Morse           22-Nov-1982
0000 42     :           Remove wait time before secondary reschedule histogram.
0000 43     :           Add secondary executed kernel system service histogram.
0000 44
0000 45
0000 46     :--
0000 47
0000 48
0000 49     : Include files:
0000 50
0000 51
0000 52
0000 53     : MACROS:
0000 54
0000 55
0000 56
0000 57     : Equated Symbols:
```

```

0000 58
0000 59
0000 60 $IPLDEF
0000 61 $PCBDEF
0000 62 $PHDDEF
0000 63
0000 64
00000000 0000 65 HST_L_CELLCOUNT = 0
00000004 0000 66 HST_L_CELLWIDTH = 4
00000008 0000 67 HST_L_OVRFLOW = 8
00000010 0000 68 HST_L_FIRSTCELL = 16
0000 69
00000000 70 .PSECT RO_DATA LONG,NOWRT,NOEXE
0000 71
0000 72
00000000 73 .PSECT CODE BYTE,NOWRT,EXE
0000 74 CLRPFM::
0000 75 .ENABL LSB
0000 76 .WORD 0
0002 77 $CMKRNL_S B^CLRDATA
000E 78 $EXIT_S^RO
0017 79
0017 80 ; CLRDATA - This routine goes into kernel mode and clears the performance
0017 81 ; data.
0017 82
0017 83 CLRDATA::
007C 0017 84 .WORD ^M<R2,R3,R4,R5,R6>
0019 85 SETIPL #IPLS_TIMER ;Synchronize on primary processor
56 00000000'GF D4 001C 86 CLRL RO ;Assume error code exit
03 12 0025 87 MOVL G^EXE$GL_MP,R6 ;Get adr of loaded MP code
00F4 31 0027 88 BNEQ 5$ ;Br if MP code is loaded
002A 90 BRW ERR_EXIT ;Br if MP code not loaded
51 06 9A 002A 91 5$: MOVZBL #6,R1 ;One counter for K,E,S,U,I,C and null
0000'C641 D4 002D 92 10$: CLRL MP$SAL_CPUTIME(R6)[R1]
F8 51 F4 0032 93 SOBGEQ R1,10$
0035 94
00000000'GF41 9A 0035 95 MOVZBL #5,R1
F6 51 F4 0038 96 20$: CLRL G^PMS$GL_KERNEL[R1]
003F 97 SOBGEQ R1,20$
0042 98
50 00000000'GF 9E 0042 99 MOVAB G^SCH$GL_NULLPCB,RO
50 6C A0 D0 0049 100 MOVL PCB$S_PHD(RO),RO
38 A0 D4 004D 101 CLRL PHD$S_CPUTIM(RO)
0050 102
0000'C6 D4 0050 103 CLRL PFMSL_CNT_CTXSW(R6)
0000'C6 D4 0054 104 CLRL PFMSL_CNT_RESCH(R6)
0000'C6 D4 0058 105 CLRL PFMSL_CNT_SCHDS(R6)
0000'C6 D4 005C 106 CLRL PFMSL_CNT_INVALID(R6)
0000'C6 D4 0060 107 CLRL PFMSL_CNT_IWAIT(R6)
0000'C6 D4 0064 108 CLRL PFMSL_CNT_EXCHG(R6)
0000'C6 D4 0068 109 CLRL PFMSL_CNT_ASTSC(R6)
0000'C6 D4 006C 110 CLRL PFMSL_CNT_NWAIT(R6)
0070 111
50 0000'C6 9E 0070 112 MOVAB PFMSA_HIST_TIME(R6),RO
51 04 60 C5 0075 113 MULL3 HST_L_CELLCOUNT(RO),#4,R1
51 51 0C C0 0079 114 ADDL #12,RT ;Add in overflow cell

```

60	51	00	50	08	C0	007C	115	ADDL	#HST_L_OVRFLOW,R0	
			60	00	2C	007F	116	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	0085	MOVAB	PFMSA_HIST_SRV(R6),R0	
			51	04	60	C5	0085	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	008E	ADDL	#12,RT	;Add in overflow cell
60	51	00	50	08	C0	0091	121	ADDL	#HST_L_OVRFLOW,R0	
			60	00	2C	0C94	122	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	009A	MOVAB	PFMSA_HIST_CTX(R6),R0	
			51	04	60	C5	009A	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	009F	ADDL	#12,RT	;Add in overflow cell
			50	08	C0	00A3	126	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00A6	127	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00A9	MOVAB	PFMSA_HIST_PGFL(R6),R0	
			51	04	60	C5	00AF	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	00A3	ADDL	#12,RT	;Add in overflow cell
			50	08	C0	00A6	127	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00A9	128	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00AF	MOVAB	PFMSA_HIST_PGFL(R6),R0	
			51	04	60	C5	00B4	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	00B8	ADDL	#12,RT	;Add in overflow cell
			50	08	C0	00BB	133	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00BE	134	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00C4	MOVAB	PFMSA_HIST_CHMK(R6),R0	
			51	04	60	C5	00C4	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	00C9	ADDL	#12,RT	;Add in overflow cell
			50	08	C0	00CD	138	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00D0	139	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00D3	MOVAB	PFMSA_HIST_OTHR(R6),R0	
			51	04	60	C5	00D9	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	00D9	ADDL	#12,RT	;Add in overflow cell
			50	08	C0	00DE	143	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00E2	144	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00E5	MOVAB	PFMSA_HIST_SSRV(R6),R0	
			51	04	60	C5	00E8	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	00EE	ADDL	#12,RT	;Add in overflow cells
			50	08	C0	00F3	149	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	00F7	150	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	00FA	MOVAB	PFMSA_HIST_KSRV(R6),R0	
			51	04	60	C5	00FD	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	0103	ADDL	#12,RT	;Add in overflow cells
			50	08	C0	0108	155	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	010C	156	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	0000	C6	9E	010F	MOVAB	PFMSA_HIST_KSRV(R6),R0	
			51	04	60	C5	0112	MULL3	HST_L_CELLCOUNT(R0),#4,R1	
				51	0C	C0	0118	ADDL	#12,RT	;Add in overflow cells
			50	08	C0	0118	159	ADDL	#HST_L_OVRFLOW,R0	
60	51	00	60	00	2C	011B	160	MOVCS	#0,(R0),#0,R1,(R0)	;Clear performance meas data
			50	01	9A	011B	161	SETIPL	#0	;Reset IPL
						011E	162	MOVZBL	#1,R0	;Set success status
					04	011E	163	ERR_EXIT:		
						011F	164	RET		
						011F	165			
						011F	166			
						011F	167	.END	CLRPFM	

MPCLRPFM
Symbol table

H 14

16-SEP-1984 02:13:37 VAX/VMS Macro V04-00
5-SEP-1984 02:06:07 [MP.SRC]MPCLRPFM.MAR;1

Page 4
(1)

MP
VO

```

CLRDATA      00000017 RG  03
CLRPFM      00000000 RG  03
ERR_EXIT    0000011E R   03
EXESGL_MP   ***** X  03
HST_L_CELLCOUNT = 00000000
HST_L_CELLWIDTH = 00000004
HST_L_FIRSTCELL = 00000010
HST_L_OVRFLOW = 00000008
IPLS_TIMER  = 00000008
MPSSAL_CPUTIME ***** X  03
PCBSL_PHD   = 0000006C
PFMSA_HIST_CHK ***** X  03
PFMSA_HIST_CTX ***** X  03
PFMSA_HIST_KSRV ***** X  03
PFMSA_HIST_OTHR ***** X  03
PFMSA_HIST_PGFL ***** X  03
PFMSA_HIST_SRV ***** X  03
PFMSA_HIST_SSRV ***** X  03
PFMSA_HIST_TIME ***** X  03
PFMSL_CNT_ASTSC ***** X  03
PFMSL_CNT_CTXSW ***** X  03
PFMSL_CNT_EXCHG ***** X  03
PFMSL_CNT_INVALID ***** X  03
PFMSL_CNT_IWAIT ***** X  03
PFMSL_CNT_NWAIT ***** X  03
PFMSL_CNT_RESCH ***** X  03
PFMSL_CNT_SCHDS ***** X  03
PHDSL_CPUTIM = 00000038
PMSSGC_KERNEL ***** X  03
PRS_IPC     ***** X  03
SCHSGL_NULLPCB ***** X  03
SYSSCMRNL  ***** GX  03
SYSSEXIT   ***** GX  03
    
```

-----+
! Psect synopsis !
-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RO DATA	00000000 (0.)	02 (2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
CODE	0000011F (287.)	03 (3.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

-----+
! Performance indicators !
-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.09	00:00:00.80
Command processing	108	00:00:00.69	00:00:04.97
Pass 1	178	00:00:03.30	00:00:11.00
Symbol table sort	0	00:00:00.38	00:00:00.62
Pass 2	47	00:00:00.75	00:00:02.16
Symbol table output	5	00:00:00.05	00:00:00.09

Psect synopsis output	2	00:00:00.03	00:00:00.04
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	372	00:00:05.30	00:00:19.68

The working set limit was 1050 pages.
16658 bytes (33 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 293 non-local and 3 local symbols.
167 source lines were read in Pass 1, producing 16 object records in Pass 2.
14 pages of virtual memory were used to define 13 macros.

! Macro library statistics !

Macro library name	Macros defined
-\$255\$DUA28:[MP.OBJ]MP.MLB;1	0
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	4
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	6
TOTALS (all libraries)	10

355 GETS were required to define 10 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:MPCLRPFM/OBJ=OBJ\$:MPCLRPFM MSRC\$:MPCLRPFM/UPDATE=(ENH\$:MPCLRPFM)+EXECMLS/LIB+LIB\$:MP.MLB/LIB

0247 AH-BT13A-SE
VAX/VMS V4.0

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A grid of 12 columns and 12 rows of small, illegible text screens. Several screens contain larger, legible text labels:

- Row 2, Column 3: VMOUNT LIS
- Row 3, Column 8: MPCLRPFM LIS
- Row 4, Column 7: MPAST LIS
- Row 5, Column 5: MP
- Row 5, Column 6: MP MAP
- Row 6, Column 7: MP MDL
- Row 7, Column 3: TRNLOG LIS
- Row 8, Column 8: MPCMOD LIS
- Row 12, Column 6: MPMACROS MAR