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1          ;***COPYRIGHT 1969, DIGITAL EQUIPMENT CORP., MAYNARD, MASS.***
2
3
4          ;THIS SUB-PROGRAM ASSEMBLED WITH SYSTEM PARAMETER FILE - S,MAC(V414)
5          XLIST
6          LIST
7          ;THIS SUB-PROGRAM ASSEMBLED WITH CONFIGURATION DEPENDENT FEATURE SWITCHES - FT50SB,MAC(
8          V003)
9          XLIST
10         LIST
11         TITLE NULSEF - DUMMY HIGH SEGMENT ROUTINES FOR MACHINES WITH JUST ONE REG - V406
12         SURTIL T, HASTINGS/TH TS 2 JUNE 69
13         XP VNULSG,406
14         ;PUT VERSION NUMBER IN LOADER STORAGE MAP AND GLOB LISTING
15
16         ENTRY NULSEG
17 000000    NULSEG:          ;ENTRY POINT SYMBOL TO CAUSE LOAD OF NULSEG IF REQUIRED
18                                     ;(IE INSTEAD OF SEGCON OR NEITHER)
19
20         ;INITIALIZE LOC TWO REG TO 0 (FLAG SOFTWARE OR HARDWARE ONLY 1 REG CAPABILITY)
21         ;AND! AND2RG EXECUTED FROM ONCE AFTER HARDWARE EXAMINED FOR 2 REG CAPABILITY.
22
23         INTERN AND2RG
24
25 000000    AND2RG=0        ;FLAG SYSTEM DOES NOT HAVE 2 REG. CAPABILITY
26                                     ;SINCE AT LEAST SOFTWARE DOES NOT BECAUSE THIS DUMMY
27                                     ;ROUTINE LOADED
28
29         ;CLOCK1
30
31         INTERN SETHGH
32
33 000000    621340 001777    SETHGH: TLZ PROG,1777    ;CLEAR OUT PROTECTION FOR HIGH SEG IN CASE THIS
34 000001    263140 000000    POPJ POP,          ;IS A 2 REG MACHINE
35
36         XP CHGHGH,R0      ;CHARGE CURRENT USER FOR HIGH SEG
37
38         ;COMCSS
39
40         XP PRTHGH,R0      ;RPINT HIGH SEG CORE
41         XP ASGHGH,R0      ;CLEAR HIGH SEG NAMES ON ASSIGN COMMAND
42         XP CHKMER,R0      ;CHECK FOR MEDDLING
43         XP ANYSAV,R1      ;ANY JOB DOING A SAVE INVLOVING HIGH SEG?
44

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45          ;CORE1
46          XP HGHDEP,R0          ;DEPOSIT HIGH SEG(ERROR)
47          XP KILHGH,R0          ;REMOVE HIGH SEG FROM LOGICAL ADR SPACE
48          XP UREMAP,R0          ;REMAP UUU
49          XP CURHGH,R0          ;CHANGE RELOC HARD IF CURRENT USER AFFECTED
50          XP FRECOR,R0          ;FREE CORE IN NON-SWAP SYSTEMS
51          XP FRECR1,R1          ;FREE CORE IN SWAPING SYSTEMS
52
53          INTERN UCORHI,SUMSEG
54          EXTERN CORMAX,USRREL
55
56 000002 313040 000000 UCORHI: CAMLE TAC,USRREL          ;TRYING TO ASSIGN CORE TO HIGH SEG?
57 000003 263140 000000 POPJ PDP,                          ;YES, ERROR RETURN
58                                     ; NO, GIVE OK RETURN
59 000004 315040 000000 SUMSEG: CAMGE TAC,CORMAX          ;ARG GE MAX LENGTH (HIGHEST+1)?
60 000005 350003 000000 R1: AOS (PDP)                      ;NO, GIVE OK RETURN
61 000006 263140 000000 R0: POPJ PDP,                          ;YES, GIVE ERROR RETURN
62
63          ;ERRCON
64
65          XP SEGILM,R1          ;WILD TRANSFER RETURN
66
67          ;SAVGET
68
69          XP SETEXT,R0+
70          XP SETEX1,R0+
71          XP SAVDDL,R0          ;DIDDL RELOC, DURING DUMP MODE O/P FOR HISEG
72
73          INTERN UGETHI
74          EXTERN UGTERR
75
76 000007 254000 000000 UGETHI: JRST UGTERR          ;ERROR RETURN TO USER UNLESS HALT IN LH OF UUU+1
77
78          INTERN SAVHGH,GETHGH
79          EXTERN SGERRA,SGAMOD,SG3
80
81 000010          SAVHGH:
82 000010 050000 000000 GETHGH: OPEN 0,SGAMOD          ;TRY TO INIT DEVICE
83 000011 254000 000000 JRST SGERRA          ;ERROR
84 000012 350003 000000 AOS (PDP)          ;SKIP RETURN
85 000013 254000 000000 JRST SG3          ;AND GO SETUP LOWER CORE
    
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86          ;SWAP
87
88          INTERN FTSWAP
89
90          IFN FTSWAP,<
91          XP FININ,R1          ;FINISH SWAPPING IN
92          XP FINOT,R1          ;FINISH LOW SEG OUTPUT - NOTHING MORE TO DO
93          XP FORSI?,R0         ;SIZE OF JOB FREED UP
94          XP FRESWP,R1         ;FREE DISK SPACE - NO DORMANT SEG FOUTND RETURN
95          XP FITHGH,R0         ;CHECK IF HISEG BEING SWAPPED IN
96
97          INTERN FITSIZ
98          EXTERN CORTAL
99
100         000014 317640 000000 FITSIZ: CAMG AC1,CORTAL          ;WILL LOW SEG FIT IN CORE?
101         000015 350003 000000          AOS (PDP)          ;YES, SWAP HIM IN
102         000016 263140 000000          POPJ PDP,          ;NO, MUST SWAP SOMEONE ELSE OUT FIRST
103
104         INTERN FORHGH
105         EXTERN JRSTJS
106
107         000017 205240 004000 FORHGH: MOVSI TAC,SHE ;STOP IO AFTER NEXT BUFFERFUL IF ACTIVE
108         000020 436044 000000          IORM TAC,JRTSTS(ITEM) ;CHECKED BY ADVEFF,ADVBE ROUTINES
109         000021 263140 000000          POPJ PDP,
110         >
111
112         ;SYSINI
113
114         XP SEGINI,R0          ;INITIALIZE HIGH SEGS
115
116         ;UUOCON
117
118         XP HELSEG,R0          ;SUPERCEDE HIGH SEGS ON RECREATE
119         XP RELSG1,R1          ;RENAME UUO
120         XP HGHWRD,R0         ;GET WORD FROM HIGH SEG - ERROR RETURN
121         XP HRESET,R0+
122
123         INTERN USTWUP
124         EXTERN RTZER
125
126         000022 254000 000000 USTWUP: JRST RTZER
127
128         XP HGHWRD,R0          ;GET WORD FROM HIGH SEG -ERROR
129         XP USPY,R0           ;SPY UUO - ERROR
130
131
132         END
    
```

NO ERRORS DETECTED

PROGRAM BREAK IS 000036

AC1	000015	INT	AND2RG	000000	INT	ANYSAV	000005'	INT
ASGHGH	000026'	INT	CHGHGH	000006'	INT	CHKMED	000006'	INT
CORMAX	000024'	EXT	CORTAL	000014'	EXT	CURHGH	000006'	INT
FININ	000025'	INT	FINOT	000025'	INT	FITHGH	000006'	INT
FITSIZ	000014'	INT	FORHGH	000017'	INT	FORSIZ	000006'	INT
FRECOR	000006'	INT	FRECR1	000025'	INT	FRESWP	000005'	INT
FICCL	777777	777777	FIDISK	777777	777777	FTLOGI	777777	777777
FIPC10	777777	777777	FISWAP	777777	777777	GETHGH	000010'	INT
HGHDEF	000006'	INT	HGHWRD	000006'	INT	HRESET	000006'	INT
ITEM	000004	INT	JBTSTS	000020'	EXT	KILHGH	000006'	INT
NULSFG	000000'	INT	PDP	000023	INT	PROG	000007	INT
PRTHCH	000026'	INT	R0	000006'		R1	000005'	
RELSEF	000006'	INT	RELSG1	000005'	INT	RTZER	000022'	EXT
SAVDOL	000006'	INT	SAVHGH	000010'	INT	SEGILM	000005'	INT
SEGINI	000006'	INT	SETEX1	000006'	INT	SETEXT	000006'	INT
SETHCH	000000'	INT	SG3	000013'	EXT	SGAMOD	000010'	EXT
SGERRA	000011'	EXT	SHF	004000	INT	SUMSEG	000004'	INT
TAC	000021	INT	UCORHI	000022'	INT	UGETHI	000007'	INT
UGTERR	000027'	EXT	UREMAP	000026'	INT	USPY	000006'	INT
USRRFL	000022'	EXT	USTUMP	000022'	INT	VNULSG	000406	INT

A	6#	6	
AC1	6#	6	1.70
AC2	6#	6	
AC3	6#	6	
AEFERR	6#	6	
AL	6#	6	
AND2RG	23	25#	
ANYSAV	44#	44	
ASGHGH	42#	42	
ASSCON	6#	6	
ASSPRG	6#	6	
B	6#	6	
BUFPNT	6#	6	
BUFWRD	6#	6	
CHGHGH	37#	37	
CHKMFD	43#	43	
CLKR	6#	6	
CLSIM	6#	6	
CLSOIT	6#	6	
CMWB	6#	6	
CORCNT	6#	6	
CORMAX	54	59	
CORTAL	98	100	
CURHGH	50#	50	
D	6#	6	
DAT	6#	6	
DCL	6#	6	
DCLI	6#	6	
DCL0	6#	6	
DCLR	6#	6	
DDI	6#	6	
DDO	6#	6	
DEN	6#	6	
DEVADR	6#	6	
DEVBUF	6#	6	
DEVCHR	6#	6	
DEVCTR	6#	6	
DEVDAT	6#	6	
DEVEXT	6#	6	
DEVFIL	6#	6	
DEVIAD	6#	6	
DEVIAS	6#	6	
DEVLOG	6#	6	
DEVMOD	6#	6	
DEVNAM	6#	6	
DEVQAD	6#	6	
DEVPPN	6#	6	
DEVPTR	6#	6	
DEVSER	6#	6	
DGF	6#	6	
DHNG	6#	6	
DIN	6#	6	
DINI	6#	6	

DLK	6#	6
DMT	6#	6
DNAERR	6#	6
DOU	6#	6
DR	6#	6
DRL	6#	6
DRN	6#	6
DSER	6#	6
DSI	6#	6
DSKRLB	6#	6
DSO	6#	6
DVAVAL	6#	6
DVCDP	6#	6
DVDIF	6#	6
DVDIRI	6#	6
DVDIS	6#	6
DVDSK	6#	6
DVDTA	6#	6
DVIN	6#	6
DVLNG	6#	6
DVLPT	6#	6
DVMTA	6#	6
DVOUT	6#	6
DVPTP	6#	6
DVPTR	6#	6
DVTTY	6#	6
ENTRB	6#	6
FBMERR	6#	6
FININ	92#	92
FINOT	93#	93
FITHGH	96#	96
FITSIZ	97	100#
FNFERR	6#	6
FORHGH	104	107#
FORSIZ	94#	94
FRECOR	51#	51
FRECR1	52#	52
FRFSWP	95#	95
FRGSEG	6#	6
FT2REL	6#	
FTATTA	6#	
FTCCL	10#	
FTCHEC	6#	
FTDISK	10#	
FTEXAM	6#	
FTFINI	6#	
FTGETT	6#	
FTHALT	6#	
FTKCT	6#	
FTLOGI	10#	
FTMONP	6#	
FTPRV	6#	
FTRA10	6#	

FTRC10	10#			
FTRCHK	6#			
FTRFAS	6#			
FTSLEE	6#			
FTSWAP	10#	98	90	
FTTALK	6#			
FTTIME	6#			
FTTRAC	6#			
FTTRPS	6#			
FTTYS	6#			
GETHCH	78	92#		
HGHDFP	47#	47		
HGHWRD	121#	121	129#	129
HRESET	122#	122		
HSAMSK	6#	6		
HSAPDS	6#	6		
HSASIZ	6#	6		
HUNGCT	6#	6		
HUNGST	6#	6		
I	6#	6		
IB	6#	6		
IBUFR	6#	6		
ICLOSB	6#	6		
ILM	6#			
ILUERR	6#	6		
INRFR	6#	6		
INITP	6#	6		
INPB	6#	6		
IO	6#	6		
IOACT	6#	6		
IOREG	6#	6		
IORCTL	6#	6		
IOROT	6#	6		
IOCOM	6#	6		
IODEND	6#	6		
IODERR	6#	6		
IODTER	6#	6		
IOEND	6#	6		
IOFST	6#	6		
IOJMPM	6#	6		
IONRCK	6#	6		
IOPAR	6#	6		
IOS	6#	6		
IOTEND	6#	6		
IOUSE	6#	6		
IOW	6#	6		
IOWC	6#	6		
IPPERR	6#	6		
ITEM	6#	6	108	
JACCT	6#	6		
JBFAOR	6#	6		
JBFCR	6#	6		
JBFPTR	6#	6		

SG3	79	85				
SGAMOD	79	82				
SGERRA	79	83				
SHF	6#	6	127			
SHRSEG	6#	6				
SLEVEL	6#	6				
SLICE	6#	6				
SNA	6#	6				
SPYSEG	6#	6				
STOPIO	6#	6				
STTYR1	6#	6				
STTYRF	6#	6				
SUMSEG	53	59#				
SWP	6#	6				
SWPCLR	6#	6				
SYSDEV	6#	6				
TAC	6#	6	56	59	127	128
TAC1	6#	6				
TEM	6#	6				
TRNERR	6#	6				
TTYATC	6#	6				
TTYBIU	6#	6				
TTYUSE	6#	6				
UCHN	6#	6				
UCORHI	53	56#				
UGETHI	73	76#				
UGTERR	74	76				
UIOMOD	6#	6				
UKFMAP	49#	49				
USPY	132#	132				
USPMOD	6#	6				
USRREL	54	56				
USTUWP	123	126#				
UUO	6#	6				
UWP	6#	6				
UWPOFF	6#	6				
VNULSG	14#	14				
WTMASK	6#	6				

