

SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSSSSSSSSS	YYY	YYY	SSSSSSSSSS
SSSSSSSSSS	YYY	YYY	SSSSSSSSSS
SSSSSSSSSS	YYY	YYY	SSSSSSSSSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSS	YYY	YYY	SSS
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS

```

BBBBBBBB      000000      000000      PPPPPPPP      AAAAAA      RRRRRRRR      AAAAAA      MM      MM
BBBBBBBB      000000      000000      PPPPPPPP      AAAAAA      RRRRRRRR      AAAAAA      MM      MM
BB      BB      00      00      00      00      PP      PP      AA      AA      RR      RR      AA      AA      MMMM      MMMM
BB      BB      00      00      00      00      PP      PP      AA      AA      RR      RR      AA      AA      MMMM      MMMM
BB      BB      00      00      00      00      PP      PP      AA      AA      RR      RR      AA      AA      MM      MM
BB      BB      00      00      00      00      PP      PP      AA      AA      RR      RR      AA      AA      MM      MM
BBBBBBBB      00      00      00      00      PPPPPPPP      AA      AA      RRRRRRRR      AA      AA      MM      MM
BBBBBBBB      00      00      00      00      PPPPPPPP      AA      AA      RRRRRRRR      AA      AA      MM      MM
BB      BB      00      00      00      00      PP      AAAAAAAAAA      RR      RR      AAAAAAAAAA      MM      MM
BB      BB      00      00      00      00      PP      AAAAAAAAAA      RR      RR      AAAAAAAAAA      MM      MM
BB      BB      00      00      00      00      PP      AA      AA      RR      RR      AA      AA      MM      MM
BB      BB      00      00      00      00      PP      AA      AA      RR      RR      AA      AA      MM      MM
BBBBBBBB      000000      000000      PP      AA      AA      RR      RR      AA      AA      MM      MM
BBBBBBBB      000000      000000      PP      AA      AA      RR      RR      AA      AA      MM      MM

```

```

LL      IIIIII      SSSSSSSS
LL      IIIIII      SSSSSSSS
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      II      SS
LLLLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS

```

```

....
....
....
....

```

(2) 66 parameters

```

0000 1      .TITLE  BOOPARAM      SYSBOOT parameter block definition
0000 2      .IDENT  'V04-000'
0000 3
0000 4
0000 5 :*****
0000 6 :*
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0000 23 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27
0000 28
0000 29 :++
0000 30 : FACILITY:      System bootstrapping and initialization
0000 31
0000 32 : ABSTRACT:      Define interface between SYSBOOT and INIT for passing
0000 33 :                 bootstrap parameters.
0000 34
0000 35 : ENVIRONMENT:   This module is linked against SYSBOOT and against INIT; it
0000 36 :                 shares both of their environments.
0000 37
0000 38 : AUTHOR:        TRUDY MATTHEWS,      CREATION DATE: 07-Jan-1981
0000 39
0000 40 : MODIFIED BY:
0000 41
0000 42 : V03-006 MMD0245      Meg Dumont,      27-Feb-1984 10:44
0000 43 :                 Add support for $MTACCESS installation specific accessibility
0000 44 :                 routine
0000 45
0000 46 : V03-005 KTA3059      Kerbey T. Altmann      22-Jun-1983
0000 47 :                 Added BOO$GL_DEVNAME for boot device name.
0000 48
0000 49 : V03-004 KDM0044      Kathleene D. Morse      03-May-1983
0000 50 :                 Added BOO$GL_FPEMUL and BOO$GL_VAXEMUL, for loadable
0000 51 :                 instruction emulation software.
0000 52
0000 53 : V03-003 STJ3055      Steven T. Jeffreys      21-Jan-1983
0000 54 :                 Added BOO$GL_ERAPATLOA and BOO$GL_CHKPRTL0A for
0000 55 :                 loadable $ERAPAT and $CHKPRT.
0000 56
0000 57 : V03-002 SRB0059      Steve Beckhardt      6-Jan-1983

```

```
0000 58 : Added entry for cluster loadable code.  
0000 59 :  
0000 60 : V03-001 KTA3022 Kerbey T. Altmann 30-Dec-1982  
0000 61 : Add entry for boot system node name.  
0000 62 :  
0000 63 : Equated Symbols:  
0000 64 :
```

```

0000 66      .SBTTL parameters
0000 67      :++
0000 68      : This module reserves storage for bootstrap parameters to be passed from
0000 69      : SYSBOOT to INIT.  In many ways, this module functions like SYSPARAM does:
0000 70      :   - It is linked both into SYSBOOT.EXE and SYS.EXE.
0000 71      :   - SYSBOOT fills in its copy of this module with derived values, then
0000 72      :     copies this "parameter block" into the reserved space linked into
0000 73      :     INIT.
0000 74      : This module differs from SYSPARAM in that SYSPARAM parameters stay in the
0000 75      : system after INIT has deleted itself; BOOPARAM parameters are used only by
0000 76      : INIT and are deleted along with INIT.
0000 77      :--
0000 78
0000 79
0000 80      : Put the data in a psect contiguous to INIT's Z$INIT000 psect, so INIT can
0000 81      : define a symbol unique to SYS.EXE for the base of this module.
0000 82
00000000 83      .PSECT Z$INIT001, LONG
0000 84      BOO$A_BOOPARAM::                ; Define base of module.
0000 85
0000 86
0000 87      : Describe where SYSBOOT has loaded the various drivers and loadable code
0000 88
0000 89      BOO$GL_DSKDRV::                ; Boot device driver
00000000 0000 90      .LONG 0                          ; Address in non-paged pool
0004 91
0000 92      BOO$GL_SYSLOA::                ; CPU-dependent image (SYSLOAxxx.EXE)
00000000 0004 93      .LONG 0                          ; Address in non-paged pool
0008 94
0000 95      BOO$GL_TPMDRV::                ; Terminal service (TTDRIVER.EXE)
00000000 0008 96      .LONG 0                          ; Address in non-paged pool
000C 97
0000 98      BOO$GQ_INILOA::                ; Pool descriptor for loadable init code.
00000000 000C 99      .LONG 0                          ; Address in non-paged pool
00000000 0010 100     .LONG 0                          ; Size in bytes (not including header).
0014 101      BOO$GL_NPAGEDYN::                ;
00000000 0014 102     .LONG 0                          ; Size in bytes of pool remaining
0018 103      BOO$GL_SPLITADR::                ;
00000020 0018 104     .BLKQ 1                          ; Address of bottom of IRP lookaside list
0000001C 0020 105      BOO$GL_IRPCNT==BOO$GL_SPLITADR+4 ; Count of IRP's to initialize
0020 106      BOO$GL_LRPSIZE::                ;
00000000 0020 107     .LONG 0                          ; Size in bytes of LRP packets
0024 108      BOO$GL_LRPMIN::                ;
00000000 0024 109     .LONG 0                          ; Minimum size to allocate an LRP
0028 110      BOO$GL_LRPSPLIT::                ;
00000030 0028 111     .BLKQ 1                          ; Base address of LRP lookaside list
0000002C 0030 112      BOO$GL_LRPCNT==BOO$GL_LRPSPLIT+4 ; Count of LRP's to initialize
0030 113      BOO$GL_SRPSPLIT::                ;
00000038 0030 114     .BLKQ 1                          ; Base address of SRP lookaside list
00000034 0038 115      BOO$GL_SRPCNT==BOO$GL_SRPSPLIT+4 ; Count of SRP's to initialize
0038 116      BOO$GQ_FILCACHE::                ;
00000040 0038 117     .BLKQ 1                          ; $FIL$OPENFILE cache
0040 118      BOO$GL_BOOTCB::                ;
00000000 0040 119     .LONG 0                          ; Size in bytes and pool address
0044 120      BOO$GT_TOPSYS::                ; Address in pool of BOOT control block
0000004E 0044 121     .BLKB 10                          ; with read/write virtual block logic
004E 122      BOO$GB_SYSTEMID::                ; Top level system directory
                                           ; ASCII string
                                           ; The 48 bit SCSystemid of remote port

```

SYSBOOT parameter block definition
parameters

N 1

```
00000054 004E 123 .BLKB 6  
0054 124 BOO$GL_PRTDRV:: : Address in pool of any port driver  
00000000 0054 125 .LONG 0  
0058 126 BOO$GL_UCODE:: : Address in pool of any port microcode  
00000000 0058 127 .LONG 0  
005C 128 BOO$GL_SCSLOA:: : Address in pool of any SCS loadable  
00000000 005C 129 .LONG 0 : code  
0060 130 BOO$GL_CLSLOA:: : Address in pool of cluster loadable  
00000000 0060 131 .LONG 0 : code (if loaded)  
0064 132 BOO$GL_ERAPATLOA:: : Address in pool of $ERAPAT loadable  
00000000 0064 133 .LONG 0 : code (if loaded)  
0068 134 BOO$GL_CHKPRTLQA:: : Address in pool of $CHKPRT loadable  
00000000 0068 135 .LONG 0 : code (if loaded)  
006C 136 BOO$GL_MTACCESSLOA:: : Address in pool of $MTACCESS loadable  
00000000 006C 137 .LONG 0 : code (if loaded)  
20 20 20 20 20 20 20 0070 138 BOO$GB_NODENAME:: : The ASCII name of the remote system  
0070 139 .ASCII /  
0078 140  
0078 141 BOO$GL_VAXEMUL:: : Char/decimal ins emulator (VAXEMUL.EXE)  
00000000 0078 142 .LONG 0 : Address in non-paged pool  
007C 143  
007C 144 BOO$GL_FPEMUL:: : Floating point emulator (FPEMUL.EXE)  
00000000 007C 145 .LONG 0 : Address in non-paged pool  
0080 146  
0080 147 BOO$GL_DEVNAME:: : Boot device name in ASCII  
00000000 0080 148 .LONG 0 : (Zeroes if not specified)  
0084 149  
00000084 0084 150 BOO$C_BOOPARSZ == .-BOO$A_BOOPARAM  
0084 151 .end
```

BU
Sy
IO
IO
IO
IO
IO
IO
IO
IO
IO
IO
IO
MM
PR
PT
UC
UC
PS

\$A
WI
Ph

In
Co
Pa
Sy
Pa
Sy
Ps
Cr
As
Th
25
Th
24
11

BOOPARAM
Symbol table

SYSBOOT parameter block definition ^{B 2}

15-SEP-1984 23:51:47 VAX/VMS Macro V04-00
5-SEP-1984 03:40:08 [SYS.SRC]BOOPARAM.MAR;1

BOOSA_BOOPARAM	= 00000000	RG	02	OPS_CVTBF	= 0000004C
BOOSC_BOOPARSZ	= 00000084	G		OPS_CVTBG	= 00004CFD
BOOSGB_NODENAME	= 00000070	RG	02	OPS_CVTBH	= 00006CFD
BOOSGB_SYSTEMID	= 0000004E	RG	02	OPS_CVTDB	= 00000068
BOOSGL_BOOTCB	= 00000040	RG	02	OPS_CVTDF	= 00000076
BOOSGL_CHKPRLOA	= 00000068	RG	02	OPS_CVTDH	= 000032FD
BOOSGL_CLSLOA	= 00000060	RG	02	OPS_CVTDL	= 0000006A
BOOSGL_DEVNAME	= 00000080	RG	02	OPS_CVTDW	= 00000069
BOOSGL_DSKDRV	= 00000000	RG	02	OPS_CVTFB	= 00000048
BOOSGL_ERAPATLOA	= 00000064	RG	02	OPS_CVTFD	= 00000056
BOOSGL_FPEMUL	= 0000007C	RG	02	OPS_CVTFG	= 000099FD
BOOSGL_IRPCNT	= 0000001C	RG	02	OPS_CVTFH	= 000098FD
BOOSGL_LRPCNT	= 0000002C	RG	02	OPS_CVTFL	= 0000004A
BOOSGL_LRPMIN	= 00000024	RG	02	OPS_CVTFW	= 00000049
BOOSGL_LRPSIZE	= 00000020	RG	02	OPS_CVTGB	= 000048FD
BOOSGL_LRPSPLIT	= 00000028	RG	02	OPS_CVTGF	= 000033FD
BOOSGL_MTACCESSLOA	= 0000006C	RG	02	OPS_CVTGH	= 000056FD
BOOSGL_NPAGEDYN	= 00000014	RG	02	OPS_CVTGL	= 00004AFD
BOOSGL_PRTDRV	= 00000054	RG	02	OPS_CVTGW	= 000049FD
BOOSGL_SCSLOA	= 0000005C	RG	02	OPS_CVTHB	= 000068FD
BOOSGL_SPLITADR	= 00000018	RG	02	OPS_CVTHD	= 0000F7FD
BOOSGL_SRPCNT	= 00000034	RG	02	OPS_CVTHF	= 0000F6FD
BOOSGL_SRPSPLIT	= 00000030	RG	02	OPS_CVTHG	= 000076FD
BOOSGL_SYSLOA	= 00000004	RG	02	OPS_CVTHL	= 00006AFD
BOOSGL_TRMDRV	= 00000008	RG	02	OPS_CVTHW	= 000069FD
BOOSGL_UCODEF	= 00000058	RG	02	OPS_CVTLD	= 0000006E
BOOSGL_VAXEMUL	= 00000078	RG	02	OPS_CVTLF	= 0000004E
BOOSGQ_FILCACHE	= 00000038	RG	02	OPS_CVTLG	= 00004EFD
BOOSGQ_INILOA	= 0000000C	RG	02	OPS_CVTLH	= 00006EFD
BOOSGT_TOPSYS	= 00000044	RG	02	OPS_CVTLP	= 000000F9
OPS_ACB0	= 0000006F			OPS_CVTPL	= 00000036
OPS_ACBF	= 0000004F			OPS_CVTPL	= 00000036
OPS_ACBG	= 0000004F			OPS_CVTPL	= 00000036
OPS_ACBH	= 00004FFD			OPS_CVTPT	= 00000024
OPS_ADDD2	= 00006FFD			OPS_CVTRDL	= 0000006B
OPS_ADDD3	= 00000060			OPS_CVTRDL	= 0000006B
OPS_ADDD3	= 00000061			OPS_CVTRFL	= 0000004B
OPS_ADDF2	= 00000060			OPS_CVTRGL	= 00004BFD
OPS_ADDF3	= 00000040			OPS_CVTRHL	= 00006BFD
OPS_ADDF3	= 00000041			OPS_CVTSP	= 00000009
OPS_ADDG2	= 000040FD			OPS_CVTTP	= 00000026
OPS_ADDG3	= 000041FD			OPS_CVTWD	= 0000006D
OPS_ADDH2	= 000060FD			OPS_CVTWF	= 0000004D
OPS_ADDH3	= 000061FD			OPS_CVTWG	= 00004DFD
OPS_ADDP4	= 00000020			OPS_CVTWH	= 00006DFD
OPS_ADDP6	= 00000021			OPS_CVTWH	= 00006DFD
OPS_ASHP	= 000000F8			OPS_DIVD2	= 00000066
OPS_CLRD	= 0000007C			OPS_DIVD3	= 00000067
OPS_CLRF	= 0000007C			OPS_DIVF2	= 00000046
OPS_CLRG	= 000000D4			OPS_DIVF3	= 00000047
OPS_CLRH	= 0000007C			OPS_DIVG2	= 000046FD
OPS_CMPD	= 00007CFD			OPS_DIVG3	= 000047FD
OPS_CMPF	= 00000071			OPS_DIVH2	= 000066FD
OPS_CMPG	= 00000051			OPS_DIVH3	= 000067FD
OPS_CMPH	= 000051FD			OPS_DIVP	= 00000027
OPS_CMPP3	= 000071FD			OPS_EDITPC	= 00000038
OPS_CMPP4	= 00000035			OPS_EMODD	= 00000074
OPS_CRC	= 00000037			OPS_EMODF	= 00000054
OPS_CVTBD	= 0000000B			OPS_EMODG	= 000054FD
	= 0000006C			OPS_EMODH	= 000074FD

BOOPARAM
Symbol table

SYSBOOT parameter block definition ^{C 2}

15-SEP-1984 23:51:47 VAX/VMS Macro V04-00
5-SEP-1984 03:40:08 [SYS.SRC]BOOPARAM.MAR;1

```

OPS_MATCHC = 00000039
OPS_MNEGD  = 00000072
OPS_MNEGF  = 00000052
OPS_MNEGG  = 000052FD
OPS_MNEGH  = 000072FD
OPS_MOVD   = 00000070
OPS_MOVF   = 00000050
OPS_MOVG   = 000050FD
OPS_MOVH   = 000070FD
OPS_MOVP   = 00000034
OPS_MOVTC  = 0000002E
OPS_MCVTUC = 0000002F
OPS_MULD2  = 00000064
OPS_MULD3  = 00000065
OPS_MULF2  = 00000044
OPS_MULF3  = 0000C045
OPS_MULG2  = 000044FD
OPS_MULG3  = 000045FD
OPS_MULH2  = 000064FD
OPS_MULH3  = 000065FD
OPS_MULP   = 00000025
OPS_POLYD  = 00000075
OPS_POLYF  = 00000055
OPS_POLYG  = 000055FD
OPS_POLYH  = 000075FD
OPS_SCANC  = 0000002A
OPS_SKPC   = 0000003B
OPS_SPANC  = 0000002B
OPS_SUBD2  = 00000062
OPS_SUBD3  = 00000063
OPS_SUBF2  = 00000042
OPS_SUBF3  = 00000043
OPS_SUBG2  = 000042FD
OPS_SUBG3  = 000043FD
OPS_SUBH2  = 000062FD
OPS_SUBH3  = 000063FD
OPS_SUBP4  = 00000022
OPS_SUBP6  = 00000023
OPS_TSTD   = 00000073
OPS_TSTF   = 00000053
OPS_TSTG   = 000053FD
OPS_TSTH   = 000073FD
    
```

! 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
Z\$INIT001	00000084 (132.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	37	00:00:00.07	00:00:01.21
Command processing	153	00:00:00.71	00:00:05.08
Pass 1	342	00:00:08.44	00:00:31.84
Symbol table sort	0	00:00:00.53	00:00:01.66
Pass 2	46	00:00:03.09	00:00:11.44
Symbol table output	19	00:00:00.14	00:00:00.19
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	601	00:00:13.00	00:00:51.44

The working set limit was 1500 pages.
35793 bytes (70 pages) of virtual memory were used to buffer the intermediate code.
There were 30 pages of symbol table space allocated to hold 391 non-local and 0 local symbols.
2903 source lines were read in Pass 1, producing 14 object records in Pass 2.
134 pages of virtual memory were used to define 133 macros.

! Macro library statistics !

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

420 GETS were required to define 4 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:BOOPARAM/OBJ=OBJ\$:BOOPARAM MASD\$:[EMULAT.SRC]MISSING/UPDATE=(MASD\$:[EMULAT.ENH]MISSING)+MASD\$:[SYS.SRC]BOOPARAM/UPDAT

