F 5

```
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO     TTTTTTTTTTTTTTT     SSSSSSSSSSSS
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO     TTTTTTTTTTTTTTT     SSSSSSSSSSSS
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO     TTTTTTTTTTTTTTT     SSSSSSSSSSSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT        SSS
BBBBBBBBBBBB     OOO         OOO  OOO         OOO        TTT           SSSSSSSSS
BBBBBBBBBBBB     OOO         OOO  OOO         OOO        TTT           SSSSSSSSS
BBBBBBBBBBBB     OOO         OOO  OOO         OOO        TTT           SSSSSSSSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBB         BBB  OOO         OOO  OOO         OOO        TTT                    SSS
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO           TTT        SSSSSSSSSSSS
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO           TTT        SSSSSSSSSSSS
BBBBBBBBBBBB        OOOOOOOOO        OOOOOOOOO           TTT        SSSSSSSSSSSS
```

```
                                                F 16
**FILE**ID**CONFIGURE
```

```
  CCCCCCCC    OOOOOO    NN      NN  FFFFFFFFFF    IIIIII      GGGGGGGG  UU      UU  RRRRRRRR    EEEEEEEEEE
  CCCCCCCC    OOOOOO    NN      NN  FFFFFFFFFF    IIIIII      GGGGGGGG  UU      UU  RRRRRRRR    EEEEEEEEEE
CC          OO      OO  NN      NN  FF              II      GG          UU      UU  RR      RR  EE
CC          OO      OO  NN      NN  FF              II      GG          UU      UU  RR      RR  EE
CC          OO      OO  NNNN    NN  FF              II      GG          UU      UU  RR      RR  EE
CC          OO      OO  NNNN    NN  FF              II      GG          UU      UU  RR      RR  EE
CC          OO      OO  NN NN   NN  FFFFFFFF        II      GG          UU      UU  RRRRRRRR    EEEEEEEE
CC          OO      OO  NN NN   NN  FFFFFFFF        II      GG          UU      UU  RRRRRRRR    EEEEEEEE
CC          OO      OO  NN    NNNN  FF              II      GG  GGGGGG  UU      UU  RR  RR      EE
CC          OO      OO  NN    NNNN  FF              II      GG  GGGGGG  UU      UU  RR  RR      EE
CC          OO      OO  NN      NN  FF              II      GG      GG  UU      UU  RR    RR    EE              ....
CC          OO      OO  NN      NN  FF              II      GG      GG  UU      UU  RR    RR    EE              ....
  CCCCCCCC    OOOOOO    NN      NN  FF            IIIIII      GGGGGG    UUUUUUUUUU  RR      RR  EEEEEEEEEE      ....
  CCCCCCCC    OOOOOO    NN      NN  FF            IIIIII      GGGGGG    UUUUUUUUUU  RR      RR  EEEEEEEEEE      ....

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
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

Table of contents

```
0000          .TITLE  CONFIGURE - PROCESS TO DYNAMICALLY CONFIGURE DEVICES
0000          .IDENT  'V04-000'
0000     ;
0000     ;****************************************************************************
0000     ;*                                                                          *
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0000     ;*                                                                          *
0000     ;*                                                                          *
0000     ;****************************************************************************
0000
0000     ;++
0000     ;
0000     ; Facility:  System configuration
0000     ;
0000     ; Abstract: CONFIGURE is used to dynamically configure VAX MSCP-served and HSC-
0000     ;           served disks and tapes.
0000     ;
0000     ; Environment: It is run as a process, in user, exec and kernel modes.
0000     ;
0000     ; Author:  Maryann Hinden, Creation date:  02-JUN-1983
0000     ;
0000     ; Modification History:
0000     ;
0000     ;        V03-004 WHM0001         Bill Matthews           11-Apr-1984
0000     ;                Purge working set before hibernating.
0000     ;
0000     ;        V03-003
0000     ;                Change value in BOO$GL_CONADP to indicate noadapter.
0000     ;
0000     ;        V03-002 WMC0001         Wayne Cardoza           11-Aug-1983
0000     ;                Polling must be reenabled in kernel mode.
0000     ;
0000     ;        V03-001 MSH0001         Maryann Hinden          14-Jul-1983
0000     ;                Add jacket routine BOO$CONFIGMN to image, and
0000     ;                remove some code.
0000     ;--
0000
0000     ;
0000     ; Include files:
0000     ;
0000             $ACFDEF                         ; Define autoconfiguration block
```

```
          0000          $IODEF
          0000          $IPLDEF
          0000          $LCKDEF
          0000          $PRCPOLDEF                      ; Define process poller mailbox offsets
          0000          $SBDEF
          0000          $SSDEF                          ; System status definitions
          0000          $SYSGMSGDEF                     ; Sysgen messages
          0000
          0000  ;
          0000  ; Equated Symbols
          0000  ;
00000123  0000  WRTATNFLG = <IO$_SETMODE!IO$M_WRTATTN>
00000071  0000  READFLG   = <IO$_READVBLK!IO$M_NOW>
          0000
00000000  0000  SERVER = 0      ; Offsets into process info block
00000010  0000  DEVICE = 16
00000012  0000  DRIVER = 18
0000001B  0000  SPPB   = 27
          0000
          0000  ;
          0000  ; Macros
          0000  ;
          0000          .MACRO  PRCINFO  SERVER,DEVICE,DRIVER   ; Builds process info table
          0000
          0000          .PSECT  INFO_BLOCK                      ; Actual data area
          0000
          0000  $SERVERNAME$ = .
          0000          .ASCII  /                /              ; Reserve room for all 16 chars
          0000  $NAMEND$ = .                                    ; Remember end of block
          0000  . = $SERVERNAME$                                ; Get back to beginning
          0000          .ASCII  /SERVER/                        ; Now store the real name
          0000  . = $NAMEND$                                    ; Go to end of block
          0000          .ASCII  /DEVICE/                        ; Device name
          0000          .ASCIC  /DRIVER/                        ; Driver name
          0000          .LONG   0                               ; SPPB for polling this process
          0000
          0000          .PSECT  INFO_PTR                        ; A list of pointers to the data
          0000
          0000          .LONG   $SERVERNAME$
          0000
          0000          .ENDM
          0000  ;
          0000  ; Own Storage
          0000  ;
      00000000          .PSECT  INFO_PTR
          0000
          0000  PROC_INFO:
          0000          PRCINFO MSCP$DISK,DU,DUDRIVER           ; Build the process info table
          0004          PRCINFO MSCP$TAPE,MU,TUDRIVER
          0008
      00000008          .PSECT  INFO_PTR
00000000  0008          .LONG   0                               ; Indicate end of table
0000001C  000C          .BLKL   4                               ; Patch area for four more processes
          001C
      0000003E          .PSECT  INFO_BLOCK
000000BA  003E          .BLKB   <SPPB+4>*4                      ; Patch area for data
          00BA
```

```
        00000000                 .PSECT  NONPAGED_DATA,NOEXE,WRT
00000016    0000    FULL_NAME:       .BLKB    22                ; Storage area for cluster dev name
0000001B    0016    DEVNAME:         .BLKB     5                ; Storage area for short dev name
            001B
00000000    001B    EXIT_BLOCK:      .LONG    0                 ; Data block for exit handler
00000251'   001F                     .LONG    EXIT_HANDLER
00000001    0023                     .LONG    1
0000002B'   0027                     .LONG    EXIT_STATUS
0000002F    002B    EXIT_STATUS:     .BLKL    1
            002F
00000033'   002F    KARGLST:         .LONG    SPPBARG           ; Argument list for CANCEL_POLL
00000000    0033    SPPBARG:         .LONG    0                 ; kernel mode routine
            0037
00000038    0037    MSGBUFSIZ:       .LONG    PRCPOL$C_SIZ      ; Buffer used by mailbox read
00000073    003B    MSGBUF:          .BLKB    PRCPOL$C_SIZ
            0073
    0000    0073    MBXCHAN:         .WORD    0                 ; Mailbox I/O channel
0000007D    0075    STATUS_BLOCK:    .BLKL    2                 ; I/O completion status block
            007D
        00000000                 .PSECT  PAGED_CODE,EXE,WRT
            0000    PURGE_LIMITS:                               ; Limits for purge working set
00000000    0000             .LONG    0                         ; Purge all of P0 and P1
7FFFFFFF    0004             .LONG    ^X7FFFFFFF
            0008
```

```
                  0008          .SBTTL  CONFIGURE - Configure devices
                  0008  ;++
                  0008  ;
                  0008  ;  PURPOSE
                  0008  ;       To start polling on cluster members in order to find out about
                  0008  ;       HSC- and MSCP-served devices on other systems.
                  0008  ;
                  0008  ;  INPUT
                  0008  ;       None
                  0008  ;
                  0008  ;  OUTPUT
                  0008  ;       None
                  0008  ;
                  0008  ;  FUNCTIONAL DESCRIPTION
                  0008  ;       This routine requests polling on all systems in the cluster
                  0008  ;       for all processes described in the process information table.
                  0008  ;       The process poller communicates with the CONFIGURE process via
                  0008  ;       a mailbox.  Once the polling requests have been sent out, a
                  0008  ;       write attention AST to the mailbox is issued, and the routine
                  0008  ;       hibernates waiting for input.
                  0008  ;
                  0008  ;       In order to cancel polling (and clean up properly) if the image
                  0008  ;       should terminate abnormally, this routine declares an exit handler.
                  0008  ;--
                  0008
            001C  0008          .ENTRY BOO$CONFIGURE, ^M<R2,R3,R4>
                  000A
                  000A  ;
                  000A  ;  Create mailbox used to communicate with process poller
                  000A  ;
                  000A          $CREMBX_S       prmflg  = #1,-
                  000A                          chan    = MBXCHAN,-
                  000A                          promsk  = #^XFF00
   60 50     E9   0025          BLBC    R0,10$
                  0028
                  0028  ;
                  0028  ;  Declare exit handler to be used when image exits
                  0028  ;
                  0028          $DCLEXH_S       desblk  = EXIT_BLOCK
   50 50     E9   0035          BLBC    R0,10$
                  0038
                  0038  ;
                  0038  ;  Now request polling on all processes
                  0038  ;
                  0038          $CMKRNL_S       REQ_POLL,(AP)
   3E 50     E9   0047          BLBC    R0,10$
                  004A
                  004A  ;
                  004A  ;  We are finished requesting polling.  Now set a write attention AST
                  004A  ;  and hibernate while waiting for responses from the poller.
                  004A  ;  (We assume that at least one call to SCS$POLL_MBX was successful).
                  004A  ;
                  004A          $QIO_S  chan    = MBXCHAN,-
                  004A                  func    = #WRTATNFLG,-
                  004A                  p1      = FOUND_PROC,-
                  004A                  p2      = PROC_INFO
   12 50     E9   0073          BLBC    R0,10$
```

```
                              0076
                              0076           $PURGWS_S inadr = PURGE_LIMITS  ; minimize system resources
                              0080           $HIBER_S
                         04   0087           RET
                              0088
                              0088
                              0088  ;
                              0088  ;  An error occured on the create mailbox, when calling the process
                              0088  ;  poller, or when issuing the QIO.  Send out the error message and terminate.
                              0088  ;  The exit handler (if declared at this point) will clean up.
                              0088  ;
50     007C8132 8F       D0   0088  10$:     MOVL     #SYSG$_CONFIGERR,R0
             FF6E'       30   008F           BSBW     PUTERROR
                              0092           $EXIT_S
                         04   009B           RET
                              009C  ;
                              009C  ;  Request polling on all processes we want to know about
                              009C  ;
                       0000   009C  REQ_POLL:         .WORD   0
                              009E
                              009E           SETIPL   #IPL$_ASTDEL
53     00000073'EF       3C   00A1           MOVZWL   MBXCHAN,R3                  ; Get channel address
54     00000000'EF       9E   00A8           MOVAB    PROC_INFO,R4                ; Get top of process table
          52    84       D0   00AF           MOVL     (R4)+,R2                    ; Get address of first process name
                              00B2
          50    53       D0   00B2  10$:     MOVL     R3,R0                       ; Channel # in R0 is arg to call
       00000000'EF       16   00B5           JSB      SCS$POLL_MBX                ; Request polling for this process
                              00BB
                              00BB  ;
                              00BB  ; R1 contains address of SPPB - need later to cancel polling
                              00BB  ; R2 is preserved and points to process info block
                              00BB  ;
          0C 50          E9   00BB           BLBC     R0,20$
       1B A2    51       D0   00BE           MOVL     R1,SPPB(R2)                 ; Save SPPB
          52    84       D0   00C2           MOVL     (R4)+,R2                    ; Get next process name
                EB       12   00C5           BNEQ     10$                         ; If NEQ, poll for it
          50    01       9A   00C7           MOVZBL   #SS$_NORMAL,R0              ; Indicate success
                              00CA
                              00CA  20$:
                              00CA           SETIPL   #0                          ; Lower IPL
                         04   00CD           RET                                  ; Return error to caller
                              00CE
```

```
                      00CE         .SBTTL  FOUND_PROC - A process has been found by the poller
                      00CE  ;++
                      00CE  ;
                      00CE  ;  PURPOSE
                      00CE  ;       Routine which is called when the process poller mailbox has been
                      00CE  ;       written into.
                      00CE  ;
                      00CE  ;  INPUT
                      00CE  ;       Mailbox messages - implicit
                      00CE  ;
                      00CE  ;  OUTPUT
                      00CE  ;       Processed messages
                      00CE  ;
                      00CE  ;  FUNCTIONAL DESCRIPTION
                      00CE  ;       This routine is called at AST level.  It first re-enables the
                      00CE  ;       write attention AST for the mailbox.  It then reads and processes
                      00CE  ;       messages until there are none left.
                      00CE  ;
                      00CE  ;--
                      00CE
                 007C 00CE         .ENTRY  FOUND_PROC, ^M<R2,R3,R4,R5,R6>
                      00D0
                      00D0  ;
                      00D0  ;  Before doing anything else, we requeue the write attention AST request
                      00D0  ;
                      00D0         $QIO_S  chan    = MBXCHAN,-
                      00D0                 func    = #WRTATNFLG,-
                      00D0                 p1      = FOUND_PROC,-
                      00D0                 p2      = PROC_INFO
         47 50    E9  00F6         BLBC    R0,30$
                      00F9
                      00F9  ;
                      00F9  ;  Now, read mailbox messages until there are none left
                      00F9  ;
                      00F9  10$:   $QIO_S  chan    = MBXCHAN,-
                      00F9                 func    = #READFLG,-
                      00F9                 iosb    = STATUS_BLOCK,-
                      00F9                 p1      = MSGBUF,-
                      00F9                 p2      = MSGBUFSIZ
         2B 50    E9  0126         BLBC    R0,40$
54   00000075'EF  9E  0129         MOVAB   STATUS_BLOCK,R4         ; Get address of status block
   0870 8F    64  B1  0130         CMPW    (R4),#SS$_ENDOFFILE     ; Have we read all the msgs?
              08  13  0135         BEQL    20$                     ; If EQL, yes
           1A 64  E9  0137         BLBC    (R4),40$                ; If LBC, then some sort of error
            0022  30  013A         BSBW    PROCESS_MSG             ; Else the poller found something
              BA  11  013D         BRB     10$                     ; Look for more messages
                      013F
                  04  013F  20$:   RET
                      0140
                      0140  ;
                      0140  ;  An error has occurred when trying to requeue the write attention AST.
                      0140  ;  Have the image exit.
                      0140  ;
                      0140  30$:
50   007C8132 8F  D0  0140         MOVL    #SYSG$_CONFIGERR,R0
           FEB6'  30  0147         BSBW    PUTERROR
                      014A         $EXIT_S
```

```
                        04  0153          RET
                            0154
                            0154  ;
                            0154  ;  An error has occurred when reading the mailbox message.  Send out the
                            0154  ;  error message and dismiss the AST.
                            0154  ;
                            C154  40$:
  50    007C8132 8F     D0  0154          MOVL    #SYSG$_CONFIGERR,R0
                FEA2'   30  015B          BSBW    PUTERROR
                        04  015E          RET
```

```
                                 015F   308         .SBTTL  PROCESS_MSG - Do the work of configuring the device
                                 015F   309 ;++
                                 015F   310 ;
                                 015F   311 ;  PURPOSE
                                 015F   312 ;       Workhorse routine to actually configure the device database
                                 015F   313 ;       for the server which has been found.
                                 015F   314 ;
                                 015F   315 ;  INPUT
                                 015F   316 ;       MSGBUF - contains the actual message
                                 015F   317 ;
                                 015F   318 ;  OUTPUT
                                 015F   319 ;       Configured device and driver
                                 015F   320 ;
                                 015F   321 ;  FUNCTIONAL DESCRIPTION
                                 015F   322 ;       This routine uses the node name (contained in the message) together
                                 015F   323 ;       with the information associated with the server process name to
                                 015F   324 ;       construct a cluster device name.  It then calls the connect code
                                 015F   325 ;       to actually construct the device database and load the class driver.
                                 015F   326 ;--
                                 015F   327
                                 015F   328 PROCESS_MSG:
               007C 8F     BB    015F   329         PUSHR   #^M<R2,R3,R4,R5,R6>     ; Save registers touched here
        00000000'EF   00   FB    0163   330         CALLS   #0,BOO$CONRESET         ; Reset connect information
                                 016A   331
                                 016A   332 ;
                                 016A   333 ;  Search through the list of processes we are looking for to see
                                 016A   334 ;  if there is a match
                                 016A   335 ;
     56  0000003B'EF       9E    016A   336         MOVAB   MSGBUF,R6               ; Get address of message buffer
     54  00000000'EF       9E    0171   337         MOVAB   PROC_INFO,R4            ; Get address of process information
                                 0178   338
            55     84      D0    0178   339 10$:    MOVL    (R4)+,R5                ; Get next entry
                   58      13    017B   340         BEQL    20$             ; If EQL, no more entries & no match
      18 A6     65 10      29    017D   341         CMPC3   #16,SERVER(R5),PRCPOL$B_PRCNAM(R6)      ; Compare
                   F4      12    0182   342         BNEQ    10$                     ; If NEQ, try next one
                                 0184   343
                                 0184   344 ;
                                 0184   345 ;  A match was found - save info needed for the connect call and build the
                                 0184   346 ;  device name
                                 0184   347 ;
        00000000'EF   01   CE    0184   348         MNEGL   #1,BOO$GL_CONADP        ; Don't use an adapter
           00000000'EF     D4    018B   349         CLRL    BOO$GL_CONCUNIT         ; Unit number always 0
           00000000'EF     D4    0191   350         CLRL    BOO$GL_CONAUNIT         ; Same for adapter unit
        00000000'EF   66   7D    0197   351         MOVQ    PRCPOL$L_SYSIDL(R6),BOO$GQ_CONSYSID ; Save the sys ID from msg
    00000000'EF    12 A5   9E    019E   352         MOVAB   DRIVER(R5),BOO$GL_CONDRV    ; Save the driver name from proc_info
             52    08 A6   9E    01A6   353         MOVAB   PRCPOL$T_NODNAM(R6),R2  ; Get node name arg from msg
                      20   BB    01AA   354         PUSHR   #^M<R5>                 ; Save pointer to proc_info
             55    10 A5   9E    01AC   355         MOVAB   DEVICE(R5),R5           ; Get device name arg from proc_info
                      55   10    01B0   356         BSBB    BLDNAME                 ; Construct the cluster device name
                      20   BA    01B2   357         POPR    #^M<R5>                 ; Restore
                                 01B4   358
                                 01B4   359 ;
                                 01B4   360 ;  Connect the device - build the class device database, load the class driver,
                                 01B4   361 ;  and initialize the device
                                 01B4   362 ;
        00000000'EF   00   FB    01B4   363         CALLS   #0,BOO$CONNECT
                   12 50   E8    01BB   364         BLBS    R0,15$
```

```
                              01BE    365             $CMKRNL_S ROUTIN = 30$          ; Polling must be turned on from K mode
                 0C 50   E9   01CD    366             BLBC    R0,25$
                              01D0    367
                              01D0    368 ;
                              01D0    369 ;  All done
                              01D0    370 ;
               007C 8F   BA   01D0    371 15$:        POPR    #^M<R2,R3,R4,R5,R6>     ; Restore registers touched here
                         05   01D4    372             RSB
                              01D5    373
                              01D5    374 ;
                              01D5    375 ;  There was no process name match - we got a spurious mailbox message
                              01D5    376 ;
                              01D5    377 20$:
     50   007C8132 8F    D0   01D5    378             MOVL    #SYSG$_CONFIGERR,R0
                  FE21'  30   01DC    379 25$:        BSBW    PUTERROR
               007C 8F   BA   01DF    380             POPR    #^M<R2,R3,R4,R5,R6>     ; Restore registers touched here
                         05   01E3    381             RSB
                              01E4    382
                              01E4    383 ;
                              01E4    384 ;  There was an error connecting the device - CONNECT already let the
                              01E4    385 ;  world know.
                              01E4    386 ;
                              01E4    387 30$:
                       0000   01E4    388             .WORD   0
                 52   66  9E  01E6    389             MOVAB   PRCPOL$L_SYSIDL(R6),R2  ; Get system ID
              51   1B A5  D0  01E9    390             MOVL    SPPB(R5),R1             ; Get SPPB
                 50   01  9A  01ED    391             MOVZBL  #1,R0                   ; Re-enable polling
                              01F0    392             SETIPL  #IPL$_SCS               ; Raise IPL
           00000000'GF    16  01F3    393             JSB     G^SCS$POLL_MODE         ; Request polling again
                              01F9    394             SETIPL  #IPL$_ASTDEL            ; Restore IPL
                 07 50    E8  01FC    395             BLBS    R0,35$
     50   007C813A 8F     D0  01FF    396             MOVL    #SYSG$_CANTPOLL,R0      ; Indicate unable to restart poll on
                          04  0206    397 35$:        RET
```

```
                                 0207           .SBTTL  BLDNAME
                                 0207   ;++
                                 0207   ;
                                 0207   ;  PURPOSE
                                 0207   ;       Construct cluster device name given the node name and the
                                 0207   ;       device prefix.
                                 0207   ;
                                 0207   ;  INPUT
                                 0207   ;       R2 - Address of the node name string (in counted ASCII)
                                 0207   ;       R5 - Address of the device prefix
                                 0207   ;
                                 0207   ;  OUTPUT
                                 0207   ;       FULL_NAME_PTR - contains address of complete device name string
                                 0207   ;       BOO$GL_CONDEV - contains pointer into complete device name string,
                                 0207   ;                       starting at device prefix
                                 0207   ;       All registers preserved.
                                 0207   ;
                                 0207   ;  FUNCTIONAL DESCRIPTION
                                 0207   ;       This routine builds a cluster device name of the form:
                                 0207   ;
                                 0207   ;  byte         0: count of chars in string
                                 0207   ;          1 to m: node name
                                 0207   ;             m+1: "$"
                                 0207   ;      m+2 to m+4: "xxA" , where xx is the device name used by a given server
                                 0207   ;--
                                 0207
                                 0207   BLDNAME:
                       3F    BB  0207           PUSHR   #^M<R0,R1,R2,R3,R4,R5>
         53  00000000'EF    9E  0209           MOVAB   FULL_NAME,R3             ; Pointer to output buffer
        00000000'GF   83    9E  0210           MOVAB   (R3)+,G^FULL_NAME_PTR    ; Set up ptr for connect
                                 0217           ASSUME  SB$T_NODENAME+16,EQ,SB$L_DDB ; Make sure size doesn't change
                 54   82    9A  0217           MOVZBL  (R2)+,R4                 ; Get real length of string
                      34    BB  021A           PUSHR   #^M<R2,R4,R5>            ; Save regs destroyed by MOVC3
            63   62   54    28  021C           MOVC3   R4,(R2),(R3)             ; Store node name in buffer
                      34    BA  0220           POPR    #^M<R2,R4,R5>            ; Restore regs (R3 now points to next
                                 0222                                            ; byte in dest. buffer after node name)
                 83   24    90  0222           MOVB    #^A/$/,(R3)+             ; Set in separator
                 63   65    B0  0225           MOVW    (R5),(R3)                ; Store device prefix
          02 A3   41  8F    90  0228           MOVB    #^A/A/,2(R3)             ; Store controller letter
    00000000'EF   54  04    81  022D           ADDB3   #4,R4,FULL_NAME          ; String is ASCIC
        00000017'EF   63    D0  0235           MOVL    (R3),DEVNAME+1           ; Store device name
        00000016'EF   03    90  023C           MOVB    #3,DEVNAME               ; Store count
 00000000'EF   00000016'EF    9E  0243           MOVAB   DEVNAME,BOO$GL_CONDEV    ; Store address of device string
                      3F    BA  024E           POPR    #^M<R0,R1,R2,R3,R4,R5>
                                 0250
                            05  0250           RSB
                                 0251
```

```
                           0251                   .SBTTL  EXIT_HANDLER
                           0251          ;++
                           0251          ;
                           0251          ;  PURPOSE
                           0251          ;        Cancel polling on mailbox (if any) at image exit.
                           0251          ;
                           0251          ;  INPUT
                           0251          ;        Saved SPPB addresses in PROC_INFO table.
                           0251          ;
                           0251          ;  OUTPUT
                           0251          ;        Cancelled polling.
                           0251          ;
                           0251          ;--
                           0251
                     001C  0251                   .ENTRY  EXIT_HANDLER, ^M<R2,R3,R4>
                           0253
   53   00000000'EF    9E  0253                   MOVAB   PROC_INFO,R3                 ; Get address of process info table
                           025A
            54   83    D0  025A          10$:     MOVL    (R3)+,R4                     ; Point to next info block
                 22    13  025D                   BEQL    20$                          ; If EQL, end of table
00000033'EF    1B A4   D0  025F                   MOVL    SPPB(R4),SPPBARG             ; Get address of SPPB
                 F1    13  0267                   BEQL    10$                          ; If EQL, we haven't polled for this process
                           0269                   $CMKRNL_S       routin=CANCEL_POLL,- ; Cancel polling
                           0269                                   arglst=KARGLST
            1B A4      D4  027C                   CLRL    SPPB(R4)                     ; Show no more polling for this process
                 D9    11  027F                   BRB     10$                          ; Loop through table
                           0281
                           0281          20$:     $DELMBX_S       chan=MBXCHAN    ; Mark mailbox for deletion
                           028F                   $CMEXEC_S       routin=DQLOCKS  ; Dequeue locks
         50      01    3C  029E                   MOVZWL  #SS$_NORMAL,R0
                       04  02A1                   RET
                           02A2
                           02A2          ;
                           02A2          ;  Kernel mode routine running at IPL$_ASTDEL which cancels the polling mailbox.
                           02A2          ;
                     0004  02A2                   .ENTRY  CANCEL_POLL,^M<R2>
                           02A4
                           02A4                   SETIPL  #IPL$_ASTDEL
       51     04 AC    D0  02A7                   MOVL    4(AP),R1                     ; Get SPPB address
        00000000'EF    16  02AB                   JSB     SCS$CANCEL_MBX               ; Cancel polling
                           02B1                   SETIPL  #0
                       04  02B4                   RET
                           02B5
                           02B5          ;
                           02B5          ;  Exec mode routine to dequeue all locks held
                           02B5          ;
                     0000  02B5                   .ENTRY  DQLOCKS,^M<>
                           02B7
                           02B7                   $DEQ_S  lkid    = #0,-
                           02B7                           flags   = #LCK$M_DEQALL
                       04  02C6                   RET
                           02C7
                           02C7                   .END
```

```
$$T1                            = 00000000
$NAMEND$                        = 0000002F R        03
$SERVERNAME$                    = 0000001F R        03
BLDNAME                           00000207 R        05
BOO$CONFIGURE                     00000008 RG       05
BOO$CONNECT                       ********     X    05
BOO$CONRESET                      ********     X    05
BOO$GL_CONADP                     ********     X    05
BOO$GL_CONAUNIT                   ********     X    05
BOO$GL_CONCUNIT                   ********     X    05
BOO$GL_CONDEV                     ********     X    05
BOO$GL_CONDRV                     ********     X    05
BOO$GQ_CONSYSID                   ********     X    05
CANCEL_POLL                       000002A2 RG       05
DEVICE                          = 00000010
DEVNAME                           00000016 R        04
DQLOCKS                           000002B5 RG       05
DRIVER                          = 00000012
EXIT_BLOCK                        0000001B R        04
EXIT_HANDLER                      00000251 RG       05
EXIT_STATUS                       0000002B R        04
FOUND_PROC                        000000CE RG       05
FULL_NAME                         00000000 R        04
FULL_NAME_PTR                     ********     X    05
IO$M_NOW                        = 00000040
IO$M_WRTATTN                    = 00000100
IO$_READVBLK                    = 00000031
IO$_SETMODE                     = 00000023
IPL$_ASTDEL                     = 00000002
IPL$_SCS                        = 00000008
KARGLST                           0000002F R        04
LCK$M_DEQALL                    = 00000001
MBXCHAN                           00000073 R        04
MSGBUF                            0000003B R        04
MSGBUFSIZ                         00000037 R        04
PR$_IPL                           ********     X    05
PRCPOL$B_PRCNAM                 = 00000018
PRCPOL$C_SIZ                    = 00000038
PRCPOL$L_SYSIDL                 = 00000000
PRCPOL$T_NODNAM                 = 00000008
PROCESS_MSG                       0000015F R        05
PROC_INFO                         00000000 R        02
PURGE_LIMITS                      00000000 R        05
PUTERROR                          ********     X    05
READFLG                         = 00000071
REQ_POLL                          0000009C R        05
SB$C_DDB                        = 00000054
SB$T_NODENAME                   = 00000044
SCS$CANCEL_MBX                    ********     X    05
SCS$POLL_MBX                      ********     X    05
SCS$POLL_MODE                     ********     X    05
SERVER                          = 00000000
SPPB                            = 0000001B
SPPBARG                           00000033 R        04
SS$_ENDOFFILE                   = 00000870
SS$_NORMAL                      = 00000001
STATUS_BLOCK                      00000075 R        04

SYS$CMEXEC                        ********  GX   05
SYS$CMKRNL                        ********  GX   05
SYS$CREMBX                        ********  GX   05
SYS$DCLEXH                        ********  GX   05
SYS$DELMBX                        ********  GX   05
SYS$DEQ                           ********  GX   05
SYS$EXIT                          ********  GX   05
SYS$HIBER                         ********  GX   05
SYS$PURGWS                        ********  GX   05
SYS$QIO                           ********  GX   05
SYSG$_CANTPOLL                  = 007C813A
SYSG$_CONFIGERR                 = 007C8132
WRTATNFLG                       = 00000123
```

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

PSECT name                      Allocation          PSECT No.  Attributes
----------                      ----------          ---------  ----------
.  ABS  .                       00000000  (    0.)  00 (  0.)  NOPIC   USR   CON   ABS   LCL NOSHR NOEXE NORD  NOWRT NOVEC BYTE
$ABS$                           00000000  (    0.)  01 (  1.)  NOPIC   USR   CON   ABS   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
INFO_PTR                        0000001C  (   28.)  02 (  2.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
INFO_BLOCK                      000000BA  (  186.)  03 (  3.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
NONPAGED_DATA                   0000007D  (  125.)  04 (  4.)  NOPIC   USR   CON   REL   LCL NOSHR NOEXE   RD    WRT NOVEC BYTE
PAGED_CODE                      000002C7  (  711.)  05 (  5.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE

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

Phase                        Page faults    CPU Time       Elapsed Time
-----                        -----------    --------       ------------
Initialization                       29     00:00:00.05    00:00:00.54
Command processing                  115     00:00:00.69    00:00:01.93
Pass 1                              320     00:00:10.32    00:00:21.76
Symbol table sort                     0     00:00:01.50    00:00:03.69
Pass 2                               98     00:00:02.12    00:00:03.49
Symbol table output                   9     00:00:00.12    00:00:02.67
Psect synopsis output                 3     00:00:00.03    00:00:00.03
Cross-reference output                0     00:00:00.00    00:00:00.00
Assembler run totals                576     00:00:14.83    00:00:34.11

The working set limit was 1500 pages.
57546 bytes (113 pages) of virtual memory were used to buffer the intermediate code.
There were 60 pages of symbol table space allocated to hold 1005 non-local and 15 local symbols.
499 source lines were read in Pass 1, producing 35 object records in Pass 2.
33 pages of virtual memory were used to define 31 macros.

                                         +--------------------------+
                                         ! Macro library statistics !
                                         +--------------------------+

Macro library name                         Macros defined
------------------                         --------------
_$255$DUA28:[BOOTS.OBJ]BOOTS.MLB;1                    0
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                        6
_$255$DUA28:[SYSLIB]STARLET.MLB;2                    21
TOTALS (all libraries)                               27

1176 GETS were required to define 27 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:CONFIGURE/OBJ=OBJ$:CONFIGURE MSRC$:CONFIGURE/UPDATE=(ENH$:CONFIGURE)+EXECML$/LIB+LIB$:BOOTS.MLB/LIB
```

0037 AH-BT13A-SE
VAX/VMS V4.0

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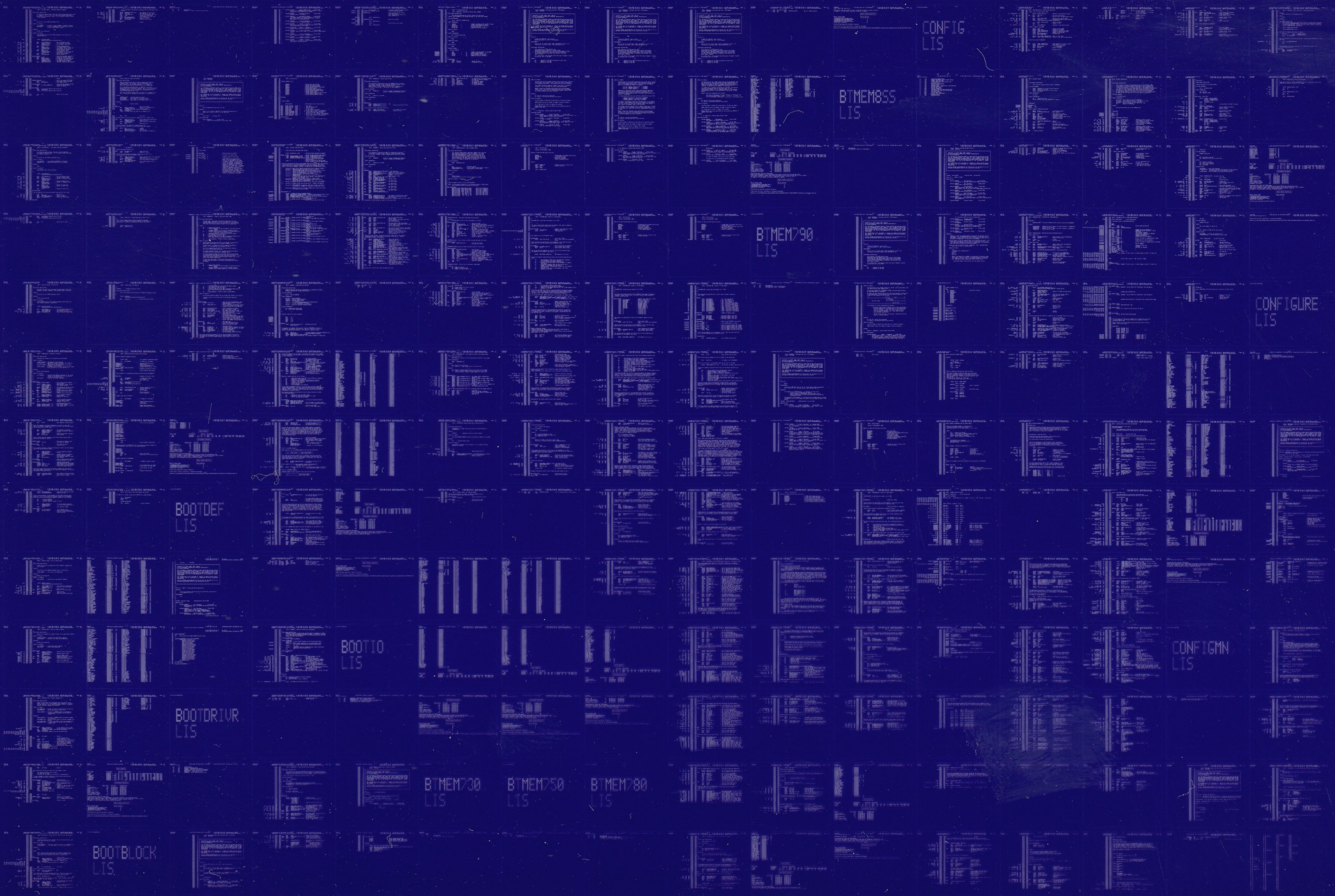

0038 AH-BT13A-SE
VAX/VMS V4.0

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CVBTDRIVR
LIS

DDBTDRIVR
LIS

DMBTDRIVR
LIS

DQBTDRIVR
LIS

CONIO
LIS

LOADERSUB
LIS

CONFIGUTL
LIS

DLBTDRIVR
LIS

DXBTDRIVR
LIS

INITPGFIL
LIS

LOCKDATA
LIS

LOADDRIV
LIS

LOADER
LIS