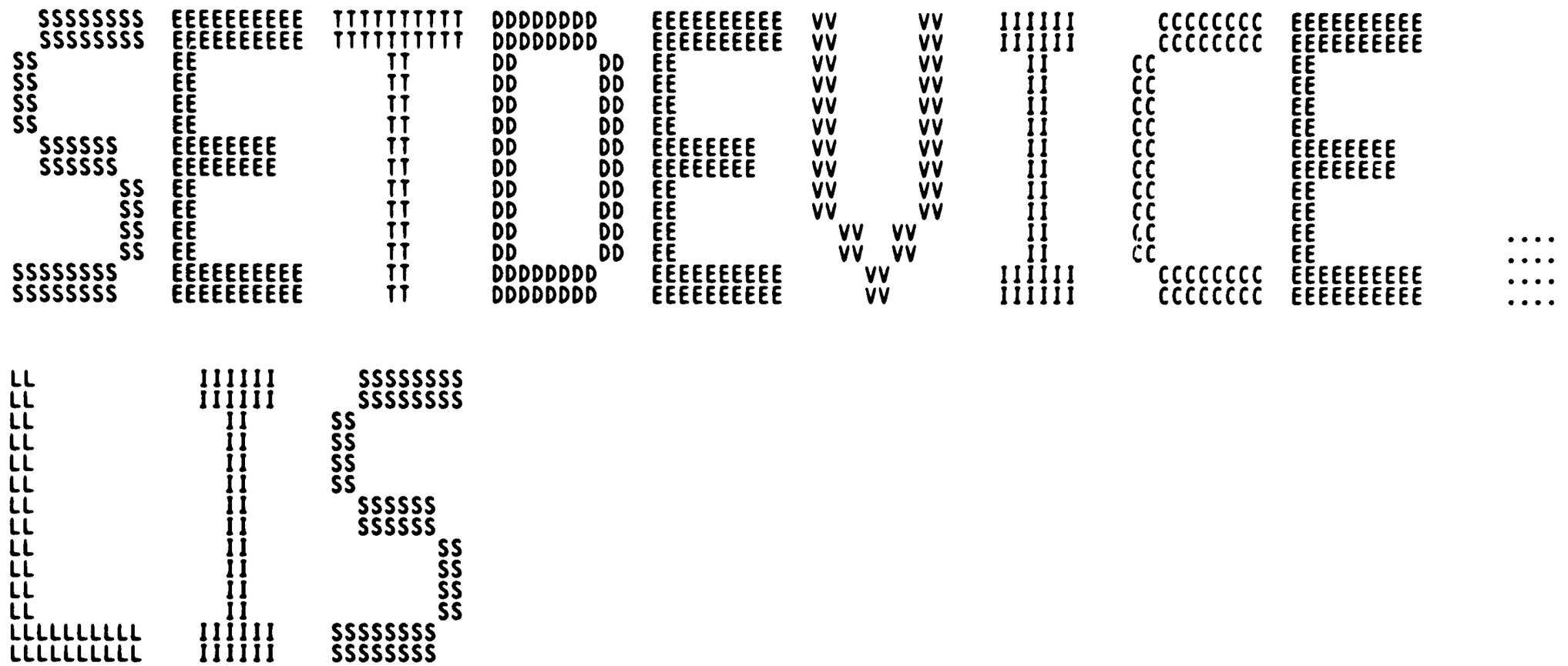
```
   CCCCCCCCCCCC  LLL                   IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                   IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                   IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
CCC              LLL                      III        UUU         UUU        TTT        LLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL       IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL       IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL       IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
```

FILEID**SETDEVICE



```
;     1          0001  0 MODULE setdevice ( IDENT = 'V04-001',
;     2          0002  0                    ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL=LONG_RELATIVE)
;     3          0003  0                    ) =
;     4          0004  1 BEGIN
;     5          0005  1
;     6          0006  1 !
;     7          0007  1 !*****************************************************************************
;     8          0008  1 !*                                                                           *
;     9          0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
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;    15          0015  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER     *
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;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                   *
;    26          0026  1 !*                                                                           *
;    27          0027  1 !*                                                                           *
;    28          0028  1 !*****************************************************************************
;    29          0029  1
;    30          0030  1 !++
;    31          0031  1 ! FACILITY:  SET Command
;    32          0032  1 !
;    33          0033  1 ! ABSTRACT:
;    34          0034  1 !
;    35          0035  1 !       This module implements the DCL command SET DEVICE.
;    36          0036  1 !
;    37          0037  1 ! ENVIRONMENT:
;    38          0038  1 !
;    39          0039  1 !       VAX/VMS operating system, user mode
;    40          0040  1 !
;    41          0041  1 ! AUTHOR:  Gerry Smith                              23-Feb-1983
;    42          0042  1 !
;    43          0043  1 ! Modified by:
;    44          0044  1 !
;    45          0045  1 !       V04-001 AEW0006         Anne E. Warner          05-Sep-1984
;    46          0046  1 !               Make changes in routine SETSERVED so that MSCP served
;    47          0047  1 !               devices cannot be reserved.
;    48          0048  1 !
;    49          0049  1 !       V03-011 AEW0005         Anne E. Warner          28-Aug-1984
;    50          0050  1 !               Change the check of the reference count from 2 to 1
;    51          0051  1 !               before trying to SET DEV/NOSPOOL.  This is to insure
;    52          0052  1 !               that there are no open files or second channels to the
;    53          0053  1 !               device.  This change is in routine SETNOSPOOL.
;    54          0054  1 !
;    55          0055  1 !       V03-010 AEW0004         Anne E. Warner          10-Aug-1984
;    56          0056  1 !               Add a check in SETPROT that if the device is unowned
;    57          0057  1 !               and has no ACL present to require SYSPRV before its
```

```
;    58          0058  1 !                protection can be changed.
;    59          0059  1 !
;    60          0060  1 !        V03-009 AEW0003         Anne E. Warner          07-Aug-1984
;    61          0061  1 !                Add the error message set$_mscpnotld for the SET DEV/SER
;    62          0062  1 !                return status is ss$_devoffline.  This message is much
;    63          0063  1 !                more clear to tell the user that the server code is not
;    64          0064  1 !                loaded
;    65          0065  1 !
;    66          0066  1 !        V03-008 AEW0002         Anne E. Warner          02-Aug-1984
;    67          0067  1 !                Comment out code concerning the /NOWRITE and /CONTROLLER
;    68          0068  1 !                qualifiers of SET DEVICE/SERVED.  These qualifiers are
;    69          0069  1 !                no longer legal qualifiers but the code remains for future
;    70          0070  1 !                work.
;    71          0071  1 !
;    72          0072  1 !        V03-007 AEW0001         Anne E. Warner          25-Jul-1984
;    73          0073  1 !                Add sanity checks in SETSERVED for SET DEVICE/SERVED.
;    74          0074  1 !                Replace cli$_ivdevtype error message with set$_invdev
;    75          0075  1 !                error message which explains what happened better.
;    76          0076  1 !
;    77          0077  1 !        V03-006 DAS0001         David Solomon           09-Jul-1984
;    78          0078  1 !                Fix truncation errors; make nonexternal refs LONG_RELATIVE.
;    79          0079  1 !
;    80          0080  1 !        V03-005 ROW0342         Ralph O. Weber          10-APR-1984
;    81          0081  1 !                Add SET DEVICE /[NO]DIAGNOSTIC, to shutdown ports for
;    82          0082  1 !                class/port devices where running the device-local diagnostics
;    83          0083  1 !                inteacts adversely with normal host polling functions.
;    84          0084  1 !
;    85          0085  1 !        V03-004 LMP0221         L. Mark Pilant,         10-Apr-1984  12:22
;    86          0086  1 !                Change UCB$L_OWNUIC to ORB$L_OWNER and UCB$W_VPROT to
;    87          0087  1 !                ORB$W_PROT.
;    88          0088  1 !
;    89          0089  1 !        V03-003 PCG0001 Peter George            30-Mar-1984
;    90          0090  1 !                Add SET DEVICE/SERVED/NOWRITE/CONTROLLER=A.
;    91          0091  1 !
;    92          0092  1 !        V03-002 TCM0001 Trudy C. Matthews       19-Aug-1983
;    93          0093  1 !                Set DEV$V_CLU bit on SET DEVICE/DUAL_PORT command.
;    94          0094  1 !
;    95          0095  1 !        V03-001 GAS0112                         29-Mar-1983
;    96          0096  1 !                Remove references to old CLI interface.
;    97          0097  1 !--
```

```
;   99          0098  1 !
;  100          0099  1 ! Include files
;  101          0100  1 !
;  102          0101  1 LIBRARY 'SYS$LIBRARY:LIB';                      ! VAX/VMS common definitions
;  103          0102  1 REQUIRE 'SRC$:SHOWDEF';                         ! SHOW common definitions
;  104          0201  1
;  105          0202  1
;  106          0203  1 !
;  107          0204  1 ! Define bit settings for the flags longword
;  108          0205  1 !
;  109          0206  1 MACRO
;  110          0207  1     set$v_log           =       0, 0, 1, 0%,        ! /LOG
;  111          0208  1     set$v_availset      =       0, 1, 1, 0%,        !
;  112          0209  1     set$v_avail         =       0, 2, 1, 0%,        ! /[NO]AVAILABLE
;  113          0210  1     set$v_dualset       =       0, 3, 1, 0%,        !
;  114          0211  1     set$v_dual          =       0, 4, 1, 0%,        ! /[NO]DUAL_PORT
;  115          0212  1     set$v_errorset      =       0, 5, 1, 0%,        !
;  116          0213  1     set$v_error         =       0, 6, 1, 0%,        ! /[NO]ERROR_LOG
;  117          0214  1     set$v_spool         =       0, 7, 1, 0%,        ! /SPOOL
;  118          0215  1     set$v_nospool       =       1, 0, 1, 0%,        ! /NOSPOOL
;  119          0216  1     set$v_prot          =       1, 1, 1, 0%,        ! SET PROT/DEVICE
;  120          0217  1     set$v_uic           =       1, 2, 1, 0%,        ! UIC set explicitly
;  121          0218  1     set$v_nowrite       =       1, 3, 1, 0%,        ! /NOWRITE
;  122          0219  1     set$v_diagset       =       1, 4, 1, 0%,        ! /[NO]DIAGNOSTIC
;  123          0220  1     set$v_diag          =       1, 5, 1, 0%;        !
;  124          0221  1
;  125          0222  1
;  126          0223  1 !
;  127          0224  1 ! Define the linkages for the routines to lock and unlock the I/O database,
;  128          0225  1 ! as well as allocate and deallocate non-paged pool.
;  129          0226  1 !
;  130          0227  1 LINKAGE
;  131          0228  1     IOLOCK = JSB (REGISTER = 4):                ! R4 = process PCB
;  132          0229  1                  NOPRESERVE (1,2,3),            ! R1-R3 destroyed
;  133          0230  1     ALLO   = JSB (REGISTER = 1;                 ! R1 = size (on input)
;  134          0231  1                  REGISTER = 1,                  ! R1 = size of block
;  135          0232  1                  REGISTER = 2):                 ! R2 = address of block
;  136          0233  1                  NOPRESERVE (3,4,5),            ! R3, R4, R5 destroyed
;  137          0234  1     DEALLO = JSB (REGISTER = 0):                ! R0 = address of block
;  138          0235  1                  NOPRESERVE (1,2,3,4,5);        ! R1-R5 destroyed
;  139          0236  1
;  140          0237  1
```

```
;  142          0238  1 !
;  143          0239  1 ! Table of contents
;  144          0240  1 !
;  145          0241  1
;  146          0242  1 FORWARD ROUTINE
;  147          0243  1     set$device : NOVALUE,                   ! Main module of SET DEVICE
;  148          0244  1     setbits,                                ! Set device characteristics
;  149          0245  1     setspool,                               ! Make a device spooled
;  150          0246  1     setnospool,                             ! Make a device un-spooled
;  151          0247  1     setprot,                                ! Set device protection and ownership
;  152          0248  1     setserved,                              ! MSCP serve a device
;  153          0249  1     setgetportname;                         ! Given a device determine the device
;  154          0250  1                                             ! name of its port
;  155          0251  1
;  156          0252  1 !
;  157          0253  1 ! External routines
;  158          0254  1 !
;  159          0255  1 EXTERNAL ROUTINE
;  160          0256  1     tran_queue,                             ! Convert input name to queue name
;  161          0257  1     get_prot : NOVALUE,                     ! Convert ASCII protection to binary
;  162          0258  1     parse_uic,                              ! Convert ASCII UIC to longword
;  163          0259  1     expand_prot : NOVALUE,                  ! Convert binary prot to ASCII
;  164          0260  1     lib$cvt_dtb,                            ! Convert ASCII to binary
;  165          0261  1     cli$get_value,                          ! Get value from CLI
;  166          0262  1     cli$present,                            ! See if qualifier is present
;  167          0263  1     exe$alononpaged : ALLO,                 ! Get a chunk of non-paged pool
;  168          0264  1     exe$deanonpaged : DEALLO,               ! Deallocate non-paged pool
;  169          0265  1     sch$iolockw : IOLOCK,                   ! Lock the I/O database for write
;  170          0266  1     sch$iounlock : IOLOCK,                  ! Unlock the I/O database
;  171          0267  1     mscp$addunit;                           ! Alloc and fill in UCB for MSCP server
;  172          0268  1
;  173          0269  1 !
;  174          0270  1 ! External references
;  175          0271  1 !
;  176          0272  1 EXTERNAL
;  177          0273  1     ctl$gq_procpriv : $BBLOCK[8],           ! Process privilege mask
;  178          0274  1     ctl$gl_pcb      : REF $BBLOCK,          ! Address of process PCB
;  179          0275  1     ctl$gl_ccbbase;                         ! Beginning of channel control blocks
;  180          0276  1
;  181          0277  1 !
;  182          0278  1 ! Declare some shared messages
;  183          0279  1 !
;  184        P 0280  1 $SHR_MSGDEF     (SET,119,LOCAL,
;  185          0281  1                  (invquaval,     error));
;  186          0282  1
;  187          0283  1 !
;  188          0284  1 ! Declare literals defined elsewhere
;  189          0285  1 !
;  190          0286  1 EXTERNAL LITERAL
;  191          0287  1     set$_writeerr,                          ! Error modifying device
;  192          0288  1     set$_devset1,                           ! characteristic set
;  193          0289  1     set$_devset2,
;  194          0290  1     set$_devpset,                           ! Device protection set
;  195          0291  1     set$_invdev,                            ! Device is invalid for requested operation
;  196          0292  1     set$_spooled,                           ! Device spooled
;  197          0293  1     set$_mscpnotld,                         ! MSCP-Server code not loaded
;  198          0294  1     set$_notuqport,                         ! Device doesn't have a UNIBUS/QBUS port
```

```
;  199          0295  1     cli$_devnotfor,     ! Device not mounted foreign
;  200          0296  1     cli$_devnotspl,     ! Device not spooled
;  201          0297  1     cli$_devalspl,      ! Device already spooled
;  202          0298  1     cli$_absent,        ! Qualifier absent
;  203          0299  1     cli$_negated,       ! Qualifier explicitly negated
;  204          0300  1     cli$_present;       ! Qualifier explicitly present
;  205          0301  1
```

```
;  207     0302  1 GLOBAL ROUTINE set$device (dummy) : NOVALUE =
;  208     0303  2 BEGIN
;  209     0304  2
;  210     0305  2 !++
;  211     0306  2 ! Functional description
;  212     0307  2 !
;  213     0308  2 !       This is the routine for the SET DEVICE command.  It is called
;  214     0309  2 !       from the SET command processor, and sets certain characteristics
;  215     0310  2 !       of devices.
;  216     0311  2 !
;  217     0312  2 ! Inputs
;  218     0313  2 !       None
;  219     0314  2 !
;  220     0315  2 ! Outputs
;  221     0316  2 !       None
;  222     0317  2 !
;  223     0318  2 !----
;  224     0319  2
;  225     0320  2 BUILTIN
;  226     0321  2     ACTUALCOUNT;
;  227     0322  2
;  228     0323  2 LOCAL
;  229     0324  2     status,                             ! Status return
;  230     0325  2     uic : VOLATILE,                     ! UIC for device protection
;  231     0326  2     prot_mask : WORD VOLATILE,          ! Mask to show what protections changed
;  232     0327  2     new_prot : WORD VOLATILE,           ! New protections to set
;  233     0328  2     result_prot : WORD VOLATILE,        ! Final device protection
;  234     0329  2     dev_desc : $BBLOCK[dsc$c_s_bln],    ! Device descriptor
;  235     0330  2     que_desc : $BBLOCK[dsc$c_s_bln],    ! Queuename descriptor
;  236     0331  2     uic_desc : $BBLOCK[dsc$c_s_bln],    ! /OWNER_UIC descriptor
;  237     0332  2     intdev_desc : $BBLOCK[dsc$c_s_bln], ! Descriptor for intermediate device
;  238     0333  2     flags : $BBLOCK[4] INITIAL(0),      ! Flags longword
;  239     0334  2     info_desc : VECTOR[2],              ! $GETCHN descriptor
;  240     0335  2     info_block : $BBLOCK[12],           ! $GETCHN information block
;  241     0336  2     chan : WORD,                        ! I/O channel
;  242     0337  2     intchan : WORD,                     ! Intermediate device I/O channel
;  243     0338  2     iosb : VECTOR[4,WORD],              ! I/O status block
;  244     0339  2     dev_string : VECTOR[16,BYTE],       ! Translated string for spooled dev
;  245     0340  2     que_string : VECTOR[16,BYTE],       ! Translated string for que name
;  246     0341  2     arglist : VECTOR[8],                ! $CMKRNL argument list
;  247     0342  2     cont_desc : $BBLOCK[dsc$c_s_bln],   ! Descriptor for controller name
;  248     0343  2     controller : INITIAL(0),            ! Controller letter
;  249     0344  2     port_desc : $BBLOCK[dsc$c_s_bln],   ! Descriptor for port device name
;  250     0345  2     port_string : VECTOR[ 20, BYTE ],   ! Port device name string
;  251     0346  2     port_chan : WORD;                   ! Channel to port device
;  252     0347  2
;  253     0348  2 !
;  254     0349  2 ! Collect the name of the device.
;  255     0350  2 !
;  256     0351  2 $init_dyndesc(dev_desc);                ! Make the descriptors dynamic
;  257     0352  2 $init_dyndesc(que_desc);
;  258     0353  2 $init_dyndesc(uic_desc);
;  259     0354  2 $init_dyndesc(intdev_desc);
;  260     0355  2 $init_dyndesc(cont_desc);
;  261     0356  2 $init_dyndesc(port_desc);
;  262     0357  2
;  263     0358  2 cli$get_value(%ASCID 'FILE',             ! Get the device name
```

```
;  264          0359  2                          dev_desc);
;  265          0360  2
;  266          0361  2      !
;  267          0362  2      ! See if the user has OPER privilege.
;  268          0363  2      !
;  269          0364  2      IF NOT .ctl$gq_procpriv[prv$v_oper]
;  270          0365  2      THEN
;  271          0366  3          BEGIN
;  272          0367  3          SIGNAL(set$_writeerr, 1, dev_desc, ss$_nooper);
;  273          0368  3          RETURN;
;  274          0369  2          END;
;  275          0370  2
;  276          0371  2      !
;  277          0372  2      ! Assign a channel to the device.
;  278          0373  2      !
;  279        P 0374  2      IF NOT (status = $ASSIGN(DEVNAM = dev_desc,
;  280          0375  3                               CHAN   = chan))
;  281          0376  2      THEN
;  282          0377  3          BEGIN
;  283          0378  3          SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  284          0379  3          RETURN;
;  285          0380  2          END;
;  286          0381  2
;  287          0382  2
;  288          0383  2      !
;  289          0384  2      ! See if logging is required.
;  290          0385  2      !
;  291          0386  2      flags[set$v_log] = cli$present(%ASCID 'LOG');
;  292          0387  2
;  293          0388  2      !
;  294          0389  2      ! If the device protection is to change, get the protections, as well as
;  295          0390  2      ! perhaps a UIC to give as the device's owner.  To get device protection
;  296          0391  2      ! changed, we first went thru the SET PROTECTION routine, which called
;  297          0392  2      ! this routine with a dummy argument.  So, if the number of actual arguments
;  298          0393  2      ! is 1, we know that it's really protection that should be changed.
;  299          0394  2      !
;  300          0395  2      IF ACTUALCOUNT() EQL 1
;  301          0396  2      THEN
;  302          0397  3          BEGIN
;  303          0398  3          LOCAL
;  304          0399  3              buffer : VECTOR[20],
;  305          0400  3              desc : VECTOR[2];
;  306          0401  3
;  307          0402  3          uic = 0;                                    ! Initialize UIC
;  308          0403  3          get_prot(prot_mask, new_prot);              ! Get protection masks
;  309          0404  3
;  310          0405  3      !
;  311          0406  3      ! If a UIC was specified, check it.
;  312          0407  3      !
;  313          0408  4          IF (flags[set$v_uic] = cli$get_value(%ASCID 'OWNER_UIC', uic_desc))
;  314          0409  3          THEN IF NOT parse_uic(uic_desc, uic)
;  315          0410  3          THEN
;  316          0411  4              BEGIN
;  317          0412  4              SIGNAL(set$_invquaval, 2, uic_desc, %ASCID 'OWNER_UIC');
;  318          0413  4              RETURN;
;  319          0414  3              END;
;  320          0415  3
```

```
;  321          0416  3 !
;  322          0417  3 ! Call the kernel mode routine to set the protection, and then simply
;  323          0418  3 ! return.
;  324          0419  3 !
;  325          0420  3     arglist[0] = 5;
;  326          0421  3     arglist[1] = flags;                         ! FLAGS says what to do
;  327          0422  3     arglist[2] = .ct[$gl_ccbbase - .chan;       ! Put CCB address here
;  328          0423  3     arglist[3] = prot_mask;                     ! Which class(es) to set
;  329          0424  3     arglist[4] = new_prot;                      ! New protections
;  330          0425  3     arglist[5] = uic;                           ! Final owner UIC
;  331        P 0426  4     IF NOT (status = $CMKRNL(ROUTIN = setprot,
;  332          0427  4                              ARGLST = arglist))
;  333          0428  3     THEN
;  334          0429  4         BEGIN
;  335          0430  4         SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  336          0431  4         END
;  337          0432  3     ELSE IF .flags[set$v_log]
;  338          0433  3     THEN
;  339          0434  4         BEGIN
;  340          0435  4         expand_prot(arglist, .new_prot, 1);
;  341          0436  4         SIGNAL(set$_devpset, 6, dev_desc,
;  342          0437  4                              .arglist[0],
;  343          0438  4                              .arglist[1],
;  344          0439  4                              .arglist[2],
;  345          0440  4                              .arglist[3],
;  346          0441  4                              .uic);
;  347          0442  3         END;
;  348          0443  3     RETURN;
;  349          0444  2     END;
;  350          0445  2
;  351          0446  2 !
;  352          0447  2 ! Determine whether or not /[NO]DIAGNOSTIC was specified and whether it is
;  353          0448  2 ! setting or clearing the "diagnostic" state.
;  354          0449  2 !
;  355          0450  2 status = cli$present( %ASCID 'DIAGNOSTIC' );    ! DIAGNOSTIC qualifier present?
;  356          0451  2 IF .status NEQ cli$_absent                      ! If not absent,
;  357          0452  2 THEN                                           ! then ...
;  358          0453  3     BEGIN
;  359          0454  3     flags[set$v_diagset] = 1;                   ! indicate it is present
;  360          0455  3     flags[set$v_diag] = .status;                ! save its value (yes/no)
;  361          0456  2     END;
;  362          0457  2 !
;  363          0458  2 ! One set of qualifiers do nothing more than set/clear bits in the
;  364          0459  2 ! device characteristics longword.
;  365          0460  2 !
;  366          0461  2 status = cli$present(%ASCID 'AVAILABLE');       ! See what CLI$PRESENT returned
;  367          0462  2 IF .status NEQ cli$_absent                      ! If the qualifier was
;  368          0463  2 THEN                                           ! explicitly mentioned,
;  369          0464  3     BEGIN                                      ! set the flag bit
;  370          0465  3     flags[set$v_availset] = 1;                  ! saying it was mentioned
;  371          0466  3     flags[set$v_avail] = .status;               ! and set the yes/no bit
;  372          0467  2     END;
;  373          0468  2 !
;  374          0469  2 ! For all you Bliss hackers out there, a more concise way of expressing
;  375          0470  2 ! the above is shown below, for the /[NO]DUAL_PORT and /[NO]ERROR_LOGGING
;  376          0471  2 ! qualifiers.
;  377          0472  2 !
```

```
;  378          0473  2 flags[set$v_dualset] = ((flags[set$v_dual] = cli$present(%ASCID 'DUAL_PORT')) NEQ cli$_absent);
;  379          0474  2 flags[set$v_errorset] = ((flags[set$v_error] = cli$present(%ASCID 'ERROR_LOGGING')) NEQ cli$_absent);
;  380          0475  2
;  381          0476  2 !
;  382          0477  2 ! If a device is to SPOOLed, then a queue name and intermediate device
;  383          0478  2 ! must be acquired.
;  384          0479  2 !
;  385          0480  2 IF (flags[set$v_spool] = cli$present(%ASCID 'SPOOLED')) NEQ cli$_absent
;  386          0481  2 THEN
;  387          0482  3     BEGIN
;  388          0483  3     IF .flags[set$v_spool]
;  389          0484  3     THEN
;  390          0485  4         BEGIN
;  391          0486  4         IF NOT tran_queue(dev_desc, dev_string)
;  392          0487  4         THEN
;  393          0488  5             BEGIN
;  394          0489  5             SIGNAL(set$_invquaval, 2, dev_desc, %ASCID 'SPOOLED');
;  395          0490  5             RETURN;
;  396          0491  5             END
;  397          0492  4         ELSE
;  398          0493  5             BEGIN
;  399          0494  5             dev_desc[dsc$w_length] = .dev_string[0];
;  400          0495  5             dev_desc[dsc$a_pointer] = dev_string[1];
;  401          0496  4             END;
;  402          0497  4         IF NOT cli$get_value(%ASCID 'SPOOLED', que_desc)
;  403          0498  4         THEN
;  404          0499  5             BEGIN
;  405          0500  5             que_desc[dsc$w_length] = .dev_desc[dsc$w_length];
;  406          0501  5             que_desc[dsc$a_pointer] = .dev_desc[dsc$a_pointer];
;  407          0502  5             END
;  408          0503  4         ELSE
;  409          0504  5             BEGIN
;  410          0505  5             IF NOT tran_queue(que_desc, que_string)
;  411          0506  5             THEN
;  412          0507  6                 BEGIN
;  413          0508  6                 SIGNAL(set$_invquaval, 2, que_desc, %ASCID 'SPOOLED');
;  414          0509  6                 RETURN;
;  415          0510  6                 END
;  416          0511  5             ELSE
;  417          0512  6                 BEGIN
;  418          0513  6                 que_desc[dsc$w_length] = .que_string[0];
;  419          0514  6                 que_desc[dsc$a_pointer] = que_string[1];
;  420          0515  5                 END;
;  421          0516  4             END;
;  422          0517  4         IF NOT cli$get_value(%ASCID 'SPOOLED', intdev_desc)
;  423          0518  4         THEN
;  424          0519  5             BEGIN
;  425          0520  5             intdev_desc[dsc$w_length] = %CHARCOUNT('SYS$DISK');
;  426          0521  5             intdev_desc[dsc$a_pointer] = UPLIT BYTE('SYS$DISK');
;  427          0522  4             END;
;  428        P 0523  5         IF NOT (status = $ASSIGN(DEVNAM = intdev_desc,
;  429          0524  5                                  CHAN   = intchan))
;  430          0525  4         THEN
;  431          0526  5             BEGIN
;  432          0527  5             SIGNAL(set$_writeerr, 1, intdev_desc, .status);
;  433          0528  5             RETURN;
;  434          0529  4             END;
```

```
;  435          0530  3          END;
;  436          0531  3      !
;  437          0532  3      ! If /NOSPOOL, then no additional information is  needed.
;  438          0533  3      !
;  439          0534  3          flags[set$v_nospool] = NOT .flags[set$v_spool];     ! Set the /NOSPOOL flag
;  440          0535  2          END;
;  441          0536  2
;  442          0537  2
;  443          0538  2      !
;  444          0539  2      ! If /[NO]DIAGNOSTIC was specified, then locate the port device and
;  445          0540  2      ! send is an IO$_STOP or an IO$_INITIALIZE, as specified by the qualifier.
;  446          0541  2      !
;  447          0542  2      IF .flags[set$v_diagset]
;  448          0543  2      THEN
;  449          0544  3          BEGIN
;  450          0545  3          IF NOT .ctl$gq_procpriv[prv$v_diagnose]
;  451          0546  3          THEN
;  452          0547  4              BEGIN
;  453          0548  4              SIGNAL(set$_writeerr, 1, dev_desc, ss$_nodiagnose);
;  454          0549  4              RETURN;
;  455          0550  3              END;
;  456          0551  3          IF NOT .ctl$gq_procpriv[prv$v_phy_io]
;  457          0552  3          THEN
;  458          0553  4              BEGIN
;  459          0554  4              SIGNAL(set$_writeerr, 1, dev_desc, ss$_nophy_io);
;  460          0555  4              RETURN;
;  461          0556  3              END;
;  462          0557  3
;  463          0558  3          arglist[0] = 3;
;  464          0559  3          arglist[1] = .ctl$gl_ccbbase - .chan;
;  465          0560  3          arglist[2] = 20;
;  466          0561  3          arglist[3] = port_string;
;  467        P 0562  4          IF NOT (status = $CMKRNL( ROUTIN = setgetportname,
;  468          0563  4                                    ARGLST = arglist ))
;  469          0564  3          THEN
;  470          0565  4              BEGIN
;  471          0566  4              SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  472          0567  4              RETURN;
;  473          0568  3              END;
;  474          0569  3
;  475          0570  3          port_desc[dsc$w_length] = .arglist[2];
;  476          0571  3          port_desc[dsc$a_pointer] = port_string;
;  477          0572  3
;  478        P 0573  4          IF NOT (status = $ASSIGN( DEVNAM = port_desc,
;  479          0574  4                                    CHAN   = port_chan ))
;  480          0575  3          THEN
;  481          0576  4              BEGIN
;  482          0577  4              SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  483          0578  4              RETURN;
;  484          0579  3              END;
;  485          0580  3
;  486          0581  4              BEGIN
;  487          0582  4              LOCAL port_func;
;  488          0583  4              IF .flags[set$v_diag]
;  489          0584  4              THEN  port_func = IO$_STOP
;  490          0585  4              ELSE  port_func = IO$_INITIALIZE;
;  491        P 0586  5              IF NOT (status = $QIOW( CHAN = .port_chan,
```

```
;  492          0587  5                                    FUNC = .port_func ))
;  493          0588  4          THEN
;  494          0589  5              BEGIN
;  495          0590  5              SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  496          0591  5              RETURN;
;  497          0592  4              END;
;  498          0593  3          END;
;  499          0594  3
;  500          0595  3      $DASSGN( CHAN = .port_chan );
;  501          0596  3
;  502          0597  2      END;
;  503          0598  2
;  504          0599  2
;  505          0600  2  !
;  506          0601  2  ! If the bit-tweaking options were requested, call the subroutine
;  507          0602  2  ! that does that.  Signal any errors or successes.
;  508          0603  2  !
;  509          0604  2  IF .flags[set$v_availset]
;  510          0605  2  OR .flags[set$v_dualset]
;  511          0606  2  OR .flags[set$v_errorset]
;  512          0607  2  OR .flags[set$v_diagset]
;  513          0608  2  THEN
;  514          0609  3      BEGIN
;  515          0610  3      arglist[0] = 2;
;  516          0611  3      arglist[1] = flags;
;  517          0612  3      arglist[2] = .ct[$gl_ccbbase - .chan;
;  518        P 0613  3      status = $CMKRNL(ROUTIN = setbits,
;  519          0614  3                       ARGLST = arglist);
;  520          0615  3      IF .status NEQ 1
;  521          0616  3      THEN
;  522          0617  4          BEGIN
;  523          0618  4          SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  524          0619  4          END
;  525          0620  3      ELSE IF .flags[set$v_log]
;  526          0621  3      THEN
;  527          0622  4          BEGIN
;  528          0623  4          IF .flags[set$v_availset]
;  529          0624  4          THEN
;  530          0625  5              BEGIN
;  531          0626  5              IF .flags[set$v_avail]
;  532          0627  5              THEN SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'AVAILABLE')
;  533          0628  5              ELSE SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'NOAVAILABLE');
;  534          0629  4              END;
;  535          0630  4          IF .flags[set$v_dualset]
;  536          0631  4          THEN
;  537          0632  5              BEGIN
;  538          0633  5              IF .flags[set$v_dual]
;  539          0634  5              THEN SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'DUAL_PORT')
;  540          0635  5              ELSE SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'NODUAL_PORT');
;  541          0636  4              END;
;  542          0637  4          IF .flags[set$v_errorset]
;  543          0638  4          THEN
;  544          0639  5              BEGIN
;  545          0640  5              IF .flags[set$v_error]
;  546          0641  5              THEN SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'ERROR_LOGGING')
;  547          0642  5              ELSE SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'NOERROR_LOGGING');
;  548          0643  4              END;
```

```
;  549          0644  3          END;
;  550          0645  2      END;
;  551          0646  2
;  552          0647  2  !
;  553          0648  2  ! If the device is to be spooled or despooled, then call the routine that
;  554          0649  2  ! performs those functions.  Signal any errors or successes.
;  555          0650  2  !
;  556          0651  2  IF .flags[set$v_spool]
;  557          0652  2  THEN
;  558          0653  3      BEGIN
;  559          0654  3      arglist[0] = 4;
;  560          0655  3      arglist[1] = .ctl$gl_ccbbase - .chan;       ! Put CCB address here
;  561          0656  3      arglist[2] = .ctl$gl_ccbbase - .intchan;    ! Need the CCB of the int device
;  562          0657  3      arglist[3] = que_desc;                      ! Name of  the queue
;  563          0658  3      arglist[4] = intdev_desc;                   ! Name of the intermediate device
;  564        P 0659  4      IF NOT (status = $CMKRNL(ROUTIN = setspool,
;  565          0660  4                               ARGLST = arglist))
;  566          0661  3      THEN
;  567          0662  4          BEGIN
;  568          0663  4          SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  569          0664  4          END
;  570          0665  3      ELSE IF .flags[set$v_log]
;  571          0666  3      THEN SIGNAL(set$_spooled, 3, dev_desc, que_desc, intdev_desc);
;  572          0667  2      END;
;  573          0668  2
;  574          0669  2
;  575          0670  2  IF .flags[set$v_nospool]
;  576          0671  2  THEN
;  577          0672  3      BEGIN
;  578          0673  3      arglist[0] = 1;
;  579          0674  3      arglist[1] = .ctl$gl_ccbbase - .chan;       ! Put CCB address here
;  580        P 0675  4      IF NOT (status = $CMKRNL(ROUTIN = setnospool,
;  581          0676  4                               ARGLST = arglist))
;  582          0677  3      THEN
;  583          0678  4          BEGIN
;  584          0679  4          SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  585          0680  4          END
;  586          0681  3      ELSE IF .flags[set$v_log]
;  587          0682  3      THEN SIGNAL(set$_devsetl, 2, dev_desc, %ASCID 'NOSPOOL');
;  588          0683  2      END;
;  589          0684  2
;  590          0685  2  !
;  591          0686  2  ! If a device is to SERVED, then serve it.
;  592          0687  2  !
;  593          0688  2  IF cli$present(%ASCID 'SERVED')
;  594          0689  2  THEN
;  595          0690  3      BEGIN                       ! The nowrite flag is not used so permanently set
;  596          0691  3                                  ! set to 0.  However the original code is left
;  597          0692  3                                  ! if anyone wants to change this back.
;  598          0693  3      flags[set$v_nowrite] = 0; !cli$present(%ASCID 'WRITE') EQL cli$_negated;
;  599          0694  3      controller = 0;
;  600          0695  3  !
;  601          0696  3  !  Controller is not presently a legal qualifier but the code is left incase
;  602          0697  3  !  this changes in the future
;  603          0698  3  !    IF cli$present(%ASCID 'CONTROLLER')
;  604          0699  3  !    THEN
;  605          0700  3  !        IF cli$get_value(%ASCID 'CONTROLLER', cont_desc)
```

```
;  606          0701  3 !        THEN
;  607          0702  3 !            IF .cont_desc [dsc$w_length] GEQ 1
;  608          0703  3 !            THEN controller = .(.cont_desc [dsc$a_pointer]) <0,8,0>;
;  609          0704  3
;  610          0705  3     arglist[0] = 3;
;  611          0706  3     arglist[1] = flags;                         ! Flags
;  612          0707  3     arglist[2] = .ctl$gl_ccbbase - .chan;       ! CCB address
;  613          0708  3     arglist[3] = .controller;                   ! Controller letter
;  614          0709  3
;  615        P 0710  4     IF NOT (status = $CMKRNL(ROUTIN = setserved,
;  616          0711  4                              ARGLST = arglist))
;  617          0712  3     THEN
;  618          0713  4         BEGIN
;  619          0714  4         SIGNAL(set$_writeerr, 1, dev_desc, .status);
;  620          0715  4         END
;  621          0716  4
;  622          0717  3     ELSE IF .flags[set$v_log]
;  623          0718  3     THEN
;  624          0719  4         BEGIN
;  625          0720  4         SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'SERVED');
;  626          0721  4         IF .flags[set$v_nowrite]
;  627          0722  4         THEN SIGNAL(set$_devset1, 2, dev_desc, %ASCID 'NOWRITE');
;  628          0723  4         cont_desc [dsc$w_length] = 1;
;  629          0724  4         IF .controller NEQ 0
;  630          0725  4         THEN SIGNAL(set$_devset2, 3, dev_desc, %ASCID 'CONTROLLER', cont_desc);
;  631          0726  3         END;
;  632          0727  2     END;
;  633          0728  2
;  634          0729  2 RETURN;
;  635          0730  1 END;


                                                        .TITLE  SETDEVICE
                                                        .IDENT  \V04-001\

                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                                        45  4C  49  46  00000 P.AAB:  .ASCII  \FILE\
                                          010E0004      00004 P.AAA:  .LONG   17694724
                                          00000000'     00008         .ADDRESS P.AAB
                                        00  47  4F  4C  0000C P.AAD:  .ASCII  \LOG\<0>
                                          010E0003      00010 P.AAC:  .LONG   17694723
                                          00000000'     00014         .ADDRESS P.AAD
    00  00  00  43  49  55  5F  52  45  4E  57  4F      00018 P.AAF:  .ASCII  \OWNER_UIC\<0><0><0>
                                          010E0009      00024 P.AAE:  .LONG   17694729
                                          00000000'     00028         .ADDRESS P.AAF
    00  00  00  43  49  55  5F  52  45  4E  57  4F      0002C P.AAH:  .ASCII  \OWNER_UIC\<0><0><0>
                                          010E0009      00038 P.AAG:  .LONG   17694729
                                          00000000'     0003C         .ADDRESS P.AAH
    00  00  43  49  54  53  4F  4E  47  41  49  44      00040 P.AAJ:  .ASCII  \DIAGNOSTIC\<0><0>
                                          010E000A      0004C P.AAI:  .LONG   17694730
                                          00000000'     00050         .ADDRESS P.AAJ
    00  00  00  45  4C  42  41  4C  49  41  56  41      00054 P.AAL:  .ASCII  \AVAILABLE\<0><0><0>
                                          010E0009      00060 P.AAK:  .LONG   17694729
                                          00000000'     00064         .ADDRESS P.AAL
    00  00  00  54  52  4F  50  5F  4C  41  55  44      00068 P.AAN:  .ASCII  \DUAL_PORT\<0><0><0>
                                          010E0009      00074 P.AAM:  .LONG   17694729
```

```
                                                00000000'  00078          .ADDRESS P.AAN
00  00  47  4E  49  47  47  4F  4C  5F  52  4F  52  52  45  0007C P.AAP:   .ASCII  \ERROR_LOGGING\<0><0><0>
                                                      00    0008B
                                            010E000D      0008C P.AAO:   .LONG   17694733
                                            00000000'     00090          .ADDRESS P.AAP
                                        00  44  45  4C  4F  4F  50  53    00094 P.AAR:   .ASCII  \SPOOLED\<0>
                                            010E0007      0009C P.AAQ:   .LONG   17694727
                                            00000000'     000A0          .ADDRESS P.AAR
                                        00  44  45  4C  4F  4F  50  53    000A4 P.AAT:   .ASCII  \SPOOLED\<0>
                                            010E0007      000AC P.AAS:   .LONG   17694727
                                            00000000'     000B0          .ADDRESS P.AAT
                                        00  44  45  4C  4F  4F  50  53    000B4 P.AAV:   .ASCII  \SPOOLED\<0>
                                            010E0007      000BC P.AAU:   .LONG   17694727
                                            00000000'     000C0          .ADDRESS P.AAV
                                        00  44  45  4C  4F  4F  50  53    000C4 P.AAX:   .ASCII  \SPOOLED\<0>
                                            010E0007      000CC P.AAW:   .LONG   17694727
                                            00000000'     000D0          .ADDRESS P.AAX
                                        00  44  45  4C  4F  4F  50  53    000D4 P.AAZ:   .ASCII  \SPOOLED\<0>
                                            010E0007      000DC P.AAY:   .LONG   17694727
                                            00000000'     000E0          .ADDRESS P.AAZ
                                    4B  53  49  44  24  53  59  53    000E4 P.ABA:   .ASCII  \SYS$DISK\
            00  00  00  45  4C  42  41  4C  49  41  56  41              000EC P.ABC:   .ASCII  \AVAILABLE\<0><0><0>
                                            010E0009      000F8 P.ABB:   .LONG   17694729
                                            00000000'     000FC          .ADDRESS P.ABC
            00  45  4C  42  41  4C  49  41  56  41  4F  4E    00100 P.ABE:   .ASCII  \NOAVAILABLE\<0>
                                            010E000B      0010C P.ABD:   .LONG   17694731
                                            00000000'     00110          .ADDRESS P.ABE
            00  00  00  54  52  4F  50  5F  4C  41  55  44    00114 P.ABG:   .ASCII  \DUAL_PORT\<0><0><0>
                                            010E0009      00120 P.ABF:   .LONG   17694729
                                            00000000'     00124          .ADDRESS P.ABG
                00  54  52  4F  50  5F  4C  41  55  44  4F  4E  00128 P.ABI:   .ASCII  \NODUAL_PORT\<0>
                                            010E000B      00134 P.ABH:   .LONG   17694731
                                            00000000'     00138          .ADDRESS P.ABI
00  00  47  4E  49  47  47  4F  4C  5F  52  4F  52  52  45  0013C P.ABK:   .ASCII  \ERROR_LOGGING\<0><0><0>
                                                      00    0014B
                                            010E000D      0014C P.ABJ:   .LONG   17694733
                                            00000000'     00150          .ADDRESS P.ABK
47  4E  49  47  47  4F  4C  5F  52  4F  52  52  45  4F  4E  00154 P.ABM:   .ASCII  \NOERROR_LOGGING\<0>
                                                      00    00163
                                            010E000F      00164 P.ABL:   .LONG   17694735
                                            00000000'     00168          .ADDRESS P.ABM
                                        00  4C  4F  4F  50  53  4F  4E    0016C P.ABO:   .ASCII  \NOSPOOL\<0>
                                            010E0007      00174 P.ABN:   .LONG   17694727
                                            00000000'     00178          .ADDRESS P.ABO
                                        00  00  44  45  56  52  45  53    0017C P.ABQ:   .ASCII  \SERVED\<0><0>
                                            010E0006      00184 P.ABP:   .LONG   17694726
                                            00000000'     00188          .ADDRESS P.ABQ
                                        00  00  44  45  56  52  45  53    0018C P.ABS:   .ASCII  \SERVED\<0><0>
                                            010E0006      00194 P.ABR:   .LONG   17694726
                                            00000000'     00198          .ADDRESS P.ABS
                                        00  45  54  49  52  57  4F  4E    0019C P.ABU:   .ASCII  \NOWRITE\<0>
                                            010E0007      001A4 P.ABT:   .LONG   17694727
                                            00000000'     001A8          .ADDRESS P.ABU
            00  00  52  45  4C  4C  4F  52  54  4E  4F  43    001AC P.ABW:   .ASCII  \CONTROLLER\<0><0>
                                            010E000A      001B8 P.ABV:   .LONG   17694730
                                            00000000'     001BC          .ADDRESS P.ABW
```

```
                                        .EXTRN  TRAN_QUEUE, GET_PROT
                                        .EXTRN  PARSE_UIC, EXPAND_PROT
                                        .EXTRN  LIB$CVT_DTB, CLI$GET_VALUE
                                        .EXTRN  CLI$PRESENT, EXE$ALONONPAGED
                                        .EXTRN  EXE$DEANONPAGED
                                        .EXTRN  SCH$IOLOCKW, SCH$IOUNLOCK
                                        .EXTRN  MSCP$ADDUNIT, CTL$GQ_PROCPRIV
                                        .EXTRN  CTL$GL_PCB, CTL$GL_CCBBASE
                                        .EXTRN  SET$_WRITEERR, SET$_DEVSET1
                                        .EXTRN  SET$_DEVSET2, SET$_DEVPSET
                                        .EXTRN  SET$_INVDEV, SET$_SPOOLED
                                        .EXTRN  SET$_MSCPNOTLD, SET$_NOTUQPORT
                                        .EXTRN  CLI$_DEVNOTFOR, CLI$_DEVNOTSPL
                                        .EXTRN  CLI$_DEVALSPL, CLI$_ABSENT
                                        .EXTRN  CLI$_NEGATED, CLI$_PRESENT
                                        .EXTRN  SYS$ASSIGN, SYS$CMKRNL
                                        .EXTRN  SYS$QIOW, SYS$DASSGN

                                        .PSECT  $CODE$,NOWRT,2

                        0FFC 00000      .ENTRY  SET$DEVICE, Save R2,R3,R4,R5,R6,R7,R8,R9,-       ; 0302
                                                R10,R11
5B 00000000G   00    9E 00002           MOVAB   CLI$GET_VALUE, R11
5A 00000000G   8F    D0 00009           MOVL    #CLI$_ABSENT, R10
59 00000000G   8F    D0 00010           MOVL    #SET$_DEVSET1, R9
58 00000000G   00    9E 00017           MOVAB   SYS$CMKRNL, R8
57 00000000G   00    9E 0001E           MOVAB   CTL$GL_CCBBASE, R7
56 00000000G   00    9E 00025           MOVAB   CLI$PRESENT, R6
55 00000000G   00    9E 0002C           MOVAB   LIB$SIGNAL, R5
54 00000000'   EF    9E 00033           MOVAB   P.AAA, R4
5E       FEEC    CE  9E 0003A           MOVAB   -276(SP), SP
                 0C  AE  D4 0003F           CLRL    FLAGS                                        ; 0303
                     53  D4 00042           CLRL    CONTROLLER
             EC  AD 020E0000 8F  D0 00044   MOVL    #34471936, DEV_DESC                          ; 0351
                     F0  AD  D4 0004C           CLRL    DEV_DESC+4
             E4  AD 020E0000 8F  D0 0004F   MOVL    #34471936, QUE_DESC                          ; 0352
                     E8  AD  D4 00057           CLRL    QUE_DESC+4
             DC  AD 020E0000 8F  D0 0005A   MOVL    #34471936, UIC_DESC                          ; 0353
                     E0  AD  D4 00062           CLRL    UIC_DESC+4
             D4  AD 020E0000 8F  D0 00065   MOVL    #34471936, INTDEV_DESC                       ; 0354
                     D8  AD  D4 0006D           CLRL    INTDEV_DESC+4
           0084  CE 020E0000 8F  D0 00070   MOVL    #34471936, CONT_DESC                         ; 0355
                   0088  CE  D4 00079           CLRL    CONT_DESC+4
             7C  AE 020E0000 8F  D0 0007D   MOVL    #34471936, PORT_DESC                         ; 0356
                   0080  CE  D4 00085           CLRL    PORT_DESC+4
                     EC  AD  9F 00089           PUSHAB  DEV_DESC                             ; 0358
                     54  DD 0008C             PUSHL   R4
                 6B      02  FB 0008E          CALLS   #2, CLI$GET_VALUE
08 00000000G     00      02  E0 00091          BBS     #2, CTL$GQ_PROCPRIV+2, 1$            ; 0364
                 7E  2894    8F  3C 00099     MOVZWL  #10388, -(SP)                        ; 0367
                         0440 31  0009E         BRW     50$
                     7E  7C 000A1 1$:           CLRQ    -(SP)                                ; 0375
                     08  AE  9F 000A3         PUSHAB  CHAN
                     EC  AD  9F 000A6           PUSHAB  DEV_DESC
00000000G        00      04  FB 000A9          CALLS   #4, SYS$ASSIGN
                 52      50  D0 000B0          MOVL    R0, STATUS
                 03      52  E8 000B3          BLBS    STATUS, 2$
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                                                0426  31  000B6          BRW     49$
                                          0C    A4  9F  000B9  2$:     PUSHAB  P.AAC                           ;0386
                                      66        01  FB  000BC          CALLS   #1, CLI$PRESENT
      0C    AE              01      00        50  F0  000BF          INSV    R0, #0, #1, FLAGS
                                    01        6C  91  000C5          CMPB    (AP), #1                        ;0395
                                              03  13  000C8          BEQL    3$
                                            00A4  31  000CA          BRW     7$
                                          FC    AD  D4  000CD  3$:     CLRL    UIC                             ;0402
                                          F8    AD  9F  000D0          PUSHAB  NEW_PROT                        ;0403
                                          FA    AD  9F  000D3          PUSHAB  PROT_MASK
                          00000000G       00        02  FB  000D6          CALLS   #2, GET_PROT
                                          DC    AD  9F  000DD          PUSHAB  UIC_DESC                        ;0408
                                          20    A4  9F  000E0          PUSHAB  P.AAE
                                      68        02  FB  000E3          CALLS   #2, CLI$GET_VALUE
      0D    AE              01      02        50  F0  000E6          INSV    R0, #2, #1, FLAGS+1
                                    19        50  E9  000EC          BLBC    R0, 4$
                                          FC    AD  9F  000EF          PUSHAB  UIC                             ;0409
                                          DC    AD  9F  000F2          PUSHAB  UIC_DESC
                          00000000G       00        02  FB  000F5          CALLS   #2, PARSE_UIC
                                    09        50  E8  000FC          BLBS    R0, 4$
                                          34    A4  9F  000FF          PUSHAB  P.AAG                           ;0412
                                          DC    AD  9F  00102          PUSHAB  UIC_DESC
                                            0140  31  00105          BRW     16$
                              FF78        CD        05  D0  00108  4$:     MOVL    #5, ARGLIST             ;0420
                              FF7C        CD    0C  AE  9E  0010D          MOVAB   FLAGS, ARGLIST+4        ;0421
                                          50        6E  3C  00113          MOVZWL  CHAN, R0                ;0422
                  80    AD                  67        50  C3  00116          SUBL3   R0, CTL$GL_CCBBASE, ARGLIST+8
                                84    AD        FA    AD  9E  0011B          MOVAB   PROT_MASK, ARGLIST+12   ;0423
                                88    AD        F8    AD  9E  00120          MOVAB   NEW_PROT, ARGLIST+16    ;0424
                                8C    AD        FC    AD  9E  00125          MOVAB   UIC, ARGLIST+20         ;0425
                                              FF78  CD  9F  0012A          PUSHAB  ARGLIST                 ;0427
                                    00000000V     EF  9F  0012E          PUSHAB  SETPROT
                                      68        02  FB  00134          CALLS   #2, SYS$CMKRNL
                                      52        50  D0  00137          MOVL    R0, STATUS
                                      03        52  E8  0013A          BLBS    STATUS, 5$
                                            039F  31  0013D          BRW     49$
                                      01    0C  AE  E8  00140  5$:     BLBS    FLAGS, 6$                       ;0432
                                                04  00144          RET
                                                01  DD  00145  6$:     PUSHL   #1                              ;0435
                                      7E    F8  AD  3C  00147          MOVZWL  NEW_PROT, -(SP)
                                          FF78  CD  9F  0014B          PUSHAB  ARGLIST
                          00000000G       00        03  FB  0014F          CALLS   #3, EXPAND_PROT
                                          FC    AD  DD  00156          PUSHL   UIC                             ;0441
                                      7E    80  AD  7D  00159          MOVQ    ARGLIST+8, -(SP)                ;0439
                                      7E  FF78  CD  7D  0015D          MOVQ    ARGLIST, -(SP)                  ;0437
                                          EC    AD  9F  00162          PUSHAB  DEV_DESC                        ;0436
                                                06  DD  00165          PUSHL   #6
                                    00000000G     8F  DD  00167          PUSHL   #SET$_DEVPSET
                                      65        08  FB  0016D          CALLS   #8, LIB$SIGNAL
                                                04  00170          RET                                     ;0397
                                          48    A4  9F  00171  7$:     PUSHAB  P.AAI                           ;0450
                                      66        01  FB  00174          CALLS   #1, CLI$PRESENT
                                      52        50  D0  00177          MOVL    R0, STATUS
                                      5A        52  D1  0017A          CMPL    STATUS, R10                     ;0451
                                                0A  13  0017D          BEQL    8$
                                    0D    AE      10  88  0017F          BISB2   #16, FLAGS+1                    ;0454
      0D    AE              01      05        52  F0  00183          INSV    STATUS, #5, #1, FLAGS+1         ;0455
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                                                 5C   A4  9F 00189 8$:     PUSHAB  P.AAK                           ; 0461
                                                      01  FB 0018C         CALLS   #1, CLI$PRESENT
                                                 66   50  D0 0018F         MOVL    R0, STATUS
                                                 52   52  D1 00192         CMPL    STATUS, R10                     ; 0462
                                                 5A   0A  13 00195         BEQL    9$
                                                      02  88 00197         BISB2   #2, FLAGS                       ; 0465
                                              0C  AE  52  F0 0019B         INSV    STATUS, #2, #1, FLAGS           ; 0466
                                 0C   AE  01  02  70   A4  9F 001A1 9$:     PUSHAB  P.AAM                           ; 0473
                                                 66   01  FB 001A4         CALLS   #1, CLI$PRESENT
                                 0C   AE  01  04  50  F0 001A7             INSV    R0, #4, #1, FLAGS
                                                      51  D4 001AD         CLRL    R1
                                                 5A   50  D1 001AF         CMPL    R0, R10
                                                      02  13 001B2         BEQL    10$
                                                      51  D6 001B4         INCL    R1
                                 0C   AE  01  03  51  F0 001B6 10$:        INSV    R1, #3, #1, FLAGS
                                                 0088 C4  9F 001BC         PUSHAB  P.AAO                           ; 0474
                                                 66   01  FB 001C0         CALLS   #1, CLI$PRESENT
                                 0C   AE  01  06  50  F0 001C3             INSV    R0, #6, #1, FLAGS
                                                      51  D4 001C9         CLRL    R1
                                                 5A   50  D1 001CB         CMPL    R0, R10
                                                      02  13 001CE         BEQL    11$
                                                      51  D6 001D0         INCL    R1
                                 0C   AE  01  05  51  F0 001D2 11$:        INSV    R1, #5, #1, FLAGS
                                                 0098 C4  9F 001D8         PUSHAB  P.AAQ                           ; 0480
                                                 66   01  FB 001DC         CALLS   #1, CLI$PRESENT
                                 0C   AE  01  07  50  F0 001DF             INSV    R0, #7, #1, FLAGS
                                                 5A   50  D1 001E5         CMPL    R0, R10
                                                      03  12 001E8         BNEQ    12$
                                                 00B3 31  11 001EA         BRW     21$
                                              0C  AE  95  00 001ED 12$:     TSTB    FLAGS                           ; 0483
                                                      03  19 001F0         BLSS    13$
                                                 009C 31  11 001F2         BRW     20$
                                                 A8   AD  9F 001F5 13$:     PUSHAB  DEV_STRING                      ; 0486
                                                 EC   AD  9F 001F8         PUSHAB  DEV_DESC
                                 00000000G       00       02  FB 001FB     CALLS   #2, TRAN_QUEUE
                                                 09       50  E8 00202     BLBS    R0, 14$
                                                      00A8 C4  9F 00205     PUSHAB  P.AAS                           ; 0489
                                                      EC   AD  9F 00209     PUSHAB  DEV_DESC
                                                           3A  11 0020C     BRB     16$
                                          EC   AD      A8   AD  9B 0020E 14$:     MOVZBW  DEV_STRING, DEV_DESC    ; 0494
                                          F0   AD      A9   AD  9E 00213     MOVAB   DEV_STRING+1, DEV_DESC+4        ; 0495
                                                       E4   AD  9F 00218     PUSHAB  QUE_DESC                        ; 0497
                                                      00B8  C4  9F 0021B     PUSHAB  P.AAU
                                                 6B       02  FB 0021F     CALLS   #2, CLI$GET_VALUE
                                                 0C       50  E8 00222     BLBS    R0, 15$
                                          E4   AD      EC   AD  B0 00225     MOVW    DEV_DESC, QUE_DESC              ; 0500
                                          E8   AD      F0   AD  D0 0022A     MOVL    DEV_DESC+4, QUE_DESC+4          ; 0501
                                                           2C  11 0022F     BRB     18$                             ; 0497
                                                       98   AD  9F 00231 15$:     PUSHAB  QUE_STRING              ; 0505
                                                       E4   AD  9F 00234     PUSHAB  QUE_DESC
                                 00000000G       00       02  FB 00237     CALLS   #2, TRAN_QUEUE
                                                 12       50  E8 0023E     BLBS    R0, 17$
                                                      00C8 C4  9F 00241     PUSHAB  P.AAW                           ; 0508
                                                      E4   AD  9F 00245     PUSHAB  QUE_DESC
                                                           02  DD 00248 16$:     PUSHL   #2
                                                 0077132A  8F  DD 0024A     PUSHL   #7803690
                                                           0299 31  00250     BRW     52$
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                                E4   AD      98   AD   9B 00253 17$:    MOVZBW  QUE_STRING, QUE_DESC                    ; 0513
                                E8   AD      99   AD   9E 00258         MOVAB   QUE_STRING+1, QUE_DESC+4              ; 0514
                                             D4   AD   9F 0025D 18$:    PUSHAB  INTDEV_DESC                           ; 0517
                                           00D8   C4   9F 00260         PUSHAB  P.AAY
                                     6B          02   FB 00264         CALLS   #2, CLI$GET_VALUE
                                     0A          50   E8 00267         BLBS    R0, 19$
                                D4   AD          08   B0 0026A         MOVW    #8, INTDEV_DESC                       ; 0520
                                D8   AD    00E0  C4   9E 0026E         MOVAB   P.ABA, INTDEV_DESC+4                  ; 0521
                                           7E   7C 00274 19$:    CLRQ    -(SP)                                 ; 0524
                                      0C   AE   9F 00276         PUSHAB  INTCHAN
                                      D4   AD   9F 00279         PUSHAB  INTDEV_DESC
                          00000000G   00       04   FB 0027C         CALLS   #4, SYS$ASSIGN
                                      52       50   D0 00283         MOVL    R0, STATUS
                                      08       52   E8 00286         BLBS    STATUS, 20$
                                               52   DD 00289         PUSHL   STATUS                                ; 0527
                                      D4   AD   9F 0028B         PUSHAB  INTDEV_DESC
                                         0253  31   03 0028E         BRW     51$
          50        0C   AE             01       07   EF 00291 20$:    EXTZV   #7, #1, FLAGS, R0                     ; 0534
                                           50       50   D2 00297         MCOML   R0, R0
     0D   AE             01               00       50   F0 0029A         INSV    R0, #0, #1, FLAGS+1
                         03        0D     AE       04   E0 002A0 21$:    BBS     #4, FLAGS+1, 22$                      ; 0542
                                         00A4  31   03 002A5         BRW     30$
                         07 00000000G   00       06   E0 002A8 22$:    BBS     #6, CTL$GQ_PROCPRIV, 23$              ; 0545
                                           7E   2834  8F   3C 002B0         MOVZWL  #10292, -(SP)                         ; 0548
                                                 0D   11 002B5         BRB     24$
                         08 00000000G   00       06   E0 002B7 23$:    BBS     #6, CTL$GQ_PROCPRIV+2, 25$            ; 0551
                                           7E   28B4  8F   3C 002BF         MOVZWL  #10420, -(SP)                         ; 0554
                                         021A  31   03 002C4 24$:    BRW     50$
                                FF78   CD          03   D0 002C7 25$:    MOVL    #3, ARGLIST                           ; 0558
                                       50          6E   3C 002CC         MOVZWL  CHAN, R0                              ; 0559
     FF7C   CD                         67          50   C3 002CF         SUBL3   R0, CTL$GL_CCBBASE, ARGLIST+4
                                80   AD          14   D0 002D5         MOVL    #20, ARGLIST+8                        ; 0560
                                84   AD    68    AE   9E 002D9         MOVAB   PORT_STRING, ARGLIST+12               ; 0561
                                      FF78   CD   9F 002DE         PUSHAB  ARGLIST                               ; 0563
                                00000000V    EF   9F 002E2         PUSHAB  SETGETPORTNAME
                                      68          02   FB 002E8         CALLS   #2, SYS$CMKRNL
                                      52          50   D0 002EB         MOVL    R0, STATUS
                                      4A          52   E9 002EE         BLBC    STATUS, 28$
                                7C   AE    80    AD   B0 002F1         MOVW    ARGLIST+8, PORT_DESC                  ; 0570
                              0080   CE    68    AE   9E 002F6         MOVAB   PORT_STRING, PORT_DESC+4              ; 0571
                                           7E   7C 002FC         CLRQ    -(SP)                                 ; 0574
                                      10   AE   9F 002FE         PUSHAB  PORT_CHAN
                                     0088  CE   9F 00301         PUSHAB  PORT_DESC
                          00000000G   00       04   FB 00305         CALLS   #4, SYS$ASSIGN
                                      52       50   D0 0030C         MOVL    R0, STATUS
                                      29       52   E9 0030F         BLBC    STATUS, 28$
                    05        0D    AE       05   E1 00312         BBC     #5, FLAGS+1, 26$                      ; 0583
                                      50       03   D0 00317         MOVL    #3, PORT_FUNC                         ; 0584
                                               03   11 0031A         BRB     27$
                                      50       04   D0 0031C 26$:    MOVL    #4, PORT_FUNC                         ; 0585
                                               7E   7C 0031F 27$:    CLRQ    -(SP)                                 ; 0587
                                               7E   7C 00321         CLRQ    -(SP)
                                               7E   7C 00323         CLRQ    -(SP)
                                               7E   7C 00325         CLRQ    -(SP)
                                               7E   D4 00327         CLRL    -(SP)
                                               50   DD 00329         PUSHL   PORT_FUNC
                                      7E   30   AE   3C 0032B         MOVZWL  PORT_CHAN, -(SP)
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                                                7E  D4 0032F          CLRL    -(SP)
                    00000000G   00             0C  FB 00331          CALLS   #12, SYS$QIOW
                                52              50  D0 00338          MOVL    R0, STATUS
                                03              52  E8 00033B 28$:    BLBS    STATUS, 29$
                                              019E  31 0033E          BRW     49$
                                7E        08    AE  3C 00341 29$:    MOVZWL  PORT_CHAN, -(SP)                ;0595
                    00000000G   00             01  FB 00345          CALLS   #1, SYS$DASSGN
                12              0C    AE        01  E0 0034C 30$:    BBS     #1, FLAGS, 31$                  ;0604
                0D              0C    AE        03  E0 00351          BBS     #3, FLAGS, 31$                  ;0605
                08              0C    AE        05  E0 00356          BBS     #5, FLAGS, 31$                  ;0606
                03              0D    AE        04  E0 0035B          BBS     #4, FLAGS+1, 31$                ;0607
                              0095    31  00360          BRW     42$
                          FF78  CD              02  D0 00363 31$:    MOVL    #2, ARGLIST                     ;0610
                          FF7C  CD        0C    AE  9E 00368          MOVAB   FLAGS, ARGLIST+4                ;0611
                                50              6E  3C 0036E          MOVZWL  CHAN, R0                        ;0612
80  AD                        67              50  C3 00371          SUBL3   R0, CTL$GL_CCBBASE, ARGLIST+8
                                      FF78      CD  9F 00376          PUSHAB  ARGLIST                         ;0614
                                00000000V       EF  9F 0037A          PUSHAB  SETBITS
                                68              02  FB 00380          CALLS   #2, SYS$CMKRNL
                                52              50  D0 00383          MOVL    R0, STATUS
                                01              52  D1 00386          CMPL    STATUS, #1                      ;0615
                                                0F  13 00389          BEQL    32$
                                                52  DD 0038B          PUSHL   STATUS                          ;0618
                                              EC    AD  9F 0038D          PUSHAB  DEV_DESC
                                                01  DD 00390          PUSHL   #1
                                      00000000G 8F    DD 00392          PUSHL   #SET$_WRITEERR
                                                5B  11 00398          BRB     41$
                                5A        0C    AE  E9 0039A 32$:    BLBC    FLAGS, 42$                      ;0620
                19              0C    AE        01  E1 0039E          BBC     #1, FLAGS, 35$                  ;0623
                06              0C    AE        02  E1 003A3          BBC     #2, FLAGS, 33$                  ;0626
                                      00F4  C4  9F  003A8          PUSHAB  P.ABB                           ;0627
                                                04  11 003AC          BRB     34$
                                      0108  C4  9F  003AE 33$:    PUSHAB  P.ABD                           ;0628
                                        EC  AD  9F  003B2 34$:    PUSHAB  DEV_DESC
                                            02  DD  003B5          PUSHL   #2
                                            59  DD  003B7          PUSHL   R9
                                65              04  FB 003B9          CALLS   #4, LIB$SIGNAL
                19              0C    AE        03  E1 003BC 35$:    BBC     #3, FLAGS, 38$                  ;0630
                06              0C    AE        04  E1 003C1          BBC     #4, FLAGS, 36$                  ;0633
                                      011C  C4  9F  003C6          PUSHAB  P.ABF                           ;0634
                                            04  11  003CA          BRB     37$
                                      0130  C4  9F  003CC 36$:    PUSHAB  P.ABH                           ;0635
                                        EC  AD  9F  003D0 37$:    PUSHAB  DEV_DESC
                                            02  DD  003D3          PUSHL   #2
                                            59  DD  003D5          PUSHL   R9
                                65              04  FB 003D7          CALLS   #4, LIB$SIGNAL
                19              0C    AE        05  E1 003DA 38$:    BBC     #5, FLAGS, 42$                  ;0637
                06              0C    AE        06  E1 003DF          BBC     #6, FLAGS, 39$                  ;0640
                                      0148  C4  9F  003E4          PUSHAB  P.ABJ                           ;0641
                                            04  11  003E8          BRB     40$
                                      0160  C4  9F  003EA 39$:    PUSHAB  P.ABL                           ;0642
                                        EC  AD  9F  003EE 40$:    PUSHAB  DEV_DESC
                                            02  DD  003F1          PUSHL   #2
                                            59  DD  003F3          PUSHL   R9
                                65              04  FB 003F5 41$:    CALLS   #4, LIB$SIGNAL
                                        0C  AE  95  003F8 42$:    TSTB    FLAGS                           ;0651
                                            61  18  003FB          BGEQ    44$
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                        FF78   CD              04   D0 003FD          MOVL    #4, ARGLIST                          ; 0654
                               50              67   D0 00402          MOVL    CTL$GL_CCBBASE, R0                   ; 0655
                               51              6E   3C 00405          MOVZWL  CHAN, R1                             ;
                FF7C    CD     50              51   C3 00408          SUBL3   R1, R0, ARGLIST+4                    ;
                               51        04    AE   3C 0040E          MOVZWL  INTCHAN, R1                          ; 0656
                  80    AD     50              51   C3 00412          SUBL3   R1, R0, ARGLIST+8                    ;
                          84   AD        E4    AD   9E 00417          MOVAB   QUE_DESC, ARGLIST+12                 ; 0657
                          88   AD        D4    AD   9E 0041C          MOVAB   INTDEV_DESC, ARGLIST+16              ; 0658
                                     FF78   CD   9F 00421          PUSHAB  ARGLIST                              ; 0660
                                00000000V   EF   9F 00425          PUSHAB  SETSPOOL                             ;
                               68           02   FB 0042B          CALLS   #2, SYS$CMKRNL                       ;
                               52           50   D0 0042E          MOVL    R0, STATUS                           ;
                               12           52   E8 00431          BLBS    STATUS, 43$                          ;
                                            52   DD 00434          PUSHL   STATUS                               ; 0663
                                        EC  AD   9F 00436          PUSHAB  DEV_DESC                             ;
                                            01   DD 00439          PUSHL   #1                                   ;
                                00000000G   8F   DD 0043B          PUSHL   #SET$_WRITEERR                       ;
                               65           04   FB 00441          CALLS   #4, LIB$SIGNAL                       ;
                               18           11   00444          BRB     44$                                  ; 0659
                               14     0C    AE   E9 00446  43$:     BLBC    FLAGS, 44$                           ; 0665
                                     D4    AD   9F 0044A          PUSHAB  INTDEV_DESC                          ; 0666
                                     E4    AD   9F 0044D          PUSHAB  QUE_DESC                             ;
                                     EC    AD   9F 00450          PUSHAB  DEV_DESC                             ;
                                           03   DD 00453          PUSHL   #3                                   ;
                                00000000G   8F   DD 00455          PUSHL   #SET$_SPOOLED                        ;
                               65           05   FB 0045B          CALLS   #5, LIB$SIGNAL                       ;
                               42     0D    AE   E9 0045E  44$:     BLBC    FLAGS+1, 47$                         ; 0670
                        FF78   CD           01   D0 00462          MOVL    #1, ARGLIST                          ; 0673
                               50           6E   3C 00467          MOVZWL  CHAN, R0                             ; 0674
                FF7C    CD     67           50   C3 0046A          SUBL3   R0, CTL$GL_CCBBASE, ARGLIST+4        ;
                                     FF78   CD   9F 00470          PUSHAB  ARGLIST                              ; 0676
                                00000000V   EF   9F 00474          PUSHAB  SETNOSPOOL                           ;
                               68           02   FB 0047A          CALLS   #2, SYS$CMKRNL                       ;
                               52           50   D0 0047D          MOVL    R0, STATUS                           ;
                               0F           52   E8 00480          BLBS    STATUS, 45$                          ;
                                            52   DD 00483          PUSHL   STATUS                               ; 0679
                                        EC  AD   9F 00485          PUSHAB  DEV_DESC                             ;
                                            01   DD 00488          PUSHL   #1                                   ;
                                00000000G   8F   DD 0048A          PUSHL   #SET$_WRITEERR                       ;
                                            0F   11 00490          BRB     46$                                  ;
                               0E     0C    AE   E9 00492  45$:     BLBC    FLAGS, 47$                           ; 0681
                                     0170   C4   9F 00496          PUSHAB  P.ABN                                ; 0682
                                     EC    AD   9F 0049A          PUSHAB  DEV_DESC                             ;
                                           02   DD 0049D          PUSHL   #2                                   ;
                                           59   DD 0049F          PUSHL   R9                                   ;
                               65           04   FB 004A1  46$:     CALLS   #4, LIB$SIGNAL                       ;
                                     0180   C4   9F 004A4  47$:     PUSHAB  P.ABP                                ; 0688
                               66           01   FB 004A8          CALLS   #1, CLI$PRESENT                      ;
                               01           50   E8 004AB          BLBS    R0, 48$                              ;
                                            04   004AE          RET                                          ;
                          0D   AE           08   8A 004AF  48$:     BICB2   #8, FLAGS+1                          ; 0693
                                            53   D4 004B3          CLRL    CONTROLLER                           ; 0694
                        FF78   CD           03   D0 004B5          MOVL    #3, ARGLIST                          ; 0705
                        FF7C   CD     0C    AE   9E 004BA          MOVAB   FLAGS, ARGLIST+4                     ; 0706
                               50           6E   3C 004C0          MOVZWL  CHAN, R0                             ; 0707
                  80    AD     67           50   C3 004C3          SUBL3   R0, CTL$GL_CCBBASE, ARGLIST+8        ;
                          84   AD           53   D0 004C8          MOVL    CONTROLLER, ARGLIST+12               ; 0708
```

```
                        FF78   CD  9F 004CC          PUSHAB  ARGLIST                          ; 0711
                  00000000V    EF  9F 004D0          PUSHAB  SETSERVED
                          68   02  FB 004D6          CALLS   #2, SYS$CMKRNL
                          52   50  D0 004D9          MOVL    R0, STATUS
                          11   52  E8 004DC          BLBS    STATUS, 53$
                               52  DD 004DF 49$:     PUSHL   STATUS                           ; 0714
                             EC    AD  9F 004E1 50$:  PUSHAB  DEV_DESC
                               01  DD 004E4 51$:     PUSHL   #1
                  00000000G    8F  DD 004E6          PUSHL   #SET$_WRITEERR
                          65   04  FB 004EC 52$:     CALLS   #4, LIB$SIGNAL
                               04  004EF             RET                                      ; 0710
                          40     0C  AE  E9 004F0 53$:  BLBC    FLAGS, 55$                    ; 0717
                            0190   C4  9F 004F4       PUSHAB  P.ABR                          ; 0720
                              EC   AD  9F 004F8       PUSHAB  DEV_DESC
                               02  DD 004FB          PUSHL   #2
                               59  DD 004FD          PUSHL   R9
                          65   04  FB 004FF          CALLS   #4, LIB$SIGNAL
                    0E      0D   AE  03  E1 00502    BBC     #3, FLAGS+1, 54$               ; 0721
                            01A0   C4  9F 00507       PUSHAB  P.ABT                          ; 0722
                              EC   AD  9F 0050B       PUSHAB  DEV_DESC
                               02  DD 0050E          PUSHL   #2
                               59  DD 00510          PUSHL   R9
                          65   04  FB 00512          CALLS   #4, LIB$SIGNAL
                  0084    CE   01  B0 00515 54$:     MOVW    #1, CONT_DESC                  ; 0723
                               53  D5 0051A          TSTL    CONTROLLER                     ; 0724
                               16  13 0051C          BEQL    55$
                            0084   CE  9F 0051E       PUSHAB  CONT_DESC                      ; 0725
                            01B4   C4  9F 00522       PUSHAB  P.ABV
                              EC   AD  9F 00526       PUSHAB  DEV_DESC
                               03  DD 00529          PUSHL   #3
                  00000000G    8F  DD 0052B          PUSHL   #SET$_DEVSET2
                          65   05  FB 00531          CALLS   #5, LIB$SIGNAL
                               04  00534 55$:        RET                                      ; 0730

; Routine Size:  1333 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  637          0731  1 ROUTINE setbits (flags, ccb) =
;  638          0732  2 BEGIN
;  639          0733  2
;  640          0734  2 !++
;  641          0735  2 ! Functional description
;  642          0736  2 !
;  643          0737  2 !       This is the kernel mode routine to set bits in the UCB. Based on
;  644          0738  2 !       the bit settings of the FLAGS longword, the device database is
;  645          0739  2 !       modified to show the specified characteristics.
;  646          0740  2 !
;  647          0741  2 ! Inputs
;  648          0742  2 !       FLAGS   - options longword
;  649          0743  2 !
;  650          0744  2 ! Outputs
;  651          0745  2 !       None.  The device database is modified.
;  652          0746  2 !       If an error is detected, an appropriate error status is returned.
;  653          0747  2 !
;  654          0748  2 !----
;  655          0749  2
;  656          0750  2 MAP
;  657          0751  2     flags : REF $BBLOCK,
;  658          0752  2     ccb : REF $BBLOCK;
;  659          0753  2
;  660          0754  2 BIND
;  661          0755  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
;  662          0756  2     char = ucb[ucb$l_devchar] : $BBLOCK,
;  663          0757  2     char2 = ucb[ucb$l_devchar2] : $BBLOCK;
;  664          0758  2
;  665          0759  2 !
;  666          0760  2 ! First some sanity checks.  If /[NO]AVAILABLE, the device must be a
;  667          0761  2 ! dismounted disk.  For /[NO]DUAL_PORT, the device must be a disk, and for
;  668          0762  2 ! /NODUAL, the disk must be dismounted
;  669          0763  2 !
;  670          0764  2 IF .flags[set$v_availset]                ! If /[NO]AVAILABLE
;  671          0765  2 OR .flags[set$v_dualset]                 ! or /[NO]DUAL_PORT
;  672          0766  2 THEN
;  673          0767  3     BEGIN
;  674          0768  3     IF .ucb[ucb$b_devclass] NEQU dc$_disk       ! device must be disk
;  675          0769  3     THEN RETURN set$_invdev;
;  676          0770  3     IF .char[dev$v_mnt]                   ! disk must be dismounted
;  677          0771  3     THEN RETURN ss$_devnotdism;
;  678          0772  2     END;
;  679          0773  2
;  680          0774  2 !
;  681          0775  2 ! Set the bits as appropriate.
;  682          0776  2 !
;  683          0777  2 IF .flags[set$v_dualset]
;  684          0778  3     THEN BEGIN
;  685          0779  3         char[dev$v_dua] = .flags[set$v_dual];
;  686          0780  3         char2[dev$v_clu] = .flags[set$v_dual];
;  687          0781  2     END;
;  688          0782  2 IF .flags[set$v_availset]
;  689          0783  2 THEN char[dev$v_avl] = .flags[set$v_avail];
;  690          0784  2 IF .flags[set$v_errorset]
;  691          0785  2 THEN char[dev$v_elg] = .flags[set$v_error];
;  692          0786  2 IF .flags[set$v_diagset]
;  693          0787  2 THEN
```

```
;  694          0788  3     BEGIN
;  695          0789  3     ucb[ucb$v_online] = NOT .flags[set$v_diag];
;  696          0790  3     char[dev$v_avl] = NOT .flags[set$v_diag];
;  697          0791  2     END;
;  698          0792  2
;  699          0793  2 RETURN 1;
;  700          0794  1 END;


                                                000C 00000 SETBITS:.WORD   Save R2,R3                                  ; 0731
                                  51       08   BC   D0 00002          MOVL    @CCB, R1                               ; 0755
                                  52       38   A1   9E 00006          MOVAB   56(R1), R2                             ; 0756
                                  50       04   AC   D0 0000A          MOVL    FLAGS, R0                              ; 0764
                          04      60            01   E0 0000E          BBS     #1, (R0), 1$                           ;
                          31      60            03   E1 00012          BBC     #3, (R0), 4$                           ; 0765
                                  01       40   A1   91 00016 1$:       CMPB    64(R1), #1                             ; 0768
                                                08   13 0001A          BEQL    2$                                     ;
                                  50 00000000G  8F   D0 0001C          MOVL    #SET$_INVDEV, R0                       ; 0769
                                                04   00023            RET                                            ;
                          06      62            13   E1 00024 2$:       BBC     #19, (R2), 3$                          ; 0770
                                  50     21B4   8F   3C 00028          MOVZWL  #8628, R0                              ; 0771
                                                04   0002D            RET                                            ;
                          15      60            03   E1 0002E 3$:       BBC     #3, (R0), 4$                           ; 0777
                  53      60      01            04   EF 00032          EXTZV   #4, #1, (R0), R3                       ; 0779
                  62      01      0F            53   F0 00037          INSV    R3, #15, #1, (R2)                      ;
                  53      60      01            04   EF 0003C          EXTZV   #4, #1, (R0), R3                       ; 0780
              3C  A1      01      00            53   F0 00041          INSV    R3, #0, #1, 60(R1)                     ;
                          0A      60            01   E1 00047 4$:       BBC     #1, (R0), 5$                           ; 0782
                  53      60      01            02   EF 0004B          EXTZV   #2, #1, (R0), R3                       ; 0783
                  62      01      12            53   F0 00050          INSV    R3, #18, #1, (R2)                      ;
                          0A      60            05   E1 00055 5$:       BBC     #5, (R0), 6$                           ; 0784
                  53      60      01            06   EF 00059          EXTZV   #6, #1, (R0), R3                       ; 0785
                  62      01      16            53   F0 0005E          INSV    R3, #22, #1, (R2)                      ;
                          14   01 A0            04   E1 00063 6$:       BBC     #4, 1(R0), 7$                          ; 0786
                  50   01 A0      01            05   EF 00068          EXTZV   #5, #1, 1(R0), R0                      ; 0789
                                  50            50   D2 0006E          MCOML   R0, R0                                 ;
              64  A1      01      04            50   F0 00071          INSV    R0, #4, #1, 100(R1)                    ;
                  62      01      12            50   F0 00077          INSV    R0, #18, #1, (R2)                      ; 0790
                                  50            01   D0 0007C 7$:       MOVL    #1, R0                                 ; 0793
                                                04   0007F            RET                                            ; 0794

; Routine Size:  128 bytes,    Routine Base:  $CODE$ + 0535
```

```
;  702          0795  1 ROUTINE setspool (ccb, intccb, que_desc, int_desc) =
;  703          0796  2 BEGIN
;  704          0797  2
;  705          0798  2 !++
;  706          0799  2 ! Functional description
;  707          0800  2 !
;  708          0801  2 !       This is the kernel mode routine to make a device spooled.
;  709          0802  2 !
;  710          0803  2 ! Inputs
;  711          0804  2 !       CCB      - address of the device's channel control block
;  712          0805  2 !       INTCCB   - address of the intermediate device's CCB
;  713          0806  2 !       QUE_DESC - descriptor for the queue name
;  714          0807  2 !       INT_DESC - descriptor for the name of the intermediate device
;  715          0808  2 !
;  716          0809  2 ! Outputs
;  717          0810  2 !       None.  The device database is modified.
;  718          0811  2 !       If an error is detected, an appropriate error status is returned.
;  719          0812  2 !
;  720          0813  2 !----
;  721          0814  2
;  722          0815  2 MAP
;  723          0816  2     ccb : REF $BBLOCK,
;  724          0817  2     intccb : REF $BBLOCK,
;  725          0818  2     que_desc : REF $BBLOCK,
;  726          0819  2     int_desc : REF $BBLOCK;
;  727          0820  2
;  728          0821  2 BIND
;  729          0822  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
;  730          0823  2     char = ucb[ucb$l_devchar] : $BBLOCK,
;  731          0824  2     int_ucb = .intccb[ccb$l_ucb] : $BBLOCK,
;  732          0825  2     int_char = int_ucb[ucb$l_devchar] : $BBLOCK,
;  733          0826  2     int_vcb = .int_ucb[ucb$l_vcb] : $BBLOCK;
;  734          0827  2
;  735          0828  2 LOCAL
;  736          0829  2     status;
;  737          0830  2
;  738          0831  2
;  739          0832  2 !
;  740          0833  2 ! Lock the I/O database for write access.
;  741          0834  2 !
;  742          0835  2 sch$iolockw(.ctl$gl_pcb);
;  743          0836  2
;  744          0837  2 !
;  745          0838  2 ! Make checks to insure that the device is the right kind of device,
;  746          0839  2 ! that it is not assigned to some other process, and that the intermediate
;  747          0840  2 ! device is a file-oriented disk.
;  748          0841  2 !
;  749          0842  2 status = 1;
;  750          0843  2 IF .ucb[ucb$b_devclass] NEQU dc$_term          ! Device must be either a
;  751          0844  2 AND .ucb[ucb$b_devclass] NEQU dc$_lp          ! terminal or printer
;  752          0845  2 THEN status = ss$_invdev
;  753          0846  2 ELSE IF .char[dev$v_spl]
;  754          0847  2 THEN status = cli$_devalspl                  ! Can't be already spooled
;  755          0848  2 ELSE IF .ucb[ucb$w_refc] NEQ 1
;  756          0849  2 THEN status = ss$_devassign                 ! Can't be assigned to anyone
;  757          0850  2 ELSE IF NOT .int_char[dev$v_fod]             ! Intermediate device must be
;  758          0851  2      OR NOT .int_char[dev$v_rnd]             ! a file-oriented disk
```

```
;  759          0852  2 THEN status = ss$_notfiledev
;  760          0853  2 ELSE IF .int_char[dev$v_dmt]                    ! Intermediate device must be
;  761          0854  2 OR NOT .int_char[dev$v_mnt]                    ! mounted
;  762          0855  2 THEN status = ss$_devnotmount;
;  763          0856  2
;  764          0857  2 !
;  765          0858  2 ! If the devices meet all the criteria, then try to allocate a chunk
;  766          0859  2 ! of non-paged pool to put information about the queue.  If the
;  767          0860  2 ! allocation request is not successful, indicate an error.
;  768          0861  2 !
;  769          0862  2 IF .status EQL 1
;  770          0863  2 THEN
;  771          0864  3     BEGIN
;  772          0865  3     LOCAL
;  773          0866  3         block : REF $BBLOCK,
;  774          0867  3         size;
;  775          0868  3
;  776          0869  3     status = exe$alononpaged(irp$c_length; size, block);
;  777          0870  3     IF NOT .status
;  778          0871  3     THEN status = ss$_insfmem
;  779          0872  3     ELSE
;  780          0873  4         BEGIN
;  781          0874  4 !
;  782          0875  4 ! Move the queue's name into the block of non-paged pool, and put the
;  783          0876  4 ! address of the block into the UCB.
;  784          0877  4 !
;  785          0878  4         status = 1;                              ! Put in return status = success
;  786          0879  4         ucb[ucb$l_vcb] = .block;                 ! Put block's address in UCB
;  787          0880  4         block[vcb$w_size] = .size;               ! Set queue block's size
;  788          0881  4         block[vcb$b_type] = dyn$c_vcb;  ! Say it's a VCB (pseudo)
;  789          0882  4         block[vcb$b_status] = .que_desc[dsc$w_length];
;  790          0883  4         CH$MOVE(.que_desc[dsc$w_length],
;  791          0884  4                 .que_desc[dsc$a_pointer],
;  792          0885  4                 block[vcb$w_trans]);
;  793          0886  4
;  794          0887  4 !
;  795          0888  4 ! Now juggle the intermediate and spooled device UCB's to reflect this change.
;  796          0889  4 ! Specifically, the intermediate device's reference count and transaction count
;  797          0890  4 ! are incremented, the intermediate device UCB is stored in the spooled device
;  798          0891  4 ! UCB, and the spooled device's spool bit is set.
;  799          0892  4 !
;  800          0893  4         int_ucb[ucb$w_refc] = .int_ucb[ucb$w_refc] + 1;
;  801          0894  4         int_vcb[vcb$w_trans] = .int_vcb[vcb$w_trans] + 1;
;  802          0895  4         ucb[ucb$l_amb] = int_ucb;                ! Store intdev UCB
;  803          0896  4         char[dev$v_spl] = 1;                     ! Set it spooled
;  804          0897  4         ucb[ucb$l_pid] = 0;                      ! Clear owner field
;  805          0898  3         END;
;  806          0899  2     END;
;  807          0900  2
;  808          0901  2 !
;  809          0902  2 ! Unlock the I/O database, set the IPL to 0, and return whatever
;  810          0903  2 ! status.
;  811          0904  2 !
;  812          0905  2 sch$iounlock(.ctl$gl_pcb);
;  813          0906  2 set_ipl(0);
;  814          0907  2
;  815          0908  2 RETURN .status;
```

```
;  816          0909  1 END;


                                        OFFC 00000 SETSPOOL:
                                                           .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 0795
                                5A 00000000G    00  9E 00002       MOVAB   CTL$GL_PCB, R10                       ;
                                57         04   BC  D0 00009       MOVL    @CCB, R7                              ; 0822
                                56         08   BC  D0 0000D       MOVL    @INTCCB, R6                           ; 0824
                                58         34   A6  D0 00011       MOVL    52(R6), R8                            ; 0826
                                54              6A  D0 00015       MOVL    CTL$GL_PCB, R4                        ; 0835
                                   00000000G    00  16 00018       JSB     SCH$IOLOCKW                           ;
                                59              01  D0 0001E       MOVL    #1, STATUS                            ; 0842
                            42  8F         40   A7  91 00021       CMPB    64(R7), #66                           ; 0843
                                               10  13 00026       BEQL    1$                                    ;
                            43  8F         40   A7  91 00028       CMPB    64(R7), #67                           ; 0844
                                               09  13 0002D       BEQL    1$                                    ;
                                59 00000000G    8F  D0 0002F       MOVL    #SET$_INVDEV, STATUS                  ; 0845
                                               3A  11 00036       BRB     7$                                    ;
                        09      38  A7         06  E1 00038 1$:    BBC     #6, 56(R7), 2$                        ; 0846
                                59 00000000G    8F  D0 0003D       MOVL    #CLI$_DEVALSPL, STATUS                ; 0847
                                               2C  11 00044       BRB     7$                                    ;
                                01         5C   A7  B1 00046 2$:    CMPW    92(R7), #1                            ; 0848
                                               07  13 0004A       BEQL    3$                                    ;
                                59       0848   8F  3C 0004C       MOVZWL  #2120, STATUS                         ; 0849
                                               1F  11 00051       BRB     7$                                    ;
                        05      39  A6         06  E1 00053 3$:    BBC     #6, 57(R6), 4$                        ; 0850
                        07      3B  A6         04  E0 00058       BBS     #4, 59(R6), 5$                        ; 0851
                                59       01CC   8F  3C 0005D 4$:    MOVZWL  #460, STATUS                          ; 0852
                                               0E  11 00062       BRB     7$                                    ;
                        05      3A  A6         05  E0 00064 5$:    BBS     #5, 58(R6), 6$                        ; 0853
                        04      3A  A6         03  E0 00069       BBS     #3, 58(R6), 7$                        ; 0854
                                59         7C   8F  9A 0006E 6$:    MOVZBL  #124, STATUS                          ; 0855
                                01              59  D1 00072 7$:    CMPL    STATUS, #1                            ; 0862
                                               46  12 00075       BNEQ    9$                                    ;
                                51         C4   8F  9A 00077       MOVZBL  #196, R1                              ; 0869
                                   00000000G    00  16 0007B       JSB     EXE$ALONONPAGED                       ;
                                59              50  D0 00081       MOVL    R0, STATUS                            ;
                                07              59  E8 00084       BLBS    STATUS, 8$                            ; 0870
                                59       0124   8F  3C 00087       MOVZWL  #292, STATUS                          ; 0871
                                               2F  11 0008C       BRB     9$                                    ;
                                59              01  D0 0008E 8$:    MOVL    #1, STATUS                            ; 0878
                            34  A7              52  D0 00091       MOVL    BLOCK, 52(R7)                         ; 0879
                            08  A2              51  B0 00095       MOVW    SIZE, 8(BLOCK)                        ; 0880
                            0A  A2              11  90 00099       MOVB    #17, 10(BLOCK)                        ; 0881
                                50         0C   AC  D0 0009D       MOVL    QUE_DESC, R0                          ; 0882
                            0B  A2              60  90 000A1       MOVB    (R0), 11(BLOCK)                       ;
                0C          A2      04  B0      60  28 000A5       MOVC3   (R0), @4(R0), 12(BLOCK)               ; 0885
                                           5C   A6  B6 000AB       INCW    92(R6)                                ; 0893
                                           0C   A8  B6 000AE       INCW    12(R8)                                ; 0894
                            60  A7              56  D0 000B1       MOVL    R6, 96(R7)                            ; 0895
                            38  A7          40  8F  88 000B5       BISB2   #64, 56(R7)                           ; 0896
                                           2C   A7  D4 000BA       CLRL    44(R7)                                ; 0897
                                54              6A  D0 000BD 9$:    MOVL    CTL$GL_PCB, R4                        ; 0905
                                   00000000G    00  16 000C0       JSB     SCH$IOUNLOCK                          ;
```

```
                    12      00  DA 000C6        MTPR    #0, #18                         ; 0906
                    50      59  D0 000C9        MOVL    STATUS, R0                      ; 0908
                                04 000CC        RET                                     ; 0909

; Routine Size:  205 bytes,    Routine Base:  $CODE$ + 05B5
```

```
;  818          0910  1 ROUTINE setnospool (ccb) =
;  819          0911  2 BEGIN
;  820          0912  2
;  821          0913  2 !++
;  822          0914  2 ! Functional description
;  823          0915  2 !
;  824          0916  2 !       This is the kernel mode routine to unspool a device.
;  825          0917  2 !
;  826          0918  2 ! Inputs
;  827          0919  2 !       CCB     - address of the device's channel control block
;  828          0920  2 !
;  829          0921  2 ! Outputs
;  830          0922  2 !       None.  The device database is modified.
;  831          0923  2 !       If an error is detected, an appropriate error status is returned.
;  832          0924  2 !
;  833          0925  2 !----
;  834          0926  2
;  835          0927  2 MAP
;  836          0928  2     ccb : REF $BBLOCK;
;  837          0929  2
;  838          0930  2 BIND
;  839          0931  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
;  840          0932  2     char = ucb[ucb$l_devchar] : $BBLOCK;
;  841          0933  2
;  842          0934  2 LOCAL
;  843          0935  2     int_ucb : REF $BBLOCK,
;  844          0936  2     int_vcb : REF $BBLOCK,
;  845          0937  2     status;
;  846          0938  2
;  847          0939  2
;  848          0940  2 !
;  849          0941  2 ! Lock the I/O database for write access.
;  850          0942  2 !
;  851          0943  2 sch$iolockw(.ctl$gl_pcb);
;  852          0944  2
;  853          0945  2 !
;  854          0946  2 ! Make checks to insure that the device is the spooled, and that the reference
;  855          0947  2 ! count is correct (i.e., no one else has assigned a channel to it).
;  856          0948  2 !
;  857          0949  2 status = 1;                                       ! Assume everything's wonderful
;  858          0950  2 IF NOT .char[dev$v_spl]
;  859          0951  2 THEN status = cli$_devnotspl                     ! Must be spooled
;  860          0952  2 ELSE IF .ucb[ucb$w_refc] GTR 1                   ! If the refcount is greater than
;  861          0953  2                                                  ! one that means that there is a
;  862          0954  2                                                  ! file open in which case the
;  863          0955  2                                                  ! device cannot be despooled
;  864          0956  2 THEN status = ss$_devassign                      ! Can't be assigned to anyone
;  865          0957  2 ELSE
;  866          0958  2
;  867          0959  2 !
;  868          0960  2 ! If the device looks good, mark it as being no longer spooled, and
;  869          0961  2 ! reduce the reference count by one.
;  870          0962  2 !
;  871          0963  3     BEGIN
;  872          0964  3     char[dev$v_spl] = 0;                         ! Device is not spooled
;  873          0965  3     ucb[ucb$w_refc] = .ucb[ucb$w_refc] - 1;      ! Decrement the ref count
;  874          0966  3
```

```
;  875          0967  3 !
;  876          0968  3 ! Deallocate the chunk of pool that holds the queue name.
;  877          0969  3 !
;  878          0970  3
;  879          0971  3     exe$deanonpaged(.ucb[ucb$l_vcb]);           ! Return queue block to pool
;  880          0972  3     ucb[ucb$l_vcb] = 0;                         ! Clear pointer to queue block
;  881          0973  3
;  882          0974  3 !
;  883          0975  3 ! Decrement the transaction count of the intermediate device, since we're no
;  884          0976  3 ! longer spooling to it.
;  885          0977  3 !
;  886          0978  3     int_ucb = .ucb[ucb$l_amb];                  ! Locate intermediate device's
;  887          0979  3     int_vcb = .int_ucb[ucb$l_vcb];              ! UCB and VCB.
;  888          0980  3     int_vcb[vcb$w_trans] = .int_vcb[vcb$w_trans] -1;
;  889          0981  3
;  890          0982  3 !
;  891          0983  3 ! Clear the pointer to the intermediate device, since the soon-to-be-
;  892          0984  3 ! despooled device no longer needs it.  Also put the address of the
;  893          0985  3 ! intermediate device into the channel control block.
;  894          0986  3 !
;  895          0987  3     ccb[ccb$l_ucb] = .int_ucb;
;  896          0988  3     ucb[ucb$l_amb] = 0;
;  897          0989  2     END;
;  898          0990  2
;  899          0991  2 !
;  900          0992  2 ! Unlock the I/O database, set the IPL to 0, and return whatever
;  901          0993  2 ! status.
;  902          0994  2 !
;  903          0995  2 sch$iounlock(.ctl$gl_pcb);
;  904          0996  2 set_ipl(0);
;  905          0997  2
;  906          0998  2 RETURN .status;
;  907          0999  1 END;


                                    0FFC 00000 SETNOSPOOL:
                                                       .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 0910
                                58 00000000G   00   9E 00002          MOVAB   CTL$GL_PCB, R8
                                56       04    BC   D0 00009          MOVL    @CCB, R6                      ; 0931
                                54             68   D0 0000D          MOVL    CTL$GL_PCB, R4                ; 0943
                                   00000000G   00   16 00010          JSB     SCH$IOLOCKW
                                57             01   D0 00016          MOVL    #1, STATUS                    ; 0949
                          09    38   A6        06   E0 00019          BBS     #6, 56(R6), 1$                ; 0950
                                57 00000000G   8F   D0 0001E          MOVL    #CLI$_DEVNOTSPL, STATUS       ; 0951
                                               34   11 00025          BRB     3$
                                01       5C    A6   B1 00027 1$:      CMPW    92(R6), #1                    ; 0952
                                               07   1B 0002B          BLEQU   2$
                                57     0848    8F   3C 0002D          MOVZWL  #2120, STATUS                 ; 0956
                                               27   11 00032          BRB     3$
                             38 A6       40    8F   8A 00034 2$:      BICB2   #64, 56(R6)                   ; 0964
                                         5C    A6   B7 00039          DECW    92(R6)                        ; 0965
                                50       34    A6   D0 0003C          MOVL    52(R6), R0                    ; 0971
                                   00000000G   00   16 00040          JSB     EXE$DEANONPAGED
                                         34    A6   D4 00046          CLRL    52(R6)                        ; 0972
```

```
                51      60   A6  D0 00049          MOVL    96(R6), INT_UCB                 ; 0978
                50      34   A1  D0 0004D          MOVL    52(INT_UCB), INT_VCB            ; 0979
                        0C   A0  B7 00051          DECW    12(INT_VCB)                     ; 0980
            04  BC              51  D0 00054       MOVL    INT_UCB, @CCB                   ; 0987
                        60   A6  D4 00058          CLRL    96(R6)                          ; 0988
                54          68  D0 0005B 3$:      MOVL    CTL$GL_PCB, R4                  ; 0995
                    00000000G   00  16 0005E       JSB     SCH$IOUNLOCK                    ;
                12              00  DA 00064       MTPR    #0, #18                         ; 0996
                50              57  D0 00067       MOVL    STATUS, R0                      ; 0998
                                    04 0006A       RET                                     ; 0999

; Routine Size:  107 bytes,    Routine Base:  $CODE$ + 0682
```

```
;  909          1000  1 ROUTINE setprot (flags, ccb, mask, prot, uic) =
;  910          1001  2 BEGIN
;  911          1002  2
;  912          1003  2 !++
;  913          1004  2 ! Functional description
;  914          1005  2 !
;  915          1006  2 !       This is the kernel mode routine to set bits in the UCB. Based on
;  916          1007  2 !       the bit settings of the FLAGS longword, the device database is
;  917          1008  2 !       modified to show the specified characteristics.
;  918          1009  2 !
;  919          1010  2 ! Inputs
;  920          1011  2 !       FLAGS   - options longword
;  921          1012  2 !
;  922          1013  2 ! Outputs
;  923          1014  2 !       None.  The device database is modified.
;  924          1015  2 !       If an error is detected, an appropriate error status is returned.
;  925          1016  2 !
;  926          1017  2 !----
;  927          1018  2
;  928          1019  2 MAP
;  929          1020  2     flags : REF $BBLOCK,
;  930          1021  2     ccb : REF $BBLOCK,
;  931          1022  2     prot : REF VECTOR[,WORD],
;  932          1023  2     mask : REF VECTOR[,WORD],
;  933          1024  2     uic : REF VECTOR;
;  934          1025  2
;  935          1026  2 BIND
;  936          1027  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
;  937          1028  2     orb = .ucb[ucb$l_orb] : $BBLOCK,
;  938          1029  2     char = ucb[ucb$l_devchar] : $BBLOCK;
;  939          1030  2
;  940          1031  2 LOCAL
;  941          1032  2     temp_prot : WORD;
;  942          1033  2
;  943          1034  2 !
;  944          1035  2 ! Check that the device is not file-oriented.
;  945          1036  2 !
;  946          1037  2 IF .char[dev$v_fod]
;  947          1038  2 THEN RETURN ss$_invdev;
;  948          1039  2
;  949          1040  2 !
;  950          1041  2 ! If the device is unowned and there is no ACL present, require SYSPRV to
;  951          1042  2 ! change the ACL.
;  952          1043  2 !
;  953          1044  2
;  954          1045  2 IF .orb[orb$l_owner] EQL 0
;  955          1046  3 AND (IF .orb[orb$v_acl_queue]
;  956          1047  3      THEN .orb[orb$l_aclfl] EQLA orb[orb$l_aclfl]
;  957          1048  3      ELSE 1)
;  958          1049  2 AND NOT .$BBLOCK [ctl$gl_pcb[pcb$q_priv], prv$v_sysprv]
;  959          1050  2 THEN RETURN ss$_nopriv;
;  960          1051  2
;  961          1052  2 !
;  962          1053  2 ! Set the new protection.  Then return the full device protection.
;  963          1054  2 !
;  964          1055  2 IF .orb[orb$v_prot_16]
;  965          1056  2 THEN temp_prot = .orb[orb$w_prot]
```

```
;  966          1057  2 ELSE
;  967          1058  3     BEGIN
;  968          1059  3     temp_prot<0,4> = .(orb[orb$l_sys_prot])<0,4>;
;  969          1060  3     temp_prot<4,4> = .(orb[orb$l_own_prot])<0,4>;
;  970          1061  3     temp_prot<8,4> = .(orb[orb$l_grp_prot])<0,4>;
;  971          1062  3     temp_prot<12,4> = .(orb[orb$l_wor_prot])<0,4>;
;  972          1063  2     END;
;  973          1064  2 orb[orb$w_prot] = (.temp_prot AND NOT .mask[0]) OR (.prot[0] AND .mask[0]);
;  974          1065  2 prot[0] = .orb[orb$w_prot];
;  975          1066  2 orb[orb$v_prot_16] = 1;
;  976          1067  2
;  977          1068  2 !
;  978          1069  2 ! If no UIC was given, then take this process UIC as the owner.
;  979          1070  2 !
;  980          1071  2 IF NOT .flags[set$_uic]
;  981          1072  2 THEN uic[0] = .$BBLOCK[.ctl$gl_pcb, pcb$l_uic];
;  982          1073  2 orb[orb$l_owner] = .uic[0];
;  983          1074  2
;  984          1075  2 RETURN 1;
;  985          1076  1 END;


                                   003C 00000 SETPROT:.WORD   Save R2,R3,R4,R5                ; 1000
                55 00000000G  00    9E 00002         MOVAB   CTL$GL_PCB, R5                  ;
                51       08   BC    D0 00009         MOVL    @CCB, R1                        ; 1027
                50       1C   A1    D0 0000D         MOVL    28(R1), R0                      ; 1028
       08    39 A1            06    E1 00011         BBC     #6, 57(R1), 1$                  ; 1037
                50 00000000G  8F    D0 00016         MOVL    #SET$_INVDEV, R0                ; 1038
                              04       0001D         RET                                     ;
                              60    D5 0001E 1$:     TSTL    (R0)                            ; 1045
                              1C    12 00020         BNEQ    3$                              ;
       0A    0B A0            01    E1 00022         BBC     #1, 11(R0), 2$                  ; 1046
                51       28   A0    9E 00027         MOVAB   40(R0), R1                      ; 1047
                51       28   A0    D1 0002B         CMPL    40(R0), R1                      ;
                              0D    12 0002F         BNEQ    3$                              ;
                51            65    D0 00031 2$:     MOVL    CTL$GL_PCB, R1                  ; 1049
       04  0087 C1            04    E0 00034         BBS     #4, 135(R1), 3$                 ;
                50            24    D0 0003A         MOVL    #36, R0                         ; 1050
                              04       0003D         RET                                     ;
                09       0B   A0    E9 0003E 3$:     BLBC    11(R0), 4$                      ; 1055
                52       18   A0    9E 00042         MOVAB   24(R0), R2                      ; 1056
                51            62    B0 00046         MOVW    (R2), TEMP_PROT                 ;
                              1B    11 00049         BRB     5$                              ;
                52       18   A0    9E 0004B 4$:     MOVAB   24(R0), R2                      ; 1059
  51         04 00            62    F0 0004F         INSV    (R2), #0, #4, TEMP_PROT         ;
  51         04 04       1C   A0    F0 00054         INSV    28(R0), #4, #4, TEMP_PROT       ; 1060
  51         04 08       20   A0    F0 0005A         INSV    32(R0), #8, #4, TEMP_PROT       ; 1061
  51         04 0C       24   A0    F0 00060         INSV    36(R0), #12, #4, TEMP_PROT      ; 1062
                53            51    3C 00066 5$:     MOVZWL  TEMP_PROT, R3                   ; 1064
                54       0C   BC    3C 00069         MOVZWL  @MASK, R4                       ;
                53            54    CA 0006D         BICL2   R4, R3                          ;
                51       10   BC    3C 00070         MOVZWL  @PROT, R1                       ;
                54       0C   BC    3C 00074         MOVZWL  @MASK, R4                       ;
                54            54    D2 00078         MCOML   R4, R4                          ;
```

```
                        51              54  CA 0007B          BICL2   R4, R1                                  ;
                    62  51              53  A9 0007E          BISW3   R3, R1, (R2)                           ;
                        BC              62  B0 00082          MOVW    (R2), @PROT                             ; 1065
                    0B  A0              01  88 00086          BISB2   #1, 11(R0)                              ; 1066
                        51          04  AC  D0 0008A          MOVL    FLAGS, R1                               ; 1071
                09      01          A1  02  E0 0008E          BBS     #2, 1(R1), 6$                           ;
                        51              65  D0 00093          MOVL    CTL$GL_PCB, R1                          ; 1072
                    14  BC      00BC    C1  D0 00096          MOVL    188(R1), @UIC                           ;
                        60          14  BC  D0 0009C 6$:      MOVL    @UIC, (R0)                              ; 1073
                        50              01  D0 000A0          MOVL    #1, R0                                  ; 1075
                                            04 000A3          RET                                             ; 1076

; Routine Size:  164 bytes,    Routine Base:  $CODE$ + 06ED
```

```
;  987          1077  1 ROUTINE setserved (flags, ccb, letter) =
;  988          1078  2 BEGIN
;  989          1079  2
;  990          1080  2 !++
;  991          1081  2 ! Functional description
;  992          1082  2 !
;  993          1083  2 !       This is the kernel mode routine to serve a device.
;  994          1084  2 !
;  995          1085  2 ! Inputs
;  996          1086  2 !       FLAGS    - options longword
;  997          1087  2 !       CCB      - address of the device's channel control block
;  998          1088  2 !       LETTER   - controller letter
;  999          1089  2 !
; 1000          1090  2 ! Outputs
; 1001          1091  2 !       None.  The device database is modified.
; 1002          1092  2 !       If an error is detected, an appropriate error status is returned.
; 1003          1093  2 !
; 1004          1094  2 !----
; 1005          1095  2
; 1006          1096  2 MAP
; 1007          1097  2     ccb : REF $BBLOCK,
; 1008          1098  2     flags : REF $BBLOCK;
; 1009          1099  2
; 1010          1100  2 BIND
; 1011          1101  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
; 1012          1102  2     char = ucb[ucb$l_devchar] : $BBLOCK,
; 1013          1103  2     char2 = ucb[ucb$l_devchar2] : $BBLOCK,
; 1014          1104  2     cddb = .ucb[ucb$l_cddb] : $BBLOCK,
; 1015          1105  2     p_cddb =.ucb[ucb$l_2p_cddb] : $BBLOCK;
; 1016          1106  2
; 1017          1107  2 LOCAL
; 1018          1108  2     status,
; 1019          1109  2     stat1,
; 1020          1110  2     stat2;
; 1021          1111  2
; 1022          1112  2 !
; 1023          1113  2 ! First check to see if the device can be served
; 1024          1114  2 !
; 1025          1115  2 status = 0;
; 1026          1116  2
; 1027          1117  3 IF ((.ucb[ucb$b_devclass] eqlu dc$_disk) and     ! If all of these conditions
; 1028          1118  3     (.ucb[ucb$b_devtype]  nequ dt$_rx01) and     ! then ok so far
; 1029          1119  3     (.ucb[ucb$b_devtype]  nequ dt$_rx02) and
; 1030          1120  3     (.ucb[ucb$b_devtype]  nequ dt$_rx04) and
; 1031          1121  3     (.char2[dev$v_srv]    nequ 1))
; 1032          1122  2 THEN status = 1;
; 1033          1123  2
; 1034          1124  2 IF .status
; 1035          1125  2 THEN
; 1036          1126  2     IF  .char[dev$v_mnt] eqlu 1                  ! If the device is mounted
; 1037          1127  2     THEN                                         ! then it must be cluster
; 1038          1128  3         BEGIN
; 1039          1129  3         status = .char2[dev$v_clu];              ! accessible to be served.
; 1040          1130  3         IF NOT .status THEN RETURN ss$_devnotdism;
; 1041          1131  2         END;
; 1042          1132  2
; 1043          1133  2
```

```
;  1044          1134  2 stat1 = stat2 = 0;
;  1045          1135  2
;  1046          1136  2 IF  .status                                    ! If ok so far then check rest
;  1047          1137  2 THEN                                          ! of conditions
;  1048          1138  2     IF .char2[dev$v_mscp]
;  1049          1139  2     THEN
;  1050          1140  3     BEGIN
;  1051          1141  3         stat1 = .cddb[cddb$w_cntrlflgs] AND mscp$m_cf_mlths;
;  1052          1142  3         IF .char2[dev$v_2p]
;  1053          1143  3         THEN
;  1054          1144  3             stat2 = .p_cddb[cddb$w_cntrlflgs] AND mscp$m_cf_mlths;
;  1055          1145  3         IF (.stat1 OR .stat2) NEQU 0             ! If the above conditions are
;  1056          1146  3         THEN                                     ! true then cannot serve device
;  1057          1147  3             status = 0;
;  1058          1148  2     END;
;  1059          1149  2 IF NOT .status                                  ! If not a valid device to serve
;  1060          1150  2 THEN                                          ! return with invalid device
;  1061          1151  2     RETURN set$_invdev;                        ! status.  Else continue.
;  1062          1152  2 !
;  1063          1153  2 ! Lock the I/O database for write access.
;  1064          1154  2 !
;  1065          1155  2 sch$iolockw(.ctl$gl_pcb);
;  1066          1156  2
;  1067          1157  2 !
;  1068          1158  2 ! Call the routine to set the specified characteristics.
;  1069          1159  2 !
;  1070          1160  2 status = mscp$addunit(.ccb[ccb$l_ucb], .flags[set$v_nowrite], .letter);
;  1071          1161  2
;  1072          1162  2 !
;  1073          1163  2 ! Unlock the I/O database, set IPL back to 0, and return whatever status.
;  1074          1164  2 !
;  1075          1165  2 sch$iounlock(.ctl$gl_pcb);
;  1076          1166  2 set_ipl(0);
;  1077          1167  2 IF .status EQLU ss$_devoffline
;  1078          1168  2 THEN
;  1079          1169  2     RETURN set$_mscpnotld
;  1080          1170  2 ELSE
;  1081          1171  2     RETURN .status;
;  1082          1172  1 END;


                                    0FFC 00000 SETSERVED:
                                                       .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 1077
                57 00000000G   00    9E 00002          MOVAB   CTL$GL_PCB, R7                               ;
                55         08  BC    D0 00009          MOVL    @CCB, R5                                     ; 1101
                52       00BC  C5    D0 0000D          MOVL    188(R5), R2                                  ; 1104
                51       00C0  C5    D0 00012          MOVL    192(R5), R1                                  ; 1105
                              56    D4 00017          CLRL    STATUS                                       ; 1115
                01         40  A5    91 00019          CMPB    64(R5), #1                                   ; 1117
                              1A    12 0001D          BNEQ    1$                                           ;
                10         41  A5    91 0001F          CMPB    65(R5), #16                                  ; 1118
                              14    13 00023          BEQL    1$                                           ;
                08         41  A5    91 00025          CMPB    65(R5), #11                                  ; 1119
                              0E    13 00029          BEQL    1$                                           ;
```

```
                        0C       41  A5  91 0002B          CMPB    65(R5), #12                        ; 1120
                                     08  13 0002F          BEQL    1$                                 ;
                                 3C  A5  95 00031          TSTB    60(R5)                             ; 1121
                                     03  19 00034          BLSS    1$                                 ;
                        56           01  D0 00036          MOVL    #1, STATUS                         ; 1122
                        14           56  E9 00039 1$:      BLBC    STATUS, 2$                         ; 1124
               0F       3A  A5           03  E1 0003C      BBC     #3, 58(R5), 2$                     ; 1126
   56    3C    A5           01           00  EF 00041      EXTZV   #0, #1, 60(R5), STATUS             ; 1129
                        06           56  E8 00047          BLBS    STATUS, 2$                         ; 1130
                        50     21B4  8F  3C 0004A          MOVZWL  #8628, R0                          ;
                                         04 0004F          RET                                        ;
                                     53  D4 00050 2$:      CLRL    STAT2                              ; 1134
                                     50  D4 00052          CLRL    STAT1                              ;
                        2A           56  E9 00054          BLBC    STATUS, 5$                         ; 1136
               22       3C  A5           05  E1 00057      BBC     #5, 60(R5), 4$                     ; 1138
                        50       28  A2  3C 0005C          MOVZWL  40(R2), STAT1                      ; 1141
                        50 FFFFFFFB  8F  CA 00060          BICL2   #-5, STAT1                         ;
               0B       3C  A5           04  E1 00067      BBC     #4, 60(R5), 3$                     ; 1142
                        53       28  A1  3C 0006C          MOVZWL  40(R1), STAT2                      ; 1144
                        53 FFFFFFFB  8F  CA 00070          BICL2   #-5, STAT2                         ;
                        50           53  C8 00077 3$:      BISL2   STAT2, R0                          ; 1145
                                     02  13 0007A          BEQL    4$                                 ;
                                     56  D4 0007C          CLRL    STATUS                             ; 1147
                        08           56  E8 0007E 4$:      BLBS    STATUS, 6$                         ; 1149
                        50 00000000G 8F  D0 00081 5$:      MOVL    #SET$_INVDEV, R0                   ; 1151
                                         04 00088          RET                                        ;
                        54           67  D0 00089 6$:      MOVL    CTL$GL_PCB, R4                     ; 1155
                           00000000G 00  16 0008C          JSB     SCH$IOLOCKW                        ;
                                 0C  AC  DD 00092          PUSHL   LETTER                             ; 1160
                        50       04  AC  D0 00095          MOVL    FLAGS, R0                          ;
   7E    01    A0           01           03  EF 00099      EXTZV   #3, #1, 1(R0), -(SP)               ;
                                     55  DD 0009F          PUSHL   R5                                 ;
               00000000G 00          03  FB 000A1          CALLS   #3, MSCP$ADDUNIT                   ;
                        56           50  D0 000A8          MOVL    R0, STATUS                         ;
                        54           67  D0 000AB          MOVL    CTL$GL_PCB, R4                     ; 1165
                           00000000G 00  16 000AE          JSB     SCH$IOUNLOCK                       ;
                        12           00  DA 000B4          MTPR    #0, #18                            ; 1166
               00000084 8F           56  D1 000B7          CMPL    STATUS, #132                       ; 1167
                        08           12 000BE              BNEQ    7$                                 ;
                        50 00000000G 8F  D0 000C0          MOVL    #SET$_MSCPNOTLD, R0                ; 1171
                                         04 000C7          RET                                        ;
                        50           56  D0 000C8 7$:      MOVL    STATUS, R0                         ;
                                         04 000CB          RET                                        ; 1172

; Routine Size:  204 bytes,    Routine Base:  $CODE$ + 0791
```

```
;  1084          1173  1 ROUTINE setgetportname ( ccb, length, string ) =
;  1085          1174  2 BEGIN
;  1086          1175  2
;  1087          1176  2 !++
;  1088          1177  2 ! Functional description:
;  1089          1178  2 !
;  1090          1179  2 !       This routine uses the UCB stored in the input CCB to locate a PDT and
;  1091          1180  2 !       finally a port device UCB.  The port device UCB address is fed to
;  1092          1181  2 !       IOC$CVT_DEVNAM to build a device name string suitable for use in a
;  1093          1182  2 !       channel assignment.  Several consistancy checks are made along the way
;  1094          1183  2 !       and if any of them fails and error status is returned.
;  1095          1184  2 !
;  1096          1185  2 ! Inputs:
;  1097          1186  2 !
;  1098          1187  2 !       CCB     Channel Control Block address
;  1099          1188  2 !       LENGTH  maximum device name string length
;  1100          1189  2 !       STRING  beginning address for device name string
;  1101          1190  2 !
;  1102          1191  2 ! Outputs:
;  1103          1192  2 !
;  1104          1193  2 !       LENGTH  actual length of device name string
;  1105          1194  2 !       .STRING device name string
;  1106          1195  2 !--
;  1107          1196  2
;  1108          1197  2 MAP
;  1109          1198  2     ccb : REF $BBLOCK,
;  1110          1199  2     length : REF VECTOR[ 1, WORD ],
;  1111          1200  2     string : REF VECTOR[ 20, BYTE ];
;  1112          1201  2
;  1113          1202  2 LINKAGE
;  1114          1203  2     DEVNAM = JSB ( REGISTER = 0,                    ! R0 = length of name buffer
;  1115          1204  2                    REGISTER = 1,                    ! R1 = address of name buffer
;  1116          1205  2                    REGISTER = 4,                    ! R4 = conversion type flag
;  1117          1206  2                    REGISTER = 5;                    ! R5 = UCB address
;  1118          1207  2                    REGISTER = 1 );                  ! R1 = device name length
;  1119          1208  2
;  1120          1209  2 EXTERNAL ROUTINE
;  1121          1210  2     ioc$cvt_devnam : DEVNAM;                        ! Convert UCB to device name
;  1122          1211  2
;  1123          1212  2 BIND
;  1124          1213  2     ucb = .ccb[ccb$l_ucb] : $BBLOCK,
;  1125          1214  2     char2 = ucb[ucb$l_devchar2] : $BBLOCK;
;  1126          1215  2
;  1127          1216  2 LOCAL
;  1128          1217  2     status;
;  1129          1218  2
;  1130          1219  2 !
;  1131          1220  2 ! Only MSCP devices can be connected to a U/Q port.
;  1132          1221  2 !
;  1133          1222  2
;  1134          1223  2 IF NOT .char2[dev$v_mscp] THEN RETURN set$_notuqport;
;  1135          1224  2
;  1136          1225  2 !
;  1137          1226  2 ! Now, a decent contents for UCB$L_PDT has been assured.
;  1138          1227  2 !
;  1139          1228  2
;  1140          1229  3     BEGIN
```

```
;  1141          1230  3
;  1142          1231  3      BIND
;  1143          1232  3          pdt = .ucb[ucb$l_pdt] : $BBLOCK,
;  1144          1233  3          port_ucb = .pdt[pdt$l_ucb0] : $BBLOCK;
;  1145          1234  3
;  1146          1235  3      IF .pdt[pdt$b_pdt_type] NEQ pdt$c_pu
;  1147          1236  3      OR .port_ucb[ucb$b_devclass] NEQ dc$_bus
;  1148          1237  3      THEN RETURN set$_notuqport;
;  1149          1238  3
;  1150          1239  3      ! Lock the I/O database for write access, convert the UCB address to
;  1151          1240  3      ! a device name, and release the I/O database.
;  1152          1241  3
;  1153          1242  3      sch$iolockw(.ctl$gl_pcb);
;  1154          1243  3      status = IOC$CVT_DEVNAM( .length, .string, 0, port_ucb; length );
;  1155          1244  3      IF .status EQL ss$_bufferovf THEN status = set$_notuqport;
;  1156          1245  3      sch$iounlock(.ctl$gl_pcb);
;  1157          1246  3      set_ipl(0);
;  1158          1247  3
;  1159          1248  2      END;
;  1160          1249  2
;  1161          1250  2 RETURN .status;
;  1162          1251  1 END;


                                                .EXTRN  IOC$CVT_DEVNAM

                                    0FFC 00000 SETGETPORTNAME:
                                                .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11        ; 1173
                          57 00C00000G   8F     D0 00002          MOVL    #SET$_NOTUQPORT, R7
                          56 00000000G   00     9E 00009          MOVAB   CTL$GL_PCB, R6
                          50       04    BC     D0 00010          MOVL    @CCB, R0                    ; 1213
                17        3C    A0            05 E1 00014          BBC     #5, 60(R0), 1$              ; 1223
                          50     0084    C0     D0 00019          MOVL    132(R0), R0                 ; 1232
                          55     00DC    C0     D0 0001E          MOVL    220(R0), R5                 ; 1233
                          02       07    A0     91 00023          CMPB    7(R0), #2                   ; 1235
                                         07     12 00027          BNEQ    1$
                       80 8F       40    A5     91 00029          CMPB    64(R5), #128                ; 1236
                                         04     13 0002E          BEQL    2$
                          50             57     D0 00030 1$:      MOVL    R7, R0                      ; 1237
                                         04     00033             RET
                          54             66     D0 00034 2$:      MOVL    CTL$GL_PCB, R4              ; 1242
                             00000000G   00     16 00037          JSB     SCH$IOLOCKW
                                         54     D4 0003D          CLRL    R4                          ; 1243
                          50       08    AC     7D 0003F          MOVQ    LENGTH, R0
                             00000000G   00     16 00043          JSB     IOC$CVT_DEVNAM
                          55             50     D0 00049          MOVL    R0, STATUS
                    08    AC             51     D0 0004C          MOVL    R1, LENGTH
              00000601    8F             55     D1 00050          CMPL    STATUS, #1537               ; 1244
                                         03     12 00057          BNEQ    3$
                          55             57     D0 00059          MOVL    R7, STATUS
                          54             66     D0 0005C 3$:      MOVL    CTL$GL_PCB, R4              ; 1245
                             00000000G   00     16 0005F          JSB     SCH$IOUNLOCK
                          12             00     DA 00065          MTPR    #0, #18                     ; 1246
                          50             55     D0 00068          MOVL    STATUS, R0                  ; 1250
                                         04     0006B             RET                                 ; 1251
```

```
; Routine Size:  108 bytes,    Routine Base:  $CODE$ + 085D
```

```
; 1164          1252  1 END
; 1165          1253  0 ELUDOM


                                                        .EXTRN  LIB$SIGNAL

;                               PSECT SUMMARY
;
;       Name                    Bytes                   Attributes
;
;  $PLIT$                        448  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                       2249  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                           Library Statistics
;
;                                       -------- Symbols --------      Pages       Processing
;       File                            Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1        18619        98         0      1000          00:01.9



;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:SETDEVICE/OBJ=OBJ$:SETDEVICE MSRC$:SETDEVICE/UPDATE=(ENH$:SETDEVICE)

; Size:          2249 code + 448 data bytes
; Run Time:        00:42.1
; Elapsed Time:    02:42.0
; Lines/CPU Min:    1787
; Lexemes/CPU-Min: 20352
; Memory Used:  380 pages
; Compilation Complete
```

0052 AH-BT13A-SE
VAX/VMS V4.0

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