```
   CCCCCCCCCCC  LLL              IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCC  LLL              IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCC  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
   CCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
```

FILEID**SETPODISP

```
  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT  PPPPPPPP     000000    DDDDDDDD     IIIIII     SSSSSSSS  PPPPPPPP
  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT  PPPPPPPP     000000    DDDDDDDD     IIIIII     SSSSSSSS  PPPPPPPP
SS          EE              TT      PP      PP  00      00  DD      DD     II     SS          PP      PP
SS          EE              TT      PP      PP  00      00  DD      DD     II     SS          PP      PP
SS          EE              TT      PP      PP  00  0000  DD      DD     II     SS          PP      PP
SS          EE              TT      PP      PP  00  0000  DD      DD     II     SS          PP      PP
  SSSSSS    EEEEEEEE        TT      PPPPPPPP    00  00 00  DD      DD     II       SSSSSS    PPPPPPPP
  SSSSSS    EEEEEEEE        TT      PPPPPPPP    00  00 00  DD      DD     II       SSSSSS    PPPPPPPP
        SS  EE              TT      PP          0000   00  DD      DD     II             SS  PP
        SS  EE              TT      PP          0000   00  DD      DD     II             SS  PP
        SS  EE              TT      PP          00     00  DD      DD     II             SS  PP
        SS  EE              TT      PP          00     00  DD      DD     II             SS  PP
SSSSSSSS    EEEEEEEEEE      TT      PP            000000    DDDDDDDD     IIIIII     SSSSSSSS  PP
SSSSSSSS    EEEEEEEEEE      TT      PP            000000    DDDDDDDD     IIIIII     SSSSSSSS  PP

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
;     1          0001  0 MODULE setp0$disp ( IDENT = 'V04-000', MAIN = setp0$disp) =
;     2          0002  1 BEGIN
;     3          0003  1
;     4          0004  1 !
;     5          0005  1 !**********************************************************************
;     6          0006  1 !*                                                                    *
;     7          0007  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                          *
;     8          0008  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.           *
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;    17          0017  1 !*                                                                    *
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;    19          0019  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
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;    21          0021  1 !*                                                                    *
;    22          0022  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS  *
;    23          0023  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.            *
;    24          0024  1 !*                                                                    *
;    25          0025  1 !*                                                                    *
;    26          0026  1 !**********************************************************************
;    27          0027  1
;    28          0028  1 !++
;    29          0029  1 ! FACILITY:  SET Command (SETP0.EXE)
;    30          0030  1 !
;    31          0031  1 ! ABSTRACT:
;    32          0032  1 !
;    33          0033  1 !       This is the main option dispatcher for all options
;    34          0034  1 !       handled by the SETP0 image which completely resides
;    35          0035  1 !       is the P0 region, stack and all, in order to map
;    36          0036  1 !       certain sections into P1 space.
;    37          0037  1 !
;    38          0038  1 ! ENVIRONMENT:
;    39          0039  1 !
;    40          0040  1 !       VAX/VMS operating system. unprivileged user mode,
;    41          0041  1 !
;    42          0042  1 ! AUTHOR:  Tim Halvorsen, Dec 1979
;    43          0043  1 !
;    44          0044  1 ! Modified by:
;    45          0045  1 !
;    46          0046  1 !       V03-003 AEW0001         Anne E. Warner          20-Jul-1984
;    47          0047  1 !               Turn on the capability to report messages which was
;    48          0048  1 !               originally supressed.
;    49          0049  1 !
;    50          0050  1 !       V03-002 BLS0291         Benn Schreiber          24-MAR-1984
;    51          0051  1 !               Move SET PASSWORD here from SET.
;    52          0052  1 !
;    53          0053  1 !       V03-001 GAS0112         Gerry Smith             29-Mar-1983
;    54          0054  1 !               Use new CLI interface.
;    55          0055  1 !
;    56          0056  1 !--
;    57          0057  1
```

```
;    58          0058  1 !
;    59          0059  1 ! Include files
;    60          0060  1 !
;    61          0061  1
;    62          0062  1 LIBRARY 'SYS$LIBRARY:STARLET.L32';      ! VAX/VMS common definitions
;    63          0063  1
```

```
;    65          0064  1 !
;    66          0065  1 ! Table of contents
;    67          0066  1 !
;    68          0067  1
;    69          0068  1 FORWARD ROUTINE
;    70          0069  1     setp0$disp;                     ! Main option dispatcher
;    71          0070  1
;    72          0071  1 !
;    73          0072  1 ! External routines
;    74          0073  1 !
;    75          0074  1
;    76          0075  1 EXTERNAL ROUTINE
;    77          0076  1     cli$get_value;                  ! Get value from CLI
;    78          0077  1
;    79          0078  1 !
;    80          0079  1 ! Global definitions
;    81          0080  1 !
;    82          0081  1
;    83          0082  1 GLOBAL
;    84          0083  1     setp0$l_status:     INITIAL(ss$_normal);    ! Status returned from option
;    85          0084  1
;    86          0085  1 !
;    87          0086  1 ! Macro to set up two associated tables.  The first table is a list of
;    88          0087  1 ! descriptor addresses.  These descriptors contain the option names.
;    89          0088  1 ! The second table is a corresponding list of addresses of option routines.
;    90          0089  1 !
;    91          0090  1 ! If a new option is added to SETPO, all that is required in this
;    92          0091  1 ! module is to add one line of code, the option name, e.g. WORKING_SET.
;    93          0092  1 ! Then, the name of the global routine that is dispatched to from this
;    94          0093  1 ! routine will be named SET$WORKING_SET.
;    95          0094  1 !
;    96          0095  1 MACRO
;    97          0096  1
;    98          0097  1     option_name [option] = %EXACTSTRING(4, 0, option)%,
;    99          0098  1
;   100          0099  1     option_address [option] = %NAME(%STRING('set$',%STRING(option)))%,
;   101          0100  1
;   102          0101  1     option_declare [option] = %NAME(%STRING('set$',%STRING(option))) : NOVALUE%,
;   103          0102  1
;   104        M 0103  1     make_table (name) =
;   105        M 0104  1         LITERAL %NAME(%STRING(name,'_table_length')) = %LENGTH - 1;
;   106        M 0105  1         EXTERNAL ROUTINE option_declare(%REMAINING);
;   107        M 0106  1         OWN
;   108        M 0107  1             %NAME(%STRING(name,'_option')) : VECTOR[%LENGTH - 1]
;   109        M 0108  1             INITIAL (option_name(%REMAINING)),
;   110        M 0109  1
;   111        M 0110  1             %NAME(%STRING(name,'_routine')) : VECTOR[%LENGTH - 1]
;   112          0111  1             INITIAL (option_address(%REMAINING));%;
;   113          0112  1
;   114          0113  1
;   115          0114  1 !
;   116          0115  1 ! Set up a table of all options, and another table pointing to the address
;   117          0116  1 ! of the routine for each option.
;   118          0117  1 !
;   119          0118  1
;   120        P 0119  1 make_table (set,
;   121        P 0120  1                 message,
```

```
;  122          0121  1                password);
```

```
;  124          0122  1 ROUTINE handler (sigargs, mechargs) =
;  125          0123  2 BEGIN
;  126          0124  2
;  127          0125  2 !---
;  128          0126  2 !
;  129          0127  2 ! This routine is a condition handler established by the main
;  130          0128  2 ! routine.  It saves the most severe condition for the exit status.
;  131          0129  2 !
;  132          0130  2 !---
;  133          0131  2
;  134          0132  2 MAP
;  135          0133  2     sigargs : REF $BBLOCK,
;  136          0134  2     mechargs : REF $BBLOCK;
;  137          0135  2 BIND
;  138          0136  2     signame = sigargs[chf$l_sig_name] : $BBLOCK;        ! Name of signal
;  139          0137  2
;  140          0138  2
;  141          0139  2 IF .setp0$l_status EQL 1                            ! If no errors yet, use
;  142          0140  2 THEN setp0$l_status = .signame;                     ! this one.
;  143          0141  2
;  144          0142  2 IF NOT .signame                                     ! If an error signal
;  145          0143  2 AND .signame[sts$v_severity]                        ! and severity is worse
;  146          0144  2 GTRU .$BBLOCK[setp0$l_status, sts$v_severity]       ! than current saved severity
;  147          0145  2 THEN setp0$l_status = .signame;                     ! then save it for exit
;  148          0146  2
;  149          0147  2 RETURN ss$_resignal;                                ! Resignal to get message
;  150          0148  1 END;

                                                .TITLE  SETPO$DISP
                                                .IDENT  \V04-000\

                                                .PSECT  $OWN$,NOEXE,2

                                 53  53  45  4D  00000 SET_OPTION:
                                                .ASCII  \MESS\                          ;
                                 53  53  41  50  00004          .ASCII  \PASS\          ;
                        00000000G 00000000G 00008 SET_ROUTINE:
                                                .ADDRESS SET$MESSAGE, SET$PASSWORD      ;

                                                .PSECT  $GLOBAL$,NOEXE,2

                                 00000001  00000 SETPO$L_STATUS::
                                                .LONG   1                               ;

                                                .EXTRN  CLI$GET_VALUE, SET$MESSAGE
                                                .EXTRN  SET$PASSWORD

                                                .PSECT  $CODE$,NOWRT,2

                                     0004 00000 HANDLER:.WORD   Save R2                 ; 0122
                              52  0000' CF  9E 00002          MOVAB   SETPO$L_STATUS, R2 ;
                        50    04  AC     04  C1 00007          ADDL3   #4, SIGARGS, R0    ; 0136
                              01        62  D1 0000C          CMPL    SETPO$L_STATUS, #1 ; 0139
                                        03  12 0000F          BNEQ    1$                 ;
                              62        60  D0 00011          MOVL    (R0), SETPO$L_STATUS ; 0140
                              0F        60  E8 00014 1$:      BLBS    (R0), 2$           ; 0142
```

```
                51              62              03              00  EF 00017        EXTZV   #0, #3, SETPO$L_STATUS, R1              ; 0144
                51              60              03              00  ED 0001C        CMPZV   #0, #3, (R0), R1                        ;
                                                                03  1B 00021        BLEQU   2$                                      ;
                                                62              60  D0 00023        MOVL    (R0), SETPO$L_STATUS                    ; 0145
                                                50      0918    8F  3C 00026 2$:     MOVZWL  #2328, R0                               ; 0147
                                                                    04 0002B        RET                                             ; 0148

; Routine Size:  44 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  152     0149  1 ROUTINE setp0$disp =                    ! Main dispatching routine
;  153     0150  1
;  154     0151  1 !++
;  155     0152  1 ! Functional description
;  156     0153  1 !
;  157     0154  1 !       This routine decodes the set option and dispatches to
;  158     0155  1 !       the option specific routine.
;  159     0156  1 !
;  160     0157  1 ! Calling sequence
;  161     0158  1 !
;  162     0159  1 !       Called from the Command Language Interpreter
;  163     0160  1 !
;  164     0161  1 ! Input parameters
;  165     0162  1 !
;  166     0163  1 !       None
;  167     0164  1 !
;  168     0165  1 ! Output parameters
;  169     0166  1 !
;  170     0167  1 !       None
;  171     0168  1 !
;  172     0169  1 ! Routine value
;  173     0170  1 !
;  174     0171  1 !       Error returned from option routine or SS$_NORMAL.
;  175     0172  1 !
;  176     0173  1 !----
;  177     0174  1
;  178     0175  2 BEGIN
;  179     0176  2
;  180     0177  2 LOCAL
;  181     0178  2     desc : BLOCK[dsc$c_s_bln,BYTE],     ! Option descriptor
;  182     0179  2     status;                             ! status code
;  183     0180  2
;  184     0181  2 ENABLE handler;                                 ! Enable the condition handler
;  185     0182  2
;  186     0183  2 !
;  187     0184  2 ! Get option, and dispatch to it
;  188     0185  2 !
;  189     0186  2 $init_dyndesc(desc);                    ! Make descriptor dynamic
;  190     0187  3 IF NOT (status = cli$get_value(%ASCID 'OPTION', desc))
;  191     0188  2 THEN RETURN .status;
;  192     0189  2
;  193     0190  2 desc[dsc$w_length] = MINU (.desc[dsc$w_length], 4);
;  194     0191  2
;  195     0192  2 INCR index FROM 0 TO set_table_length - 1 DO
;  196     0193  3     BEGIN
;  197     0194  3     IF CH$EQL(.desc[dsc$w_length], .desc[dsc$a_pointer],
;  198     0195  3               .desc[dsc$w_length], set_option[.index])
;  199     0196  3     THEN
;  200     0197  4         BEGIN
;  201     0198  4         (.set_routine[.index])();
;  202     0199  4         EXITLOOP
;  203     0200  3         END;
;  204     0201  2     END;
;  205     0202  2
;  206     0203  2 RETURN (.setp0$l_status );              ! Exit with message
;  207     0204  2
;  208     0205  1 END;
```

```
                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                                00 00 4E 4F 49 54 50 4F  00000 P.AAB:   .ASCII  \OPTION\<0><0>                                ;
                                            010E0006    00008 P.AAA:   .LONG   17694726                                      ;
                                            00000000'   0000C          .ADDRESS P.AAB                                        ;


                                                        .PSECT  $CODE$,NOWRT,2

                                                001C 00000 SETPO$DISP:
                                                        .WORD   Save R2,R3,R4                                        ; 0149
                                              5E        04  C2 00002          SUBL2   #4, SP                               ;
                                              6D    004A  CF  DE 00005          MOVAL   6$, (FP)                             ; 0175
                                          020E0000      8F  DD 0000A          PUSHL   #34471936                            ; 0186
                                                04      AE  D4 00010          CLRL    DESC+4                               ;
                                                        5E  DD 00013          PUSHL   SP                                   ; 0187
                                              0000'     CF  9F 00015          PUSHAB  P.AAA                                ;
                                    0000G     CF        02  FB 00019          CALLS   #2, CLI$GET_VALUE                    ;
                                              31        50  E9 0001E          BLBC    STATUS, 5$                           ;
                                              50        6E  3C 00021          MOVZWL  DESC, R0                             ; 0190
                                              04        50  B1 00024          CMPW    R0, #4                               ;
                                                        03  1B 00027          BLEQU   1$                                   ;
                                              50        04  D0 00029          MOVL    #4, R0                               ;
                                              6E        50  B0 0002C 1$:       MOVW    R0, DESC                             ;
                                                        54  D4 0002F          CLRL    INDEX                                ; 0194
                                            0000'CF44   DF  00031 2$:       PUSHAL  SET_OPTION[INDEX]                    ; 0195
                                    9E      08  BE      04  AE  29 00036          CMPC3   DESC, @DESC+4, @(SP)+                ;
                                                        0B  12 0003C          BNEQ    3$                                   ;
                                              50    0000'CF44   D0 0003E          MOVL    SET_ROUTINE[INDEX], R0               ; 0198
                                              60        00  FB 00044          CALLS   #0, (R0)                             ;
                                                        04  11 00047          BRB     4$                                   ; 0197
                                    E4                  54  F3 00049 3$:       AOBLEQ  #1, INDEX, 2$                        ; 0192
                                              50    0000'     CF  D0 0004D 4$:       MOVL    SETPO$L_STATUS, R0           ; 0203
                                                        04  00052 5$:       RET                                          ; 0205
                                                      0000  00053 6$:       .WORD   Save nothing                         ; 0175
                                                        7E  D4 00055          CLRL    -(SP)                                ;
                                                        5E  DD 00057          PUSHL   SP                                   ;
                                              7E        04  AC  7D 00059          MOVQ    4(AP), -(SP)                         ;
                                        FF72  CF            03  FB 0005D          CALLS   #3, HANDLER                          ;
                                                            04  00062          RET                                          ;

; Routine Size:  99 bytes,    Routine Base:  $CODE$ + 002C
```

```
;  210          0206  1 END
;  211          0207  0 ELUDOM



;                                PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  $GLOBAL$                         4  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $OWN$                           16  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                         143  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $PLIT$                          16  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                             Library Statistics
;
;                                      -------- Symbols --------      Pages       Processing
;       File                           Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]STARLET.L32;1     9776        13         0         581        00:01.0



;                                      COMMAND QUALIFIERS

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

; Size:          143 code + 36 data bytes
; Run Time:          00:04.9
; Elapsed Time:      00:20.8
; Lines/CPU Min:      2529
; Lexemes/CPU-Min:  14969
; Memory Used:  54 pages
; Compilation Complete
```

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