```
   CCCCCCCCCCCC     000000000      PPPPPPPPPPPP     YYY         YYY
   CCCCCCCCCCCC     000000000      PPPPPPPPPPPP     YYY         YYY
   CCCCCCCCCCCC     000000000      PPPPPPPPPPPP     YYY         YYY
CCC              000          000  PPP         PPP  YYY         YYY
CCC              000          000  PPP         PPP  YYY         YYY
CCC              000          000  PPP         PPP  YYY         YYY
CCC              000          000  PPP         PPP     YYY   YYY
CCC              000          000  PPP         PPP     YYY   YYY
CCC              000          000  PPP         PPP     YYY   YYY
CCC              000          000  PPPPPPPPPPPP           YYY
CCC              000          000  PPPPPPPPPPPP           YYY
CCC              000          000  PPPPPPPPPPPP           YYY
CCC              000          000  PPP                    YYY
CCC              000          000  PPP                    YYY
CCC              000          000  PPP                    YYY
CCC              000          000  PPP                    YYY
CCC              000          000  PPP                    YYY
CCC              000          000  PPP                    YYY
   CCCCCCCCCCCC     000000000      PPP                    YYY
   CCCCCCCCCCCC     000000000      PPP                    YYY
   CCCCCCCCCCCC     000000000      PPP                    YYY
```

```
**FILE**ID**COPYCLI                                K 3
```

```
  CCCCCCCC    OOOOOO    PPPPPPPP    YY      YY    CCCCCCCC  LL            IIIIII
  CCCCCCCC    OOOOOO    PPPPPPPP    YY      YY    CCCCCCCC  LL            IIIIII
CC          OO      OO  PP      PP  YY      YY  CC          LL              II
CC          OO      OO  PP      PP  YY      YY  CC          LL              II
CC          OO      OO  PP      PP    YY  YY    CC          LL              II
CC          OO      OO  PP      PP    YY  YY    CC          LL              II
CC          OO      OO  PPPPPPPP        YY      CC          LL              II
CC          OO      OO  PPPPPPPP        YY      CC          LL              II
CC          OO      OO  PP              YY      CC          LL              II
CC          OO      OO  PP              YY      CC          LL              II
CC          OO      OO  PP              YY      CC          LL              II          ....
CC          OO      OO  PP              YY      CC          LL              II          ....
  CCCCCCCC    OOOOOO    PP              YY        CCCCCCCC  LLLLLLLLLL    IIIIII        ....
  CCCCCCCC    OOOOOO    PP              YY        CCCCCCCC  LLLLLLLLLL    IIIIII        ....

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
```

```
0 MODULE copycli (   ! Declarations of CLI data structures for the COPY command
0                    LANGUAGE (BLISS32),
0                    IDENT = 'V04-000'
0                    ) =
1 BEGIN
1
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1
1 !++
1 ! FACILITY:      COPY
1 !
1 ! ABSTRACT:
1 !
1 !       This module contains all the routines for processing the COPY command
1 !       qualifiers.
1 !
1 ! ENVIRONMENT:
1 !
1 !       VAX/VMS operating system, unprivileged user mode utility,
1 !       operates at non-AST level.
1 !
1 !--
1 !++
1 !
1 ! AUTHOR:        Carol Peters,   CREATION DATE:  28 April 1978 07:36
1 !
1 ! REVISION HISTORY:
1 !
1 !       V3-003  TSK0003         Tamar Krichevsky          9-FEB-1984
1 !               Change addressing mode for LIB$CVT_DTB and LIB$LOOKUP_KEY
1 !               to general.
1 !
1 !       V3-002  TSK0002         Tamar Krichevsky        10-Aug-1983
1 !               Fix default for /PROTECTION qualifier so that if fields which
1 !               have not been specified are left alone.
1 !
```

```
1 !
1 !         V3-001  TSK0001         Tamar Krichevsky        18-Jan-1983
1 !                 Rework whole module.  Change Command Language Interface over
1 !                 to new CLI.  Create two global routines: COPY$GET_GLOBAL_QUAL
1 !                 and COPY$GET_LOCAL_QUAL.  These routines simulate parts of the
1 !                 CLI so that COPY/QUAL a,b/NOQUAL,c * and COPY a,b/NOQUAL,c */QUAL
1 !                 behave the same.
1 !
1 !                 Add the common qualifiers (/BEFORE, /SINCE, /CREATED, /MODIFIED
1 !                 /BACKUP, /EXPIRED, /EXCLUDE, /BY_OWNER AND /CONFIRM).
1 !
1 !         003     TMH0003         T. Halvorsen    17-Nov-1979
1 !                 Add cleanup2_desc for output parameter cleanup call.
1 !
1 !         002     TMH0002         T. Halvorsen    25-Jul-1979
1 !                 Add relative volume placement control
1 !--
```

```
!
! Table of contents
!

FORWARD ROUTINE
    copy$get_global_qual: NOVALUE,                          ! Get global command qualifiers
    copy$get_local_qual : NOVALUE,                          ! Get local command qualifiers
    protection_parse    : NOVALUE,                          ! Parse routine for /PROTECTION qualifier
    parse_protection_value : NOVALUE;                       ! Parse the /PROTECTION keyword values (RWED)

!
! Include files
!

LIBRARY 'SYS$LIBRARY:STARLET.L32';                          ! Common system definitions
REQUIRE 'SRC$:COPYMSG.REQ';                                 ! Put message macros

!
! Literals
!

BIND

    ! Descriptors for the qualifier names, used while parsing the command line.
    !
    verb_desc           = $DESCRIPTOR('$VERB'),
    log_msg_desc        = $DESCRIPTOR('LOG'),
    concatenate_desc    = $DESCRIPTOR('CONCATENATE'),
    new_version_desc    = $DESCRIPTOR('NEW_VERSION'),
    allocation_desc     = $DESCRIPTOR('ALLOCATION'),
    contiguous_desc     = $DESCRIPTOR('CONTIGUOUS'),
    extension_desc      = $DESCRIPTOR('EXTENSION'),
    file_max_desc       = $DESCRIPTOR('FILE_MAXIMUM'),
    protection_desc     = $DESCRIPTOR('PROTECTION'),
    read_check_desc     = $DESCRIPTOR('READ_CHECK'),
    write_check_desc    = $DESCRIPTOR('WRITE_CHECK'),
    overlay_desc        = $DESCRIPTOR('OVERLAY'),
    volume_desc         = $DESCRIPTOR('VOLUME'),
    truncate_desc       = $DESCRIPTOR('TRUNCATE'),
    replace_desc        = $DESCRIPTOR('REPLACE')
    ;

!
! Macros
!

MACRO

    ! These macros are all used in processing the /PROTECTION qualifier.
    !
    BIT_LOCATION( L, B, S, X) =                     ! Extract a bit from a field definition
            B %,
    PROT_MASK(DISP,SIZE) =                          ! XAB$W_PRO bit and mask definitions macros
            MASK_DEF(XAB$W_PRO,DISP,SIZE) %,
    MASK_DEF(L,B,S,X,DISP,SIZE) =
            0, B+DISP, SIZE, X %;
```

```
1 !
1 ! External declarations
1 !
1
1 EXTERNAL
1       copy$prot_value,                                             ! Protection keyword value table
1       copy$cli_status        : $BBLOCK,                            ! Results of the command line parse
1       copy$sem_status        : $BBLOCK                             ! Semantics for copy operation
1       ;
1
1 REQUIRE
1       'SRC$:COPY.REQ';                                             ! Field definitions for COPY$CLI_STATUS and COPY$SEM
```

```
; %PRINT:        File: VMSMAC.B32, Version V04-000, Edit 1, WWC, 09-JAN-1978
;  145        0678  1
;  146        0679  1
;  147        0680  1 EXTERNAL ROUTINE
;  148        0681  1     cli$present,                                        ! Determine if a qualifier appears on the command li
;  149        0682  1     cli$get_value,                                      ! Retrieve the qualifier's value
;  150        0683  1     lib$qual_file_parse,                                ! Parse the common file qualifiers
;  151        0684  1     lib$cvt_dtb : ADDRESSING_MODE(GENERAL),             ! Convert String to binary
;  152        0685  1     lib$lookup_key: ADDRESSING_MODE(GENERAL);           ! Library keyword lookup routine
```

```
1 !
1 ! Global variables
1 !
1
1 GLOBAL
1
1 !
1 ! The following variables hold the current qualifier and option values gathered during the
1 ! CLI processing.  These values may change as local qualifiers are parsed.  The global
1 ! values are stored in COPY$CLI_STATUS.
1 !
1
1     common_qual_context,                                        ! Common qualifier data area
1     curr_allocation_value,                                      ! Binary allocation value
1     curr_extension_value,                                       ! Binary extension value
1     curr_file_max_value,                                        ! Binary file maximum value
1     curr_protection_or  :                                       ! Protection mask to set bits
1         $BBLOCK[ 2 ]
1         INITIAL (REP 2 OF BYTE (0)),
1     curr_protection_and :                                       ! Protection mask to clear bits
1         $BBLOCK[ 2 ]
1         INITIAL (REP 2 OF BYTE (-1)),
1     curr_volume_value   : INITIAL (0)                           ! Relative volume number
1     ;
1
```

```
1 GLOBAL ROUTINE COPY$GET_GLOBAL_QUAL:  NOVALUE =          ! Retrieve gloabl qualifiers from the CLI
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine retrieves the command level qualifiers from the
1 !       Command Language Interpreter.  It treats any qualifiers found
1 !       as global, even if they are only locally present.  This ensures
1 !       that qualifiers which appear on the output file have the same
1 !       effect as ones which appear on the verb.
1 !
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       None
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       None
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       COPY$CLI_STATUS - Relevant command and qualifier indicators set
1 !
1 ! ROUTINE VALUE:
1 !
1 !       None
1 !
1 ! SIDE EFFECTS:
1 !
1 !       None
1 !
1 !--
1
2     BEGIN
2
2     LOCAL
2         common_qual_flags,                              ! Bits which select the common qualifiers to be pars
2         rtn_status,                                     ! Status returned from external calls
2         cli_desc :  $BBLOCK[ dsc$c_s_bln ]              ! Dynamic string descriptor, points to values
2         ;                                               !    returned from calls to the CLI
2
2
2
2     ! Initialize descriptor.
2     !
2     CH$FILL( 0, DSC$C_S_BLN, cli_desc);
2     cli_desc[ DSC$B_CLASS ] = DSC$K_CLASS_D;
2
2
2     ! Retrieve the verb from the command line.  Determine if it is a COPY or APPEND command.
2     !
2     CLI$GET_VALUE( verb_desc, cli_desc);
2     IF CH$RCHAR( .cli_desc[ DSC$A_POINTER ]) EQL 'A'
2     THEN
3         BEGIN
```

```
3
3        ! It was an APPEND command.  Set the append command flag and parse the APPEND
3        ! specific qualifiers.
3        !
3       append_command   = TRUE;
3       new_version_qual = CLI$PRESENT( new_version_desc );
3       END
2   ELSE
3       BEGIN
3
3        ! It was a COPY command.  Parse the COPY specific qualifiers.
3        !
3        ! /CONCATENATE, /TRUNCATE -- Set the apropriate flags if the qualifier
3        ! was given or negated.
3
3       SELECTONE CLI$PRESENT( concatenate_desc ) OF
3       SET
4           [ CLI$_PRESENT ] : BEGIN
4                              concat_qual          = TRUE;
4                              explicit_concat_qual = TRUE;
3                              END;
3           [ CLI$_NEGATED ] : negated_concat_qual  = TRUE;
3       TES;
3
3       SELECTONE CLI$PRESENT( truncate_desc ) OF
3       SET
3           [ CLI$_PRESENT,
3             CLI$_LOCPRES ] : truncate_qual    = TRUE;
3           [ CLI$_NEGATED ] : truncate_negated = TRUE;
3       TES;
3
3        ! /OVERLAY and  /REPLACE
3        !
3       overlay_qual = CLI$PRESENT( overlay_desc );
3       replace_qual = CLI$PRESENT( replace_desc );
3
3
3        ! /VOLUME
3        !
4       IF (volume_qual = CLI$PRESENT( volume_desc ))
3       THEN
4           BEGIN
4
4            ! Get the value and and convert it from a string into binary.
4            !
4           CLI$GET_VALUE( volume_desc, cli_desc );
5           IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
5                                   .cli_desc[ DSC$A_POINTER ], volume_value))
4           THEN
4               PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, volume_desc );
4           curr_volume_value = .volume_value;
3           END;
2       END;
2
2    ! Parse the qualifiers which are applicable to both commands.  First,
2    ! the common qualifiers (/CONFIRM, /BEFORE, /SINCE, /EXCLUDE, /CREATED,
2    ! /MODIFIED, /BACKUP, /EXPIRED, /BY_OWNER)
```

```
2       !
2       ! Initialize the flags longword so that all of the common qualifiers will
2       ! be parsed.  Then, parse the qualifiers.
2       !
2       common_qual_flags = LIB$M_CQF_CONFIRM  OR  LIB$M_CQF_BEFORE  OR
2                           LIB$M_CQF_SINCE    OR  LIB$M_CQF_CREATED OR
2                           LIB$M_CQF_MODIFIED OR  LIB$M_CQF_BACKUP  OR
2                           LIB$M_CQF_EXPIRED  OR  LIB$M_CQF_EXCLUDE OR
2                           LIB$M_CQF_BYOWNER;
2
3       IF NOT (rtn_status = LIB$QUAL_FILE_PARSE( common_qual_flags, common_qual_context ))
2       THEN
2           PUT_MESSAGEX( .rtn_status );
2
2
2       ! /LOG, /READ_CHECK, /WRITE_CHECK and /CONTIGUOUS
2       !
2       log_msg_qual  = CLI$PRESENT( log_msg_desc );
2
2       read_chk_qual = CLI$PRESENT( read_check_desc );
2
2       SELECTONE CLI$PRESENT( write_check_desc ) OF
2       SET
2           [ CLI$_PRESENT,
2             CLI$_LOCPRES ] : write_chk_qual    = TRUE;
2           [ CLI$_NEGATED ] : write_chk_negated = TRUE;
2       TES;
2       write_chk_qual = CLI$PRESENT( write_check_desc );
2
2       SELECTONE CLI$PRESENT( contiguous_desc ) OF
2       SET
2           [ CLI$_PRESENT,
2             CLI$_LOCPRES ] : contig_qual    = TRUE;
2           [ CLI$_NEGATED ] : contig_negated = TRUE;
2       TES;
2
2
2       ! /ALLOCATION
2       !
3       IF (alloc_qual = CLI$PRESENT( allocation_desc ))
2       THEN
3           BEGIN
3
3           ! Get the value and and convert it from a string into binary.
3           !
3           CLI$GET_VALUE( allocation_desc, cli_desc );
4           IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
4                            .cli_desc[ DSC$A_POINTER ], allocation_value))
3           THEN
3               PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, allocation_desc );
3           curr_allocation_value = .allocation_value;
2           END;
2
2
2       ! /EXTENSION
2       !
3       IF (extend_qual = CLI$PRESENT( extension_desc ))
```

```
;   351          0882  2         THEN
;   352          0883  3             BEGIN
;   353          0884  3
;   354          0885  3             ! Get the value and and convert it from a string into binary.
;   355          0886  3             !
;   356          0887  3             CLI$GET_VALUE( extension_desc, cli_desc );
;   357          0888  4             IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
;   358          0889  4                                .cli_desc[ DSC$A_POINTER ], extension_value))
;   359          0890  3             THEN
;   360          0891  3                 PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, extension_desc );
;   361          0892  3             curr_extension_value = .extension_value;
;   362          0893  2             END;
;   363          0894  2
;   364          0895  2
;   365          0896  2         ! /FILE_MAXIMUM
;   366          0897  2         !
;   367          0898  3         IF (file_max_qual = CLI$PRESENT( file_max_desc ))
;   368          0899  2         THEN
;   369          0900  3             BEGIN
;   370          0901  3
;   371          0902  3             ! Get the value and and convert it from a string into binary.
;   372          0903  3             !
;   373          0904  3             CLI$GET_VALUE( file_max_desc, cli_desc );
;   374          0905  4             IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
;   375          0906  4                                .cli_desc[ DSC$A_POINTER ], file_max_value))
;   376          0907  3             THEN
;   377          0908  3                 PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, file_max_desc );
;   378          0909  3             curr_file_max_value = .file_max_value;
;   379          0910  2             END;
;   380          0911  2
;   381          0912  2
;   382          0913  2         ! /PROTECTION
;   383          0914  2         !
;   384          0915  3         IF (protect_qual = CLI$PRESENT( protection_desc ))
;   385          0916  2         THEN
;   386          0917  3             BEGIN
;   387          0918  3
;   388          0919  3             ! Parse the keyword value and save the results.
;   389          0920  3             !
;   390          0921  3             protection_parse();
;   391          0922  3             protection_and = .(curr_protection_and);
;   392          0923  3             protection_or  = .(curr_protection_or);
;   393          0924  2             END;
;   394          0925  1         END;                                        ! routine COPY$GET_GLOBAL_QUAL


                                                                            .TITLE  COPYCLI
                                                                            .IDENT  \V04-000\

                                                                            .PSECT  $PLIT$,NOWRT,NOEXE,2

                           42  52  45  56  24  00000 P.AAB:                 .ASCII  \$VERB\                              ;
                                               00005                        .BLKB   3
                                    00000005   00008 P.AAA:                 .LONG   5                                    ;
                                    00000000'  0000C                        .ADDRESS P.AAB
                                   47  4F  4C  00010 P.AAD:                 .ASCII  \LOG\                                ;
                                               00013                        .BLKB   1
```

```
                                     00000003  00014 P.AAC:     .LONG    3                                          ;
                                     00000000' 00018            .ADDRESS P.AAD                                      ;
       45 54 41 4E 45 54 41 43 4E 4F 43  0001C P.AAF:     .ASCII   \CONCATENATE\                              ;
                                               00027            .BLKB    1
                                     0000000B  00028 P.AAE:     .LONG    11                                         ;
                                     00000000' 0002C            .ADDRESS P.AAF                                      ;
       4E 4F 49 53 52 45 56 5F 57 45 4E  00030 P.AAH:     .ASCII   \NEW_VERSION\                              ;
                                               0003B            .BLKB    1
                                     0000000B  0003C P.AAG:     .LONG    11                                         ;
                                     00000000' 00040            .ADDRESS P.AAH                                      ;
          4E 4F 49 54 41 43 4F 4C 4C 41  00044 P.AAJ:     .ASCII   \ALLOCATION\                               ;
                                               0004E            .BLKB    2
                                     0000000A  00050 P.AAI:     .LONG    10                                         ;
                                     00000000' 00054            .ADDRESS P.AAJ                                      ;
          53 55 4F 55 47 49 54 4E 4F 43  00058 P.AAL:     .ASCII   \CONTIGUOUS\                               ;
                                               00062            .BLKB    2
                                     0000000A  00064 P.AAK:     .LONG    10                                         ;
                                     00000000' 00068            .ADDRESS P.AAL                                      ;
             4E 4F 49 53 4E 45 54 58 45  0006C P.AAN:     .ASCII   \EXTENSION\                                ;
                                               00075            .BLKB    3
                                     00000009  00078 P.AAM:     .LONG    9                                          ;
                                     00000000' 0007C            .ADDRESS P.AAN                                      ;
    4D 55 4D 49 58 41 4D 5F 45 4C 49 46  00080 P.AAP:     .ASCII   \FILE_MAXIMUM\                             ;
                                     0000000C  0008C P.AAO:     .LONG    12                                         ;
                                     00000000' 00090            .ADDRESS P.AAP                                      ;
          4E 4F 49 54 43 45 54 4F 52 50  00094 P.AAR:     .ASCII   \PROTECTION\                               ;
                                               0009E            .BLKB    2
                                     0000000A  000A0 P.AAQ:     .LONG    10                                         ;
                                     00000000' 000A4            .ADDRESS P.AAR                                      ;
          4B 43 45 48 43 5F 44 41 45 52  000A8 P.AAT:     .ASCII   \READ_CHECK\                               ;
                                               000B2            .BLKB    2
                                     0000000A  000B4 P.AAS:     .LONG    10                                         ;
                                     00000000' 000B8            .ADDRESS P.AAT                                      ;
       4B 43 45 48 43 5F 45 54 49 52 57  000BC P.AAV:     .ASCII   \WRITE_CHECK\                              ;
                                               000C7            .BLKB    1
                                     0000000B  000C8 P.AAU:     .LONG    11                                         ;
                                     00000000' 000CC            .ADDRESS P.AAV                                      ;
                   59 41 4C 52 45 56 4F  000D0 P.AAX:     .ASCII   \OVERLAY\                                  ;
                                               000D7            .BLKB    1
                                     00000007  000D8 P.AAW:     .LONG    7                                          ;
                                     00000000' 000DC            .ADDRESS P.AAX                                      ;
                      45 4D 55 4C 4F 56  000E0 P.AAZ:     .ASCII   \VOLUME\                                   ;
                                               000E6            .BLKB    2
                                     00000006  000E8 P.AAY:     .LONG    6                                          ;
                                     00000000' 000EC            .ADDRESS P.AAZ                                      ;
                45 54 41 43 4E 55 52 54  000F0 P.ABB:     .ASCII   \TRUNCATE\                                 ;
                                     00000008  000F8 P.ABA:     .LONG    8                                          ;
                                     00000000' 000FC            .ADDRESS P.ABB                                      ;
                   45 43 41 4C 50 45 52  00100 P.ABD:     .ASCII   \REPLACE\                                  ;
                                               00107            .BLKB    1
                                     00000007  00108 P.ABC:     .LONG    7                                          ;
                                     00000000' 0010C            .ADDRESS P.ABD                                      ;

                                                                .PSECT  $GLOBAL$,NOEXE,2

                                               00000 COMMON_QUAL_CONTEXT::
                                                                .BLKB    4
                                     00004 CURR_ALLOCATION_VALUE::
                                                .BLKB    4
                                     00008 CURR_EXTENSION_VALUE::
                                                .BLKB    4
                                     0000C CURR_FILE_MAX_VALUE::
                                                .BLKB    4
                                 00# 00010 CURR_PROTECTION_OR::
                                                .BYTE    0[2]                             ;
                                     00012      .BLKB    2
                                 FF# 00014 CURR_PROTECTION_AND::
                                                .BYTE    -1[2]                            ;
                                     00016      .BLKB    2
                           00000000  00018 CURR_VOLUME_VALUE::
                                                .LONG    0                                ;

                                           VERB_DESC=             P.AAA
                                           LOG_MSG_DESC=          P.AAC
                                           CONCATENATE_DESC=      P.AAE
                                           NEW_VERSION_DESC=      P.AAG
                                           ALLOCATION_DESC=       P.AAI
                                           CONTIGUOUS_DESC=       P.AAK
                                           EXTENSION_DESC=        P.AAM
                                           FILE_MAX_DESC=         P.AAO
                                           PROTECTION_DESC=       P.AAQ
                                           READ_CHECK_DESC=       P.AAS
                                           WRITE_CHECK_DESC=      P.AAU
                                           OVERLAY_DESC=          P.AAW
                                           VOLUME_DESC=           P.AAY
                                           TRUNCATE_DESC=         P.ABA
                                           REPLACE_DESC=          P.ABC
                                                .EXTRN   COPY$MSG_NUMBER
                                                .EXTRN   COPY$PROT_VALUE
                                                .EXTRN   COPY$CLI_STATUS
                                                .EXTRN   COPY$SEM_STATUS
                                                .EXTRN   CLI$_PRESENT, CLI$_NEGATED
                                                .EXTRN   CLI$_LOCPRES, CLI$_LOCNEG
                                                .EXTRN   CLI$PRESENT, CLI$GET_VALUE
                                                .EXTRN   LIB$QUAL_FILE_PARSE
                                                .EXTRN   LIB$CVT_DTB, LIB$LOOKUP_KEY

                                                .PSECT   $CODE$,NOWRT,2

                                  0FFC 00000    .ENTRY   COPY$GET_GLOBAL_QUAL, Save R2,R3,R4,R5,R6,- ; 0711
                                                         R7,R8,R9,R10,R11                  ;
                        5B 00000000G  00  9E 00002      MOVAB    LIB$STOP, R11                     ;
                        5A 00000000G  00  9E 00009      MOVAB    LIB$SIGNAL, R10                   ;
                        59     0000G  CF  9E 00010      MOVAB    COPY$MSG_NUMBER, R9               ;
                        58     0000G  CF  9E 00015      MOVAB    CLI$PRESENT, R8                   ;
                        57     0000'  CF  9E 0001A      MOVAB    VOLUME_DESC, R7                   ;
                        56     0000G  CF  9E 0001F      MOVAB    COPY$CLI_STATUS+4, R6             ;
                        5E            0C  C2 00024      SUBL2    #12, SP                           ;
       08       00      6E            00  2C 00027      MOVC5    #0, (SP), #0, #8, CLI_DESC        ; 0758
                              04      AE     0002C
                     07   AE          02  90 0002E      MOVB     #2, CLI_DESC+3                    ; 0759
                              04      AE  9F 00032      PUSHAB   CLI_DESC                          ; 0764
                            FF20      C7  9F 00035      PUSHAB   VERB_DESC                         ;
                    0000G   CF        02  FB 00039      CALLS    #2, CLI$GET_VALUE                 ;
```

```
                                                            L 4
COPYCLI                                               15-Sep-1984 23:37:50    VAX-11 Bliss-32 V4.0-742                Page  14
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                               41   8F      08   BE   91 0003E        CMPB    @CLI_DESC+4, #65                       ; 0765
                                                 14   12 00043        BNEQ    1$                                     ;
                               FC   A6           01   88 00045        BISB2   #1, COPY$CLI_STATUS                    ; 0772
                                          FF54   C7   9F 00049        PUSHAB  NEW_VERSION_DESC                       ; 0773
                                    68           01   FB 0004D        CALLS   #1, CLI$PRESENT                        ;
      FC   A6         01            04           50   F0 00050        INSV    R0, #4, #1, COPY$CLI_STATUS            ;
                                               00E1   31 00056        BRW     9$                                     ; 0765
                                          FF40   C7   9F 00059 1$:    PUSHAB  CONCATENATE_DESC                       ; 0783
                                    68           01   FB 0005D        CALLS   #1, CLI$PRESENT                        ;
                        00000000G   8F           50   D1 00060        CMPL    R0, #CLI$_PRESENT                      ; 0785
                                                 0B   12 00067        BNEQ    2$                                     ;
                            0000G   CF           01   88 00069        BISB2   #1, COPY$SEM_STATUS                    ; 0786
                               FC   A6           04   88 0006E        BISB2   #4, COPY$CLI_STATUS                    ; 0787
                                                 0D   11 00072        BRB     3$                                     ; 0783
                        00000000G   8F           50   D1 00074 2$:    CMPL    R0, #CLI$_NEGATED                      ; 0789
                                                 04   12 0007B        BNEQ    3$                                     ;
                               FC   A6           08   88 0007D        BISB2   #8, COPY$CLI_STATUS                    ;
                                            10   A7   9F 00081 3$:    PUSHAB  TRUNCATE_DESC                          ; 0792
                                    68           01   FB 00084        CALLS   #1, CLI$PRESENT                        ;
                        00000000G   8F           50   D1 00087        CMPL    R0, #CLI$_PRESENT                      ; 0794
                                                 09   13 0008E        BEQL    4$                                     ;
                        00000000G   8F           50   D1 00090        CMPL    R0, #CLI$_LOCPRES                      ;
                                                 06   12 00097        BNEQ    5$                                     ;
                               01   A6           20   88 00099 4$:    BISB2   #32, COPY$CLI_STATUS+5                 ; 0795
                                                 0E   11 0009D        BRB     6$                                     ;
                        00000000G   8F           50   D1 0009F 5$:    CMPL    R0, #CLI$_NEGATED                      ; 0796
                                                 05   12 000A6        BNEQ    6$                                     ;
                               01   A6      40   8F   88 000A8        BISB2   #64, COPY$CLI_STATUS+5                 ;
                                            F0   A7   9F 000AD 6$:    PUSHAB  OVERLAY_DESC                           ; 0801
                                    68           01   FB 000B0        CALLS   #1, CLI$PRESENT                        ;
           66         01            07           50   F0 000B3        INSV    R0, #7, #1, COPY$CLI_STATUS+4          ;
                                            20   A7   9F 000B8        PUSHAB  REPLACE_DESC                           ; 0802
                                    68           01   FB 000BB        CALLS   #1, CLI$PRESENT                        ;
      02   A6         01            01           50   F0 000BE        INSV    R0, #1, #1, COPY$CLI_STATUS+6          ;
                                                 57   DD 000C4        PUSHL   R7                                     ; 0807
                                    68           01   FB 000C6        CALLS   #1, CLI$PRESENT                        ;
      01   A6         01            02           50   F0 000C9        INSV    R0, #2, #1, COPY$CLI_STATUS+5          ;
                                    68           50   E9 000CF        BLBC    R0, 9$                                 ;
                                            04   AE   9F 000D2        PUSHAB  CLI_DESC                               ; 0813
                                                 57   DD 000D5        PUSHL   R7                                     ;
                            0000G   CF           02   FB 000D7        CALLS   #2, CLI$GET_VALUE                      ;
                                            14   A6   9F 000DC        PUSHAB  COPY$CLI_STATUS+24                     ; 0815
                                            0C   AE   DD 000DF        PUSHL   CLI_DESC+4                             ;
                                    7E      0C   AE   3C 000E2        MOVZWL  CLI_DESC, -(SP)                        ; 0814
                        00000000G   00           03   FB 000E6        CALLS   #3, LIB$CVT_DTB                        ;
                                    52           50   D0 000ED        MOVL    R0, RTN_STATUS                         ;
                                    41           52   E8 000F0        BLBS    RTN_STATUS, 8$                         ;
                                    7E    132C   8F   3C 000F3        MOVZWL  #4908, -(SP)                           ; 0817
                                    69           01   FB 000F8        CALLS   #1, COPY$MSG_NUMBER                    ;
      7E              00            50           01   7A 000FB        EMUL    #1, R0, #0, -(SP)                      ;
      50              50            8E           08   7B 00100        EDIV    #8, (SP)+, R0, R0                      ;
                                    04           50   D1 00105        CMPL    R0, #4                                 ;
                                                 16   13 00108        BEQL    7$                                     ;
                                                 57   DD 0010A        PUSHL   R7                                     ;
                                            08   AE   9F 0010C        PUSHAB  CLI_DESC                               ;
                                                 02   DD 0010F        PUSHL   #2                                     ;
                                    7E    132C   8F   3C 00111        MOVZWL  #4908, -(SP)                           ;
                            69             01 FB 00116      CALLS   #1, COPY$MSG_NUMBER                      ;
                                           50 DD 00119      PUSHL   R0                                       ;
                            6A             04 FB 0011B      CALLS   #4, LIB$SIGNAL                           ;
                                           14 11 0011E      BRB     8$                                       ;
                                           57 DD 00120 7$:  PUSHL   R7                                       ;
                                     08    AE 9F 00122      PUSHAB  CLI_DESC                                 ;
                                           02 DD 00125      PUSHL   #2                                       ;
                            7E     132C    8F 3C 00127      MOVZWL  #4908, -(SP)                             ;
                            69             01 FB 0012C      CALLS   #1, COPY$MSG_NUMBER                      ;
                                           50 DD 0012F      PUSHL   R0                                       ;
                            6B             04 FB 00131      CALLS   #4, LIB$STOP                             ;
                     0000'  CF       14    A6 D0 00134 8$:  MOVL    COPY$CLI_STATUS+24, CURR_VOLUME_VALUE    ; 0818
                            6E     01FF    8F 3C 0013A 9$:  MOVZWL  #511, COMMON_QUAL_FLAGS                  ; 0832
                                  0000'    CF 9F 0013F      PUSHAB  COMMON_QUAL_CONTEXT                      ; 0835
                                     04    AE 9F 00143      PUSHAB  COMMON_QUAL_FLAGS                        ;
                     0000G  CF             02 FB 00146      CALLS   #2, LIB$QUAL_FILE_PARSE                  ;
                            52             50 D0 0014B      MOVL    R0, RTN_STATUS                           ;
                            2A             52 E8 0014E      BLBS    RTN_STATUS, 11$                          ;
                                           52 DD 00151      PUSHL   RTN_STATUS                               ; 0837
                            69             01 FB 00153      CALLS   #1, COPY$MSG_NUMBER                      ;
     7E      00             50             01 7A 00156      EMUL    #1, R0, #0, -(SP)                        ;
     50      50             8E             08 7B 0015B      EDIV    #8, (SP)+, R0, R0                        ;
                            04             50 D1 00160      CMPL    R0, #4                                   ;
                                           0C 13 00163      BEQL    10$                                      ;
                                           52 DD 00165      PUSHL   RTN_STATUS                               ;
                            69             01 FB 00167      CALLS   #1, COPY$MSG_NUMBER                      ;
                                           50 DD 0016A      PUSHL   R0                                       ;
                            6A             01 FB 0016C      CALLS   #1, LIB$SIGNAL                           ;
                                           0A 11 0016F      BRB     11$                                      ;
                                           52 DD 00171 10$: PUSHL   RTN_STATUS                               ;
                            69             01 FB 00173      CALLS   #1, COPY$MSG_NUMBER                      ;
                                           50 DD 00176      PUSHL   R0                                       ;
                            6B             01 FB 00178      CALLS   #1, LIB$STOP                             ;
                                   FF2C    C7 9F 0017B 11$: PUSHAB  LOG_MSG_DESC                             ; 0842
                            68             01 FB 0017F      CALLS   #1, CLI$PRESENT                          ;
FC   A6      01             01             50 F0 00182      INSV    R0, #1, #1, COPY$CLI_STATUS              ;
                                     CC    A7 9F 00188      PUSHAB  READ_CHECK_DESC                          ; 0844
                            68             01 FB 0018B      CALLS   #1, CLI$PRESENT                          ;
     66      01             00             50 F0 0018E      INSV    R0, #0, #1, COPY$CLI_STATUS+4            ;
                                     E0    A7 9F 00193      PUSHAB  WRITE_CHECK_DESC                         ; 0846
                            68             01 FB 00196      CALLS   #1, CLI$PRESENT                          ;
                 00000000G  8F             50 D1 00199      CMPL    R0, #CLI$_PRESENT                        ; 0848
                                           09 13 001A0      BEQL    12$                                      ;
                 00000000G  8F             50 D1 001A2      CMPL    R0, #CLI$_LOCPRES                        ;
                                           05 12 001A9      BNEQ    13$                                      ;
                            66             08 88 001AB 12$: BISB2   #8, COPY$CLI_STATUS+4                    ; 0849
                                           0C 11 001AE      BRB     14$                                      ;
                 00000000G  8F             50 D1 001B0 13$: CMPL    R0, #CLI$_NEGATED                        ; 0850
                                           03 12 001B7      BNEQ    14$                                      ;
                            66             10 88 001B9      BISB2   #16, COPY$CLI_STATUS+4                   ;
                                     E0    A7 9F 001BC 14$: PUSHAB  WRITE_CHECK_DESC                         ; 0852
                            68             01 FB 001BF      CALLS   #1, CLI$PRESENT                          ;
     66      01             03             50 F0 001C2      INSV    R0, #3, #1, COPY$CLI_STATUS+4            ;
                                   FF7C    C7 9F 001C7      PUSHAB  CONTIGUOUS_DESC                          ; 0854
                            68             01 FB 001CB      CALLS   #1, CLI$PRESENT                          ;
                 00000000G  8F             50 D1 001CE      CMPL    R0, #CLI$_PRESENT                        ; 0856
                                           09 13 001D5      BEQL    15$                                      ;
```

```
                                                     N  4
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                  00000000G  8F            50  D1 001D7         CMPL    R0, #CLI$_LOCPRES                       :
                                           06  12 001DE         BNEQ    16$                                     :
                         FE  A6            08  88 001E0  15$:   BISB2   #8, COPY$CLI_STATUS+2                   : 0857
                                           0D  11 001E4         BRB     17$                                     :
                  00000000G  8F            50  D1 001E6  16$:   CMPL    R0, #CLI$_NEGATED                       : 0858
                                           04  12 001ED         BNEQ    17$                                     :
                         FE  A6            10  88 001EF         BISB2   #16, COPY$CLI_STATUS+2                  :
                                   FF68    C7  9F 001F3  17$:   PUSHAB  ALLOCATION_DESC                         : 0864
                             68            01  FB 001F7         CALLS   #1, CLI$PRESENT                         :
  FE   A6          01        00            50  F0 001FA         INSV    R0, #0, #1, COPY$CLI_STATUS+2           :
                             6E            50  E9 00200         BLBC    R0, 20$                                 :
                                     04    AE  9F 00203         PUSHAB  CLI_DESC                                : 0870
                                   FF68    C7  9F 00206         PUSHAB  ALLOCATION_DESC                         :
                      0000G  CF            02  FB 0020A         CALLS   #2, CLI$GET_VALUE                       :
                                     04    A6  9F 0020F         PUSHAB  COPY$CLI_STATUS+8                       : 0872
                                     0C    AE  DD 00212         PUSHL   CLI_DESC+4                              :
                             7E      0C    AE  3C 00215         MOVZWL  CLI_DESC, -(SP)                         : 0871
                  00000000G  00            03  FB 00219         CALLS   #3, LIB$CVT_DTB                         :
                             52            50  D0 00220         MOVL    R0, RTN_STATUS                          :
                             45            52  E8 00223         BLBS    RTN_STATUS, 19$                         :
                             7E    132C    8F  3C 00226         MOVZWL  #4908, -(SP)                            : 0874
                             69            01  FB 0022B         CALLS   #1, COPY$MSG_NUMBER                     :
       7E          00        50            01  7A 0022E         EMUL    #1, R0, #0, -(SP)                       :
       50          50        8E            08  7B 00233         EDIV    #8, (SP)+, R0, R0                       :
                             04            50  D1 00238         CMPL    R0, #4                                  :
                                           18  13 0023B         BEQL    18$                                     :
                                   FF68    C7  9F 0023D         PUSHAB  ALLOCATION_DESC                         :
                                     08    AE  9F 00241         PUSHAB  CLI_DESC                                :
                                           02  DD 00244         PUSHL   #2                                      :
                             7E    132C    8F  3C 00246         MOVZWL  #4908, -(SP)                            :
                             69            01  FB 0024B         CALLS   #1, COPY$MSG_NUMBER                     :
                                           50  DD 0024E         PUSHL   R0                                      :
                             6A            04  FB 00250         CALLS   #4, LIB$SIGNAL                          :
                                           16  11 00253         BRB     19$                                     :
                                   FF68    C7  9F 00255  18$:   PUSHAB  ALLOCATION_DESC                         :
                                     08    AE  9F 00259         PUSHAB  CLI_DESC                                :
                                           02  DD 0025C         PUSHL   #2                                      :
                             7E    132C    8F  3C 0025E         MOVZWL  #4908, -(SP)                            :
                             69            01  FB 00263         CALLS   #1, COPY$MSG_NUMBER                     :
                                           50  DD 00266         PUSHL   R0                                      :
                             6B            04  FB 00268         CALLS   #4, LIB$STOP                            :
                      0000'  CF      04    A6  D0 0026B  19$:   MOVL    COPY$CLI_STATUS+8, CURR_ALLOCATION_VALUE : 0875
                                     90    A7  9F 00271  20$:   PUSHAB  EXTENSION_DESC                          : 0881
                             68            01  FB 00274         CALLS   #1, CLI$PRESENT                         :
  FE   A6          01        07            50  F0 00277         INSV    R0, #7, #1, COPY$CLI_STATUS+2           :
                             6B            50  E9 0027D         BLBC    R0, 23$                                 :
                                     04    AE  9F 00280         PUSHAB  CLI_DESC                                : 0887
                                     90    A7  9F 00283         PUSHAB  EXTENSION_DESC                          :
                      0000G  CF            02  FB 00286         CALLS   #2, CLI$GET_VALUE                       :
                                     08    A6  9F 0028B         PUSHAB  COPY$CLI_STATUS+12                      : 0889
                                     0C    AE  DD 0028E         PUSHL   CLI_DESC+4                              :
                             7E      0C    AE  3C 00291         MOVZWL  CLI_DESC, -(SP)                         : 0888
                  00000000G  00            03  FB 00295         CALLS   #3, LIB$CVT_DTB                         :
                             52            50  D0 0029C         MOVL    R0, RTN_STATUS                          :
                             43            52  E8 0029F         BLBS    RTN_STATUS, 22$                         :
                             7E    132C    8F  3C 002A2         MOVZWL  #4908, -(SP)                            : 0891
                             69            01  FB 002A7         CALLS   #1, COPY$MSG_NUMBER                     :
```

```
      7E          00                   50          01 7A 002AA       EMUL     #1, R0, #0, -(SP)                              ;
      50          50                   8E          08 7B 002AF       EDIV     #8, (SP)+, R0, R0                              ;
                                       04          50 D1 002B4       CMPL     R0, #4                                         ;
                                                   17 13 002B7       BEQL     21$                                            ;
                                               90  A7 9F 002B9       PUSHAB   EXTENSION_DESC                                 ;
                                               08  AE 9F 002BC       PUSHAB   CLI_DESC                                       ;
                                                   02 DD 002BF       PUSHL    #2                                             ;
                                       7E    132C  8F 3C 002C1       MOVZWL   #4908, -(SP)                                   ;
                                       69          01 FB 002C6       CALLS    #1, COPY$MSG_NUMBER                            ;
                                                   50 DD 002C9       PUSHL    R0                                             ;
                                       6A          04 FB 002CB       CALLS    #4, LIB$SIGNAL                                 ;
                                                   15 11 002CE       BRB      22$                                            ;
                                               90  A7 9F 002D0 21$:  PUSHAB   EXTENSION_DESC                                 ;
                                               08  AE 9F 002D3       PUSHAB   CLI_DESC                                       ;
                                                   02 DD 002D6       PUSHL    #2                                             ;
                                       7E    132C  8F 3C 002D8       MOVZWL   #4908, -(SP)                                   ;
                                       69          01 FB 002DD       CALLS    #1, COPY$MSG_NUMBER                            ;
                                                   50 DD 002E0       PUSHL    R0                                             ;
                                       6B          04 FB 002E2       CALLS    #4, LIB$STOP                                   ;
                              0000'    CF      08  A6 D0 002E5 22$:  MOVL     COPY$CLI_STATUS+12, CURR_EXTENSION_VALUE       ; 0892
                                               A4  A7 9F 002EB 23$:  PUSHAB   FILE_MAX_DESC                                  ; 0898
                                       68          01 FB 002EE       CALLS    #1, CLI$PRESENT                                ;
FF    A6          01                   02          50 F0 002F1       INSV     R0, #2, #1, COPY$CLI_STATUS+3                  ;
                                       6B          50 E9 002F7       BLBC     R0, 26$                                        ;
                                               04  AE 9F 002FA       PUSHAB   CLI_DESC                                       ; 0904
                                               A4  A7 9F 002FD       PUSHAB   FILE_MAX_DESC                                  ;
                              0000G    CF          02 FB 00300       CALLS    #2, CLI$GET_VALUE                              ;
                                               0C  A6 9F 00305       PUSHAB   COPY$CLI_STATUS+16                             ; 0906
                                               0C  AE DD 00308       PUSHL    CLI_DESC+4                                     ;
                                       7E      0C  AE 3C 0030B       MOVZWL   CLI_DESC, -(SP)                                ; 0905
                          00000000G    00          03 FB 0030F       CALLS    #3, LIB$CVT_DTB                                ;
                                       52          50 D0 00316       MOVL     R0, RTN_STATUS                                 ;
                                       43          52 E8 00319       BLBS     RTN_STATUS, 25$                                ;
                                       7E    132C  8F 3C 0031C       MOVZWL   #4908, -(SP)                                   ; 0908
                                       69          01 FB 00321       CALLS    #1, COPY$MSG_NUMBER                            ;
      7E          00                   50          01 7A 00324       EMUL     #1, R0, #0, -(SP)                              ;
      50          50                   8E          08 7B 00329       EDIV     #8, (SP)+, R0, R0                              ;
                                       04          50 D1 0032E       CMPL     R0, #4                                         ;
                                                   17 13 00331       BEQL     24$                                            ;
                                               A4  A7 9F 00333       PUSHAB   FILE_MAX_DESC                                  ;
                                               08  AE 9F 00336       PUSHAB   CLI_DESC                                       ;
                                                   02 DD 00339       PUSHL    #2                                             ;
                                       7E    132C  8F 3C 0033B       MOVZWL   #4908, -(SP)                                   ;
                                       69          01 FB 00340       CALLS    #1, COPY$MSG_NUMBER                            ;
                                                   50 DD 00343       PUSHL    R0                                             ;
                                       6A          04 FB 00345       CALLS    #4, LIB$SIGNAL                                 ;
                                                   15 11 00348       BRB      25$                                            ;
                                               A4  A7 9F 0034A 24$:  PUSHAB   FILE_MAX_DESC                                  ;
                                               08  AE 9F 0034D       PUSHAB   CLI_DESC                                       ;
                                                   02 DD 00350       PUSHL    #2                                             ;
                                       7E    132C  8F 3C 00352       MOVZWL   #4908, -(SP)                                   ;
                                       69          01 FB 00357       CALLS    #1, COPY$MSG_NUMBER                            ;
                                                   50 DD 0035A       PUSHL    R0                                             ;
                                       6B          04 FB 0035C       CALLS    #4, LIB$STOP                                   ;
                              0000'    CF      0C  A6 D0 0035F 25$:  MOVL     COPY$CLI_STATUS+16, CURR_FILE_MAX_VALUE        ; 0909
                                               B8  A7 9F 00365 26$:  PUSHAB   PROTECTION_DESC                                ; 0915
                                       68          01 FB 00368       CALLS    #1, CLI$PRESENT                                ;
```

```
     FF   A6            01                05              50  F0 0036B           INSV    R0, #5, #1, COPY$CLI_STATUS+3              ;
                                          11              50  E9 00371           BLBC    R0, 27$                                    ;
                                 0000V    CF              00  FB 00374           CALLS   #0, PROTECTION_PARSE                       ; 0921
                                    12    A6      0000'   CF  B0 00379           MOVW    CURR_PROTECTION_AND, COPY$CLI_STATUS+22    ; 0922
                                    10    A6      0000'   CF  B0 0037F           MOVW    CURR_PROTECTION_OR, COPY$CLI_STATUS+20     ; 0923
                                                              04 00385 27$:      RET                                                ; 0925

; Routine Size:  902 bytes,    Routine Base:  $CODE$ + 0000
```

```
1 GLOBAL ROUTINE COPY$GET_LOCAL_QUAL:  NOVALUE =              ! Retrieve local qualifiers from the CLI
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine retrieves the local command qualifiers from the command
1 !       line.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       None
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       None
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       COPY$CLI_STATUS - Relevant command and qualifier indicators set
1 !
1 ! ROUTINE VALUE:
1 !
1 !       None
1 !
1 ! SIDE EFFECTS:
1 !
1 !       None
1 !
1 !--
1
2     BEGIN
2
2     LOCAL
2         rtn_status,                                     ! Status returned from external calls
2         cli_desc :  $BBLOCK[ dsc$c_s_bln ]              ! Dynamic string descriptor, points to values
2         ;                                               !   returned from calls to the CLI
2
2     BIND
2
2         MSG_DESC        = $DESCRIPTOR('can''t change quals in the middle of the command')
2         ;
2
2
2
2
2     ! Initialize descriptor.  Also, if a new output file is being created, then
2     ! reset the current qualifier values to the global values.  This insures
2     ! that if a previous local qualifier changed the value and, on this
2     ! iteration, there is no local qualifier, the value used when creating the
2     ! output file will be the one given by the global qualifier, not the
2     ! previous local qualifier.
2     !
2     CH$FILL( 0, DSC$C_S_BLN, cli_desc);
2     cli_desc[ DSC$B_CLASS ] = DSC$K_CLASS_D;
2
2     IF not .outfile_open
2     THEN
```

```
    BEGIN
    curr_allocation_value = .allocation_value;
    curr_extension_value  = .extension_value;
    curr_file_max_value   = .file_max_value;
    curr_protection_or    = .protection_or;
    curr_protection_and   = .protection_and;
    curr_volume_value     = .volume_value;
    END;


  ! Determine if this is a COPY or APPEND command.
  !
IF NOT .append_command
THEN
    BEGIN

    ! It is a COPY command.  Parse the COPY specific qualifiers.
    !
    ! Initialize the flags for the local qualifier states.  Assume that
    ! there will be no local qualifier.  See if the qualifier is present.
    ! If is is, see if it is locally present or locally negated.  Set the
    ! appropriate flags.  The output file can not be open for the local
    ! qualifiers to be accepted.  The local qualifiers effect the attributes
    ! of the output file at creation time (i.e. allocation, location, etc.).
    ! These things cannot change once the file is open.  Therefore, if the
    ! output file is open and a local qualifier has been encountered, issue
    ! a warning, ignore the qualifier and continue processing.
    !
    ! /OVERLAY
    !
    loc_overlay_qual = neg_overlay_qual = FALSE;
    rtn_status = CLI$PRESENT( overlay_desc );
    SELECTONE .rtn_status OF
        SET
        [CLI$_LOCPRES] : IF NOT .outfile_open
                         THEN loc_overlay_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );

        [CLI$_LOCNEG]  : IF NOT .outfile_open
                         THEN neg_overlay_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
        TES;


    ! /REPLACE
    !
    loc_replace_qual = neg_replace_qual = FALSE;
    rtn_status = CLI$PRESENT( replace_desc );
    SELECTONE .rtn_status OF
        SET
        [CLI$_LOCPRES] : IF NOT .outfile_open
                         THEN loc_replace_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );

        [CLI$_LOCNEG]  : IF NOT .outfile_open
                         THEN neg_replace_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
```

```
3                   TES;
3
3
3           ! /TRUNCATE
3           !
3           loc_truncate_qual = neg_truncate_qual = FALSE;
3           rtn_status = CLI$PRESENT( truncate_desc );
3           SELECTONE .rtn_status OF
3               SET
3               [CLI$_LOCPRES] : IF NOT .outfile_open
3                                THEN loc_truncate_qual = TRUE
3                                ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
3
3               [CLI$_LOCNEG]  : IF NOT .outfile_open
3                                THEN neg_truncate_qual = TRUE
3                                ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
3               TES;
3
3
3           ! /VOLUME
3           !
3           loc_volume_qual = neg_volume_qual = FALSE;
3           rtn_status = CLI$PRESENT( volume_desc );
3           SELECTONE .rtn_status OF
3               SET
3               [CLI$_LOCPRES] : IF NOT .outfile_open
3                                THEN
4                                   BEGIN
4
4                                   ! Get the value and and convert it from a string into binary.
4                                   !
4                                   CLI$GET_VALUE( volume_desc, cli_desc );
5                                   IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
5                                                       .cli_desc[ DSC$A_POINTER ], curr_volume_value))
4                                   THEN
4                                       PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, volume_desc );
4                                   loc_volume_qual = TRUE;
4                                   END
3                                ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
3
3               [CLI$_LOCNEG]  : IF NOT .outfile_open
3                                THEN neg_volume_qual = TRUE
3                                ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
3               TES;
2           END;
2
2       ! Parse the qualifiers which are applicable to both commands.
2       !
2       ! /READ_CHECK, /WRITE_CHECK and /CONTIGUOUS
2       !
2       loc_read_chk_qual = neg_read_chk_qual = FALSE;
2       rtn_status = CLI$PRESENT( read_check_desc );
2       SELECTONE .rtn_status OF
2           SET
2           [CLI$_LOCPRES] : IF NOT .outfile_open
2                            THEN loc_read_chk_qual = TRUE
2                            ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
```

```

        [CLI$_LOCNEG]  : IF NOT .outfile_open
                         THEN neg_read_chk_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
        TES;


    loc_write_chk_qual = neg_write_chk_qual = FALSE;
    rtn_status = CLI$PRESENT( write_check_desc );
    SELECTONE .rtn_status OF
        SET
        [CLI$_LOCPRES] : IF NOT .outfile_open
                         THEN loc_write_chk_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );

        [CLI$_LOCNEG]  : IF NOT .outfile_open
                         THEN neg_write_chk_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
        TES;


    loc_contig_qual = neg_contig_qual = FALSE;
    rtn_status = CLI$PRESENT( contiguous_desc );
    SELECTONE .rtn_status OF
        SET
        [CLI$_LOCPRES] : IF NOT .outfile_open
                         THEN loc_contig_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );

        [CLI$_LOCNEG]  : IF NOT .outfile_open
                         THEN neg_contig_qual = TRUE
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
        TES;


    ! /ALLOCATION
    !
    loc_alloc_qual = neg_alloc_qual = FALSE;
    rtn_status = CLI$PRESENT( allocation_desc );
    SELECTONE .rtn_status OF
        SET
        [CLI$_LOCPRES] : IF NOT .outfile_open
                         THEN
                            BEGIN

                            ! Get the value and and convert it from a string into binary.
                            !
                            CLI$GET_VALUE( allocation_desc, cli_desc );
                            IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
                                                   .cli_desc[ DSC$A_POINTER ], curr_allocation_value))
                            THEN
                                PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, allocation_desc );
                            loc_alloc_qual = TRUE;
                            END
                         ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );

        [CLI$_LOCNEG]  : IF NOT .outfile_open
```

```
2                               THEN neg_alloc_qual = TRUE
2                               ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
2           TES;
2
2
2       ! /EXTENSION
2       !
2       loc_extend_qual = neg_extend_qual = FALSE;
2       rtn_status = CLI$PRESENT( extension_desc );
2       SELECTONE .rtn_status OF
2           SET
2           [CLI$_LOCPRES] : IF NOT .outfile_open
2                               THEN
3                                   BEGIN
3
3                                   ! Get the value and and convert it from a string into binary.
3                                   !
3                                   CLI$GET_VALUE( extension_desc, cli_desc );
4                                   IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
4                                                   .cli_desc[ DSC$A_POINTER ], curr_extension_value))
3                                   THEN
3                                       PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, extension_desc );
3                                   loc_extend_qual = TRUE;
3                                   END
2                               ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
2
2           [CLI$_LOCNEG]  : IF NOT .outfile_open
2                               THEN neg_extend_qual = TRUE
2                               ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
2           TES;
2
2
2       ! /FILE_MAXIMUM
2       !
2       loc_file_max_qual = neg_file_max_qual = FALSE;
2       rtn_status = CLI$PRESENT( file_max_desc );
2       SELECTONE .rtn_status OF
2           SET
2           [CLI$_LOCPRES] : IF NOT .outfile_open
2                               THEN
3                                   BEGIN
3
3                                   ! Get the value and and convert it from a string into binary.
3                                   !
3                                   CLI$GET_VALUE( file_max_desc, cli_desc );
4                                   IF NOT (rtn_status = LIB$CVT_DTB(.cli_desc[ DSC$W_LENGTH ],
4                                                   .cli_desc[ DSC$A_POINTER ], curr_file_max_value))
3                                   THEN
3                                       PUT_MESSAGEX( MSG$_INVQUAVAL, 2, cli_desc, file_max_desc );
3                                   loc_file_max_qual = TRUE;
3                                   END
2                               ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
2
2           [CLI$_LOCNEG]  : IF NOT .outfile_open
2                               THEN neg_extend_qual = TRUE
2                               ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
2           TES;
```

```
      2
      2
      2        ! /PROTECTION
      2        !
      2        loc_protect_qual = neg_protect_qual = FALSE;
      2        rtn_status = CLI$PRESENT( protection_desc );
      2        SELECTONE .rtn_status OF
      2            SET
      2            [CLI$_LOCPRES] : IF NOT .outfile_open
      2                             THEN
      3                                 BEGIN
      3
      3                                 ! Parse the keyword values and save the results.
      3                                 !
      3                                 protection_parse();
      3                                 loc_protect_qual = TRUE;
      3                                 END
      2                             ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
      2
      2            [CLI$_LOCNEG]  : IF NOT .outfile_open
      2                             THEN neg_protect_qual = TRUE
      2                             ELSE PUT_MESSAGE( MSG$_REPLACED, 1, MSG_DESC );
      2            TES;
      2
      1        END;                                              ! routine COPY$GET_GLOBAL_QUAL


                                                                         .PSECT  $PLIT$,NOWRT,NOEXE,2

75 71 20 65 67 6E 61 68 63 20 74 22 6E 61 63  00110 P.ABF:  .ASCII  \can''t change quals in the middle of the \  ;
64 64 69 6D 20 65 68 74 20 6E 69 20 73 6C 61  0011F                                                            ;
               20 65 68 74 20 66 6F 20 65 6C  0012E                                                            ;
                        64 6E 61 6D 6D 6F 63  00138         .ASCII  \command\                                  ;
                                              0013F         .BLKB   1
                                   0000002F   00140 P.ABE:  .LONG   47                                         ;
                                   00000000'  00144         .ADDRESS P.ABF                                     ;

                                                    MSG_DESC=           P.ABE


                                                                         .PSECT  $CODE$,NOWRT,2

                                        0FFC  00000         .ENTRY  COPY$GET_LOCAL_QUAL, Save R2,R3,R4,R5,R6,-   ; 0926
                                                                    R7,R8,R9,R10,R11
                      5B 00000000G  8F  D0  00002         MOVL    #CLI$_LOCPRES, R11                           ;
                      5A     0000G  CF  9E  00009         MOVAB   COPY$SEM_STATUS, R10                         ;
                      59     0000G  CF  9E  0000E         MOVAB   COPY$MSG_NUMBER, R9                          ;
                      58 00000000G  00  9E  00013         MOVAB   LIB$SIGNAL, R8                               ;
                      57     0000'  CF  9E  0001A         MOVAB   MSG_DESC, R7                                 ;
                      56     0000G  CF  9E  0001F         MOVAB   COPY$CLI_STATUS+4, R6                        ;
                      5E            08  C2  00024         SUBL2   #8, SP                                       ;
     08         00    6E            00  2C  00027         MOVC5   #0, (SP), #0, #8, CLI_DESC                   ; 0978
                      6E                    0002C
                03    AE            02  90  0002D         MOVB    #2, CLI_DESC+3                               ; 0979
           1E   02    AA            01  E0  00031         BBS     #1, COPY$SEM_STATUS+2, 1$                    ; 0981
              0000'   CF        04  A6  7D  00036         MOVQ    COPY$CLI_STATUS+8, CURR_ALLOCATION_VALUE     ; 0984
              0000'   CF        0C   A6  D0 0003C       MOVL    COPY$CLI_STATUS+16, CURR_FILE_MAX_VALUE        ; 0986
              0000'   CF        10   A6  B0 00042       MOVW    COPY$CLI_STATUS+20, CURR_PROTECTION_OR         ; 0987
              0000'   CF        12   A6  B0 00048       MOVW    COPY$CLI_STATUS+22, CURR_PROTECTION_AND        ; 0988
              0000'   CF        14   A6  D0 0004E       MOVL    COPY$CLI_STATUS+24, CURR_VOLUME_VALUE          ; 0989
                      03        FC   A6  E9 00054  1$:  BLBC    COPY$CLI_STATUS, 2$                            ; 0995
                                   017C  31 00058       BRW     17$                                            ;
                 01   A6             03  8A 0005B  2$:  BICB2   #3, COPY$CLI_STATUS+5                          ; 1013
                                98   A7  9F 0005F       PUSHAB  OVERLAY_DESC                                   ; 1014
              0000G   CF             01  FB 00062       CALLS   #1, CLI$PRESENT                                ;
                      52             50  D0 00067       MOVL    R0, RTN_STATUS                                 ;
                      5B             52  D1 0006A       CMPL    RTN_STATUS, R11                                ; 1017
                                     0B  12 0006D       BNEQ    3$                                             ;
     1A          02   AA             01  E0 0006F       BBS     #1, COPY$SEM_STATUS+2, 4$                      ;
                 01   A6             01  88 00074       BISB2   #1, COPY$CLI_STATUS+5                          ; 1018
                                     25  11 00078       BRB     5$                                             ;
          00000000G   8F             52  D1 0007A  3$:  CMPL    RTN_STATUS, #CLI$_LOCNEG                       ; 1021
                                     1C  12 00081       BNEQ    5$                                             ;
     06          02   AA             01  E0 00083       BBS     #1, COPY$SEM_STATUS+2, 4$                      ;
                 01   A6             02  88 00088       BISB2   #2, COPY$CLI_STATUS+5                          ; 1022
                                     11  11 0008C       BRB     5$                                             ;
                                     57  DD 0008E  4$:  PUSHL   R7                                             ; 1023
                                     01  DD 00090       PUSHL   #1                                             ;
                      7E      10BB   8F  3C 00092       MOVZWL  #4283, -(SP)                                   ;
                      69             01  FB 00097       CALLS   #1, COPY$MSG_NUMBER                            ;
                                     50  DD 0009A       PUSHL   R0                                             ;
                      68             03  FB 0009C       CALLS   #3, LIB$SIGNAL                                 ;
                 02   A6             0C  8A 0009F  5$:  BICB2   #12, COPY$CLI_STATUS+6                         ; 1029
                                C8   A7  9F 000A3       PUSHAB  REPLACE_DESC                                   ; 1030
              0000G   CF             01  FB 000A6       CALLS   #1, CLI$PRESENT                                ;
                      52             50  D0 000AB       MOVL    R0, RTN_STATUS                                 ;
                      5B             52  D1 000AE       CMPL    RTN_STATUS, R11                                ; 1033
                                     0B  12 000B1       BNEQ    6$                                             ;
     1A          02   AA             01  E0 000B3       BBS     #1, COPY$SEM_STATUS+2, 7$                      ;
                 02   A6             04  88 000B8       BISB2   #4, COPY$CLI_STATUS+6                          ; 1034
                                     25  11 000BC       BRB     8$                                             ;
          00000000G   8F             52  D1 000BE  6$:  CMPL    RTN_STATUS, #CLI$_LOCNEG                       ; 1037
                                     1C  12 000C5       BNEQ    8$                                             ;
     06          02   AA             01  E0 000C7       BBS     #1, COPY$SEM_STATUS+2, 7$                      ;
                 02   A6             08  88 000CC       BISB2   #8, COPY$CLI_STATUS+6                          ; 1038
                                     11  11 000D0       BRB     8$                                             ;
                                     57  DD 000D2  7$:  PUSHL   R7                                             ; 1039
                                     01  DD 000D4       PUSHL   #1                                             ;
                      7E      10BB   8F  3C 000D6       MOVZWL  #4283, -(SP)                                   ;
                      69             01  FB 000DB       CALLS   #1, COPY$MSG_NUMBER                            ;
                                     50  DD 000DE       PUSHL   R0                                             ;
                      68             03  FB 000E0       CALLS   #3, LIB$SIGNAL                                 ;
                 01   A6      0180   8F  AA 000E3  8$:  BICW2   #384, COPY$CLI_STATUS+5                        ; 1045
                                B8   A7  9F 000E9       PUSHAB  TRUNCATE_DESC                                  ; 1046
              0000G   CF             01  FB 000EC       CALLS   #1, CLI$PRESENT                                ;
                      52             50  D0 000F1       MOVL    R0, RTN_STATUS                                 ;
                      5B             52  D1 000F4       CMPL    RTN_STATUS, R11                                ; 1049
                                     0C  12 000F7       BNEQ    9$                                             ;
     1B          02   AA             01  E0 000F9       BBS     #1, COPY$SEM_STATUS+2, 10$                     ;
                 01   A6        80   8F  88 000FE       BISB2   #128, COPY$CLI_STATUS+5                        ; 1050
                                     25  11 00103       BRB     11$                                            ;
          00000000G   8F             52  D1 00105  9$:  CMPL    RTN_STATUS, #CLI$_LOCNEG                       ; 1053
                                     1C  12 0010C       BNEQ    11$                                            ;
```

```
                  06          02  AA              01  E0 0010E        BBS      #1, COPY$SEM_STATUS+2, 10$             ;
                              02  A6              01  88 00113        BISB2    #1, COPY$CLI_STATUS+6                  ; 1054
                                                  11  11 00117        BRB      11$                                    ;
                                                  57  DD 00119  10$:  PUSHL    R7                                     ; 1055
                                                  01  DD 00118        PUSHL    #1                                     ;
                                  7E        10BB  8F  3C 0011D        MOVZWL   #4283, -(SP)                           ;
                                  69              01  FB 00122        CALLS    #1, COPY$MSG_NUMBER                    ;
                                                  50  DD 00125        PUSHL    R0                                     ;
                                  68              03  FB 00127        CALLS    #3, LIB$SIGNAL                         ;
                              01  A6              18  8A 0012A  11$:  BICB2    #24, COPY$CLI_STATUS+5                 ; 1061
                                            A8    A7  9F 0012E        PUSHAB   VOLUME_DESC                            ; 1062
                           0000G  CF              01  FB 00131        CALLS    #1, CLI$PRESENT                        ;
                                  52              50  D0 00136        MOVL     R0, RTN_STATUS                         ;
                                  5B              52  D1 00139        CMPL     RTN_STATUS, R11                        ; 1065
                                                  74  12 0013C        BNEQ     14$                                    ;
                  78          02  AA              01  E0 0013E        BBS      #1, COPY$SEM_STATUS+2, 15$             ;
                                                  5E  DD 00143        PUSHL    SP                                     ; 1071
                                            A8    A7  9F 00145        PUSHAB   VOLUME_DESC                            ;
                           0000G  CF              02  FB 00148        CALLS    #2, CLI$GET_VALUE                      ;
                                           0000'  CF  9F 0014D        PUSHAB   CURR_VOLUME_VALUE                      ; 1072
                                              08  AE  DD 00151        PUSHL    CLI_DESC+4                             ; 1073
                                  7E          08  AE  3C 00154        MOVZWL   CLI_DESC, -(SP)                        ; 1072
                       00000000G  00              03  FB 00158        CALLS    #3, LIB$CVT_DTB                        ;
                                  52              50  D0 0015F        MOVL     R0, RTN_STATUS                         ;
                                  47              52  E8 00162        BLBS     RTN_STATUS, 13$                        ;
                                  7E        132C  8F  3C 00165        MOVZWL   #4908, -(SP)                           ; 1075
                                  69              01  FB 0016A        CALLS    #1, COPY$MSG_NUMBER                    ;
     7E           00              50              01  7A 0016D        EMUL     #1, R0, #0, -(SP)                      ;
     50           50              8E              08  7B 00172        EDIV     #8, (SP)+, R0, R0                      ;
                                  04              50  D1 00177        CMPL     R0, #4                                 ;
                                                  17  13 0017A        BEQL     12$                                    ;
                                            A8    A7  9F 0017C        PUSHAB   VOLUME_DESC                            ;
                                            04    AE  9F 0017F        PUSHAB   CLI_DESC                               ;
                                                  02  DD 00182        PUSHL    #2                                     ;
                                  7E        132C  8F  3C 00184        MOVZWL   #4908, -(SP)                           ;
                                  69              01  FB 00189        CALLS    #1, COPY$MSG_NUMBER                    ;
                                                  50  DD 0018C        PUSHL    R0                                     ;
                                  68              04  FB 0018E        CALLS    #4, LIB$SIGNAL                         ;
                                                  19  11 00191        BRB      13$                                    ;
                                            A8    A7  9F 00193  12$:  PUSHAB   VOLUME_DESC                            ;
                                            04    AE  9F 00196        PUSHAB   CLI_DESC                               ;
                                                  02  DD 00199        PUSHL    #2                                     ;
                                  7E        132C  8F  3C 0019B        MOVZWL   #4908, -(SP)                           ;
                                  69              01  FB 001A0        CALLS    #1, COPY$MSG_NUMBER                    ;
                                                  50  DD 001A3        PUSHL    R0                                     ;
                       00000000G  00              04  FB 001A5        CALLS    #4, LIB$STOP                           ;
                              01  A6              08  88 001AC  13$:  BISB2    #8, COPY$CLI_STATUS+5                  ; 1076
                                                  25  11 001B0        BRB      17$                                    ; 1065
                       00000000G  8F              52  D1 001B2  14$:  CMPL     RTN_STATUS, #CLI$_LOCNEG               ; 1080
                                                  1C  12 001B9        BNEQ     17$                                    ;
                  06          02  AA              01  E0 001BB  15$:  BBS      #1, COPY$SEM_STATUS+2, 16$             ;
                              01  A6              10  88 001C0        BISB2    #16, COPY$CLI_STATUS+5                 ; 1081
                                                  11  11 001C4        BRB      17$                                    ;
                                                  57  DD 001C6  16$:  PUSHL    R7                                     ; 1082
                                                  01  DD 001C8        PUSHL    #1                                     ;
                                  7E        10BB  8F  3C 001CA        MOVZWL   #4283, -(SP)                           ;
                                  69              01  FB 001CF        CALLS    #1, COPY$MSG_NUMBER                    ;
```

```
                                    50  DD 001D2          PUSHL   R0                                       ;
                          68        03  FB 001D4          CALLS   #3, LIB$SIGNAL                           ;
                          66        06  8A 001D7 17$:     BICB2   #6, COPY$CLI_STATUS+4                    ; 1090
                              FF74  C7  9F 001DA          PUSHAB  READ_CHECK_DESC                          ; 1091
               0000G      CF        01  FB 001DE          CALLS   #1, CLI$PRESENT                          ;
                          52        50  D0 001E3          MOVL    R0, RTN_STATUS                           ;
                          5B        52  D1 001E6          CMPL    RTN_STATUS, R11                          ; 1094
                                    0A  12 001E9          BNEQ    18$                                      ;
     18        02         AA        01  E0 001EB          BBS     #1, COPY$SEM_STATUS+2, 19$               ;
                          66        02  88 001F0          BISB2   #2, COPY$CLI_STATUS+4                    ; 1095
                                    24  11 001F3          BRB     20$                                      ;
           00000000G      8F        52  D1 001F5 18$:     CMPL    RTN_STATUS, #CLI$_LOCNEG                 ; 1098
                                    1B  12 001FC          BNEQ    20$                                      ;
     05        02         AA        01  E0 001FE          BBS     #1, COPY$SEM_STATUS+2, 19$               ;
                          66        04  88 00203          BISB2   #4, COPY$CLI_STATUS+4                    ; 1099
                                    11  11 00206          BRB     20$                                      ;
                                    57  DD 00208 19$:     PUSHL   R7                                       ; 1100
                                    01  DD 0020A          PUSHL   #1                                       ;
                          7E  10BB  8F  3C 0020C          MOVZWL  #4283, -(SP)                             ;
                          69        01  FB 00211          CALLS   #1, COPY$MSG_NUMBER                      ;
                                    50  DD 00214          PUSHL   R0                                       ;
                          68        03  FB 00216          CALLS   #3, LIB$SIGNAL                           ;
                          66    60  8F  8A 00219 20$:     BICB2   #96, COPY$CLI_STATUS+4                   ; 1104
                                88  A7  9F 0021D          PUSHAB  WRITE_CHECK_DESC                         ; 1105
               0000G      CF        01  FB 00220          CALLS   #1, CLI$PRESENT                          ;
                          52        50  D0 00225          MOVL    R0, RTN_STATUS                           ;
                          5B        52  D1 00228          CMPL    RTN_STATUS, R11                          ; 1108
                                    0A  12 0022B          BNEQ    21$                                      ;
     19        02         AA        01  E0 0022D          BBS     #1, COPY$SEM_STATUS+2, 22$               ;
                          66        20  88 00232          BISB2   #32, COPY$CLI_STATUS+4                   ; 1109
                                    25  11 00235          BRB     23$                                      ;
           00000000G      8F        52  D1 00237 21$:     CMPL    RTN_STATUS, #CLI$_LOCNEG                 ; 1112
                                    1C  12 0023E          BNEQ    23$                                      ;
     06        02         AA        01  E0 00240          BBS     #1, COPY$SEM_STATUS+2, 22$               ;
                          66    40  8F  88 00245          BISB2   #64, COPY$CLI_STATUS+4                   ; 1113
                                    11  11 00249          BRB     23$                                      ;
                                    57  DD 0024B 22$:     PUSHL   R7                                       ; 1114
                                    01  DD 0024D          PUSHL   #1                                       ;
                          7E  10BB  8F  3C 0024F          MOVZWL  #4283, -(SP)                             ;
                          69        01  FB 00254          CALLS   #1, COPY$MSG_NUMBER                      ;
                                    50  DD 00257          PUSHL   R0                                       ;
                          68        03  FB 00259          CALLS   #3, LIB$SIGNAL                           ;
                FE        A6    60  8F  8A 0025C 23$:     BICB2   #96, COPY$CLI_STATUS+2                   ; 1118
                              FF24  C7  9F 00261          PUSHAB  CONTIGUOUS_DESC                          ; 1119
               0000G      CF        01  FB 00265          CALLS   #1, CLI$PRESENT                          ;
                          52        50  D0 0026A          MOVL    R0, RTN_STATUS                           ;
                          5B        52  D1 0026D          CMPL    RTN_STATUS, R11                          ; 1122
                                    0B  12 00270          BNEQ    24$                                      ;
     1B        02         AA        01  E0 00272          BBS     #1, COPY$SEM_STATUS+2, 25$               ;
                FE        A6        20  88 00277          BISB2   #32, COPY$CLI_STATUS+2                   ; 1123
                                    26  11 0027B          BRB     26$                                      ;
           00000000G      8F        52  D1 0027D 24$:     CMPL    RTN_STATUS, #CLI$_LOCNEG                 ; 1126
                                    1D  12 00284          BNEQ    26$                                      ;
     07        02         AA        01  E0 00286          BBS     #1, COPY$SEM_STATUS+2, 25$               ;
                FE        A6    40  8F  88 0028B          BISB2   #64, COPY$CLI_STATUS+2                   ; 1127
                                    11  11 00290          BRB     26$                                      ;
                                    57  DD 00292 25$:     PUSHL   R7                                       ; 1128
```

```
                                      01 DD 00294       PUSHL   #1                                      ;
                             7E 10BB  8F 3C 00296       MOVZWL  #4283, -(SP)                            ;
                             69       01 FB 0029B       CALLS   #1, COPY$MSG_NUMBER                     ;
                                      50 DD 0029E       PUSHL   R0                                      ;
                             68       03 FB 002A0       CALLS   #3, LIB$SIGNAL                          ;
                          FE A6       06 8A 002A3 26$:  BICB2   #6, COPY$CLI_STATUS+2                   ; 1134
                                FF10  C7 9F 002A7       PUSHAB  ALLOCATION_DESC                         ; 1135
                       0000G CF       01 FB 002AB       CALLS   #1, CLI$PRESENT                         ;
                             52       50 D0 002B0       MOVL    R0, RTN_STATUS                          ;
                             5B       52 D1 002B3       CMPL    RTN_STATUS, R11                         ; 1138
                                      77 12 002B6       BNEQ    29$                                     ;
                  7B      02 AA       01 E0 002B8       BBS     #1, COPY$SEM_STATUS+2, 30$              ;
                                      5E DD 002BD       PUSHL   SP                                      ; 1144
                                FF10  C7 9F 002BF       PUSHAB  ALLOCATION_DESC                         ;
                       0000G CF       02 FB 002C3       CALLS   #2, CLI$GET_VALUE                       ;
                               0000'  CF 9F 002C8       PUSHAB  CURR_ALLOCATION_VALUE                   ; 1145
                             AE   08  AE DD 002CC       PUSHL   CLI_DESC+4                              ; 1146
                          7E AE   08  AE 3C 002CF       MOVZWL  CLI_DESC, -(SP)                         ; 1145
                   00000000G 00       03 FB 002D3       CALLS   #3, LIB$CVT_DTB                         ;
                             52       50 D0 002DA       MOVL    R0, RTN_STATUS                          ;
                             49       52 E8 002DD       BLBS    RTN_STATUS, 28$                         ;
                             7E 132C  8F 3C 002E0       MOVZWL  #4908, -(SP)                            ; 1148
                             69       01 FB 002E5       CALLS   #1, COPY$MSG_NUMBER                     ;
        7E                00 50       01 7A 002E8       EMUL    #1, R0, #0, -(SP)                       ;
        50                50 8E       08 7B 002ED       EDIV    #8, (SP)+, R0, R0                       ;
                             04       50 D1 002F2       CMPL    R0, #4                                  ;
                                      18 13 002F5       BEQL    27$                                     ;
                                FF10  C7 9F 002F7       PUSHAB  ALLOCATION_DESC                         ;
                                  04  AE 9F 002FB       PUSHAB  CLI_DESC                                ;
                                      02 DD 002FE       PUSHL   #2                                      ;
                             7E 132C  8F 3C 00300       MOVZWL  #4908, -(SP)                            ;
                             69       01 FB 00305       CALLS   #1, COPY$MSG_NUMBER                     ;
                                      50 DD 00308       PUSHL   R0                                      ;
                             68       04 FB 0030A       CALLS   #4, LIB$SIGNAL                          ;
                                      1A 11 0030D       BRB     28$                                     ;
                                FF10  C7 9F 0030F 27$:  PUSHAB  ALLOCATION_DESC                         ;
                                  04  AE 9F 00313       PUSHAB  CLI_DESC                                ;
                                      02 DD 00316       PUSHL   #2                                      ;
                             7E 132C  8F 3C 00318       MOVZWL  #4908, -(SP)                            ;
                             69       01 FB 0031D       CALLS   #1, COPY$MSG_NUMBER                     ;
                                      50 DD 00320       PUSHL   R0                                      ;
                   00000000G 00       04 FB 00322       CALLS   #4, LIB$STOP                            ;
                          FE A6       02 88 00329 28$:  BISB2   #2, COPY$CLI_STATUS+2                   ; 1149
                                      25 11 0032D       BRB     32$                                     ; 1138
                   00000000G 8F       52 D1 0032F 29$:  CMPL    RTN_STATUS, #CLI$_LOCNEG                ; 1153
                                      1C 12 00336       BNEQ    32$                                     ;
                  06      02 AA       01 E0 00338 30$:  BBS     #1, COPY$SEM_STATUS+2, 31$              ;
                          FE A6       04 88 0033D       BISB2   #4, COPY$CLI_STATUS+2                   ; 1154
                                      11 11 00341       BRB     32$                                     ;
                                      57 DD 00343 31$:  PUSHL   R7                                      ; 1155
                                      01 DD 00345       PUSHL   #1                                      ;
                             7E 10BB  8F 3C 00347       MOVZWL  #4283, -(SP)                            ;
                             69       01 FB 0034C       CALLS   #1, COPY$MSG_NUMBER                     ;
                                      50 DD 0034F       PUSHL   R0                                      ;
                             68       03 FB 00351       CALLS   #3, LIB$SIGNAL                          ;
                          FF A6       03 8A 00354 32$:  BICB2   #3, COPY$CLI_STATUS+3                   ; 1161
                                FF38  C7 9F 00358       PUSHAB  EXTENSION_DESC                          ; 1162
```

```
                      0000G  CF          01  FB 0035C         CALLS    #1, CLI$PRESENT                           ;
                             52          50  D0 00361         MOVL     R0, RTN_STATUS                            ;
                             5B          52  D1 00364         CMPL     RTN_STATUS, R11                           ; 1165
                                         77  12 00367         BNEQ     35$                                       ;
                  7B     02  AA          01  E0 00369         BBS      #1, COPY$SEM_STATUS+2, 36$                ;
                                         5E  DD 0036E         PUSHL    SP                                        ; 1171
                                  FF38   C7  9F 00370         PUSHAB   EXTENSION_DESC                            ;
                      0000G  CF          02  FB 00374         CALLS    #2, CLI$GET_VALUE                         ;
                                 0000'   CF  9F 00379         PUSHAB   CURR_EXTENSION_VALUE                      ; 1172
                                    08   AE  DD 0037D         PUSHL    CLI_DESC+4                                ; 1173
                             7E     08   AE  3C 00380         MOVZWL   CLI_DESC, -(SP)                           ; 1172
                  00000000G  00          03  FB 00384         CALLS    #3, LIB$CVT_DTB                           ;
                             52          50  D0 0038B         MOVL     R0, RTN_STATUS                            ;
                             49          52  E8 0038E         BLBS     RTN_STATUS, 34$                           ;
                             7E   132C   8F  3C 00391         MOVZWL   #4908, -(SP)                              ; 1175
                             69          01  FB 00396         CALLS    #1, COPY$MSG_NUMBER                       ;
       7E         00         50          01  7A 00399         EMUL     #1, R0, #0, -(SP)                         ;
       50         50         8E          08  7B 0039E         EDIV     #8, (SP)+, R0, R0                         ;
                             04          50  D1 003A3         CMPL     R0, #4                                    ;
                                         18  13 003A6         BEQL     33$                                       ;
                                  FF38   C7  9F 003A8         PUSHAB   EXTENSION_DESC                            ;
                                    04   AE  9F 003AC         PUSHAB   CLI_DESC                                  ;
                                         02  DD 003AF         PUSHL    #2                                        ;
                             7E   132C   8F  3C 003B1         MOVZWL   #4908, -(SP)                              ;
                             69          01  FB 003B6         CALLS    #1, COPY$MSG_NUMBER                       ;
                                         50  DD 003B9         PUSHL    R0                                        ;
                             68          04  FB 003BB         CALLS    #4, LIB$SIGNAL                            ;
                                         1A  11 003BE         BRB      34$                                       ;
                                  FF38   C7  9F 003C0  33$:   PUSHAB   EXTENSION_DESC                            ;
                                    04   AE  9F 003C4         PUSHAB   CLI_DESC                                  ;
                                         02  DD 003C7         PUSHL    #2                                        ;
                             7E   132C   8F  3C 003C9         MOVZWL   #4908, -(SP)                              ;
                             69          01  FB 003CE         CALLS    #1, COPY$MSG_NUMBER                       ;
                                         50  DD 003D1         PUSHL    R0                                        ;
                  00000000G  00          04  FB 003D3         CALLS    #4, LIB$STOP                              ;
                         FF  A6          01  88 003DA  34$:   BISB2    #1, COPY$CLI_STATUS+3                     ; 1176
                                         25  11 003DE         BRB      38$                                       ; 1165
                  00000000G  8F          52  D1 003E0  35$:   CMPL     RTN_STATUS, #CLI$_LOCNEG                  ; 1180
                                         1C  12 003E7         BNEQ     38$                                       ;
                  06     02  AA          01  E0 003E9  36$:   BBS      #1, COPY$SEM_STATUS+2, 37$                ;
                         FF  A6          02  88 003EE         BISB2    #2, COPY$CLI_STATUS+3                     ; 1181
                                         11  11 003F2         BRB      38$                                       ;
                                         57  DD 003F4  37$:   PUSHL    R7                                        ; 1182
                                         01  DD 003F6         PUSHL    #1                                        ;
                             7E   10BB   8F  3C 003F8         MOVZWL   #4283, -(SP)                              ;
                             69          01  FB 003FD         CALLS    #1, COPY$MSG_NUMBER                       ;
                                         50  DD 00400         PUSHL    R0                                        ;
                             68          03  FB 00402         CALLS    #3, LIB$SIGNAL                            ;
                         FF  A6          18  8A 00405  38$:   BICB2    #24, COPY$CLI_STATUS+3                    ; 1188
                                  FF4C   C7  9F 00409         PUSHAB   FILE_MAX_DESC                             ; 1189
                      0000G  CF          01  FB 0040D         CALLS    #1, CLI$PRESENT                           ;
                             52          50  D0 00412         MOVL     R0, RTN_STATUS                            ;
                             5B          52  D1 00415         CMPL     RTN_STATUS, R11                           ; 1192
                                         77  12 00418         BNEQ     41$                                       ;
                  7B     02  AA          01  E0 0041A         BBS      #1, COPY$SEM_STATUS+2, 42$                ;
                                         5E  DD 0041F         PUSHL    SP                                        ; 1198
                                  FF4C   C7  9F 00421         PUSHAB   FILE_MAX_DESC                             ;
```

```
                               0000G    CF             02  FB 00425        CALLS   #2, CLI$GET_VALUE                   ;
                                                0000'  CF  9F 0042A        PUSHAB  CURR_FILE_MAX_VALUE                 ; 1199
                                                   08  AE  DD 0042E        PUSHL   CLI_DESC+4                          ; 1200
                                        7E         08  AE  3C 00431        MOVZWL  CLI_DESC, -(SP)                     ; 1199
                           00000000G    00             03  FB 00435        CALLS   #3, LIB$CVT_DTB                     ;
                                        52             50  D0 0043C        MOVL    R0, RTN_STATUS                      ;
                                        49             52  E8 0043F        BLBS    RTN_STATUS, 40$                     ;
                                        7E       132C  8F  3C 00442        MOVZWL  #4908, -(SP)                        ; 1202
                                        69             01  FB 00447        CALLS   #1, COPY$MSG_NUMBER                 ;
      7E         00                     50             01  7A 0044A        EMUL    #1, R0, #0, -(SP)                   ;
      50         50                     8E             08  7B 0044F        EDIV    #8, (SP)+, R0, R0                   ;
                                        04             50  D1 00454        CMPL    R0, #4                              ;
                                                       18  13 00457        BEQL    39$                                 ;
                                                 FF4C  C7  9F 00459        PUSHAB  FILE_MAX_DESC                       ;
                                                   04  AE  9F 0045D        PUSHAB  CLI_DESC                            ;
                                                       02  DD 00460        PUSHL   #2                                  ;
                                        7E       132C  8F  3C 00462        MOVZWL  #4908, -(SP)                        ;
                                        69             01  FB 00467        CALLS   #1, COPY$MSG_NUMBER                 ;
                                                       50  DD 0046A        PUSHL   R0                                  ;
                                        68             04  FB 0046C        CALLS   #4, LIB$SIGNAL                      ;
                                                       1A  11 0046F        BRB     40$                                 ;
                                                 FF4C  C7  9F 00471  39$:  PUSHAB  FILE_MAX_DESC                       ;
                                                   04  AE  9F 00475        PUSHAB  CLI_DESC                            ;
                                                       02  DD 00478        PUSHL   #2                                  ;
                                        7E       132C  8F  3C 0047A        MOVZWL  #4908, -(SP)                        ;
                                        69             01  FB 0047F        CALLS   #1, COPY$MSG_NUMBER                 ;
                                                       50  DD 00482        PUSHL   R0                                  ;
                           00000000G    00             04  FB 00484        CALLS   #4, LIB$STOP                        ;
                                  FF    A6             08  88 0048B  40$:  BISB2   #8, COPY$CLI_STATUS+3               ; 1203
                                                       25  11 0048F        BRB     44$                                 ; 1192
                           00000000G    8F             52  D1 00491  41$:  CMPL    RTN_STATUS, #CLI$_LOCNEG            ; 1207
                                                       1C  12 00498        BNEQ    44$                                 ;
                 06               02    AA             01  E0 0049A  42$:  BBS     #1, COPY$SEM_STATUS+2, 43$          ;
                                  FF    A6             02  88 0049F        BISB2   #2, COPY$CLI_STATUS+3               ; 1208
                                                       11  11 004A3        BRB     44$                                 ;
                                                       57  DD 004A5  43$:  PUSHL   R7                                  ; 1209
                                                       01  DD 004A7        PUSHL   #1                                  ;
                                        7E       10BB  8F  3C 004A9        MOVZWL  #4283, -(SP)                        ;
                                        69             01  FB 004AE        CALLS   #1, COPY$MSG_NUMBER                 ;
                                                       50  DD 004B1        PUSHL   R0                                  ;
                                        68             03  FB 004B3        CALLS   #3, LIB$SIGNAL                      ;
                                  FF    A6         C0  8F  8A 004B6  44$:  BICB2   #192, COPY$CLI_STATUS+3             ; 1215
                                                 FF60  C7  9F 004BB        PUSHAB  PROTECTION_DESC                     ; 1216
                               0000G    CF             01  FB 004BF        CALLS   #1, CLI$PRESENT                     ;
                                        52             50  D0 004C4        MOVL    R0, RTN_STATUS                      ;
                                        5B             52  D1 004C7        CMPL    RTN_STATUS, R11                     ; 1219
                                                       10  12 004CA        BNEQ    45$                                 ;
                 1F               02    AA             01  E0 004CC        BBS     #1, COPY$SEM_STATUS+2, 46$          ;
                               0000V    CF             00  FB 004D1        CALLS   #0, PROTECTION_PARSE                ; 1225
                                  FF    A6         40  8F  88 004D6        BISB2   #64, COPY$CLI_STATUS+3              ; 1226
                                                           04 004DB        RET                                         ; 1219
                           00000000G    8F             52  D1 004DC  45$:  CMPL    RTN_STATUS, #CLI$_LOCNEG            ; 1230
                                                       1C  12 004E3        BNEQ    47$                                 ;
                 06               02    AA             01  E0 004E5        BBS     #1, COPY$SEM_STATUS+2, 46$          ;
                                  FF    A6         80  8F  88 004EA        BISB2   #128, COPY$CLI_STATUS+3             ; 1231
                                                           04 004EF        RET                                         ;
                                                       57  DD 004F0  46$:  PUSHL   R7                                  ; 1232
```

```
                                 01  DD 004F2          PUSHL   #1                                               ;
                    7E    10BB   8F  3C 004F4          MOVZWL  #4283, -(SP)                                     ;
                    69           01  FB 004F9          CALLS   #1, COPY$MSG_NUMBER                              ;
                                 50  DD 004FC          PUSHL   R0                                               ;
                    68           03  FB 004FE          CALLS   #3, LIB$SIGNAL                                   ;
                                 04  00501 47$:        RET                                                      ; 1235

; Routine Size:  1282 bytes,    Routine Base:  $CODE$ + 0386
```

```
ROUTINE PROTECTION_PARSE : NOVALUE =

!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine parses a PROTECTION qualifier value.
!
! FORMAL PARAMETERS:
!
!       NONE
!
! IMPLICIT INPUTS:
!
!       NONE
!
! IMPLICIT OUTPUTS:
!
!       CURR_PROTECTION_OR  - Protection mask storage
!       CURR_PROTECTION_AND - Protection mask storage
!
! ROUTINE VALUE:
!
!       None
!
! SIDE EFFECTS:
!
!       None
!
!--

    BEGIN

    MAP
        CURR_PROTECTION_OR  :  $BBLOCK[ 2 ],            ! Protection mask
        CURR_PROTECTION_AND :  $BBLOCK[ 2 ];            ! Protection mask

    LOCAL
        RTN_STATUS,                                     ! Keyword lookup completion code
        CLI_DESC :                                      ! Descriptor which points to the keyword value
            $BBLOCK[ DSC$C_S_BLN ],
        KEY_DISP;                                       ! Displacement of keyword nibble in XAB$W_PRO

    BIND
        SYSTEM_DESC = $DESCRIPTOR('SYSTEM'),
        OWNER_DESC  = $DESCRIPTOR('OWNER'),
        GROUP_DESC  = $DESCRIPTOR('GROUP'),
        WORLD_DESC  = $DESCRIPTOR('WORLD');


    ! Initialize descriptor.
    !
    CH$FILL( 0, DSC$C_S_BLN, cli_desc);
    cli_desc[ DSC$B_CLASS ] = DSC$K_CLASS_D;

    ! Check for SYSTEM keyword.
```

```
2       !
2       IF CLI$PRESENT( SYSTEM_DESC )
2       THEN
3           BEGIN
3
3           ! Note that this is SYSTEM access.  Initialize the the system protection
3           ! fields, in case noaccess is specified.
3           !
3           KEY_DISP = BIT_LOCATION( XAB$V_SYS );
3           CURR_PROTECTION_OR[ prot_mask( .KEY_DISP, 4)]  = -1;
3           CURR_PROTECTION_AND[ prot_mask( .KEY_DISP, 4)]  = 0;
3
3           ! Retrieve the keyword value, if any, and parse it.
3           !
3           IF CLI$GET_VALUE( SYSTEM_DESC, CLI_DESC )
3           THEN
3               PARSE_PROTECTION_VALUE( CLI_DESC, .KEY_DISP );
3
2           END;                                                    ! SYSTEM parse
2
2
2       ! Check for OWNER keyword.
2       !
2       IF CLI$PRESENT( OWNER_DESC )
2       THEN
3           BEGIN
3
3           ! Note that this is OWNER access.  Initialize the the OWNER protection
3           ! fields, in case noaccess is specified.
3           !
3           KEY_DISP = BIT_LOCATION( XAB$V_OWN );
3           CURR_PROTECTION_OR[ prot_mask( .KEY_DISP, 4)]  = -1;
3           CURR_PROTECTION_AND[ prot_mask( .KEY_DISP, 4)]  = 0;
3
3           ! Retrieve the keyword value, if any, and parse it.
3           !
3           IF CLI$GET_VALUE( OWNER_DESC, CLI_DESC )
3           THEN
3               PARSE_PROTECTION_VALUE( CLI_DESC, .KEY_DISP );
3
2           END;                                                    ! OWNER parse
2
2
2       ! Check for GROUP keyword.
2       !
2       IF CLI$PRESENT( GROUP_DESC )
2       THEN
3           BEGIN
3
3           ! Note that this is GROUP access.  Initialize the the GROUP protection
3           ! fields, in case noaccess is specified.
3           !
3           KEY_DISP = BIT_LOCATION( XAB$V_GRP );
3           CURR_PROTECTION_OR[ prot_mask( .KEY_DISP, 4)]  = -1;
3           CURR_PROTECTION_AND[ prot_mask( .KEY_DISP, 4)]  = 0;
3
3           ! Retrieve the keyword value, if any, and parse it.
```

```
3          !
3          IF CLI$GET_VALUE( GROUP_DESC, CLI_DESC )
3          THEN
3              PARSE_PROTECTION_VALUE( CLI_DESC, .KEY_DISP );
3
2          END;                                                 ! GROUP parse
2
2
2      ! Check for WORLD keyword.
2      !
2      IF CLI$PRESENT( WORLD_DESC )
2      THEN
3          BEGIN
3
3          ! Note that this is WORLD access.  Initialize the the WORLD protection
3          ! fields, in case noaccess is specified.
3          !
3          KEY_DISP = BIT_LOCATION( XAB$V_WLD );
3          CURR_PROTECTION_OR[ prot_mask( .KEY_DISP, 4)]  = -1;
3          CURR_PROTECTION_AND[ prot_mask( .KEY_DISP, 4)]  = 0;
3
3          ! Retrieve the keyword value, if any, and parse it.
3          !
3          IF CLI$GET_VALUE( WORLD_DESC, CLI_DESC )
3          THEN
3              PARSE_PROTECTION_VALUE( CLI_DESC, .KEY_DISP );
3
2          END;                                                 ! WORLD parse
2
2      RETURN;                                                  ! Return to the caller.
1      END;


                                                    .PSECT  $PLIT$,NOWRT,NOEXE,2

            4D  45  54  53  59  53  00148 P.ABH:    .ASCII  \SYSTEM\                                          ;
                                    0014E           .BLKB   2
                          00000006  00150 P.ABG:    .LONG   6                                                 ;
                          00000000' 00154           .ADDRESS P.ABH                                            ;
                52  45  4E  57  4F  00158 P.ABJ:    .ASCII  \OWNER\                                           ;
                                    0015D           .BLKB   3
                          00000005  00160 P.ABI:    .LONG   5                                                 ;
                          00000000' 00164           .ADDRESS P.ABJ                                            ;
                50  55  4F  52  47  00168 P.ABL:    .ASCII  \GROUP\                                           ;
                                    0016D           .BLKB   3
                          00000005  00170 P.ABK:    .LONG   5                                                 ;
                          00000000' 00174           .ADDRESS P.ABL                                            ;
                44  4C  52  4F  57  00178 P.ABN:    .ASCII  \WORLD\                                           ;
                                    0017D           .BLKB   3
                          00000005  00180 P.ABM:    .LONG   5                                                 ;
                          00000000' 00184           .ADDRESS P.ABN                                            ;

                                          SYSTEM_DESC=          P.ABG
                                          OWNER_DESC=           P.ABI
                                          GROUP_DESC=           P.ABK
                                          WORLD_DESC=           P.ABM
```

```
                                                                        .PSECT   $CODE$,NOWRT,2

                                                   07FC 00000 PROTECTION_PARSE:
                                                                        .WORD    Save R2,R3,R4,R5,R6,R7,R8,R9,R10                 ; 1236
                                5A     0000V  CF   9E 00002             MOVAB    PARSE_PROTECTION_VALUE, R10                      ;
                                59     0000G  CF   9E 00007             MOVAB    CLI$GET_VALUE, R9                                ;
                                58     0000G  CF   9E 0000C             MOVAB    CLI$PRESENT, R8                                  ;
                                57     0000'  CF   9E 00011             MOVAB    SYSTEM_DESC, R7                                  ;
                                56     0000'  CF   9E 00016             MOVAB    CURR_PROTECTION_OR, R6                           ;
                                5E            08   C2 0001B             SUBL2    #8, SP                                           ;
           08          00       6E            00   2C 0001E             MOVC5    #0, (SP), #0, #8, CLI_DESC                       ; 1288
                                              6E      00023
                          03    AE            02   90 00024             MOVB     #2, CLI_DESC+3                                   ; 1289
                                              57   DD 00028             PUSHL    R7                                               ; 1294
                                68            01   FB 0002A             CALLS    #1, CLI$PRESENT                                  ;
                                23            50   E9 0002D             BLBC     R0, 1$                                           ;
                                              52   D4 00030             CLRL     KEY_DISP                                         ; 1301
           66          04       52 FFFFFFFF   8F   F0 00032             INSV     #-1, KEY_DISP, #4, CURR_PROTECTION_OR            ; 1302
      04   A6          04       52            00   F0 0003B             INSV     #0, KEY_DISP, #4, CURR_PROTECTION_AND            ; 1303
                                       4080   8F   BB 00041             PUSHR    #^M<R7,SP>                                       ; 1307
                                69            02   FB 00045             CALLS    #2, CLI$GET_VALUE                                ;
                                08            50   E9 00048             BLBC     R0, 1$                                           ;
                                              52   DD 0004B             PUSHL    KEY_DISP                                         ; 1309
                                         04   AE   9F 0004D             PUSHAB   CLI_DESC                                         ;
                                6A            02   FB 00050             CALLS    #2, PARSE_PROTECTION_VALUE                       ;
                                         10   A7   9F 00053 1$:         PUSHAB   OWNER_DESC                                       ; 1316
                                68            01   FB 00056             CALLS    #1, CLI$PRESENT                                  ;
                                25            50   E9 00059             BLBC     R0, 2$                                           ;
                                52            04   D0 0005C             MOVL     #4, KEY_DISP                                     ; 1323
           66          04       52 FFFFFFFF   8F   F0 0005F             INSV     #-1, KEY_DISP, #4, CURR_PROTECTION_OR            ; 1324
      04   A6          04       52            00   F0 00068             INSV     #0, KEY_DISP, #4, CURR_PROTECTION_AND            ; 1325
                                              5E   DD 0006E             PUSHL    SP                                               ; 1329
                                         10   A7   9F 00070             PUSHAB   OWNER_DESC                                       ;
                                69            02   FB 00073             CALLS    #2, CLI$GET_VALUE                                ;
                                08            50   E9 00076             BLBC     R0, 2$                                           ;
                                              52   DD 00079             PUSHL    KEY_DISP                                         ; 1331
                                         04   AE   9F 0007B             PUSHAB   CLI_DESC                                         ;
                                6A            02   FB 0007E             CALLS    #2, PARSE_PROTECTION_VALUE                       ;
                                         20   A7   9F 00081 2$:         PUSHAB   GROUP_DESC                                       ; 1338
                                68            01   FB 00084             CALLS    #1, CLI$PRESENT                                  ;
                                25            50   E9 00087             BLBC     R0, 3$                                           ;
                                52            08   D0 0008A             MOVL     #8, KEY_DISP                                     ; 1345
           66          04       52 FFFFFFFF   8F   F0 0008D             INSV     #-1, KEY_DISP, #4, CURR_PROTECTION_OR            ; 1346
      04   A6          04       52            00   F0 00096             INSV     #0, KEY_DISP, #4, CURR_PROTECTION_AND            ; 1347
                                              5E   DD 0009C             PUSHL    SP                                               ; 1351
                                         20   A7   9F 0009E             PUSHAB   GROUP_DESC                                       ;
                                69            02   FB 000A1             CALLS    #2, CLI$GET_VALUE                                ;
                                08            50   E9 000A4             BLBC     R0, 3$                                           ;
                                              52   DD 000A7             PUSHL    KEY_DISP                                         ; 1353
                                         04   AE   9F 000A9             PUSHAB   CLI_DESC                                         ;
                                6A            02   FB 000AC             CALLS    #2, PARSE_PROTECTION_VALUE                       ;
                                         30   A7   9F 000AF 3$:         PUSHAB   WORLD_DESC                                       ; 1360
                                68            01   FB 000B2             CALLS    #1, CLI$PRESENT                                  ;
                                25            50   E9 000B5             BLBC     R0, 4$                                           ;
                                52            0C   D0 000B8             MOVL     #12, KEY_DISP                                    ; 1367
```

```
          66          04           52 FFFFFFFF    8F   F0 000BB         INSV    #-1, KEY_DISP, #4, CURR_PROTECTION_OR        ; 1368
     04   A6          04           52             00   F0 000C4         INSV    #0, KEY_DISP, #4, CURR_PROTECTION_AND        ; 1369
                                                  5E   DD 000CA         PUSHL   SP                                           ; 1373
                                            30    A7   9F 000CC         PUSHAB  WORLD_DESC                                   ;
                                   69             02   FB 000CF         CALLS   #2, CLI$GET_VALUE                            ;
                                   08             50   E9 000D2         BLBC    R0, 4$                                       ;
                                                  52   DD 000D5         PUSHL   KEY_DISP                                     ; 1375
                                            04    AE   9F 000D7         PUSHAB  CLI_DESC                                     ;
                                   6A             02   FB 000DA         CALLS   #2, PARSE_PROTECTION_VALUE                   ;
                                                       04 000DD 4$:     RET                                                  ; 1380

; Routine Size:  222 bytes,    Routine Base:  $CODE$ + 0888
```

```
1 ROUTINE PARSE_PROTECTION_VALUE( DESC : REF $BBLOCK,
1                                 FIELD_LOCATION ) : NOVALUE =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine parses the keyword value given by the /PROTECTION
1 !       qualifier.  (/PROTECTION=(s:rewd))
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       DESC            the address of a descriptor which points to the
1 !                       keyword value.
1 !       FIELD_LOCATION  the offset of the appropriate protection field
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       None
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       bits will be set in CURR_PROTECTION_OR
1 !
1 ! ROUTINE VALUE:
1 !
1 !       None
1 !
1 ! COMPLETION CODES:
1 !
1 !       None
1 !
1 ! SIDE EFFECTS:
1 !
1 !       None
1 !
1 !--
1
2 BEGIN
2
2 LOCAL
2     RTN_STATUS,                             ! status returned from external calls
2     BIT_DISP,                               ! Location of bit to be set in protection  field
2     CHAR_DESC : $BBLOCK[ DSC$C_S_BLN]       ! A descriptor
2     ;
2
2
2 ! The descriptor points to only one character at a time.
2 !
2 CH$FILL( 0, DSC$C_S_BLN, char_desc);
2 CHAR_DESC[ DSC$W_LENGTH ] = 1;
2
2
2 ! Process the keyword value one character at a time.
2 !
2 INCR INDEX FROM 0 TO .DESC[ DSC$W_LENGTH ]-1 DO
3     BEGIN
```

```
;  910         1438  3
;  911         1439  3      CHAR_DESC[ DSC$A_POINTER ] = .DESC[ DSC$A_POINTER ] + .INDEX;
;  912         1440  3
;  913         1441  3      ! Look up the keyword in the keyword table.
;  914         1442  3      !
;  915         1443  4      IF NOT (RTN_STATUS = LIB$LOOKUP_KEY( CHAR_DESC, COPY$PROT_VALUE, BIT_DISP) )
;  916         1444  3      THEN
;  917         1445  4          BEGIN
;  918         1446  4
;  919         1447  4          ! No character match was found, signal the error and return to caller.
;  920         1448  4          !
;  921         1449  4          PUT_MESSAGE( MSG$_BADVALUE, 1, .desc );
;  922         1450  4          RETURN;
;  923         1451  3          END;
;  924         1452  3
;  925         1453  3      ! Clear the mask bit which corresponds to the protection attribute.
;  926         1454  3      !
;  927         1455  3      CURR_PROTECTION_OR[prot_mask( .FIELD_LOCATION + .BIT_DISP, 1)] = NO;
;  928         1456  3
;  929         1457  2      END;                                        ! End of single character value loop.
;  930         1458  1 END;                                            ! End of routine PARSE_PROTECTION_VAL



                                                    003C 00000 PARSE_PROTECTION_VALUE:
                                                                       .WORD   Save R2,R3,R4,R5                    ; 1381
                                        5E        0C  C2 00002         SUBL2   #12, SP                             ;
        08            00                6E        00  2C 00005         MOVC5   #0, (SP), #0, #8, CHAR_DESC         ; 1430
                                              04  AE     0000A                                                     ;
                           04           AE        01  B0 0000C         MOVW    #1, CHAR_DESC                       ; 1431
                                        54    04  BC  3C 00010         MOVZWL  @DESC, R4                           ; 1436
                                        52    04  AC  D0 00014         MOVL    DESC, R2                            ; 1439
                                        53        01  CE 00018         MNEGL   #1, INDEX                           ; 1455
                                                  40  11 0001B         BRB     3$                                  ;
                           08           AE    04 B243  9E 0001D 1$:    MOVAB   @4(R2)[INDEX], CHAR_DESC+4          ; 1439
                                                  5E  DD 00023         PUSHL   SP                                  ; 1443
                                            0000G CF  9F 00025         PUSHAB  COPY$PROT_VALUE                     ;
                                              0C  AE  9F 00029         PUSHAB  CHAR_DESC                           ;
                      00000000G         00        03  FB 0002C         CALLS   #3, LIB$LOOKUP_KEY                  ;
                                        55        50  D0 00033         MOVL    R0, RTN_STATUS                      ;
                                        19        55  E8 00036         BLBS    RTN_STATUS, 2$                      ;
                                              04  AC  DD 00039         PUSHL   DESC                                ; 1449
                                                  01  DD 0003C         PUSHL   #1                                  ;
                                        7E  1114  8F  3C 0003E         MOVZWL  #4372, -(SP)                        ;
                              0000G     CF        01  FB 00043         CALLS   #1, COPY$MSG_NUMBER                 ;
                                                  50  DD 00048         PUSHL   R0                                  ;
                      00000000G         00        03  FB 0004A         CALLS   #3, LIB$STOP                        ;
                                                      04 00051         RET                                         ; 1445
                      50       08       AC        6E  C1 00052 2$:     ADDL3   BIT_DISP, FIELD_LOCATION, R0        ; 1455
                      00     0000'      CF        50  E5 00057         BBCC    R0, CURR_PROTECTION_OR, 3$          ;
                      BC                53        54  F2 0005D 3$:     AOBLSS  R4, INDEX, 1$                       ; 1436
                                                      04 00061         RET                                         ; 1458

; Routine Size:  98 bytes,    Routine Base:  $CODE$ + 0966
;  931          1459  1
;  932          1460  1 END
;  933          1461  0 ELUDOM



                                                        .EXTRN  LIB$SIGNAL, LIB$STOP

;                                 PSECT SUMMARY
;
;       Name                    Bytes                      Attributes
;
;  $PLIT$                         392  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $GLOBAL$                        28  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                        2504  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]STARLET.L32;1        9776       65          0        581        00:01.0



;                                 COMMAND QUALIFIERS

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

; Size:           2504 code + 420 data bytes
; Run Time:          00:41.2
; Elapsed Time:      01:25.4
; Lines/CPU Min:       2129
; Lexemes/CPU-Min:  21307
; Memory Used:  369 pages
; Compilation Complete
```

0067 AH-BT13A-SE
VAX/VMS V4.0

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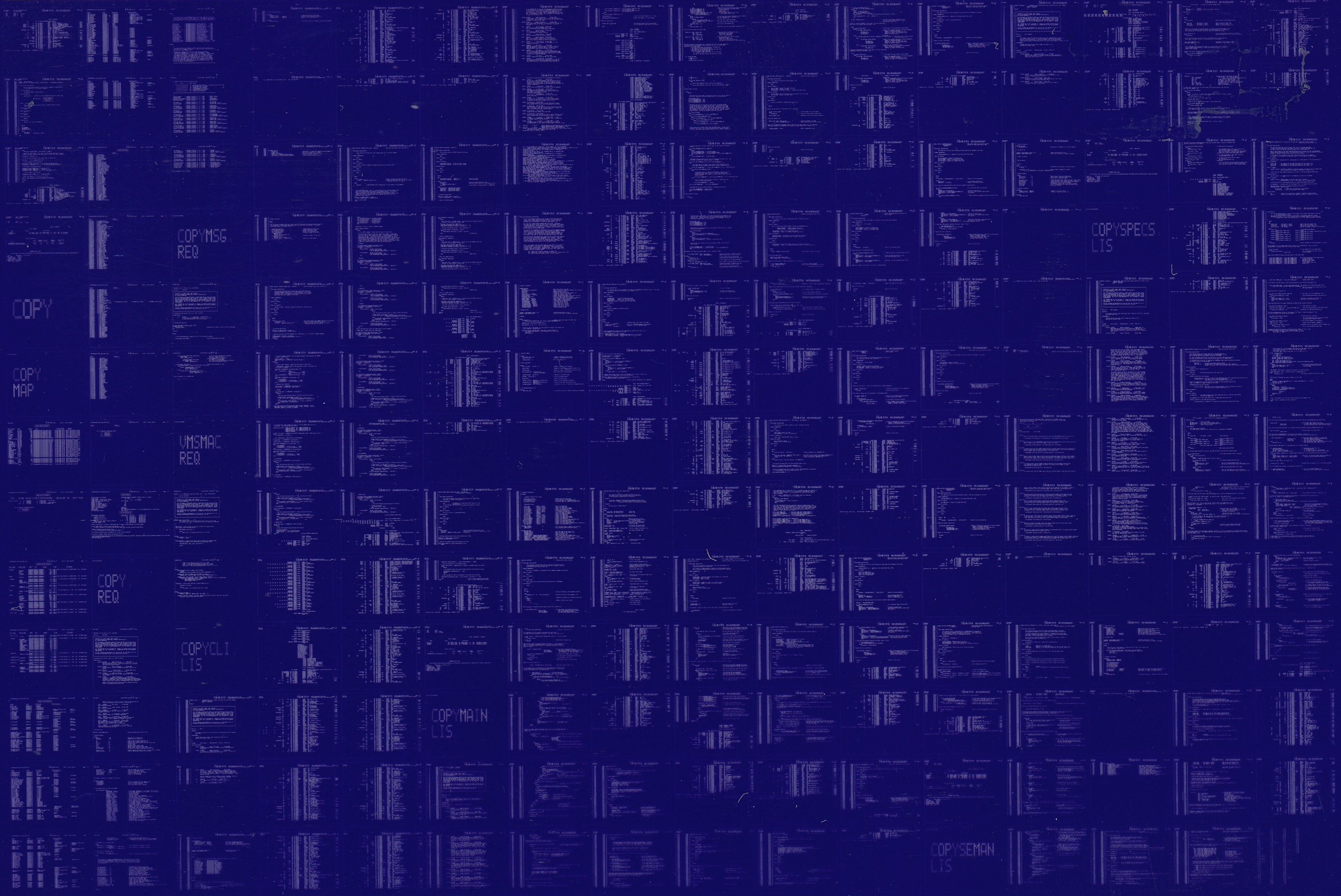

COPYMSG
REQ

COPYSPECS
LIS

COPY

COPY
MAP

VMSMAC
REQ

COPY
REQ

COPYCLI
LIS

COPYMAIN
LIS

COPYSEMAN
LIS