
MMM MMM TTTTTTTTTTTTTTT AAAAAAAAA AAAAAAAAA CCCCCCCCCCCC PPPPPPPPPPPP
MMM MMM TTTTTTTTTTTTTTT AAAAAAAAA AAAAAAAAA CCCCCCCCCCCC PPPPPPPPPPPP
MMM MMM TTTTTTTTTTTTTTT AAAAAAAAA AAAAAAAAA CCCCCCCCCCCC PPPPPPPPPPPP
MMMMMM MMMMMM TTT AAA AAA AAA AAA CCC PPP PPP
MMMMMM MMMMMM TTT AAA AAA AAA AAA CCC PPP PPP
MMMMMM MMMMMM TTT AAA AAA AAA AAA CCC PPP PPP
MMM MMM MMM TTT AAA AAA AAA AAA CCC PPP PPP
MMM MMM MMM TTT AAA AAA AAA AAA CCC PPP PPP
MMM MMM MMM TTT AAA AAA AAA AAA CCC PPP PPP
MMM MMM TTT AAA AAA AAA AAA CCC PPPPPPPPPPPP
MMM MMM TTT AAA AAA AAA AAA CCC PPPPPPPPPPPP
MMM MMM TTT AAA AAA AAA AAA CCC PPPPPPPPPPPP
MMM MMM TTT AAAAAAAAAAAAAAA AAAAAAAAAAAAAAA CCC PPP
MMM MMM TTT AAAAAAAAAAAAAAA AAAAAAAAAAAAAAA CCC PPP
MMM MMM TTT AAAAAAAAAAAAAAA AAAAAAAAAAAAAAA CCC PPP
MMM MMM TTT AAA AAA AAA AAA CCC PPP
MMM MMM TTT AAA AAA AAA AAA CCC PPP
MMM MMM TTT AAA AAA AAA AAA CCC PPP
MMM MMM TTT AAA AAA AAA AAA CCCCCCCCCCCC PPP
MMM MMM TTT AAA AAA AAA AAA CCCCCCCCCCCC PPP
MMM MMM TTT AAA AAA AAA AAA CCCCCCCCCCCC PPP

```
FFFFFFFFFF    IIIIII    NN      NN  DDDDDDDD
FFFFFFFFFF    IIIIII    NN      NN  DDDDDDDD
FF              II      NN      NN  DD      DD
FF              II      NN      NN  DD      DD
FF              II      NNNN    NN  DD      DD
FF              II      NNNN    NN  DD      DD
FFFFFFFF        II      NN  NN  NN  DD      DD
FFFFFFFF        II      NN  NN  NN  DD      DD
FF              II      NN    NNNN  DD      DD
FF              II      NN    NNNN  DD      DD
FF              II      NN      NN  DD      DD      ....
FF              II      NN      NN  DD      DD      ....
FF            IIIIII    NN      NN  DDDDDDDD        ....
FF            IIIIII    NN      NN  DDDDDDDD        ....

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

```
;  1          0001  0
;  2          0002  0 MODULE FIND ( LANGUAGE ( BLISS32 ),
;  3          0003  0                IDENT = 'V04-000'
;  4          0004  0                ) =
;  5          0005  1 BEGIN
;  6          0006  1 !
;  7          0007  1 !**********************************************************************************
;  8          0008  1 !*                                                                                *
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;  26         0026  1 !*                                                                                *
;  27         0027  1 !*                                                                                *
;  28         0028  1 !**********************************************************************************
;  29         0029  1
;  30         0030  1 !++
;  31         0031  1 !
;  32         0032  1 ! FACILITY:  MTAACP
;  33         0033  1 !
;  34         0034  1 ! ABSTRACT:
;  35         0035  1 !       This module finds a file by file name string.
;  36         0036  1 !
;  37         0037  1 ! ENVIRONMENT:
;  38         0038  1 !
;  39         0039  1 !       Starlet operating system, including privileged system services
;  40         0040  1 !       and internal exec routines.
;  41         0041  1 !
;  42         0042  1 !--
;  43         0043  1
;  44         0044  1 !
;  45         0045  1 !
;  46         0046  1 ! AUTHOR:  D. H. GILLESPIE,      CREATION DATE:  25-MAY-77 15:20
;  47         0047  1 !
;  48         0048  1 ! MODIFIED BY:
;  49         0049  1 !
;  50         0050  1 !       V03-002 MMD0283         Meg Dumont,     23-Mar-1984  10:33
;  51         0051  1 !               Fix to linkage of PARSE_FID.
;  52         0052  1 !
;  53         0053  1 !       V03-001 MMD0157         Meg Dumont,     26-Apr-1983  9:18
;  54         0054  1 !               Add support for long file names. Changed the maximum size
;  55         0055  1 !               file name one can have to be the symbol FILE_SPEC_MAX, which
;  56         0056  1 !               is defined in MTADEF.B32.
;  57         0057  1 !
```

```
;     58          0058  1 !       V02-009 DMW00073        David Michael Walp      28-Jan-1981
;     59          0059  1 !               Fixed wildcard characters in quoted string bug
;     60          0060  1 !
;     61          0061  1 !       V02-008 DMW00068        David Michael Walp      11-Jan-1981
;     62          0062  1 !               Added support for 17 ANSI 'a' characters thru QIO
;     63          0063  1 !               filename parameters
;     64          0064  1 !
;     65          0065  1 !       V02-007 DMW00062        David Michael Walp      18-Dec-1981
;     66          0066  1 !               Rewrite to support 17 ANSI 'a' characters file names
;     67          0067  1 !
;     68          0068  1 !       V02-006 DMW00006        David Michael Walp      22-Jan-1981
;     69          0069  1 !               Added code for complete wild card support.  Changes
;     70          0070  1 !               in routine FIND_FILE.  Replaced direct compares of
;     71          0071  1 !               the file name and type via CH$EQL with the new
;     72          0072  1 !               FMG$MATCH_NAME procedure and removed old wild code.
;     73          0073  1 !
;     74          0074  1 !       V02-005 REFORMAT        Maria del C. Nasr       30-Jun-1980
;     75          0075  1 !
;     76          0076  1 !**
;     77          0077  1
;     78          0078  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;     79          0079  1
;     80          0080  1 REQUIRE 'SRC$:MTADEF.B32';
;     81          0464  1
;     82          0465  1 FORWARD ROUTINE
;     83          0466  1     FIND_FILE           : COMMON_CALL NOVALUE,  ! find file by file name string
;     84          0467  1     CLEAR_ST_SEARCH     : COMMON_CALL NOVALUE;  ! clear start of search
;     85          0468  1
;     86          0469  1 LINKAGE
;     87          0470  1     L_MATCH_NAME = JSB ( REGISTER = 2, REGISTER = 3, REGISTER = 4, REGISTER = 5 )
;     88          0471  1                      : NOTUSED ( 10, 11 );
;     89          0472  1
;     90          0473  1
```

```
;    92          0474  1 GLOBAL ROUTINE FIND_FILE : COMMON_CALL NOVALUE =
;    93          0475  1
;    94          0476  1 !++
;    95          0477  1 !
;    96          0478  1 ! FUNCTIONAL DESCRIPTION:
;    97          0479  1 !       This routine finds a file by file name string.
;    98          0480  1 !
;    99          0481  1 ! CALLING SEQUENCE:
;   100          0482  1 !       FIND ( )
;   101          0483  1 !
;   102          0484  1 ! INPUT PARAMETERS:
;   103          0485  1 !       none
;   104          0486  1 !
;   105          0487  1 ! IMPLICIT INPUTS:
;   106          0488  1 !       LOCAL_FIB, CURRENT_VCB
;   107          0489  1 !
;   108          0490  1 ! OUTPUT PARAMETERS:
;   109          0491  1 !       none
;   110          0492  1 !
;   111          0493  1 ! IMPLICIT OUTPUTS:
;   112          0494  1 !       none
;   113          0495  1 !
;   114          0496  1 ! ROUTINE VALUE:
;   115          0497  1 !       NONE
;   116          0498  1 !
;   117          0499  1 ! SIDE EFFECTS:
;   118          0500  1 !       If file found, HDR1, HDR2, HDR3 and HDR4 will be read in or defaulted
;   119          0501  1 !       result file name string and length returned to user.
;   120          0502  1 !
;   121          0503  1 ! USER ERRORS:
;   122          0504  1 !       SS$_NOSUCHFILE - file not found
;   123          0505  1 !       SS$_RESULTOVF  - result string overflow
;   124          0506  1 !--
;   125          0507  1
;   126          0508  2     BEGIN
;   127          0509  2
;   128          0510  2     EXTERNAL REGISTER
;   129          0511  2         COMMON_REG;
;   130          0512  2
;   131          0513  2     EXTERNAL
;   132          0514  2         LOCAL_FIB       : BBLOCK;               ! copy of user's fib
;   133          0515  2
;   134          0516  2     EXTERNAL ROUTINE
;   135          0517  2         FORMAT_FID          : COMMON_CALL,      ! format fid
;   136          0518  2         FMG$MATCH_NAME      : L_MATCH_NAME,     ! match general wild card str
;   137          0519  2         GET_START_HDR       : L$GET_START_HDR,  ! get hdrs to start search on
;   138          0520  2         PARSE_FID           : COMMON_CALL,      ! parse FID fields in HDR1 and HDR4
;   139          0521  2         PARSE_PATTERN_SPEC  : COMMON_CALL,      ! parse pattern spec
;   140          0522  2         READ_HDR            : COMMON_CALL,      ! read headers
;   141          0523  2         RESULTANT_STRING    : COMMON_CALL NOVALUE,!  return resultant string
;   142          0524  2         REWIND_VOL_SET      : COMMON_CALL,      ! rewind volume set
;   143          0525  2         SPACE_EOF           : COMMON_CALL,      ! space to end of file
;   144          0526  2         SYS$FAO             : ADDRESSING_MODE ( ABSOLUTE ),! format ASCII output
;   145          0527  2         WRAP_AROUND         : L$WRAP_AROUND;    ! wrap around to beginning of
;   146          0528  2                                                 !   volume set
;   147          0529  2     LITERAL
;   148          0530  2         WILD_QUOTED         = 0,                ! bit layout for FILE_SPEC_BITS
```

```
;  149          0531  2          PATTERN_VMS_SPEC    = 1,                ! :
;  150          0532  2          TAPE_ID_VMS_SPEC    = 2,                ! :
;  151          0533  2
;  152          0534  2          NO_VMS              = 0,                ! meanings of the 2nd and 3rd
;  153          0535  2          PAT_VMS             = 1,                !  bits in FILE_SPEC_BITS
;  154          0536  2          TAPE_VMS            = 2,                !
;  155          0537  2          BOTH_VMS            = 3;                !
;  156          0538  2
;  157          0539  2      LOCAL
;  158          0540  2          FILE_SPEC_BITS      : BITVECTOR [ 3 ],  ! info about the file specs
;  159          0541  2          FID_VER             : WORD,             ! HDR1 FID binary version
;  160          0542  2          PAT_VER             : WORD,             ! Pattern binary fid version
;  161          0543  2
;  162          0544  2          ! descriptors and buffer for the file spec string
;  163          0545  2          ! size of FILE_SPEC_MAX to include VMS long filenames as well
;  164          0546  2          ! as ANSI file names
;  165          0547  2
;  166          0548  2          FID_DESC            : VECTOR [ 2, LONG ],
;  167          0549  2          FID_STR             : VECTOR [ FILE_SPEC_MAX, BYTE ],
;  168          0550  2          PAT_DESC            : VECTOR [ 2, LONG ],
;  169          0551  2          PAT_STR             : VECTOR [ FILE_SPEC_MAX, BYTE ];
;  170          0552  2
;  171          0553  2      BIND
;  172          0554  2          FILENAMES_TYPES     = FILE_SPEC_BITS : BLOCK;
;  173          0555  2
;  174          0556  2
;  175          0557  2      MACRO
;  176          0558  2          BITS_2_3            = 0, 1, 2, 0%;
;  177          0559  2
;  178          0560  2      ! if this is not a wild card lookup then zero context
;  179          0561  2      !
;  180          0562  2      IF NOT .LOCAL_FIB [ FIB$V_WILD ] THEN LOCAL_FIB [ FIB$L_WCC ] = 0;
;  181          0563  2
;  182          0564  2      ! if beginning of search check for rewind switch
;  183          0565  2      !
;  184          0566  2      IF .LOCAL_FIB [ FIB$L_WCC ] EQL 0
;  185          0567  2      THEN
;  186          0568  2          BEGIN
;  187          0569  2
;  188          0570  2          IF .LOCAL_FIB [ FIB$V_REWIND ] EQL 1 THEN REWIND_VOL_SET ( );
;  189          0571  2
;  190          0572  2          ! clear start of search file ID
;  191          0573  2          !
;  192          0574  2          KERNEL_CALL ( CLEAR_ST_SEARCH );
;  193          0575  2          END
;  194          0576  2
;  195          0577  2      ELSE
;  196          0578  2          BEGIN
;  197          0579  2
;  198          0580  2          ! If either of these two values are zero then the user has not preceded                ;
;  199          0581  2          ! this call with a first time thru lookup.
;  200          0582  2          !
;  201          0583  2          IF .CURRENT_VCB [ VCB$L_CUR_FID ]   EQL 0                                             ;
;  202          0584  2          OR .CURRENT_VCB [ VCB$L_START_FID ] EQL 0
;  203          0585  2          THEN ERR_EXIT ( SS$_BADPARAM );
;  204          0586  2
;  205          0587  3          ! if not first time through , then don't include current file in search
```

```
;   206          0588  3          !
;   207          0589  3          IF NOT .CURRENT_VCB [ VCB$V_LOGICEOVS ] THEN SPACE_EOF ( );
;   208          0590  3
;   209          0591  2          END;
;   210          0592  2
;   211          0593  2      ! position to first file and read the headers
;   212          0594  2      !
;   213          0595  2      IF NOT GET_START_HDR ( )
;   214          0596  2      THEN
;   215          0597  2
;   216          0598  2          ! tm, so at logical end of volume set
;   217          0599  2          ! continue search at beginning of tape unless the start of search was
;   218          0600  2          ! the beginning
;   219          0601  2          !
;   220          0602  2          IF NOT WRAP_AROUND ( ) THEN ERR_EXIT ( SS$_NOSUCHFILE );
;   221          0603  2
;   222          0604  2      ! if dummy file, deny its existence
;   223          0605  2      !
;   224          0606  2      IF .CURRENT_VCB [ VCB$W_CUR_NUM ] EQLU 0 THEN ERR_EXIT ( SS$_NOSUCHFILE );
;   225          0607  2
;   226          0608  2      ! if first time through save start context else check not at beginning of
;   227          0609  2      ! search
;   228          0610  2      !
;   229          0611  2      IF .LOCAL_FIB [ FIB$L_WCC ] EQL 0
;   230          0612  2      THEN
;   231          0613  2
;   232          0614  2          ! convert file seq and section number
;   233          0615  2          !
;   234          0616  3          KERNEL_CALL ( FORMAT_FID, CURRENT_VCB [ VCB$W_START_NUM ] )
;   235          0617  3
;   236          0618  2      ELSE
;   237          0619  2
;   238          0620  2          ! possible end of search
;   239          0621  2          !
;   240          0622  2          IF .CURRENT_VCB [ VCB$L_CUR_FID ] EQL .CURRENT_VCB [ VCB$L_START_FID ]
;   241          0623  2          THEN ERR_EXIT ( SS$_NOSUCHFILE );
;   242          0624  2
;   243          0625  2      ! initialize buffer descriptors with constants
;   244          0626  2      !
;   245          0627  2      PAT_DESC [ 0 ] = FILE_SPEC_MAX;
;   246          0628  2      PAT_DESC [ 1 ] = PAT_STR;
;   247          0629  2      FID_DESC [ 1 ] = FID_STR;
;   248          0630  2
;   249          0631  2      ! parse the pattern string
;   250          0632  2      !
;   251          0633  2      FILE_SPEC_BITS = PARSE_PATTERN_SPEC ( PAT_DESC, PAT_VER );
;   252          0634  2
;   253          0635  2      ! loop until a match or we have searched them all
;   254          0636  2      !
;   255          0637  2      WHILE 1
;   256          0638  2      DO
;   257          0639  3          BEGIN
;   258          0640  3
;   259          0641  3          ! reset the size of the FID buffer
;   260          0642  3          ! parse the FID of the current file
;   261          0643  3          !
;   262          0644  3          FID_DESC [ 0 ] = FILE_SPEC_MAX;
```

```
;  263     0645  3     FILE_SPEC_BITS [TAPE_ID_VMS_SPEC] = PARSE_FID (FID_DESC,FID_VER);
;  264     0646  3
;  265     0647  3     ! test if the current file spec fits the pattern spec, exitloop
;  266     0648  3     !   and return if we have a match
;  267     0649  3     !
;  268     0650  3     !
;  269     0651  3     !       match name      |     Tape File ID Field Value
;  270     0652  3     !         and type      |       Quoted          |   VMS
;  271     0653  3     !     ------------------+-----------------------+-------------------------
;  272     0654  3     !      Pattern  Quoted  |  Strings Equal        | String Equal ( in case
;  273     0655  3     !       File            |                       | VMS spec in quotes )
;  274     0656  3     !       Spec    --------+-----------------------+-------------------------
;  275     0657  3     !       Value     VMS   |  Only *.* or *.       | Normal wildcard match
;  276     0658  3     !
;  277     0659  4     IF ( CASE .FILENAMES_TYPES [ BITS_2_3 ] FROM 0 TO 3 OF
;  278     0660  4           SET
;  279     0661  4           [ NO_VMS ]    : CH$EQL ( .FID_DESC[0], .FID_DESC[1],
;  280     0662  4                                    .PAT_DESC[0], .PAT_DESC[1], ' ' );
;  281     0663  4           [ PAT_VMS ]   : .FILE_SPEC_BITS [ WILD_QUOTED ];
;  282     0664  4           [ TAPE_VMS ]  : CH$EQL ( .FID_DESC[0], .FID_DESC[1],
;  283     0665  4                                    .PAT_DESC[0], .PAT_DESC[1], ' ' );
;  284     0666  4           [ BOTH_VMS ]  : FMG$MATCH_NAME ( .FID_DESC[0], .FID_DESC[1],
;  285     0667  4                                            .PAT_DESC[0], .PAT_DESC[1] )
;  286     0668  4           TES )
;  287     0669  3     AND
;  288     0670  4        (     .LOCAL_FIB [ FIB$V_ALLVER ] !     wild version
;  289     0671  5           OR ( .PAT_VER LEQU 0 )         ! OR first or last version
;  290     0672  5           OR ( .PAT_VER EQLU .FID_VER )  ! OR same version
;  291     0673  5
;  292     0674  4        )
;  293     0675  3        THEN EXITLOOP;
;  294     0676  3
;  295     0677  3        ! no match, space to the end of this file and read the header for the
;  296     0678  3        ! next file, also test if have looked at all files
;  297     0679  3        !
;  298     0680  3        SPACE_EOF ( );
;  299     0681  3        IF NOT READ_HDR ( )
;  300     0682  3        THEN
;  301     0683  3             IF NOT WRAP_AROUND ( ) THEN ERR_EXIT ( SS$_NOSUCHFILE );
;  302     0684  3
;  303     0685  3        IF .CURRENT_VCB [ VCB$L_CUR_FID ] EQL .CURRENT_VCB [ VCB$L_START_FID ]
;  304     0686  3        THEN ERR_EXIT ( SS$_NOSUCHFILE );
;  305     0687  3
;  306     0688  3        END;                                    ! end of while loop
;  307     0689  2
;  308     0690  2
;  309     0691  2     ! have file match setup to write back FID
;  310     0692  2     ! return File Identifier Number in File Information Block
;  311     0693  2     !
;  312     0694  2     FORMAT_FID ( LOCAL_FIB [ FIB$W_FID_NUM ] );
;  313     0695  2     LOCAL_FIB [ FIB$W_FID_RVN ] = .CURRENT_VCB [ VCB$B_CUR_RVN ] ;
;  314     0696  2
;  315     0697  2     ! note through lookup at least once
;  316     0698  2     !
;  317     0699  2     IF .LOCAL_FIB [ FIB$V_WILD ]
;  318     0700  2     THEN LOCAL_FIB [ FIB$L_WCC ] = 1
;  319     0701  2     ELSE LOCAL_FIB [ FIB$L_WCC ] = 0;
```

```
;  320          0702  2
;  321          0703  2      ! return resultant string
;  322          0704  2      !
;  323          0705  2      RESULTANT_STRING ( .FILE_SPEC_BITS [ TAPE_ID_VMS_SPEC ],
;  324          0706  2                         .FID_DESC [ 0 ],
;  325          0707  2                         .FID_DESC [ 1 ],
;  326          0708  2                         .FID_VER );
;  327          0709  2
;  328          0710  1      END;                                    ! end of routine FIND_FILE

                                                                     .TITLE  FIND
                                                                     .IDENT  \V04-000\

                                                                     .EXTRN  LOCAL_FIB, FORMAT_FID
                                                                     .EXTRN  FMG$MATCH_NAME, GET_START_HDR
                                                                     .EXTRN  PARSE_FID, PARSE_PATTERN_SPEC
                                                                     .EXTRN  READ_HDR, RESULTANT_STRING
                                                                     .EXTRN  REWIND_VOL_SET, SPACE_EOF
                                                                     .EXTRN  SYS$FAO, WRAP_AROUND
                                                                     .EXTRN  SYS$CMKRNL

                                                                     .PSECT  $CODE$,NOWRT,2

                                  07FC 00000                         .ENTRY  FIND_FILE, Save R2,R3,R4,R5,R6,R7,R8,R9,R10 ; 0474
                59 00000000G   9F   9E 00002                         MOVAB   @#SYS$CMKRNL, R9                            ;
                58      0000G  CF   9E 00009                         MOVAB   LOCAL_FIB+16, R8                            ;
                5E       FF48  CE   9E 0000E                         MOVAB   -184(SP), SP                                ;
                02         05  A8   E8 00013                         BLBS    LOCAL_FIB+21, 1$                            ; 0562
                               68   D4 00017                         CLRL    LOCAL_FIB+16                                ;
                               68   D5 00019 1$:                     TSTL    LOCAL_FIB+16                                ; 0566
                               17   12 0001B                         BNEQ    3$                                          ;
          05        F0   A8         03   E1 0001D                   BBC     #3, LOCAL_FIB, 2$                           ; 0570
                 0000G   CF         00   FB 00022                   CALLS   #0, REWIND_VOL_SET                          ;
                               7E   D4 00027 2$:                     CLRL    -(SP)                                       ; 0574
                               5E   DD 00029                         PUSHL   SP                                          ;
                         0000V CF   9F 0002B                         PUSHAB  CLEAR_ST_SEARCH                             ;
                               69   03   FB 0002F                   CALLS   #3, SYS$CMKRNL                              ;
                               16   11 00032                         BRB     6$                                          ; 0566
                              24    AB   D5 00034 3$:                TSTL    36(CURRENT_VCB)                             ; 0583
                               05   13 00037                         BEQL    4$                                          ;
                              28    AB   D5 00039                    TSTL    40(CURRENT_VCB)                             ; 0584
                               02   12 0003C                         BNEQ    5$                                          ;
                               14   BF 0003E 4$:                     CHMU    #20                                         ; 0585
          05        0B   AB         01   E0 00040 5$:               BBS     #1, 11(CURRENT_VCB), 6$                     ; 0589
                 0000G   CF         00   FB 00045                   CALLS   #0, SPACE_EOF                               ;
                               0000G 30   00048 6$:                 BSBW    GET_START_HDR                               ; 0595
                               0A   50   E8 0004D                   BLBS    R0, 7$                                      ;
                               0000G 30   00050                     BSBW    WRAP_AROUND                                 ; 0602
                               04   50   E8 00053                   BLBS    R0, 7$                                      ;
                         0910  8F   BF 00056                         CHMU    #2320                                       ;
                              24    AB   B5 0005A 7$:                TSTW    36(CURRENT_VCB)                             ; 0606
                               04   12 0005D                         BNEQ    8$                                          ;
                         0910  8F   BF 0005F                         CHMU    #2320                                       ;
                               68   D5 00063 8$:                     TSTL    LOCAL_FIB+16                                ; 0611
                               10   12 00065                         BNEQ    9$                                          ;
                              28    AB   9F 00067                    PUSHAB  40(CURRENT_VCB)                             ; 0616
```

```
                                                01   DD 0006A          PUSHL   #1                                                      ;
                                                5E   DD 0006C          PUSHL   SP                                                      ;
                                        0000G   CF   9F 0006E          PUSHAB  FORMAT_FID                                              ;
                                           69        04   FB 00072     CALLS   #4, SYS$CMKRNL                                          ;
                                                     0B   11 00075     BRB     10$                                                     ;
                                    28  AB      24   AB   D1 00077 9$:  CMPL    36(CURRENT_VCB), 40(CURRENT_VCB)                        ; 0622
                                                     04   12 0007C     BNEQ    10$                                                     ;
                                                0910 8F   BF 0007E     CHMU    #2320                                                   ; 0623
                                    58  AE      4F   8F   9A 00082 10$:  MOVZBL  #79, PAT_DESC                                         ; 0627
                                    5C  AE      08   AE   9E 00087     MOVAB   PAT_STR, PAT_DESC+4                                     ; 0628
                                    FC  AD      60   AE   9E 0008C     MOVAB   FID_STR, FID_DESC+4                                     ; 0629
                                                5E   DD 00091          PUSHL   SP                                                      ; 0633
                                                5C   AE   9F 00093     PUSHAB  PAT_DESC                                                ;
                                    0000G   CF       02   FB 00096     CALLS   #2, PARSE_PATTERN_SPEC                                  ;
                                               56    50   90 0009B     MOVB    R0, FILE_SPEC_BITS                                      ;
                                    F8  AD      4F   8F   9A 0009E 11$:  MOVZBL  #79, FID_DESC                                          ; 0644
                                                04   AE   9F 000A3     PUSHAB  FID_VER                                                 ; 0645
                                                F8   AD   9F 000A6     PUSHAB  FID_DESC                                                ;
                                    0000G   CF       02   FB 000A9     CALLS   #2, PARSE_FID                                           ;
                                56          01       02   50   F0 000AE     INSV    R0, #2, #1, FILE_SPEC_BITS                      ;
                                57          56       02   01   EF 000B3     EXTZV   #1, #2, FILENAMES_TYPES, R7                     ; 0659
                                03          00            57   CF 000B8     CASEL   R7, #0, #3                                      ;
                            001D        000F        000A        000F   000BC 12$:  .WORD   14$-12$,-                                    ;
                                                                                           13$-12$,-                                    ;
                                                                                           14$-12$,-                                    ;
                                                                                           15$-12$                                      ;
                                                     05   11 000C4     BRB     14$                                                     ; 0661
                                           2D        56   E9 000C6 13$:  BLBC    FILE_SPEC_BITS, 17$                                     ; 0663
                                                     1C   11 000C9     BRB     16$                                                     ;
                            58  AE          20  FC   BD      F8   AD   2D 000CB 14$:  CMPC5   FID_DESC, @FID_DESC+4, #32, PAT_DESC, -   ; 0664
                                                                5C   BE   000D3          @PAT_DESC+4                                    ;
                                                     1F   12 000D5     BNEQ    17$                                                     ;
                                                     0E   11 000D7     BRB     16$                                                     ;
                                           54        58   AE   7D 000D9 15$:  MOVQ    PAT_DESC, R4                                    ; 0666
                                           52        F8   AD   7D 000DD     MOVQ    FID_DESC, R2                                    ;
                                                0000G   30   000E1          BSBW    FMG$MATCH_NAME                                  ;
                                           0F            50   E9 000E4     BLBC    R0, 17$                                         ;
                            2E          04  A8              03   E0 000E7 16$:  BBS     #3, LOCAL_FIB+20, 19$                           ; 0670
                                                     6E   B5 000EC     TSTW    PAT_VER                                                 ; 0671
                                                     2A   13 000EE     BEQL    19$                                                     ;
                                    04  AE              6E   B1 000F0     CMPW    PAT_VER, FID_VER                                        ; 0672
                                                     24   13 000F4     BEQL    19$                                                     ;
                                    0000G   CF       00   FB 000F6 17$:  CALLS   #0, SPACE_EOF                                       ; 0680
                                    0000G   CF       00   FB 000FB     CALLS   #0, READ_HDR                                            ; 0681
                                               0A    50   E8 00100     BLBS    R0, 18$                                                 ;
                                                0000G   30   00103     BSBW    WRAP_AROUND                                             ; 0683
                                           04            50   E8 00106     BLBS    R0, 18$                                         ;
                                                0910 8F   BF 00109     CHMU    #2320                                                   ;
                                    28  AB      24   AB   D1 0010D 18$:  CMPL    36(CURRENT_VCB), 40(CURRENT_VCB)                        ; 0685
                                                     8A   12 00112     BNEQ    11$                                                     ;
                                                0910 8F   BF 00114     CHMU    #2320                                                   ; 0686
                                                     84   11 00118     BRB     11$                                                     ; 0637
                                                F4   A8   9F 0011A 19$:  PUSHAB  LOCAL_FIB+4                                           ; 0694
                                    0000G   CF       01   FB 0011D     CALLS   #1, FORMAT_FID                                          ;
                                    F8  A8      2F   AB   9B 00122     MOVZBW  47(CURRENT_VCB), LOCAL_FIB+8                            ; 0695
                                               05    05   A8   E9 00127     BLBC    LOCAL_FIB+21, 20$                               ; 0699
                                           68            01   D0 0012B     MOVL    #1, LOCAL_FIB+16                                ; 0700
```

```
                                        02  11 0012E        BRB     21$                                             ;
                                        68  D4 00130 20$:   CLRL    LOCAL_FIB+16                                    ; 0701
                                  7E    04  AE  3C 00132 21$:   MOVZWL  FID_VER, -(SP)                                  ; 0708
                                  7E    F8  AD  7D 00136        MOVQ    FID_DESC, -(SP)                                 ; 0706
                7E                56      01  02  EF 0013A        EXTZV   #2, #1, FILE_SPEC_BITS, -(SP)                   ; 0705
                                  0000G CF      04  FB 0013F        CALLS   #4, RESULTANT_STRING                        ;
                                              04 00144        RET                                                     ; 0710

; Routine Size:  325 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  330          0711  1 ROUTINE CLEAR_ST_SEARCH : COMMON_CALL NOVALUE =
;  331          0712  1
;  332          0713  1 !++
;  333          0714  1 !
;  334          0715  1 ! FUNCTIONAL DESCRIPTION:
;  335          0716  1 !       This routine clears the file id indicating the start of this search.
;  336          0717  1 !
;  337          0718  1 ! CALLING SEQUENCE:
;  338          0719  1 !       CLEAR_ST_SEARCH ( ), called in kernel mode
;  339          0720  1 !
;  340          0721  1 ! INPUT PARAMETERS:
;  341          0722  1 !       none
;  342          0723  1 !
;  343          0724  1 ! IMPLICIT INPUTS:
;  344          0725  1 !       CURRENT_VCB - address of current volume control block
;  345          0726  1 !
;  346          0727  1 ! OUTPUT PARAMETERS:
;  347          0728  1 !       none
;  348          0729  1 !
;  349          0730  1 ! IMPLICIT OUTPUTS:
;  350          0731  1 !       CURRENT_VCB [ VCB$L_START_FID ] cleared
;  351          0732  1 !
;  352          0733  1 ! ROUTINE VALUE:
;  353          0734  1 !       none
;  354          0735  1 !
;  355          0736  1 ! SIDE EFFECTS:
;  356          0737  1 !       none
;  357          0738  1 !
;  358          0739  1 ! USER ERRORS:
;  359          0740  1 !       none
;  360          0741  1 !
;  361          0742  1 !--
;  362          0743  1
;  363          0744  2     BEGIN
;  364          0745  2
;  365          0746  2     EXTERNAL REGISTER
;  366          0747  2         COMMON_REG;
;  367          0748  2
;  368          0749  2     CURRENT_VCB [ VCB$L_START_FID ] = 0;
;  369          0750  1     END;


                                        0000 00000 CLEAR_ST_SEARCH:
                                                   .WORD   Save nothing                    ; 0711
                                    28  AB  D4 00002        CLRL    40(CURRENT_VCB)         ; 0749
                                        04 00005        RET                             ; 0750

; Routine Size:  6 bytes,    Routine Base:  $CODE$ + 0145

;  370          0751  1 END
;  371          0752  1
;  372          0753  0 ELUDOM
```

```
;                                   PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  $CODE$                         331  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;
;                                 Library Statistics
;
;                                          -------- Symbols --------      Pages       Processing
;       File                               Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1           18619        18         0        1000        00:01.9
;
;
;                                   COMMAND QUALIFIERS
;
;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:FIND/OBJ=OBJ$:FIND MSRC$:FIND/UPDATE=(ENH$:FIND)
;
; Size:          331 code + 0 data bytes
; Run Time:          00:11.2
; Elapsed Time:      00:36.6
; Lines/CPU Min:      4037
; Lexemes/CPU-Min:  22064
; Memory Used:  147 pages
; Compilation Complete
```

FREEPG
LIS

DEACCS
LIS

FIND
LIS

DATECN
LIS

FRMOD1
LIS

CREATE
LIS

GETREQ
LIS

EXPIRE
LIS

CNTRL
LIS

FRMHDR
LIS

HEADER
LIS

COMLABPRC
LIS

ENDVOL
LIS

GETFIB
LIS