
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

FILEID**POSFID

```
PPPPPPPP      000000      SSSSSSSS  FFFFFFFFFF    IIIIII    DDDDDDDD
PPPPPPPP      000000      SSSSSSSS  FFFFFFFFFF    IIIIII    DDDDDDDD
PP      PP  00      00  SS          FF              II      DD      DD
PP      PP  00      00  SS          FF              II      DD      DD
PP      PP  00      00  SS          FF              II      DD      DD
PP      PP  00      00  SS          FF              II      DD      DD
PPPPPPPP    00      00    SSSSSS    FFFFFFFF        II      DD      DD
PPPPPPPP    00      00    SSSSSS    FFFFFFFF        II      DD      DD
PP          00      00          SS  FF              II      DD      DD
PP          00      00          SS  FF              II      DD      DD
PP          00      00          SS  FF              II      DD      DD      ....
PP          00      00          SS  FF              II      DD      DD      ....
PP            000000    SSSSSSSS    FF            IIIIII    DDDDDDDD        ....
PP            000000    SSSSSSSS    FF            IIIIII    DDDDDDDD        ....

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

```
;     1          0001  0 MODULE POSFID ( LANGUAGE ( BLISS32 ) ,
;     2          0002  0                  IDENT = 'V04-000'
;     3          0003  0                  ) =
;     4          0004  1 BEGIN
;     5          0005  1
;     6          0006  1 !*****************************************************************************
;     7          0007  1 !*                                                                           *
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;    25          0025  1 !*                                                                           *
;    26          0026  1 !*                                                                           *
;    27          0027  1 !*****************************************************************************
;    28          0028  1
;    29          0029  1 !++
;    30          0030  1 !
;    31          0031  1 ! FACILITY:  MTAACP
;    32          0032  1 !
;    33          0033  1 ! ABSTRACT:
;    34          0034  1 !       This module position the tape
;    35          0035  1 !
;    36          0036  1 ! ENVIRONMENT:
;    37          0037  1 !
;    38          0038  1 !       VMS operating system, including privileged system services
;    39          0039  1 !       and internal exec routines.
;    40          0040  1 !
;    41          0041  1 !--
;    42          0042  1
;    43          0043  1 !
;    44          0044  1 !
;    45          0045  1 ! AUTHOR:  D. H. GILLESPIE,      CREATION DATE:  31-MAY-77  11:30
;    46          0046  1 !
;    47          0047  1 ! MODIFIED BY:
;    48          0048  1 !
;    49          0049  1 !       V03-001 ROW0258         Ralph O. Weber          21-NOV-1983
;    50          0050  1 !                       The Paul Painter Memorial Enhancement
;    51          0051  1 !               Named for one of the unfortunate customers who suffered much
;    52          0052  1 !               to determine the great UCB$L_MT_RECORD secret while trying to
;    53          0053  1 !               create a user-written magtape driver, this change eliminates
;    54          0054  1 !               use of the device dependent field, UCB$L_MT_RECORD in favor of
;    55          0055  1 !               the device independent field, UCB$L_RECORD.
;    56          0056  1 !
;    57          0057  1 !       V02-005 DMW00079        David Michael Walp      2-Mar-1982
```

```
;    58          0058  1 !                 Added check for RVN greater then byte size
;    59          0059  1 !
;    60          0060  1 !       V02-004 REFORMAT        Maria del C. Nasr       30-Jun-1980
;    61          0061  1 !
;    62          0062  1 !
;    63          0063  1 !**
;    64          0064  1
;    65          0065  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;    66          0066  1
;    67          0067  1 REQUIRE 'SRC$:MTADEF.B32';
```

```
;    69          0451  1 GLOBAL ROUTINE POSITION_BY_FID ( FID_WANTED, RVN_WANTED ) :
;    70          0452  1                                 COMMON_CALL NOVALUE =
;    71          0453  1
;    72          0454  1 !++
;    73          0455  1 !
;    74          0456  1 ! FUNCTIONAL DESCRIPTION:
;    75          0457  1 !       This routine positions the tape just passed the headers of the file
;    76          0458  1 !       specified by FID
;    77          0459  1 !
;    78          0460  1 ! CALLING SEQUENCE:
;    79          0461  1 !       POSITION_BY_FID ( ARG1, ARG2 )
;    80          0462  1 !
;    81          0463  1 ! INPUT PARAMETERS:
;    82          0464  1 !       ARG1 - file identifier
;    83          0465  1 !       ARG2 - rvn on which file resides
;    84          0466  1 !
;    85          0467  1 ! IMPLICIT INPUTS:
;    86          0468  1 !       CURRENT_VCB - address of current vcb
;    87          0469  1 !       CURRENT_UCB - address of current unit control block
;    88          0470  1 !
;    89          0471  1 ! OUTPUT PARAMETERS:
;    90          0472  1 !       NONE
;    91          0473  1 !
;    92          0474  1 ! IMPLICIT OUTPUTS:
;    93          0475  1 !       NONE
;    94          0476  1 !
;    95          0477  1 ! ROUTINE VALUE:
;    96          0478  1 !       NONE
;    97          0479  1 !
;    98          0480  1 ! SIDE EFFECTS:
;    99          0481  1 !       tape positioned passed HDR1 and HDR2 (if it exists)
;   100          0482  1 !       these labels are read in
;   101          0483  1 !       if file doesn't exist, error exit taken
;   102          0484  1 !
;   103          0485  1 ! USER ERRORS:
;   104          0486  1 !       SS$_NOSUCHFILE - no file exists that matches fid
;   105          0487  1 !--
;   106          0488  1
;   107          0489  2     BEGIN
;   108          0490  2
;   109          0491  2     EXTERNAL REGISTER
;   110          0492  2         COMMON_REG;
;   111          0493  2
;   112          0494  2     EXTERNAL
;   113          0495  2         CURRENT_UCB     : REF BBLOCK,           ! address of current UCB
;   114          0496  2         HDR1            : REF BBLOCK;           ! address of HDR1 (EOF1) label
;   115          0497  2
;   116          0498  2     EXTERNAL ROUTINE
;   117          0499  2         READ_HDR,                               ! read headers
;   118          0500  2         MOUNT_VOL,                              ! mount relative volume
;   119          0501  2         SPACE_EOF;                              ! space to end of file
;   120          0502  2
;   121          0503  2     BIND
;   122          0504  2         CUR_FID = CURRENT_VCB[VCB$W_CUR_NUM];
;   123          0505  2
;   124          0506  2     LOCAL
;   125          0507  2         TM;                                     ! number of tm's past in file
```

```
0508  2
0509  2     ! if the file id is zero, then the user has input an invalid file id or
0510  2     ! the acp has a bug.
0511  2     !
0512  2     IF ( .FID_WANTED EQL 0 ) THEN ERR_EXIT ( SS$_BADPARAM );
0513  2
0514  3     IF      ( .CUR_FID EQLU .FID_WANTED )
0515  4        AND (     ( .CURRENT_VCB[VCB$B_TM] EQLU 0 )
0516  5             OR (      ( .CURRENT_VCB [ VCB$B_TM ] EQLU 1 )
0517  6                 AND (( .CURRENT_VCB [ VCB$L_ST_RECORD ] -
0518  5                        .CURRENT_UCB[UCB$L_RECORD] ) EQLU 0 )
0519  5                 AND ( .HDR1[HD1$L_HD1LID] EQL 'HDR1' )
0520  4                )
0521  3            )
0522  2     THEN RETURN;
0523  2
0524  2     ! check if RVN is less then byte size
0525  2     !
0526  2     IF ( .RVN_WANTED GEQU 256 ) THEN ERR_EXIT ( SS$_BADPARAM );
0527  2
0528  2     MOUNT_VOL ( IF ( .RVN_WANTED EQL 0 ) THEN 1 ELSE .RVN_WANTED,
0529  3               $FIELDMASK ( MOU$V_LBLCHECK ) OR $FIELDMASK ( MOU$V_REWIND )
0530  2             );
0531  2
0532  2     READ_HDR();
0533  2
0534  2     WHILE TRUE DO
0535  3         BEGIN
0536  3         IF ( .CUR_FID EQLU .FID_WANTED ) THEN EXITLOOP;
0537  3         SPACE_EOF();
0538  3         IF NOT READ_HDR() THEN ERR_EXIT ( SS$_NOSUCHFILE );
0539  2         END;
0540  2
0541  1     END;                                    ! end of routine


                                                .TITLE  POSFID
                                                .IDENT  \V04-000\

                                                .EXTRN  CURRENT_UCB, HDR1
                                                .EXTRN  READ_HDR, MOUNT_VOL
                                                .EXTRN  SPACE_EOF

                                                .PSECT  $CODE$,NOWRT,2

                            0000 00000          .ENTRY  POSITION_BY_FID, Save nothing           ; 0451
                     04  AC   D5 00002          TSTL    FID_WANTED                              ; 0512
                         02   12 00005          BNEQ    1$                                      ;
                         14   BF 00007          CHMU    #20                                     ;
    04   AC          24  AB   D1 00009 1$:      CMPL    36(CURRENT_VCB), FID_WANTED             ; 0514
                         23   12 0000E          BNEQ    2$                                      ;
                     2E  AB   95 00010          TSTB    46(CURRENT_VCB)                         ; 0515
                         5C   13 00013          BEQL    7$                                      ;
         01          2E  AB   91 00015          CMPB    46(CURRENT_VCB), #1                     ; 0516
                         18   12 00019          BNEQ    2$                                      ;
         50       0000G  CF   D0 0001B          MOVL    CURRENT_UCB, R0                         ; 0518
  00B0   C0          30  AB   D1 00020          CMPL    48(CURRENT_VCB), 176(R0)                ;
```

```
                                        0B  12 00026          BNEQ    2$                                 :
        31524448   8F         0000G     DF  D1 00028          CMPL    @HDR1, #827475016                  : 0519
                                        3E  13 00031          BEQL    7$                                 :
        00000100   8F           08      AC  D1 00033 2$:      CMPL    RVN_WANTED, #256                   : 0526
                                        02  1F 0003B          BLSSU   3$                                 :
                                        14  BF 0003D          CHMU    #20                                :
                                        03  DD 0003F 3$:      PUSHL   #3                                 : 0529
                                08      AC  D5 00041          TSTL    RVN_WANTED                         : 0528
                                        04  12 00044          BNEQ    4$                                 :
                                        01  DD 00046          PUSHL   #1                                 :
                                        03  11 00048          BRB     5$                                 :
                                08      AC  DD 0004A 4$:      PUSHL   RVN_WANTED                         :
              0000G   CF                02  FB 0004D 5$:      CALLS   #2, MOUNT_VOL                      :
              0000G   CF                00  FB 00052          CALLS   #0, READ_HDR                       : 0532
                 04   AC        24      AB  D1 00057 6$:      CMPL    36(CURRENT_VCB), FID_WANTED        : 0536
                                        13  13 0005C          BEQL    7$                                 :
              0000G   CF                00  FB 0005E          CALLS   #0, SPACE_EOF                      : 0537
              0000G   CF                00  FB 00063          CALLS   #0, READ_HDR                       : 0538
                      EC                50  E8 00068          BLBS    R0, 6$                             :
                              0910      8F  BF 0006B          CHMU    #2320                              :
                                        E6  11 0006F          BRB     6$                                 : 0534
                                            04 00071 7$:      RET                                        : 0541

; Routine Size:  114 bytes,    Routine Base:  $CODE$ + 0000

;  160          0542  1
;  161          0543  1 END
;  162          0544  1
;  163          0545  0 ELUDOM
```

; PSECT SUMMARY

Name	Bytes	Attributes
$CODE$	114	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

; Library Statistics

File	Symbols Total	Symbols Loaded	Symbols Percent	Pages Mapped	Processing Time
_255DUA28:[SYSLIB]LIB.L32;1	18619	12	0	1000	00:01.9

```
;                                       COMMAND QUALIFIERS

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

; Size:          114 code + 0 data bytes
; Run Time:        00:06.9
; Elapsed Time:    00:15.1
; Lines/CPU Min:    4759
; Lexemes/CPU-Min: 20288
; Memory Used:  86 pages
; Compilation Complete
```

0256 AH-BT13A-SE
VAX/VMS V4.0

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STRVIO
LIS

MTHRTL
MAP

POSBE
LIS

RDATTR
LIS

REWSPC
LIS

UUMTHRTL
MAP