```
EEEEEEEEEEEEEEE  DDDDDDDDDDD     TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD    TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD    TTTTTTTTTTTTTTT
EEE              DDD         DDD       TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEEEEEEEEEEE     DDD          DDD      TTT
EEEEEEEEEEEE     DDD          DDD      TTT
EEEEEEEEEEEE     DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEE              DDD          DDD      TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDD          TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD         TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD         TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD         TTT
```

```
UU      UU  FFFFFFFFFF    SSSSSSSS  TTTTTTTTTT  RRRRRRRR      IIIIII    NN      NN    GGGGGGGG
UU      UU  FFFFFFFFFF    SSSSSSSS  TTTTTTTTTT  RRRRRRRR      IIIIII    NN      NN    GGGGGGGG
UU      UU  FF          SS              TT      RR      RR      II      NN      NN  GG
UU      UU  FF          SS              TT      RR      RR      II      NN      NN  GG
UU      UU  FF          SS              TT      RR      RR      II      NNNN    NN  GG
UU      UU  FF          SS              TT      RR      RR      II      NNNN    NN  GG
UU      UU  FFFFFFFF      SSSSSS        TT      RRRRRRRR        II      NN  NN  NN  GG
UU      UU  FFFFFFFF      SSSSSS        TT      RR  RR          II      NN  NN  NN  GG
UU      UU  FF                  SS      TT      RR  RR          II      NN    NNNN  GG  GGGGGG
UU      UU  FF                  SS      TT      RR  RR          II      NN    NNNN  GG  GGGGGG
UU      UU  FF                  SS      TT      RR    RR        II      NN      NN  GG      GG
UU      UU  FF                  SS      TT      RR    RR        II      NN      NN  GG      GG
UUUUUUUUUU  FF          SSSSSSSS        TT      RR      RR    IIIIII    NN      NN    GGGGGG
UUUUUUUUUU  FF          SSSSSSSS        TT      RR      RR    IIIIII    NN      NN    GGGGGG

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 %TITLE 'EDT$UFSTRING - line-mode string search'
;     2          0002  0 MODULE EDT$UFSTRING (                          ! Line-mode string search
;     3          0003  0                     !DENT = 'V04-000'                  ! File: UFSTRING.BLI Edit: JBS1005
;     4          0004  0                     ) =
;     5          0005  1 BEGIN
;     6          0006  1 !
;     7          0007  1 !*****************************************************************************
;     8          0008  1 !*                                                                           *
;     9          0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
;    10          0010  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                    *
;    11          0011  1 !*  ALL RIGHTS RESERVED.                                                      *
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;    19          0019  1 !*                                                                           *
;    20          0020  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
;    21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
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;    23          0023  1 !*                                                                           *
;    24          0024  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                   *
;    26          0026  1 !*                                                                           *
;    27          0027  1 !*                                                                           *
;    28          0028  1 !*****************************************************************************
;    29          0029  1 !
;    30          0030  1
;    31          0031  1 !++
;    32          0032  1 ! FACILITY:     EDT -- The DEC Standard Editor
;    33          0033  1 !
;    34          0034  1 ! ABSTRACT:
;    35          0035  1 !
;    36          0036  1 !       Line-mode string search.
;    37          0037  1 !
;    38          0038  1 ! ENVIRONMENT:  Runs at any access mode - AST reentrant
;    39          0039  1 !
;    40          0040  1 ! AUTHOR: Bob Kushlis, CREATION DATE: February 7, 1978
;    41          0041  1 !
;    42          0042  1 ! MODIFIED BY:
;    43          0043  1 !
;    44          0044  1 ! 1-001 - Original.  DJS 19-FEB-1981.  This module was created by
;    45          0045  1 !       extracting routine U_F_STRING from module UTIL.
;    46          0046  1 ! 1-002 - Regularize headers and remove control C checking.  JBS 11-Mar-1981
;    47          0047  1 ! 1-003 - Worry about string truncation.  JBS 05-May-1982
;    48          0048  1 ! 1-004 - Put in check for control C. STS 15-Jun-1982
;    49          0049  1 ! 1-005 - Remove EDT$$A_STR_CMP.  JBS 16-Jul-1982
;    50          0050  1 !--
;    51          0051  1
```

```
;    53          0052  1 %SBTTL 'Declarations'
;    54          0053  1 !
;    55          0054  1 ! TABLE OF CONTENTS:
;    56          0055  1 !
;    57          0056  1
;    58          0057  1 REQUIRE 'EDTSRC:TRAROUNAM';
;    59          0496  1
;    60          0497  1 FORWARD ROUTINE
;    61          0498  1     EDTSSFND_STR;
;    62          0499  1
;    63          0500  1 !
;    64          0501  1 ! INCLUDE FILES:
;    65          0502  1 !
;    66          0503  1
;    67          0504  1 REQUIRE 'EDTSRC:EDTREQ';
;    68          0639  1
;    69          0640  1 !
;    70          0641  1 ! MACROS:
;    71          0642  1 !
;    72          0643  1 !       NONE
;    73          0644  1 !
;    74          0645  1 ! EQUATED SYMBOLS:
;    75          0646  1 !
;    76          0647  1 !       NONE
;    77          0648  1 !
;    78          0649  1 ! OWN STORAGE:
;    79          0650  1 !
;    80          0651  1 !       NONE
;    81          0652  1 !
;    82          0653  1 ! EXTERNAL REFERENCES:
;    83          0654  1 !
;    84          0655  1 !       In the routine
```

```
;    86          0656  1 %SBTTL 'EDT$$FND_STR  - Line-mode string search'
;    87          0657  1
;    88          0658  1 GLOBAL ROUTINE EDT$$FND_STR (                       ! Line-mode string search
;    89          0659  1     STRING,                                         ! Pointer to model string
;    90          0660  1     LEN,                                            ! Length of model string
;    91          0661  1     DIR                                             ! Direction of search
;    92          0662  1     ) =
;    93          0663  1
;    94          0664  1 !++
;    95          0665  1 ! FUNCTIONAL DESCRIPTION:
;    96          0666  1 !
;    97          0667  1 !       Line mode string search routine.  Set-up the string which is passed in
;    98          0668  1 !       as the current search string, then work our way through the buffer in
;    99          0669  1 !       the specified direction looking for the string.  If the string is found
;   100          0670  1 !       the buffer position is left at the string, otherwise it will be at the
;   101          0671  1 !       beginning or end depeneding on the direction.
;   102          0672  1 !
;   103          0673  1 ! FORMAL PARAMETERS:
;   104          0674  1 !
;   105          0675  1 !  STRING               Pointer to the search string.
;   106          0676  1 !
;   107          0677  1 !  LEN                  Length of the search string.
;   108          0678  1 !
;   109          0679  1 !  DIR                  Direction of search: 0 = backward, 1 = forward.
;   110          0680  1 !
;   111          0681  1 ! IMPLICIT INPUTS:
;   112          0682  1 !
;   113          0683  1 !       EDT$$A_CUR_BUF
;   114          0684  1 !       EDT$$T_SEA_STR
;   115          0685  1 !       EDT$$G_SEA_STRLEN
;   116          0686  1 !       EDT$$A_WK_LN
;   117          0687  1 !       EDT$$G_EXCT_MATCH
;   118          0688  1 !
;   119          0689  1 ! IMPLICIT OUTPUTS:
;   120          0690  1 !
;   121          0691  1 !       EDT$$G_CC_DONE
;   122          0692  1 !       EDT$$A_CUR_BUF
;   123          0693  1 !
;   124          0694  1 ! ROUTINE VALUE
;   125          0695  1 !
;   126          0696  1 !       0 = string not found
;   127          0697  1 !       1 = string found
;   128          0698  1 !       2 = string invalid
;   129          0699  1 !
;   130          0700  1 ! SIDE EFFECTS:
;   131          0701  1 !
;   132          0702  1 !       NONE
;   133          0703  1 !
;   134          0704  1 !--
;   135          0705  1
;   136          0706  2     BEGIN
;   137          0707  2
;   138          0708  2     EXTERNAL ROUTINE
;   139          0709  2         EDT$$CHK_CC,
;   140          0710  2         EDT$$SET_SEASTR,
;   141          0711  2         EDT$$RD_NXTLN,
;   142          0712  2         EDT$$RD_PRVLN,
```

```
;  143          0713  2          EDT$$STR_CMP;                           ! Match two strings of equal length
;  144          0714  2
;  145          0715  2      EXTERNAL
;  146          0716  2          EDT$$A_CUR_BUF : REF TBCB_BLOCK,        ! Pointer to current buffer TBCB
;  147          0717  2          EDT$$G_CC_DONE,                         ! control C seen flag
;  148          0718  2          EDT$$T_SEA_STR : BLOCK [CH$ALLOCATION (64)],    ! Last search string.
;  149          0719  2          EDT$$G_SEA_STRLEN,                      ! Length of above.
;  150          0720  2          EDT$$A_WK_LN : REF LIN_BLOCK,           ! Pointer to the current line
;  151          0721  2          EDT$$G_EXCT_MATCH;                      ! The type of string matching
;  152          0722  2
;  153          0723  2      LOCAL
;  154          0724  2          CONTROL_C : INITIAL (0),
;  155          0725  2          SC,
;  156          0726  2          SOURCE;
;  157          0727  2
;  158          0728  2  !+
;  159          0729  2  ! Set up the new search string.
;  160          0730  2  !-
;  161          0731  2
;  162          0732  2      IF EDT$$SET_SEASTR (.STRING, .LEN)
;  163          0733  2      THEN
;  164          0734  3          BEGIN
;  165          0735  3
;  166          0736  3          WHILE NOT .CONTROL_C DO
;  167          0737  4              BEGIN
;  168          0738  4              CONTROL_C = EDT$$CHK_CC ();
;  169          0739  4  !+
;  170          0740  4  ! If seaching backward, then go back a line.
;  171          0741  4  !-
;  172          0742  4
;  173          0743  5              IF ( NOT .DIR)
;  174          0744  4              THEN
;  175          0745  4
;  176          0746  4                  IF ( NOT EDT$$RD_PRVLN ()) THEN RETURN (0);
;  177          0747  4
;  178          0748  4  !+
;  179          0749  4  ! Get a pointer to the line.
;  180          0750  4  !-
;  181          0751  4              SOURCE = EDT$$A_WK_LN [LIN_TEXT];
;  182          0752  4  !+
;  183          0753  4  ! Compare at each character in the line.
;  184          0754  4  !-
;  185          0755  4
;  186          0756  4              INCP I FROM .EDT$$A_CUR_BUF [TBCB_CHAR_POS] TO      !
;  187          0757  4                      (.EDT$$A_WK_LN [LIN_LENGTH] - .EDT$$G_SEA_STRLEN) DO
;  188          0758  4
;  189          0759  4                  IF EDT$$STR_CMP (CH$PTR (.SOURCE, .I), EDT$$T_SEA_STR, .EDT$$G_SEA_STRLEN, .EDT$$G_EXCT_MATC
;  190          0760  4
;  191          0761  4                  THEN
;  192          0762  5                      BEGIN
;  193          0763  5                      EDT$$A_CUR_BUF [TBCB_CHAR_POS] = .I + .EDT$$G_SEA_STRLEN;
;  194          0764  5                      RETURN (1);
;  195          0765  4                      END;
;  196          0766  4
;  197          0767  4  !+
;  198          0768  4  ! If the direction is forward, then move forward a line.
;  199          0769  4  !-
```

```
;  200          0770  4
;  201          0771  4              IF .DIR
;  202          0772  4              THEN
;  203          0773  4
;  204          0774  4                  IF ( NOT EDT$$RD_NXTLN ()) THEN RETURN (0);
;  205          0775  4
;  206          0776  3              END;
;  207          0777  2
;  208          077?                 EDT$$G_CC_DONE = 1;
;  209          07?                  RETURN (0);
;  210          07                   END;
;  211          07
;  212          07?   2          RETURN (2);
;  213          0783  1          END;                                    ! of routine EDT$$FND_STR


;                                                                        .TITLE  EDT$UFSTRING EDT$UFSTRING - line-mode string se
                                                                                 arch
                                                                        .IDENT  \V04-000\

                                                                        .EXTRN  EDT$$CHK_CC, EDT$$SET_SEASTR
                                                                        .EXTRN  EDT$$RD_NXTLN, EDT$$RD_PRVLN
                                                                        .EXTRN  EDT$$STR_CMP, EDT$$A_CUR_BUF
                                                                        .EXTRN  EDT$$G_CC_DONE, EDT$$T_SEA_STR
                                                                        .EXTRN  EDT$$G_SEA_STRLEN
                                                                        .EXTRN  EDT$$A_WK_LN, EDT$$G_EXCT_MATCH

                                                                        .PSECT  _EDT$CODE,NOWRT,  SHR,  PIC,2

                                                 01FC 00000             .ENTRY  EDT$$FND_STR, Save R2,R3,R4,R5,R6,R7,R8      ; 0658
                  58 00000000G   00    9E 00002         MOVAB   EDT$$A_CUR_BUF, R8
                  57 00000000G   00    9E 00009         MOVAB   EDT$$G_SEA_STRLEN, R7
                                 55    D4 00010         CLRL    CONTROL_C                                    ; 0706
                        7E  04   AC    7D 00012         MOVQ    STRING, -(SP)                                ; 0732
00000000G               00       02    FB 00016         CALLS   #2, EDT$$SET_SEASTR
                        7E       50    E9 0001D         BLBC    R0, 6$
                        56  0C   AC    D2 00020         MCOML   DIR, R6                                      ; 0743
                        6E       55    E8 00024 1$:     BLBS    CONTROL_C, 5$                                ; 0736
00000000G               00       00    FB 00027         CALLS   #0, EDT$$CHK_CC                              ; 0738
                        55       50    D0 0002F         MOVL    R0, CONTROL_C
                        0A       56    E9 00031         BLBC    R6, 2$                                       ; 0743
00000000G               00       00    FB 00034         CALLS   #0, EDT$$RD_PRVLN                            ; 0746
                        64       50    E9 0003B         BLBC    R0, 7$
                  51 00000000G   00    D0 0003E 2$:     MOVL    EDT$$A_WK_LN, R1                             ; 0751
                  52       07    A1    9E 00045         MOVAB   7(R1), SOURCE
                  50             68    D0 00049         MOVL    EDT$$A_CUR_BUF, R0                           ; 0756
                  54             61    9A 0004C         MOVZBL  (R1), R4                                     ; 0757
                  54             67    C2 0004F         SUBL2   EDT$$G_SEA_STRLEN, R4
                  53  0C         A0    3C 00052         MOVZWL  12(R0), I                                    ; 0759
                                 53    D7 00056         DECL    I
                                 27    11 00058         BRB     4$
                     00000000G   00    DD 0005A 3$:     PUSHL   EDT$$G_EXCT_MATCH
                                 67    DD 00060         PUSHL   EDT$$G_SEA_STRLEN
                     00000000G   00    9F 00062         PUSHAB  EDT$$T_SEA_STR
                           6342  9F    9F 00068         PUSHAB  (I)[SOURCE]
00000000G               00       04    FB 0006B         CALLS   #4, EDT$$STR_CMP
                        0C       50    E9 00072         BLBC    R0, 4$
```

```
                                 50              68  D0 00075          MOVL    EDT$$A_CUR_BUF, R0                              ; 0763
                            0C   A0              53  67  A1 00078          ADDW3   EDT$$G_SEA_STRLEN, I, 12(R0)
                                 50              01  D0 0007D          MOVL    #1, R0                                          ; 0764
                                                 04  00080          RET
                                 D5              53  54  F3 00081 4$:      AOBLEQ  R4, I, 3$                               ; 0759
                                 9E          0C  AC  E9 00085          BLBC    DIR, 1$                                         ; 0771
                      00000000G  00              00  FB 00089          CALLS   #0, EDT$$RD_NXTLN                               ; 0774
                                 91              50  E8 00090          BLBS    R0, 1$
                                                 0D  11 00093          BRB     7$
                      00000000G  00              01  D0 00095 5$:      MOVL    #1, EDT$$G_CC_DONE                              ; 0778
                                                 04  11 0009C          BRB     7$                                              ; 0779
                                 50              02  D0 0009E 6$:      MOVL    #2, R0                                          ; 0782
                                                 04  000A1          RET
                                                 50  D4 000A2 7$:      CLRL    R0                                              ; 0783
                                                 04  000A4          RET

; Routine Size:  165 bytes,    Routine Base:  _EDT$CODE + 0000

;  214          0784  1
;  215          0785  1 !<BLF/PAGE>
```

```
;  217          0786  1 END                                   ! of module EDT$UFSTRING
;  218          0787  1
;  219          0788  0 ELUDOM
```

```
;                                  PSECT SUMMARY
;
;      Name                      Bytes                        Attributes
;
;  _EDT$CODE                        165  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)
```

```
;                                Library Statistics
;                                                 -------- Symbols --------      Pages       Processing
;      File                                       Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[EDT.SRC]EDT.L32;1                  377        32         8          40        00:00.2
;  _$255$DUA28:[EDT.SRC]PSECTS.L32;1                 2         1        50           7        00:00.1
```

```
;                                  COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS$:UFSTRING/OBJ=OBJ$:UFSTRING MSRC$:UFSTRING.BLI/UPDATE=(ENH$:UFST
;       RING)

; Size:          165 code + 0 data bytes
; Run Time:        00:13.2
; Elapsed Time:    00:15.5
; Lines/CPU Min:    3595
; Lexemes/CPU-Min: 10302
; Memory Used:  93 pages
; Compilation Complete
```

SCRUPDATM LIS
STARTEDT LIS
TISAVE LIS
SETCOMMAN LIS
TIAUTO LIS
TIDELETE LIS
TILINE LIS
TRACEMAC LIS
UFBUFFER LIS
SCRZAPSIN LIS
UEXACASE LIS
SCRUPDATN LIS
TITYPAHD LIS
TSTKEYDEF LIS
TICLRAUD LIS
SUPPORTS LIS
TICHAR LIS
TIECHO LIS
TRAROUNAM LIS
TRANSLATE LIS
UFSTRING LIS
SYSVAX LIS
SCRWID LIS
TRACELIT LIS
UCVTCASE LIS

VMSMSG.LIS
WFCOPLIN.LIS
USSTRING.LIS
WFSCOPY.LIS
WFDELLIN.LIS
WFGETBKT.LIS
WFOPNBUF.LIS
WFREABCK.LIS
WFREAFWD.LIS
WFSTRING.LIS
WFAPPBKT.LIS
UGBUFFER.LIS
WFCLEAR.LIS
USSUBS.LIS
WFDELBKT.LIS
WFSPLBKT.LIS
WFLOCLIN.LIS
WFRBUKT.LIS
WFINSLIN.LIS
WFREACUR.LIS
WFREAINP.LIS
WFTOP.LIS
WFREPLIN.LIS
WFBOTTOM.LIS
WFECOPY.LIS