```
EEEEEEEEEEEEEEEE    DDDDDDDDDDD      TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE    DDDDDDDDDDD      TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEEE   DDDDDDDDDDD      TTTTTTTTTTTTTTTT
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
EEEEEEEEEEEEEEEE    DDDDDDDDDDD            TTT
EEEEEEEEEEEEEEEE    DDDDDDDDDDD            TTT
EEEEEEEEEEEEEEEE    DDDDDDDDDDD            TTT
```

LDIVISION.

LIS

```
   1    0001  0  %TITLE 'EDT$LDIVISION - divide line number by 10**(0-14)'
   2    0002  0  MODULE EDT$LDIVISION (                          ! Pseudo division by 10**(0-14)
   3    0003  0                 IDENT = 'V04-000'                 ! File: LDIVISION.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.                                           *
  12    0012  1  !*                                                                 *
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  14    0014  1  !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE *
  15    0015  1  !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER *
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  21    0021  1  !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT *
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  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  !      This module replaces all division in EDT.  it determines the highest
  37    0037  1  !      power of ten (from 10**0 to 10**14) which can be divided into a line
  38    0038  1  !      number.
  39    0039  1  !
  40    0040  1  !  ENVIRONMENT:  Runs at any access mode - AST reentrant
  41    0041  1  !
  42    0042  1  !  AUTHOR: Sharon M. Burlingame, CREATION DATE: February 11, 1982
  43    0043  1  !
  44    0044  1  !  MODIFIED BY:
  45    0045  1  !
  46    0046  1  !  1-001 - Original.  SMB 11-FEB-1982
  47    0047  1  !  1-002 - Minor modifications due to code review input.  SMB 24-May-1982
  48    0048  1  !  1-003 - Modify to use new 48 bit macro. STS 01-Oct-1982
  49    0049  1  !  1-003 - Modify to use new compare macro. STS 20-Oct-1982
  50    0050  1  !  1-004 - Improve listing appearance.  JBS 14-Jun-1983
  51    0051  1  !--
  52    0052  1
```

```
    54          0053   1 %SBTTL 'Declarations'
    55          0054   1 !
    56          0055   1 ! TABLE OF CONTENTS:
    57          0056   1 !
    58          0057   1
    59          0058   1 REQUIRE 'EDTSRC:TRAROUNAM';
    60          0497   1
    61          0498   1 FORWARD ROUTINE
    62          0499   1     EDT$$LDIV : NOVALUE;                              ! Divide a line number by 10**(0-14)
    63          0500   1
    64          0501   1 !
    65          0502   1 ! INCLUDE FILES:
    66          0503   1 !
    67          0504   1
    68          0505   1 REQUIRE 'EDTSRC:EDTREQ';
    69          0640   1
    70          0641   1 !
    71          0642   1 ! MACROS:
    72          0643   1 !
    73          0644   1 !     NONE
    74          0645   1 !
    75          0646   1 ! EQUATED SYMBOLS:
    76          0647   1 !
    77          0648   1 !     NONE
    78          0649   1 !
    79          0650   1 ! OWN STORAGE:
    80          0651   1 !
    81          0652   1 !     NONE
    82          0653   1 !
    83          0654   1 ! EXTERNAL REFERENCES:
    84          0655   1 !
    85          0656   1 !     In the routine
```

F 15

EDT$LDIVISION   EDT$LDIVISION - divide line number by 10**(0-14 16-Sep-1984 00:48:47   VAX-11 Bliss-32 V4.0-742   Page 3
V04-000   EDT$$LDIV - divide line number by 10**(0-14)   14-Sep-1984 12:23:32   [EDT.SRC]LDIVISION.BLI;1   (3)

```
 87     0657  1    %SBTTL 'EDT$$LDIV  - divide line number by 10**(0-14)'
 88     0658  1
 89     0659  1    GLOBAL ROUTINE EDT$$LDIV (                                    ! Divide line number by 10**(0-14)
 90     0660  1        NUMBER,                                                   ! The line number
 91     0661  1        D,                                                        ! Number of times divisible
 92     0662  1        I                                                         ! Power of ten to divide by
 93     0663  1        ) : NOVALUE =
 94     0664  1
 95     0665  1    !++
 96     0666  1    ! FUNCTIONAL DESCRIPTION:
 97     0667  1    !
 98     0668  1    !     This routine performs division by repeated comparisons and
 99     0669  1    !     subtractions.  It determines how many times a line number
100     0670  1    !     is divisible by a power of ten and returns a digit from 0-9.
101     0671  1    !
102     0672  1    ! FORMAL PARAMETERS:
103     0673  1    !
104     0674  1    !     NUMBER                          input/output parameter - line number to be divided
105     0675  1    !
106     0676  1    !     D                               output parameter - digit to be returned = number of times
107     0677  1    !                                     a power of ten divided the line number
108     0678  1    !
109     0679  1    !     I                               input parameter - power of ten to divide by
110     0680  1    !
111     0681  1    ! IMPLICIT INPUTS:
112     0682  1    !
113     0683  1    !     EDT$$L_LNOO
114     0684  1    !
115     0685  1    ! IMPLICIT OUTPUTS:
116     0686  1    !
117     0687  1    !     NONE
118     0688  1    !
119     0689  1    ! ROUTINE VALUE:
120     0690  1    !
121     0691  1    !     NONE
122     0692  1    !
123     0693  1    ! SIDE EFFECTS:
124     0694  1    !
125     0695  1    !     The value in NUMBER is decreased by D * 10**(I)
126     0696  1    !
127     0697  1    !--
128     0698  1
129     0699  2        BEGIN
130     0700  2
131     0701  2        EXTERNAL
132     0702  2            EDT$$L_LNOO : LNOVECTOR [14];
133     0703  2
134     0704  2        LOCAL
135     0705  2            DIGIT,
136     0706  2            LINNO : LN_BLOCK;
137     0707  2
138     0708  2    !+
139     0709  2    ! Fetch the line number into a local
140     0710  2    !-
141     0711  2        MOVELINE (.NUMBER, LINNO);
142     0712  2    !+
143     0713  2    ! Determine how many times this power of ten will divide the line number
```

G 15
EDT$LDIVISION   EDT$LDIVISION - divide line number by 10**(0-14 16-Sep-1984 00:48:47   VAX-11 Bliss-32 V4.0-742   Page 4
V04-000   EDT$$LDIV - divide line number by 10**(0-14) 14-Sep-1984 12:23:32   [EDT.SRC]LDIVISION.BLI;1   (3)

```
  144    0714  2 !-
  145    0715  2       DIGIT = 0;
  146    0716  2
  147    0717  2       WHILE (CMPLNO (LINNO, EDT$$L_LNOO [.I]) GEQ 0) DO
  148    0718    !+
  149    0719    ! We've found the correct power of ten
  150    0720    ! Find the digit corresponding to this power of ten
  151    0721  2 !-
  152    0722          BEGIN
  153    0723  3       SUBLINE (EDT$$L_LNOO [.I], LINNO);
  154    0724  3       DIGIT = .DIGIT + 1;
  155    0725  2       END;
  156    0726  2
  157    0727  2 !+
  158    0728  2 ! Transfer the digit and new line number to return parameters
  159    0729  2 !-
  160    0730  2       .D = .DIGIT;
  161    0731  2       MOVELINE (LINNO, .NUMBER);
  162    0732  1       END;                                          ! of routine EDT$$LDIV


                                                      .TITLE   EDT$LDIVISION EDT$LDIVISION - divide line numbe
                                                                    r by 10**(0-14

                                                      .IDENT   \V04-000\

                                                      .EXTRN   EDT$$L_LNOO

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

                                 003C 00000           .ENTRY   EDT$$LDIV, Save R2,R3,R4,R5           ; 0659
                       5E        08 C2 00002           SUBL2    #8, SP
            6E     04  BC        06 28 00005           MOVC3    #6, @NUMBER, LINNO                   ; 0711
                       52        D4 0000A              CLRL     DIGIT                                ; 0715
            50     0C  AC        06 C5 0000C           MULL3    #6, I, R0                            ; 0717
                       51 00000000G0040 9E 00011       MOVAB    EDT$$L_LNOO[R0], R1
                       04  A1    04 AE B1 00019 1$:     CMPW     HIGH_1, 4(R1)
                                 07 1F 0001E           BLSSU    2$
                                 10 12 00020           BNEQ     4$
                       61        6E D1 00022           CMPL     LOW_1, (R1)
                                 05 1E 00025           BGEQU    3$
                       50        01 CE 00027 2$:        MNEGL    #1, R0
                                 09 11 0002A           BRB      5$
                                 04 12 0002C 3$:        BNEQ     4$
                                 50 D4 0002E           CLRL     R0
                                 03 11 00030           BRB      5$
                       50        01 D0 00032 4$:        MOVL     #1, R0
                                 14 19 00035 5$:        BLSS     6$
                       50    06  AE B0 00037            MOVW     UPPER_WORD, SAVE                    ; 0723
                       6E        61 C2 0003B            SUBL2    (R1), LINNO
            04     AE  04  A1    D9 0003E               SBWC     4(R1), LINNO
            06     AE            50 B0 00043            MOVW     SAVE, UPPER_WORD
                                 52 D6 00047            INCL     DIGIT                              ; 0724
                                 CE 11 00049            BRB      1$                                 ; 0717
            08     BC            52 D0 0004B 6$:         MOVL     DIGIT, @D                         ; 0730
      04  BC            6E       06 28 0004F             MOVC3    #6, LINNO, @NUMBER               ; 0731
                                 04 00054               RET                                        ; 0732
```

EDT$LDIVISION   EDT$LDIVISION - divide line number by 10**(0-14 16-Sep-1984 00:48:47   VAX-11 Bliss-32 V4.0-742   Page 5
V04-000   EDT$$LDIV   - divide line number by 10**(0-14)   14-Sep-1984 12:23:32   [EDT.SRC]LDIVISION.BLI;1   (3)

; Routine Size: 85 bytes,   Routine Base: _EDT$CODE + 0000

;   163   0733 1
;   164   0734 1 !<BLF/PAGE>

I 15
EDT$LDIVISION   EDT$LDIVISION - divide line number by 10**(0-14 16-Sep-1984 00:48:47   VAX-11 Bliss-32 V4.0-742   Page 6
VO4-000   EDT$$LDIV - divide line number by 10**(0-14) 14-Sep-1984 12:23:32   [EDT.SRC]LDIVISION.BLI;1   (4)

```
;  166       0735  1 END                                                    ! of module EDT$LDIVISION
;  167       0736  1
;  168       0737  0 ELUDOM
```

;
;   PSECT SUMMARY
;
;   Name   Bytes   Attributes
;
;   _EDT$CODE   85   NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

;   Library Statistics
;
;   --------- Symbols ---------   Pages   Processing
;   File   Total   Loaded   Percent   Mapped   Time
;
;   _255DUA28:[EDT.SRC]EDT.L32;1   377   9   2   40   00:00.2
;   _255DUA28:[EDT.SRC]PSECTS.L32;1   2   1   50   7   00:00.1

;   COMMAND QUALIFIERS
;
;   BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS$:LDIVISION/OBJ=OBJ$:LDIVISION MSRC$:LDIVISION.BLI/UPDATE=(ENH$:L
;   DIVISION)
;
; Size: 85 code + 0 data bytes
; Run Time: 00:11.7
; Elapsed Time: 00:14.6
; Lines/CPU Min: 3789
; Lexemes/CPU-Min: 13300
; Memory Used: 85 pages
; Compilation Complete

KEYPADDEF
LIS

LDIVISION
LIS

KEYDEFKEY
LIS

KEYFMTSTR
LIS

LDEFK
LIS

LFILL
LIS

KEYCHR
LIS

KEYIMMINP
LIS

LDELETE
LIS

KEYCOM
LIS

KEYPUTCHR
LIS

LCLEAR
LIS

LFCOUNT
LIS

KEYPAD
LIS

LDEFM
LIS

LFLNO
LIS

KEYTRNCHR
LIS