


```
LL      DDDDDDD  IIIIII  VV      VV      IIIIII  SSSSSSS  IIIIII  000000  NN      NN
LL      DDDDDDD  IIIIII  VV      VV      IIIIII  SSSSSSS  IIIIII  000000  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NNNN   NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NNNN   NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LL      DD      DD      VV      VV      II      SS      II      00      00  NN      NN
LLLLLLLL  DDDDDDD  IIIIII  VV      VV      IIIIII  SSSSSSS  IIIIII  000000  NN      NN
LLLLLLLL  DDDDDDD  IIIIII  VV      VV      IIIIII  SSSSSSS  IIIIII  000000  NN      NN
.....
```

```
LL      IIIIII  SSSSSSS
LL      IIIIII  SSSSSSS
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
LL      IIIIII  SSSSSSS
LLLLLLLL  IIIIII  SSSSSSS
LLLLLLLL  IIIIII  SSSSSSS
```

.....

```
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 *  
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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: 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;  
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
```

! Divide a line number by 10**(0-14)

```
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
```

```

0714 2 !-
0715      DIGIT = 0;
0716      WHILE (CMPLNO (LINNO, EDT$$L_LNOO [.I]) GEQ 0) DO
0717  !+
0718      We've found the correct power of ten
0719      Find the digit corresponding to this power of ten
0720  !-
0721      BEGIN
0722      SUBLINE (EDT$$L_LNOO [.I], LINNO);
0723      DIGIT = .DIGIT + 1;
0724      END;
0725
0726  !+
0727      Transfer the digit and new line number to return parameters
0728  !-
0729      .D = .DIGIT;
0730      MOVELINE (LINNO, .NUMBER);
0731      END;
0732

```

! 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

.ENTRY EDT\$\$LDIV, Save R2,R3,R4,R5

```

SUBL2 #8, SP ; 0659
MOV C3 #6, @NUMBER, LINNO ; 0711
CLRL DIGIT ; 0715
MULL3 #6, I, R0 ; 0717
MOVAB EDT$$L_LNOO[R0], R1
CMPW HIGH_1, 4(R1)
BLSSU 2$
BNEQ 4$
CMPL LOW_1, (R1)
BGEQU 3$
MNEGL #1, R0
BRB 5$
BNEQ 4$
CLRL R0
BRB 5$
MOVL #1, R0
BLSS 6$
MOVW UPPER_WORD, SAVE ; 0723
SUBL2 (R1), LINNO
SBWC 4(R1), LINNO
MOVW SAVE, UPPER_WORD
INCL DIGIT ; 0724
BRB 1$ ; 0717
MOVL DIGIT, @D ; 0730
MOV C3 #6, LINNO, @NUMBER ; 0731
RET ; 0732

```

```

003C 00000
08 C2 00002
6E 04 SE 08 C2 00002
BC 06 28 00005
04 52 D4 0000A
50 0C AC 06 C5 0000C
51 00000000G00 06 C5 0000C
04 A1 04 AE B1 00019 1$:
07 1F 0001E
10 12 00020
61 6E D1 00022
05 1E 00025
50 01 CE 00027 2$:
09 11 0002A
04 12 0002C 3$:
50 D4 0002E
03 11 00030
50 01 D0 00032 4$:
14 19 00035 5$:
50 06 AE B0 00037
6E 61 C2 0003B
04 AE 04 A1 D9 0003E
06 AE 50 B0 00043
52 D6 00047
0E 11 00049
04 BC 08 BC 52 D0 0004B 6$:
6E 0C 28 0004F
04 04 00054

```

EDTSLDIVISION
V04-000

EDTSLDIVISION - divide line number by 10**(0-14)
EDTSLDIV - divide line number by 10**(0-14)

H 15
16-Sep-1984 00:48:47
14-Sep-1984 12:23:32

VAX-11 Bliss-32 V4.0-742
[EDT.SRC]LDIVISION.BLI;1

Page 5
(3)

ED
VO

; Routine Size: 85 bytes, Routine Base: _EDTSCODE + 0000

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

.....

: 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

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[EDT.SRC]EDT.L32;1	377	9	2	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\$:LDIVISION/OBJ=OBJ\$:LDIVISION MSRC\$:LDIVISION.BLI/UPDATE=(ENH\$:LDIVISION)

: Size: 85 code + 0 data bytes
 : Run Time: 00:11.7
 : Elapsed Time: 00:14.3
 : Lines/CPU Min: 3789
 : Lexemes/CPU-Min: 13300
 : Memory Used: 85 pages
 : Compilation Complete

This page contains a grid of 100 small terminal windows, each displaying a different command and its output. The windows are arranged in 10 rows and 10 columns. The commands shown include:

- KEYPADDEF LIS
- LDIVISION LIS
- KEYDEFKEY LIS
- KEYFMTSTR LIS
- KEYCHR LIS
- KEYCOM LIS
- KEYPUTCHR LIS
- LDEFK LIS
- LFILL LIS
- KEYIMMNP LIS
- LDELETE LIS
- KEYPAD LIS
- LDEFM LIS
- LCLEAR LIS
- RECOUNT LIS
- KEYTRNCHR LIS
- LFILNO LIS

Each window displays a header line with the command name and the text 'LIS', followed by various lines of alphanumeric data and control characters such as carriage returns and line feeds.