```
EEEEEEEEEEEEEEEE    DDDDDDDDDD        TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE    DDDDDDDDDD        TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE    DDDDDDDDDD        TTTTTTTTTTTTTTT
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    DDDDDDDDDD              TTT
EEEEEEEEEEEEEEEE    DDDDDDDDDD              TTT
EEEEEEEEEEEEEEEE    DDDDDDDDDD              TTT
```

EXE

Mod

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LIB

```
LL          NN      NN     000000     NN      NN    CCCCCCC    TTTTTTTTT    GGGGGGG
LL          NN      NN     000000     NN      NN    CCCCCCC    TTTTTTTTT    GGGGGGG
LL          NN      NN    00    00    NN      NN   CC             TT       GG
LL          NN      NN    00    00    NN      NN   CC             TT       GG
LL          NNNN    NN    00    00    NNNN    NN   CC             TT       GG
LL          NNNN    NN    00    00    NNNN    NN   CC             TT       GG
LL          NN  NN  NN    00    00    NN  NN  NN   CC             TT       GG
LL          NN  NN  NN    00    00    NN  NN  NN   CC             TT       GG
LL          NN    NNNN    00    00    NN    NNNN   CC             TT       GG   GGGGG
LL          NN    NNNN    00    00    NN    NNNN   CC             TT       GG   GGGGG
LL          NN      NN    00    00    NN      NN   CC             TT       GG      GG
LL          NN      NN    00    00    NN      NN   CC             TT       GG      GG
LLLLLLLLLL  NN      NN     000000     NN      NN    CCCCCCC       TT        GGGGGG      ::::
LLLLLLLLLL  NN      NN     000000     NN      NN    CCCCCCC       TT        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
```

EDT$LNONCTG - test for non-contiguous range   B 5
16-Sep-1984 00:53:50   VAX-11 Bliss-32 V4.0-742   Page 1
14-Sep-1984 12:23:37   DISK$VMSMASTER:[EDT.SRC]LNONCTG.BLI;1 (1)

```
   1   0001  0  %TITLE 'EDT$LNONCTG - test for non-contiguous range'
   2   0002  0  MODULE EDT$LNONCTG (                              ! Test for non-contiguous range
   3   0003  0                  IDENT = 'V04-000'                 ! File: LNONCTG.BLI Edit: JBS1004
   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 *
  16   0016  1  !*   COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
  17   0017  1  !*   OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY *
  18   0018  1  !*   TRANSFERRED.                                                     *
  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 *
  22   0022  1  !*   CORPORATION.                                                     *
  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  !     Test for a non-contiguous range.
  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 3, 1978
  41   0041  1  !
  42   0042  1  ! MODIFIED BY:
  43   0043  1  !
  44   0044  1  ! 1-001 - Original.  DJS 10-MAR-81.  This module was created by
  45   0045  1  !         extracting the routine EDT$$TST_NONCNTGRNG  from EXEC.BLI.
  46   0046  1  ! 1-002 - Regularize headers.  JBS 20-Mar-1981
  47   0047  1  ! 1-003 - Use new message codes.  JBS 04-Aug-1981
  48   0048  1  ! 1-004 - Improve the appearance of the listing.  JBS 14-Jun-1983
  49   0049  1  !--
  50   0050  1
```

```
52      0051   1  %SBTTL 'Declarations'
53      0052   1  !
54      0053   1  !  TABLE OF CONTENTS:
55      0054   1  !
56      0055   1
57      0056   1  REQUIRE 'EDTSRC:TRAROUNAM';
58      0495   1
59      0496   1  FORWARD ROUTINE
60      0497   1      EDT$$TST_NONCNTGRNG;
61      0498   1
62      0499   1  !
63      0500   1  !  INCLUDE FILES:
64      0501   1  !
65      0502   1
66      0503   1  REQUIRE 'EDTSRC:EDTREQ';
67      0638   1
68      0639   1  !
69      0640   1  !  MACROS:
70      0641   1  !
71      0642   1  !      NONE
72      0643   1  !
73      0644   1  !  EQUATED SYMBOLS:
74      0645   1  !
75      0646   1  !      NONE
76      0647   1  !
77      0648   1  !  OWN STORAGE:
78      0649   1  !
79      0650   1  !      NONE
80      0651   1  !
81      0652   1  !  EXTERNAL REFERENCES:
82      0653   1  !
83      0654   1  !      In the routine
```

```
   85    0655   1  %SBTTL 'EDT$$TST_NONCNTGRNG  - test for non-contiguous range'
   86    0656   1
   87    0657   1  GLOBAL ROUTINE EDT$$TST_NONCNTGRNG (                       ! Test for non-contiguous range
   88    0658   1      RANGE                                                  ! The range to test
   89    0659   1      ) =
   90    0660   1
   91    0661   1  !++
   92    0662   1  ! FUNCTIONAL DESCRIPTION:
   93    0663   1  !
   94    0664   1  !       This routine takes a range node and determines whether or not it
   95    0665   1  !       defines a contiguous range.  The range is non-contiguous if it is
   96    0666   1  !       a ALL or if the next range field is non-zero, indicating and AND.
   97    0667   1  !
   98    0668   1  ! FORMAL PARAMETERS:
   99    0669   1  !
  100    0670   1  !  RANGE                  The range to test
  101    0671   1  !
  102    0672   1  ! IMPLICIT INPUTS:
  103    0673   1  !
  104    0674   1  !      NONE
  105    0675   1  !
  106    0676   1  ! IMPLICIT OUTPUTS:
  107    0677   1  !
  108    0678   1  !      NONE
  109    0679   1  !
  110    0680   1  ! ROUTINE VALUE:
  111    0681   1  !
  112    0682   1  !      0 = range is contiguous, 1 = range is non-contiguous
  113    0683   1  !
  114    0684   1  ! SIDE EFFECTS:
  115    0685   1  !
  116    0686   1  !      Prints a message if the range is non-contiguous.
  117    0687   1  !      Calls itself recursively if the range refers to a buffer.
  118    0688   1  !--
  119    0689   1
  120    0690   1
  121    0691   2      BEGIN
  122    0692   2
  123    0693   2      EXTERNAL ROUTINE
  124    0694   2          EDT$$FMT_MSG;
  125    0695
  126    0696   2      MESSAGES ((RANNONCON));
  127    0697
  128    0698   2      MAP
  129    0699   2          RANGE : REF NODE_BLOCK;
  130    0700
  131    0701   3      IF ((.RANGE [RAN_TYPE] EQL RAN_ALL) OR (.RANGE [NEXT_RANGE] NEQ 0))
  132    0702   2      THEN
  133    0703   3          BEGIN
  134    0704   3          EDT$$FMT_MSG (EDT$_RANNONCON);
  135    0705   3          RETURN (T);
  136    0706   3          END
  137    0707   2      ELSE
  138    0708      !+
  139    0709   2  ! If is is a buffer range, we better look at the range below it.
  140    0710   2  !-
  141    0711   2
```

E 5

EDT$LNONCTG   EDT$LNONCTG - test for non-contiguous range   16-Sep-1984 00:53:50   VAX-11 Bliss-32 V4.0-742   Page 4
V04-000   EDT$$TST_NONCNTGRNG - test for non-contiguous   14-Sep-1984 12:23:37   DISK$VMSMASTER:[EDT.SRC]LNONCTG.BLI;1   (3)

```
; 142      0712  3                IF (.RANGE [RAN_TYPE] EQL RAN_BUFFER)
; 143      0713  3                THEN
; 144      0714  3                    RETURN (EDT$$TST_NONCNTGRNG (.RANGE [RANGE1]))
; 145      0715  3                ELSE
; 146      0716  2                    RETURN (0);
; 147      0717  2
; 148      0718  1            END;                                              ! of routine EDT$$TST_NONCNTGRNG

;
                                                                      .TITLE  EDT$LNONCTG EDT$LNONCTG - test for non-contiguo
                                                                              us range
                                                                      .IDENT  \V04-000\

                                                                      .EXTRN  EDT$$FMT_MSG, EDT$_RANNONCON

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

                                       0004 00000               .ENTRY  EDT$$TST_NONCNTGRNG, Save R2                  ; 0657
                          52      04  AC  D0 00002               MOVL    RANGE, R2                                    ; 0701
                          13      01  A2  91 00006               CMPB    1(R2), #19
                                  05  13 0000A                   BEQL    1$
                                  10  A2  D5 0000C               TSTL    16(R2)
                                  11  13 0000F                   BEQL    2$
                   00000000G      8F  DD 00011 1$:               PUSHL   #EDT$_RANNONCON                              ; 0704
        0C000000G  00             01  FB 00017                   CALLS   #1, EDT$$FMT_MSG
                   50             01  D0 0001E                   MOVL    #1, R0                                       ; 0712
                                  04 00021                       RET
                          OD      01  A2  91 00022 2$:           CMPB    1(R2), #13
                                  08  12 00026                   BNEQ    3$
                          04      A2  DD 00028                   PUSHL   4(R2)                                        ; 0714
              D1  AF             01  FB 0002B                    CALLS   #1, EDT$$TST_NONCNTGRNG
                                  04 0002F                       RET
                          50      D4 00030 3$:                   CLRL    R0                                           ; 0716
                                  04 00032                       RET                                                 ; 0718

; Routine Size:  51 bytes,     Routine Base: _EDT$CODE + 0000


; 149      0719  1
; 150      0720  1 !<BLF/PAGE>
```

```
EDT$LNONCTG      EDT$LNONCTG - test for non-contiguous range      16-Sep-1984 00:53:50    VAX-11 Bliss-32 V4.0-742              Page  5
V04-000          EDT$$TST_NONCNTGRNG  - test for non-contiguous    14-Sep-1984 12:23:37    DISK$VMSMASTER:[EDT.SRC]LNONCTG.BLI;1  (4)
```

```
;  152           0721  1 END                                                  ! of module EDT$LNONCTG
;  153           0722  1
;  154           0723  0 ELUDOM
```

```
;                               PSECT SUMMARY
;
;        Name                        Bytes                   Attributes
;
;  _EDT$CODE                            51  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      52       13          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$:LNONCTG/OBJ=OBJ$:LNONCTG MSRC$:LNONCTG.BLI/UPDATE=(ENH$:LNONCTG
;      )
;
; Size:          51 code + 0 data bytes
; Run Time:         00:10.0
; Elapsed Time:     00:13.2
; Lines/CPU Min:    4333
; Lexemes/CPU-Min: 12953
; Memory Used:  68 pages
; Compilation Complete
```

LINCL
LIS

LTYPE
LIS

LQUERY
LIS

LSUB
LIS

LRES
LIS

LTADJ
LIS

LPRINT
LIS

LGETSTR
LIS

LPUTCHR
LIS

LSUBSN
LIS

LSHOW
LIS

LMOVE
LIS

LSET
LIS

LWRITE
LIS

LINSERT
LIS

LNONCTG
LIS

LSUBS
LIS