```
BBBBBBBBBBBBB        AAAAAAAAA         SSSSSSSSSSSS    RRRRRRRRRRRR    TTTTTTTTTTTTTTTT  LLL
BBBBBBBBBBBBB        AAAAAAAAA         SSSSSSSSSSSS    RRRRRRRRRRRR    TTTTTTTTTTTTTTTT  LLL
BBBBBBBBBBBBB        AAAAAAAAA         SSSSSSSSSSSS    RRRRRRRRRRRR    TTTTTTTTTTTTTTTT  LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA  SSS                  RRR        RRR          TTT        LLL
BBBBBBBBBBBBB    AAA         AAA      SSSSSSSS         RRRRRRRRRRRR          TTT        LLL
BBBBBBBBBBBBB    AAA         AAA      SSSSSSSS         RRRRRRRRRRRR          TTT        LLL
BBBBBBBBBBBBB    AAA         AAA      SSSSSSSS         RRRRRRRRRRRR          TTT        LLL
BBB        BBB   AAAAAAAAAAAAAAAA              SSS     RRR    RRR             TTT        LLL
BBB        BBB   AAAAAAAAAAAAAAAA              SSS     RRR    RRR             TTT        LLL
BBB        BBB   AAAAAAAAAAAAAAAA              SSS     RRR    RRR             TTT        LLL
BBB        BBB   AAA         AAA              SSS     RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA              SSS     RRR        RRR          TTT        LLL
BBB        BBB   AAA         AAA              SSS     RRR        RRR          TTT        LLL
BBBBBBBBBBBBB    AAA         AAA  SSSSSSSSSSSS         RRR            RRR      TTT        LLLLLLLLLLLLLLLL
BBBBBBBBBBBBB    AAA         AAA  SSSSSSSSSSSS         RRR            RRR      TTT        LLLLLLLLLLLLLLLL
BBBBBBBBBBBBB    AAA         AAA  SSSSSSSSSSSS         RRR            RRR      TTT        LLLLLLLLLLLLLLLL
```

```
BBBBBBBB    AAAAAA     SSSSSSSS  RRRRRRR   IIIIII    GGGGGGGG HH    HH TTTTTTTTTT
BBBBBBBB    AAAAAA     SSSSSSSS  RRRRRRR   IIIIII    GGGGGGGG HH    HH TTTTTTTTTT
BB    BB  AA    AA  SS          RR    RR    II       GG       HH    HH     TT
BB    BB  AA    AA  SS          RR    RR    II       GG       HH    HH     TT
BB    BB  AA    AA  SS          RR    RR    II       GG       HH    HH     TT
BB    BB  AA    AA  SS          RR    RR    II       GG       HH    HH     TT
BBBBBBBB  AA    AA     SSSSSS   RRRRRRR     II       GG       HHHHHHHHHH    TT
BBBBBBBB  AA    AA     SSSSSS   RRRRRRR     II       GG       HHHHHHHHHH    TT
BB    BB  AAAAAAAAAA       SS   RR  RR      II       GG  GGGGGG HH    HH    TT
BB    BB  AAAAAAAAAA       SS   RR  RR      II       GG  GGGGGG HH    HH    TT
BB    BB  AA    AA         SS   RR   RR     II       GG     GG HH    HH     TT
BB    BB  AA    AA         SS   RR   RR     II       GG     GG HH    HH     TT    ....
BBBBBBBB  AA    AA  SSSSSSSS    RR    RR  IIIIII     GGGGGG  HH    HH       TT    ....
BBBBBBBB  AA    AA  SSSSSSSS    RR    RR  IIIIII     GGGGGG  HH    HH       TT    ....


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 BAS$RIGHT (                              ! Extract the substring of the BASIC RIGHT
   2    0002  0                   IDENT = '1-006'                ! File: BASRIGHT.B32
   3    0003  0                   ) =
   4    0004  1  BEGIN
   5    0005  1  !
   6    0006  1  !*****************************************************************************
   7    0007  1  !*                                                                          *
   8    0008  1  !*   COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                *
   9    0009  1  !*   DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                 *
  10    0010  1  !*   ALL RIGHTS RESERVED.                                                   *
  11    0011  1  !*                                                                          *
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  13    0013  1  !*   ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE  *
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  15    0015  1  !*   COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  *
  16    0016  1  !*   OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY  *
  17    0017  1  !*   TRANSFERRED.                                                           *
  18    0018  1  !*                                                                          *
  19    0019  1  !*   THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE  *
  20    0020  1  !*   AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
  21    0021  1  !*   CORPORATION.                                                           *
  22    0022  1  !*                                                                          *
  23    0023  1  !*   DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS  *
  24    0024  1  !*   SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                *
  25    0025  1  !*                                                                          *
  26    0026  1  !*                                                                          *
  27    0027  1  !*****************************************************************************
  28    0028  1  !
  29    0029  1  !
  30    0030  1  !++
  31    0031  1  ! FACILITY: String support library
  32    0032  1  !
  33    0033  1  ! ABSTRACT:
  34    0034  1  !
  35    0035  1  !      This module extracts a substring according to the
  36    0036  1  !      BASIC-PLUS-2 syntax.  It finds the substring of a main string
  37    0037  1  !      starting at the character position specified by the input parameter
  38    0038  1  !      and continues through the last character of the string.  This
  39    0039  1  !      substring is copied to the destination string.
  40    0040  1  !
  41    0041  1  ! ENVIRONMENT: User mode, AST level or not or mixed
  42    0042  1  !
  43    0043  1  ! AUTHOR: R. Will, CREATION DATE: 19-Feb-79
  44    0044  1  !
  45    0045  1  ! MODIFIED BY:
  46    0046  1  !
  47    0047  1  !   R. Will, 19-Feb-79: VERSION 01
  48    0048  1  !   01     - original
  49    0049  1  !   02     - change linkage and call to COPY routine. 15-mar-79
  50    0050  1  !   1-003 - Change string linkages to start with STR$.  JBS 04-JUN-1979
  51    0051  1  !   1-004 - Change call to STR$$COPY. JBS 16-JUL-1979
  52    0052  1  !   1-005 - Define an aux variable to improve the code generated.
  53    0053  1  !           JBS 11-OCT-1979
  54    0054  1  !   1-006 - CALL STRRIGHT, DELETE THIS MODULE WHEN COMPILER CALLS STR.  RW  1-Nov-79
  55    0055  1  !--
  56    0056  1
  57    0057  1  !<BLF/PAGE>
```

```
 59    0058  1 !
 60    0059  1 ! SWITCHES:
 61    0060  1 !
 62    0061  1
 63    0062  1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
 64    0063  1
 65    0064  1 !
 66    0065  1 ! LINKAGES:
 67    0066  1 !
 68    0067  1
 69    0068  1 !
 70    0069  1 ! TABLE OF CONTENTS:
 71    0070  1 !
 72    0071  1
 73    0072  1 FORWARD ROUTINE
 74    0073  1     BAS$RIGHT : NOVALUE;                        ! Find the RIGHT of a string
 75    0074  1
 76    0075  1 !
 77    0076  1 ! INCLUDE FILES:
 78    0077  1 !
 79    0078  1
 80    0079  1 REQUIRE 'RTLIN:RTLPSECT';                     ! Declare PSECTs code
 81    0174  1
 82    0175  1 !
 83    0176  1 ! MACROS:
 84    0177  1 !
 85    0178  1 !
 86    0179  1 ! EQUATED SYMBOLS:
 87    0180  1 !
 88    0181  1 !
 89    0182  1 ! PSECT DECLARATIONS
 90    0183  1 !
 91    0184  1 DECLARE_PSECTS (BAS);
 92    0185  1 !
 93    0186  1 ! OWN STORAGE:
 94    0187  1 !
 95    0188  1 !
 96    0189  1 ! EXTERNAL REFERENCES:
 97    0190  1 !
 98    0191  1
 99    0192  1 EXTERNAL ROUTINE
100    0193  1     STR$RIGHT;                ! Routine to do the copy
101    0194  1
```

BAS$RIGHT
1-006

C 15
16-Sep-1984 01:06:03   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 11:56:36   [BASRTL.SRC]BASRIGHT.B32;1

Page   3
        (3)

```
   103      0195   1 GLOBAL ROUTINE BAS$RIGHT (
   104      0196   1         DEST_DESC,                          ! Pointer to destination descriptor
   105      0197   1         SRC_DESC,                           ! Pointer to source descriptor
   106      0198   1         CHAR_POS                            ! First character to be included
   107      0199   1     ) : NOVALUE =
   108      0200   1
   109      0201   1 !++
   110      0202   1 ! FUNCTIONAL DESCRIPTION:
   111      0203   1 !
   112      0204   1 !         This routine extracts the characters starting at the
   113      0205   1 !         character position in the source string specified by the input
   114      0206   1 !         parameter and continuing through the last character of the source
   115      0207   1 !         string and copies that substring
   116      0208   1 !         to the destination string (by JSB to STR$$COPY_R_R8) according
   117      0209   1 !         to the syntax of the class of the destination string.
   118      0210   1 !         If the input character position is < 2 then the entire source
   119      0211   1 !         string is copied.  If the input character position is > the length
   120      0212   1 !         of the source string, then the destination string becomes a null
   121      0213   1 !         string.
   122      0214   1 !
   123      0215   1 ! FORMAL PARAMETERS:
   124      0216   1 !
   125      0217   1 !         DEST_DESC.wt.dx         pointer to destination string descriptor
   126      0218   1 !         SRC_DESC.rt.dx          pointer to source string descriptor
   127      0219   1 !         CHAR_POS.rw.v           character position in src to start substring
   128      0220   1 !
   129      0221   1 ! IMPLICIT INPUTS:
   130      0222   1 !
   131      0223   1 !         NONE
   132      0224   1 !
   133      0225   1 ! IMPLICIT OUTPUTS:
   134      0226   1 !
   135      0227   1 !         NONE
   136      0228   1 !
   137      0229   1 ! ROUTINE VALUE:
   138      0230   1 ! COMPLETION CODES:
   139      0231   1 !
   140      0232   1 !         NONE
   141      0233   1 !
   142      0234   1 ! SIDE EFFECTS:
   143      0235   1 !
   144      0236   1 !         NONE
   145      0237   1 !
   146      0238   1 !--
   147      0239   1
   148      0240   2     BEGIN
   149      0241   2
   150      0242   2     MAP
   151      0243   2         DEST_DESC : REF BLOCK [8,BYTE];
   152      0244   2
   153      0245   2     MAP
   154      0246   2         SRC_DESC : REF BLOCK [8,BYTE];
   155      0247   2
   156      0248   2     STR$RIGHT (DEST_DESC [0,0,0,0], SRC_DESC [0,0,0,0], CHAR_POS);
   157      0249   2     RETURN;
   158      0250   1     END;                                    !End of BAS$RIGHT
```

```
                                                    .TITLE   BAS$RIGHT
                                                    .IDENT   \1-006\

                                                    .EXTRN   STR$RIGHT

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

                                 0000 00000         .ENTRY   BAS$RIGHT, Save nothing              ; 0195
                    OC   AC  9F  00002              PUSHAB   CHAR_POS                             ; 0248
               7E   04   AC  7D  00005              MOVQ     DEST_DESC, -(SP)
     00000000G  00            03  FB  00009         CALLS    #3, STR$RIGHT
                                04  00010           RET                                          ; 0250
```

; Routine Size: 17 bytes,   Routine Base: _BAS$CODE + 0000


```
;  159          0251  1
;  160          0252  1 END                                    !End of module
;  161          0253  1
;  162          0254  0 ELUDOM
```


                           PSECT SUMMARY

;
;
;   Name   Bytes   Attributes
;
;   _BAS$CODE   17 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

BASRSTSOV
LIS

BASRAD50
LIS

BASRSET
LIS

BASPUT
LIS

BASRECPRO
LIS

BASRESTAR
LIS

BASRANDOM
LIS

BASREMAP
LIS

BASRESTOR
LIS

BASRIGHT
LIS