



```

BBBBBBBB      AAAAAA      SSSSSSSS      MM      MM      IIIIII      DDDDDDDD
BBBBBBBB      AAAAAA      SSSSSSSS      MM      MM      IIIIII      DDDDDDDD
BB      BB      AA      AA      SS      MMMM      MMMM      II      DD      DD
BB      BB      AA      AA      SS      MMMM      MMMM      II      DD      DD
BB      BB      AA      AA      SS      MM      MM      II      DD      DD
BBBBBBBB      AA      AA      SSSSSS      MM      MM      II      DD      DD
BBBBBBBB      AA      AA      SSSSSS      MM      MM      II      DD      DD
BB      BB      AAAAAAAAAA      SS      MM      MM      II      DD      DD
BB      BB      AAAAAAAAAA      SS      MM      MM      II      DD      DD
BB      BB      AA      AA      SS      MM      MM      II      DD      DD
BB      BB      AA      AA      SS      MM      MM      II      DD      DD
BBBBBBBB      AA      AA      SSSSSSSS      MM      MM      IIIIII      DDDDDDDD
BBBBBBBB      AA      AA      SSSSSSSS      MM      MM      IIIIII      DDDDDDDD

```

```

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
LLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLL      IIIIII      SSSSSSSS

```

```

1 0001 0 MODULE BASSMID ( ! Extract the substring of the BASIC MID
2 0002 0 IDENT = '1-005' ! File: BASSMID.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 *
12 0012 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
13 0013 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
14 0014 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
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 BASIC-PLUS-2
36 0036 1 syntax. It finds the substring of a main string starting at the
37 0037 1 character position specified by the second input parameter and
38 0038 1 continues for the number of characters specified by the third
39 0039 1 input parameter. This 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: 21-Feb-79
44 0044 1
45 0045 1 MODIFIED BY:
46 0046 1
47 0047 1 R. Will, 21-Feb-79: VERSION 01
48 0048 1 01 - original
49 0049 1 02 - change linkage and call to COPY routine. 15-Mar-79 RW
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 - CALL STR$LEN_EXTR, DELETE THIS WHEN COMPILER CALLS STR$. RW 1-NOV-79
53 0053 1 --
54 0054 1
55 0055 1 !<BLF/PAGE>

```

```
.. 57      0056 1  |  
.. 58      0057 1  | SWITCHES:  
.. 59      0058 1  |  
.. 60      0059 1  |  
.. 61      0060 1  | SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);  
.. 62      0061 1  |  
.. 63      0062 1  |  
.. 64      0063 1  | LINKAGES:  
.. 65      0064 1  |  
.. 66      0065 1  |  
.. 67      0066 1  |  
.. 68      0067 1  | TABLE OF CONTENTS:  
.. 69      0068 1  |  
.. 70      0069 1  |  
.. 71      0070 1  | FORWARD ROUTINE  
.. 72      0071 1  |     BASSMID : NOVALUE;                ! Find the MID of a string  
.. 73      0072 1  |  
.. 74      0073 1  |  
.. 75      0074 1  | INCLUDE FILES:  
.. 76      0075 1  |  
.. 77      0076 1  |  
.. 78      0077 1  | REQUIRE 'RTLIN:RTLPSECT';           ! Declare PSECTS code  
.. 79      0172 1  |  
.. 80      0173 1  |  
.. 81      0174 1  | MACROS:  
.. 82      0175 1  |  
.. 83      0176 1  |  
.. 84      0177 1  | EQUATED SYMBOLS:  
.. 85      0178 1  |  
.. 86      0179 1  |  
.. 87      0180 1  | PSECT DECLARATIONS  
.. 88      0181 1  |  
.. 89      0182 1  | DECLARE_PSECTS (BAS);  
.. 90      0183 1  |  
.. 91      0184 1  | OWN STORAGE:  
.. 92      0185 1  |  
.. 93      0186 1  |  
.. 94      0187 1  | EXTERNAL REFERENCES:  
.. 95      0188 1  |  
.. 96      0189 1  |  
.. 97      0190 1  | EXTERNAL ROUTINE  
.. 98      0191 1  |     STR$LEN_EXTR;                    ! Routine to do the copy  
.. 99      0192 1  |
```

```

: 101      0193 1 GLOBAL ROUTINE BASSMID (DEST_DESC,      | Pointer to destination descriptor
: 102      0194 1      SRC_DESC,                          | Pointer to source descriptor
: 103      0195 1      CHAR_POS,                          | First character to be included
: 104      0196 1      SUB_LENGTH) : NOVALUE=          | Length of the substring
: 105      0197 1
: 106      0198 1
: 107      0199 1 ++
: 108      0200 1 FUNCTIONAL DESCRIPTION:
: 109      0201 1      This routine extracts the characters starting at the
: 110      0202 1      character position in the source string specified by the input
: 111      0203 1      parameter and continuing for the number of characters specified
: 112      0204 1      by the input, and copies that substring
: 113      0205 1      to the destination string (by JSB to STR$$COPY_R_R8) according
: 114      0206 1      to the syntax of the class of the destination string.
: 115      0207 1      If the input character position is < 1, 1 is used. If
: 116      0208 1      the input character position is > the length
: 117      0209 1      of the source string, then the destination string becomes a null
: 118      0210 1      string. If the substring length is < 1 a null string is returned.
: 119      0211 1      If character position + substring length - 1 > source string length
: 120      0212 1      then the source string length is used.
: 121      0213 1
: 122      0214 1 FORMAL PARAMETERS:
: 123      0215 1
: 124      0216 1      DEST_DESC.wt.dx                pointer to destination string descriptor
: 125      0217 1      SRC_DESC.rt.dx                 pointer to source string descriptor
: 126      0218 1      CHAR_POS.rw.v                 character position in src to start substring
: 127      0219 1      SUB_LENGTH.rw.v                length of 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$LEN_EXTR (DEST_DESC [0,0,0,0], SRC_DESC [0,0,0,0], CHAR_POS, SUB_LENGTH);
: 157      0249 2 RETURN;

```



BASMTD  
LIS

BASMLD01  
LIS

BASNOTIMP  
LIS

BASMOVEAR  
LIS

BASMSGDEF  
LIS

BASMSGGEN  
LIS

BASONECHR  
LIS

BASMOVE  
LIS

BASNUM  
LIS

BASNAMEAS  
LIS

BASNUM  
LIS