

BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBB BBB	AAA AAA	SSS SSS	RRR RRR	TTT TTT	LLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLLLLLLLLLLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLLLLLLLLLLL
BBBBBBBBBBBB	AAAAA	SSSSSSSSSS	RRRRRRRRRR	TTTTTTTTTTTT	LLLLLLLLLLLL

```

BBBBBBBB      AAAAAA      SSSSSSSS      PPPPPPPP      000000      SSSSSSSS
BBBBBBBB      AAAAAA      SSSSSSSS      PPPPPPPP      000000      SSSSSSSS
BB      BB      AA      AA      SS      SS      PP      PP      00      00      SS
BB      BB      AA      AA      SS      SS      PP      PP      00      00      SS
BB      BB      AA      AA      SS      SS      PP      PP      00      00      SS
BB      BB      AA      AA      SS      SS      PP      PP      00      00      SS
BBBBBBBB      AA      AA      SSSSSS      PPPPPPPP      00      00      SSSSSS
BBBBBBBB      AA      AA      SSSSSS      PPPPPPPP      00      00      SSSSSS
BB      BB      AAAAAAAAAA      SS      PP      00      00      SS
BB      BB      AAAAAAAAAA      SS      PP      00      00      SS
BB      BB      AA      AA      SS      PP      00      00      SS
BB      BB      AA      AA      SS      PP      00      00      SS
BBBBBBBB      AA      AA      SSSSSSSS      PP      000000      SSSSSSSS
BBBBBBBB      AA      AA      SSSSSSSS      PP      000000      SSSSSSSS

```

```

....
....
....
....

```

```

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
LLLLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS

```

```

1 0001 0 MODULE BASSPOS (                               ! Find the position of a substring
2 0002 0 IDENT = '1-005'                               ! File: BASPOS.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: This module takes 2 input strings of any class and dtype
34 0034 1 and returns the position of the substring in the main string
35 0035 1 starting at an input position
36 0036 1
37 0037 1 ENVIRONMENT: User mode, AST level or not or mixed
38 0038 1
39 0039 1 AUTHOR: R. Will, CREATION DATE: 10-Mar-79
40 0040 1
41 0041 1 MODIFIED BY:
42 0042 1
43 0043 1 R. Will, 10-Mar-79 : VERSION 01
44 0044 1 01 - original
45 0045 1 1-002 - Fix bug with starting pos > searched string length. RW 14-Jul-79
46 0046 1 1-003 - Correct a typo in edit 002. JBS 25-JUL-1979
47 0047 1 1-004 - Make POS agree with DEC BASIC Standard Proposal. RW 23-Sept-79
48 0048 1 1-005 - CALL STR$ DELETE THIS MODULE WHEN COMPILER CALLS STR$. RW 1-NOV-79
49 0049 1 --
50 0050 1
51 0051 1 !<BLF/PAGE>

```

```

: 53      0052 1  !
: 54      0053 1  ! SWITCHES:
: 55      0054 1  !
: 56      0055 1  !
: 57      0056 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
: 58      0057 1  !
: 59      0058 1  !
: 60      0059 1  ! LINKAGES:
: 61      0060 1  !
: 62      0061 1  !
: 63      0062 1  !
: 64      0063 1  ! TABLE OF CONTENTS:
: 65      0064 1  !
: 66      0065 1  !
: 67      0066 1 FORWARD ROUTINE
: 68      0067 1   BAS$POS;                               ! find substring position
: 69      0068 1  !
: 70      0069 1  !
: 71      0070 1  ! INCLUDE FILES:
: 72      0071 1  !
: 73      0072 1  !
: 74      0073 1 REQUIRE 'RTLIN:RTLPSECT';                 ! Declare PSECTS code
: 75      0168 1  !
: 76      0169 1  !
: 77      0170 1  ! MACROS:
: 78      0171 1  !
: 79      0172 1  !
: 80      0173 1  ! EQUATED SYMBOLS:
: 81      0174 1  !
: 82      0175 1  !
: 83      0176 1  ! PSECT DECLARATIONS
: 84      0177 1  !
: 85      0178 1 DECLARE_PSECTS (BAS);
: 86      0179 1  !
: 87      0180 1  ! OWN STORAGE:
: 88      0181 1  !
: 89      0182 1  !
: 90      0183 1  ! EXTERNAL REFERENCES:
: 91      0184 1  !
: 92      0185 1  !
: 93      0186 1 EXTERNAL ROUTINE
: 94      0187 1   STR$POSITION;                             ! do find

```

```

: 96 0188 1 GLOBAL ROUTINE BASSPOS (SRC_DESC,      | descriptor of string to search
: 97 0189 1     SUB_DESC,                          | descriptor of string to find
: 98 0190 1     START_POS,                          | value of position to start search
: 99 0191 1     ) : =
100 0192 1
101 0193 1
102 0194 1 ++
103 0195 1 FUNCTIONAL DESCRIPTION: This routine takes two source strings of any
104 0196 1     dtype and class and finds the position of the substring in the
105 0197 1     source string starting at the input starting position. The routine
106 0198 1     returns the position of the substring in the source string.
107 0199 1 FORMAL PARAMETERS:
108 0200 1
109 0201 1     SRC_DESC.rt.dx      pointer to descriptor of string to be searched
110 0202 1     SUB_DESC.rt.dx      pointer to descriptor of string to find
111 0203 1     START_POS.rl.v     value of position in source to begin search
112 0204 1
113 0205 1 IMPLICIT INPUTS:
114 0206 1
115 0207 1     NONE
116 0208 1
117 0209 1 IMPLICIT OUTPUTS:
118 0210 1
119 0211 1     NONE
120 0212 1
121 0213 1 ROUTINE VALUE:
122 0214 1 COMPLETION CODES:
123 0215 1
124 0216 1     FIND_POS.wlu.v      value of start position of substr in src strng
125 0217 1
126 0218 1 SIDE EFFECTS:
127 0219 1
128 0220 1     NONE
129 0221 1
130 0222 1 --
131 0223 1
132 0224 2 BEGIN
133 0225 2
134 0226 2 MAP SRC_DESC : REF BLOCK [8,BYTE],
135 0227 2     SUB_DESC : REF BLOCK [8,BYTE];
136 0228 2
137 0229 2 RETURN STR$POSITION (SRC_DESC [0,0,0,0], SUB_DESC [0,0,0,0], START_POS);
138 0230 1 END;

```

```

.TITLE BASSPOS
.IDENT \1-005\

.EXTRN STR$POSITION

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

.ENTRY BASSPOS, Save nothing
PUSHAB START_POS
MOVQ SRC_DESC, -(SP)
CALLS #3,STR$POSITION
RET

```

```

00000000G 00
0C AC 0000 0000
04 AC 9F 00002
AC 7D 00005
03 FB 00009
04 00010

```

```

: 0188
: 0229
:
: 0230

```

BASSPOS
1-005

H 9
16-Sep-1984 00:58:36
14-Sep-1984 11:56:26

VAX-11 Bliss-32 V4.0-742
[BASRTL.SRC]BASPOS.B32:1

Page 4
(3)

; Routine Size: 17 bytes, Routine Base: _BASSCODE + 0000

```
: 139          0231 1
: 140          0232 1 END
: 141          0233 1
: 142          0234 0 ELUDOM
:                                     !End of module
```

PSECT SUMMARY

```
:
: Name          Bytes          Attributes
: _BASSCODE     17 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)
```

COMMAND QUALIFIERS

; BLI S/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS\$:BASPOS/OBJ=OBJ\$:BASPOS MSRC\$:BASPOS/UPDATE=(ENH\$:BASPOS)

```
: Size:          17 code + 0 data bytes
: Run Time:      00:01.7
: Elapsed Time: 00:03.8
: Lines/CPU Min: 8407
: Lexemes/CPU-Min: 23353
: Memory Used: 19 pages
: Compilation Complete
```


BASOPEN
LIS

BASPOWJ
LIS

BASPOS
LIS

BASPOWJ
LIS

BASOPENDE
LIS

BASPOWGG
LIS

BASPOWH
LIS

BASPOWRJ
LIS

BASPOWII
LIS

BASPURJOB
LIS

BASPOWDD
LIS

BASOPENZE
LIS

BASPOWR
LIS

BASPOWJ
LIS

BASPOWR
LIS

BASPOWH
LIS

BASPOWR
LIS