



.....

```

SSSSSSSS TTTTTTTTTT RRRRRRRR FFFFFFFFFF IIIIII NN NN DDDDDDDD SSSSSSSS BBBB8888
SSSSSSSS TTTTTTTTTT RRRRRRRR FFFFFFFFFF IIIIII NN NN DDDDDDDD SSSSSSSS BBBB8888
SS          TT          RR          RR FF          II          NN          NN DD          DD SS          BB          BB
SS          TT          RR          RR FF          II          NN          NN DD          DD SS          BB          BB
SS          TT          RR          RR FF          II          NNNN         NN DD          DD SS          BB          BB
SS          TT          RR          RR FF          II          NNNN         NN DD          DD SS          BB          BB
SSSSSSS   TT          RRRRRRRR FFFFFFFF   II          NN NN         NN DD          DD SSSSSS   BBBB8888
SSSSSSS   TT          RRRRRRRR FFFFFFFF   II          NN NN         NN DD          DD SSSSSS   BBBB8888
          SS          RR RR          FF          II          NN NN         NN DD          DD          SS          BB          BB
          SS          RR RR          FF          II          NN NN         NNNN         DD          DD          SS          BB          BB
          SS          RR RR          FF          II          NN NN         NN         DD          DD          SS          BB          BB
          SS          RR RR          FF          II          NN NN         NN         DD          DD          SS          BB          BB
SSSSSSSS TT          RR          RR FF          II          NN NN         NN DD          DD          SS          BB          BB
SSSSSSSS TT          RR          RR FF          II          NN NN         NN DD          DD          SS          BB          BB
          TT          RR          RR FF          IIIIII NN          NN DDDDDDDD SSSSSSSS BBBB8888
          TT          RR          RR FF          IIIIII NN          NN DDDDDDDD SSSSSSSS BBBB8888
          .....
```

```

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 STR$FIND_FIRST_SUBSTRING ( ! Find first substring (in list of
2 0002 0 ! substrings) occurring in a given
3 0003 0 ! string.
4 0004 0
5 0005 0 IDENT = '1-002' ! File: STRFINDSB.B32 Edit: RKR1002
6 0006 0
7 0007 0 ) =
8 0008 1 BEGIN
9 0009 1
10 0010 1
11 0011 1 *****
12 0012 1 *
13 0013 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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30 0030 1 *
31 0031 1 *
32 0032 1 *****
33 0033 1
34 0034 1
35 0035 1 **
36 0036 1 FACILITY: String support library
37 0037 1
38 0038 1 ABSTRACT: This module contains a procedure to find the first substring
39 0039 1 (in a provided list of substrings) occurring in a given string.
40 0040 1
41 0041 1 ENVIRONMENT: User mode, AST reentrant
42 0042 1
43 0043 1 AUTHOR: R. Reichert, CREATION DATE: 11-AUG-1982
44 0044 1
45 0045 1 MODIFIED BY:
46 0046 1
47 0047 1 1-001 - Original. RKR 11-AUG-1982.
48 0048 1 1-002 - Code improvements. RKR 24-NOV-1982.
49 0049 1 --
50 0050 1 !<BLF/PAGE>

```

```

52 0051 1 |
53 0052 1 | SWITCHES:
54 0053 1 |
55 0054 1 |
56 0055 1 | SWITCHES ADDRESSING MODE
57 0056 1 | (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
58 0057 1 |
59 0058 1 |
60 0059 1 | LINKAGES
61 0060 1 |
62 0061 1 | REQUIRE 'RTLIN:STRLNK'; ! Linkage to STR$ANALYZE_SDESC_R1
63 0246 1 |
64 0247 1 | TABLE OF CONTENTS:
65 0248 1 |
66 0249 1 |
67 0250 1 | FORWARD ROUTINE
68 0251 1 | STR$FIND_FIRST_SUBSTRING ;
69 0252 1 |
70 0253 1 |
71 0254 1 | INCLUDE FILES:
72 0255 1 |
73 0256 1 |
74 0257 1 | REQUIRE 'RTLIN:RTLPSECT'; ! Declare PSECTS code
75 0352 1 | REQUIRE 'RTLIN:STRMACROS'; ! use string macros to write code
76 1268 1 | LIBRARY 'RTLSTARLE'; ! STARLET library for macros and symbols
77 1269 1 |
78 1270 1 |
79 1271 1 | MACROS: NONE
80 1272 1 |
81 1273 1 |
82 1274 1 |
83 1275 1 | EQUATED SYMBOLS: NONE
84 1276 1 |
85 1277 1 |
86 1278 1 |
87 1279 1 | PSECT DECLARATIONS
88 1280 1 |
89 1281 1 |
90 1282 1 | DECLARE_PSECTS (STR);
91 1283 1 |
92 1284 1 |
93 1285 1 | OWN STORAGE: NONE
94 1286 1 |
95 1287 1 |
96 1288 1 |
97 1289 1 | EXTERNAL REFERENCES
98 1290 1 |
99 1291 1 | EXTERNAL LITERAL
100 1292 1 | STR$_WRONUMARG ; ! Wrong number of arguments

```

```

102 1293 1 GLOBAL ROUTINE STR$FIND_FIRST_SUBSTRING ( ! Find first substring (in
103 1294 1 ! list of substrings)
104 1295 1 ! occurring in the given string.
105 1296 1
106 1297 1 STRING, ! pointer to string descriptor
107 1298 1 INDEX, ! Position in which match was found
108 1299 1 SUB_STRING_INDEX, ! Which substring was found
109 1300 1 SUB_STRING1 ! pointer to first substring
110 1301 1
111 1302 1 ) : =
112 1303 1
113 1304 1

```

++  
FUNCTIONAL DESCRIPTION:

This routine finds the first occurrence of any of a number of substrings in a given string. The given string is searched from left to right, character position by character position, against each of the provided substrings in the order provided. This is repeated until a first match is made against one of the substrings.

This process is repeated until a match is found or the given string is exhausted. If a match is found, the position within STRING where the match took place is returned in INDEX and SUB\_STRING\_INDEX is set to the ordinal number of the matching sub\_string. If no match is found, both INDEX and SUB\_STRING\_INDEX are 0.

Note: behavior for zero-length strings:

| STRING length | Nth-substring length | INDEX | SUB_STRING_INDEX | STATUS |
|---------------|----------------------|-------|------------------|--------|
| 0             | non-zero             | 0     | 0                | 0      |
| non-zero      | 0                    | 1     | N                | 1      |
| 0             | 0                    | 1     | N                | 1      |

CALLING SEQUENCE:

```

status.wlc.v = STR$FIND_FIRST_SUBSTRING ( STRING.rt.dx,
INDEX.wl.r,
SUB_STRING_INDEX.wl.r,
SUB_STRING1.rt.dx
[ ,SUB_STRING2.rt.dx ]
[ ,SUB_STRINGN.rt.dx ]

```

FORMAL PARAMETERS:

```

STRING.rt.dx      pointer to string descriptor
INDEX.wl.r        Position within STRING where a match was
                  found, else 0.
SUB_STRING_INDEX.wl.r  Ordinal number of SUB_STRING that
                  matched ( 1 for 1st, 2 for 2nd, etc.)
                  else 0.
SUB_STRING1.rt.dx  First specified sub_string to be found
                  in STRING.
[SUB_STRING2.rt.dx ] Optional. One or more additional

```

158 1349 1

```

159 1350 1 |
160 1351 1 |
161 1352 1 | IMPLICIT INPUTS:
162 1353 1 |
163 1354 1 |     NONE
164 1355 1 |
165 1356 1 | IMPLICIT OUTPUTS:
166 1357 1 |
167 1358 1 |     NONE
168 1359 1 |
169 1360 1 | ROUTINE STATUS:
170 1361 1 |
171 1362 1 |     1           If a match was found.
172 1363 1 |     0           If no match was found.
173 1364 1 |
174 1365 1 | SIDE EFFECTS:
175 1366 1 |
176 1367 1 |     May signal STR$_ILLSTRCLA on bad string class.
177 1368 1 |     STR$_WRONUMARG if no substrings supplied.
178 1369 1 |
179 1370 1 | --
180 1371 2 | BEGIN
181 1372 2 |
182 1373 2 | MAP STRING: REF BLOCK [ , BYTE] ;
183 1374 2 |
184 1375 2 | BUILTIN
185 1376 2 |     ACTUALCOUNT,
186 1377 2 |     ACTUALPARAMETER ;
187 1378 2 |
188 1379 2 | LOCAL
189 1380 2 |     FIRST_OCCURING,           ! Ordinal number of substring
190 1381 2 |                               ! that occurs earliest in
191 1382 2 |                               ! string (so far).
192 1383 2 |     LOWEST_INDEX,           ! Address within string where
193 1384 2 |                               ! FIRST_OCCURING substring
194 1385 2 |                               ! starts (so far)
195 1386 2 |     STR_LENGTH,           ! Length of given STRING
196 1387 2 |     STR_ADDRESS ;         ! Starting addr of given STRING
197 1388 2 |
198 1389 2 |
199 1390 2 | + See if any substrings were supplied and signal if not.
200 1391 2 | -
201 1392 2 | IF ACTUALCOUNT () LSS 4
202 1393 2 | THEN
203 1394 2 |     BEGIN                 ! Not enough arguments, no substrings supplied
204 1395 2 |     +
205 1396 2 |     ! Build a local fixed-length descriptor pointing to name of this
206 1397 2 |     ! routine and use it to signal STR$_WRONUMARG.
207 1398 2 |     -
208 1399 2 |     LOCAL
209 1400 2 |         ROUT_NAME_DESC : $STR$DESCRIPTOR;
210 1401 2 |
211 1402 2 |     ROUT_NAME_DESC [DSC$W_LENGTH] = 24 ;
212 1403 2 |     ROUT_NAME_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_T;
213 1404 2 |     ROUT_NAME_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
214 1405 2 |     ROUT_NAME_DESC [DSC$A_POINTER] = UPLIT
215 1406 2 |         (%ASCII'STR$FIND_FIRST_SUBSTRING');
    
```

```

216 1407 3 SIGNAL_STOP (STR$WRONUMARG, 2, ACTUALCOUNT (), ROUT_NAME_DESC);
217 1408 2 END;
218 1409 2 ! Not enough arguments, no substrings supplied
219 1410 2
220 1411 2 !+ Calc. length and starting address of given string
221 1412 2 !-
222 1413 2 $STR$GET_LEN_ADDR ( STRING, STR_LENGTH, STR_ADDRESS ) ;
223 1414 2
224 1415 2 LOWEST_INDEX = .STR_ADDRESS + .STR_LENGTH ; ! To impossibly high value
225 1416 2
226 1417 2 FIRST_OCCURING = 0; ! Set to none
227 1418 2 INCR I FROM 4 TO ACTUALCOUNT ()
228 1419 2 DO
229 1420 2 BEGIN ! Search loop
230 1421 2 LOCAL
231 1422 2 PTR, ! Pointer returned by CH$FIND_SUB
232 1423 2 SUB_LENGTH, ! Length of nth substring
233 1424 2 SUB_ADDRESS; ! Address of nth substring
234 1425 2
235 1426 2 BIND
236 1427 2 NTH_PARAMETER = ACTUALPARAMETER (.I) : BLOCK [,BYTE];
237 1428 2
238 1429 2 $STR$GET_LEN_ADDR ( NTH_PARAMETER, SUB_LENGTH, SUB_ADDRESS);
239 1430 2
240 1431 2 IF .SUB_LENGTH EQL 0
241 1432 2 THEN
242 1433 2 BEGIN ! Force to look like found
243 1434 2 !+
244 1435 2 ! If we are about to look up a null string, this one is
245 1436 2 ! guaranteed to be the winner since a null string is
246 1437 2 ! defined to be found anywhere -- in particular in the
247 1438 2 ! first byte position. Force an exit at this point.
248 1439 2 !-
249 1440 2 .INDEX = 1 ; ! Position 1
250 1441 2 .SUB_STRING_INDEX = .I - 3 ; ! This substring
251 1442 2 RETURN (1); ! Return success
252 1443 2 END ! Force to look like found
253 1444 2 ELSE
254 1445 2 BEGIN ! Use MATCHC
255 1446 2 IF (PTR = CH$FIND_SUB ( .STR_LENGTH, .STR_ADDRESS,
256 1447 2 .SUB_LENGTH, .SUB_ADDRESS)) NEQ 0
257 1448 2 THEN
258 1449 2 BEGIN ! Found a new contender for first
259 1450 2 IF .PTR LSS .LOWEST_INDEX
260 1451 2 THEN
261 1452 2 BEGIN ! Found an earlier
262 1453 2 FIRST_OCCURING = .I - 3 ; ! Record which substring
263 1454 2 LOWEST_INDEX = .PTR ; ! Remember its address
264 1455 2 END; ! Found an earlier
265 1456 2 END; ! Found a new contender for first
266 1457 2 END; ! Use MATCHC
267 1458 2 END; ! Search loop
268 1459 2
269 1460 2 !+
270 1461 2 ! As we exit from the loop above, FIRST_OCCURING is the ordinal number
271 1462 2 ! of the substring that appears earliest in STRING. LOWEST_INDEX is
272 1463 2 ! address within STRING where FIRST_OCCURING starts.

```

273 1464  
274 1465  
275 1466  
276 1467  
277 1468  
278 1469  
279 1470  
280 1471  
281 1472  
282 1473  
283 1474  
284 1475  
285 1476

```
!-
IF .FIRST_OCCURING EQL 0
THEN
  BEGIN ! No matches found
    .INDEX = 0;
    .SUB_STRING_INDEX = 0;
    RETURN (0);
  END; ! No matches found

.SUB_STRING_INDEX = .FIRST_OCCURING ;
.INDEX = .LOWEST_INDEX - .STR_ADDRESS + 1;
RETURN (1);
END ;
```

! Procedure STR\$FIND\_FIRST\_SUBSTRING

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  |        |                             |       |        |                                       |             |      |      |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|--|--------|-----------------------------|-------|--------|---------------------------------------|-------------|------|------|
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .TITLE | STR\$FIND_FIRST_SUBSTRING                      |        |                             |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .IDENT | \1-002\  |        |                             |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .PSECT | _STR\$CODE,NOWRT, SHR, PIC,2                   |        |                             |       |        |                                       |             |      |      |
| SF | 54 | 53 | 52 | 49 | 46 | 5F | 44 | 4E | 49 | 46 | 24 | 52 | 54 | 53 | 00000  | P.AAA:   | .ASCII | \STR\$FIND_FIRST_SUBSTRING\ | :     |        |                                       |             |      |      |
|    |    |    |    |    |    | 47 | 4E | 49 | 52 | 54 | 53 | 42 | 55 | 53 | 0000F  |  |        |                             |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .EXTN  | STR\$WRONUMARG, STR\$ANALYZE_SDESC_R1          |        |                             |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .ENTRY | STR\$FIND_FIRST_SUBSTRING, Save R2,R3,R4,R5,-; |        | 1293                        |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        | R6,R7,R8,R9,R10,R11                            |        |                             |       |        |                                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 5B     | 00000000G                                      | 00     | 9E                          | 00002 | MOVAB  | STR\$ANALYZE_SDESC_R1, R11            |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 5E     |  | 08     | C2                          | 00009 | SUBL2  | #8, SP                                |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 04     |  | 6C     | 91                          | 0000C | CMPB   | (AP), #4                              |             | 1392 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 20     | 1E                          | 0000F | BGEQU  | 1\$                                   |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 6E     | 010E0018                                       | 8F     | DO                          | 00011 | MOVL   | #17694744, ROUT_NAME_DESC             |             | 1402 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 04     |  | AF     | 9E                          | 00018 | MOVAB  | P.AAA, ROUT_NAME_DESC+4               |             | 1405 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 5E     | DD                          | 0001D | PUSHL  | SP                                    |             | 1407 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 7E     |  | 6C     | 9A                          | 0001F | MOVZBL | (AP), -(SP)                           |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 02     | DD                          | 00022 | PUSHL  | #2                                    |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        | 00000000G                                      | 8F     | DD                          | 00024 | PUSHL  | #STR\$WRONUMARG                       |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 00     |  | 04     | FB                          | 0002A | CALLS  | #4, LIB\$STOP                         |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 50     | 04   | AC     | DO                          | 00031 | MOVL   | STRING, R0                            |             | 1413 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 02     | 03   | A0     | 91                          | 00035 | CMPB   | 3(R0), #2                             |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 09     | 1A                          | 00039 | BGTRU  | 2\$                                   |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 58     |  | 60     | 3C                          | 0003B | MOVZWL | (R0), STR_LENGTH                      |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 5A     | 04   | A0     | DO                          | 0003E | MOVL   | 4(R0), STR_ADDRESS                    |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 08     | 11                          | 00042 | BRB    | 3\$                                   |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 6B     | 16                          | 00044 | JSB    | STR\$ANALYZE_SDESC_R1                 |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 58     |  | 50     | DO                          | 00046 | MOVL   | R0, R8                                |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 5A     |  | 51     | DO                          | 00049 | MOVL   | R1, R10                               |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 56     |  | 58     | C1                          | 0004C | ADDL3  | STR_LENGTH, STR_ADDRESS, LOWEST_INDEX |             | 1415 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 59     |  | 6C     | 9A                          | 00050 | MOVZBL | (AP), R9                              |             | 1418 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 54     |  | 03     | 7D                          | 00053 | MOVQ   | #3, i                                 |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 45     | 11                          | 00056 | BRB    | 9\$                                   |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 52     |  | 6C     | 44                          | DO    | 00058  | MOVL                                  | (AP)[I], R2 |      | 1427 |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 02     | 03   | A2     | 91                          | 0005C | CMPB   | 3(R2), #2                             |             | 1429 |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 09     | 1A                          | 00060 | BGTRU  | 5\$                                   |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 57     |  | 62     | 3C                          | 00062 | MOVZWL | (R2), SUB_LENGTH                      |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 51     | 04   | A2     | DO                          | 00065 | MOVL   | 4(R2), SUB_ADDRESS                    |             |      |      |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |  | 08     | 11                          | 00069 | BRB    | 6\$                                   |             |      |      |

STR\$FIND\_FIRST\_1-002

L 9  
16-Sep-1984 01:38:47  
14-Sep-1984 12:40:06

VAX-11 Bliss-32 V4.0-742  
[LIBRTL.SRC]STR\$FINDSB.B32:1

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(3)

|    |  |    |    |    |    |       |       |       |        |   |  |      |
|----|--|----|----|----|----|-------|-------|-------|--------|---|--|------|
|    |  |    | 50 |    | 62 | D0    | 0006B | 5\$:  | MOVL   | (R2), R0  |  |      |
|    |  |    |    |    | 6B | 16    | 0006E |       | JSB    | STR\$ANALYZE_SDESC_R1                                     |  |      |
|    |  |    | 57 |    | 50 | D0    | 00070 |       | MOVL   | R0, R7  |  |      |
|    |  |    |    |    | 57 | D5    | 00073 | 6\$:  | TSTL   | SUB_LENGTH  |  | 1431 |
|    |  |    |    |    | 0B | 12    | 00075 |       | BNEQ   | 7\$   |  |      |
|    |  | 08 | BC |    | 01 | D0    | 00077 |       | MOVL   | #1, @INDEX  |  | 1440 |
|    |  | 0C | BC |    | A4 | 9E    | 0007B |       | MOVAB  | -3(R4), @SUB_STRING_INDEX                                 |  | 1441 |
|    |  |    |    | FD | 37 | 11    | 00080 |       | BRB    | 11\$  |  | 1442 |
| 6A |  |    |    |    | 57 | 39    | 00082 | 7\$:  | MATCHC | SUB_LENGTH, (SUB_ADDRESS), STR_LENGTH, -<br>(STR_ADDRESS) |  | 1447 |
|    |  |    |    |    | 03 | 13    | 00087 |       | BEQL   | 8\$   |  |      |
|    |  |    |    |    | 57 | D0    | 00089 |       | MOVL   | SUB_LENGTH, R3  |  |      |
|    |  |    |    |    | 53 | C2    | 0008C | 8\$:  | SUBL2  | SUB_LENGTH, R3  |  |      |
|    |  |    |    |    | 0C | 13    | 0008F |       | BEQL   | 9\$   |  |      |
|    |  |    |    |    | 56 | D1    | 00091 |       | CMPL   | PTR, LOWEST_INDEX   |  | 1450 |
|    |  |    |    |    | 07 | 18    | 00094 |       | BGEQ   | 9\$   |  |      |
|    |  |    |    |    | 55 | A4    | 00096 |       | MOVAB  | -3(R4), FIRST_OCCURING                                    |  | 1453 |
|    |  |    |    |    | 53 | D0    | 0009A |       | MOVL   | PTR, LOWEST_INDEX   |  | 1454 |
|    |  |    |    |    | 56 | F3    | 0009D | 9\$:  | AOBLEQ | R9, 1, 4\$  |  | 1418 |
|    |  |    |    |    | 54 | D5    | 000A1 |       | TSTL   | FIRST_OCCURING  |  | 1465 |
|    |  |    |    |    | 08 | 12    | 000A3 |       | BNEQ   | 10\$  |  |      |
|    |  |    |    |    | 08 | BC    | 000A5 |       | CLRL   | @INDEX  |  | 1468 |
|    |  |    |    |    | 0C | BC    | 000A8 |       | CLRL   | @SUB_STRING_INDEX   |  | 1469 |
|    |  |    |    |    | 10 | 11    | 000AB |       | BRB    | 12\$  |  | 1470 |
|    |  |    |    |    | 55 | D0    | 000AD | 10\$: | MOVL   | FIRST_OCCURING, @SUB_STRING_INDEX                         |  | 1473 |
|    |  | 0C | BC |    | 5A | C2    | 000B1 |       | SUBL2  | STR_ADDRESS, R6   |  | 1474 |
|    |  |    |    |    | 08 | BC    | 000B4 |       | MOVAB  | 1(R6), @INDEX   |  |      |
|    |  |    |    |    | 50 | D0    | 000B9 | 11\$: | MOVL   | #1, R0  |  | 1475 |
|    |  |    |    |    |    | 04    | 000BC |       | RET    |   |  |      |
|    |  |    |    |    | 50 | D4    | 000BD | 12\$: | CLRL   | R0  |  | 1476 |
|    |  |    |    |    | 04 | 000BF |       |       | RET    |   |  |      |

; Routine Size: 192 bytes, Routine Base: \_STR\$CODE + 0018

STR\$FIND\_FIRST\_1-002

STR\$FIND\_FIRST\_  
1-002

M 9  
16-Sep-1984 01:38:47  
14-Sep-1984 12:40:06

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[LIBRTL.SRC]STRFINDSB.B32;1

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(4)

STR  
1-C

: 287 1477 1 END  
: 288 1478 0 ELUDOM

!End of module

.EXTRN LIB\$STOP

PSECT SUMMARY

:  
: Name Bytes Attributes  
: \_STR\$CODE 216 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

:  
: File Total Symbols Loaded Percent Pages Mapped Processing Time  
: \_\$255\$DUA28:[SYSLIB]STARLET.L32;1 9776 7 0 581 00:00.8

COMMAND QUALIFIERS

:  
: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS:STRFINDSB/OBJ=OBJ\$:STRFINDSB MSRCS:STRFINDSB/UPDATE=(ENH\$:STRFINDSB  
: )

: Size: 192 code + 24 data bytes  
: Run Time: 00:06.5  
: Elapsed Time: 00:27.3  
: Lines/CPU Min: 13643  
: Lexemes/CPU-Min: 33396  
: Memory Used: 107 pages  
: Compilation Complete

