


```

LL      IIIIII  BBBB8888  SSSSSSSS  TTTTTTTTTT  RRRRRRRR  RRRRRRRR  EEEEEEEEEE  TTTTTTTTTT
LL      IIIIII  88888888  SSSSSSSS  TTTTTTTTTT  RRRRRRRR  RRRRRRRR  EEEEEEEEEE  TTTTTTTTTT
LL      II      BB      BB  SS      TT      RR      RR  EE      TT
LL      II      BB      BB  SS      TT      RR      RR  EE      TT
LL      II      BB      BB  SS      TT      RR      RR  EE      TT
LL      II      BB      BB  SS      TT      RR      RR  EE      TT
LL      II      88888888  SSSSSS      TT      RRRRRRRR  RRRRRRRR  EEEEEEEE  TT
LL      II      88888888  SSSSSS      TT      RRRRRRRR  RRRRRRRR  EEEEEEEE  TT
LL      II      BB      BB          SS      TT      RR  RR  RR  RR  EE      TT
LL      II      BB      BB          SS      TT      RR  RR  RR  RR  EE      TT
LL      II      BB      BB          SS      TT      RR  RR  RR  RR  EE      TT
LL      II      BB      BB          SS      TT      RR  RR  RR  RR  EE      TT
LLLLLLLLLLLL  IIIIII  88888888  SSSSSSSS  TT      RR  RR  RR  RR  EE      TT
LLLLLLLLLLLL  IIIIII  88888888  SSSSSSSS  TT      RR  RR  RR  RR  EEEEEEEEEE  TT
                                           EEEEEEEEEE  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
LLLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIII  SSSSSSSS

```

.....

```

1 0001 0 MODULE LIB$$STRTO_RET (%TITLE'Library routine to convert a string signal to a return'
2 0002 0 IDENT = '1-002' ! File: LIBSTRRET.B32 Edit: SBL1002
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1 *****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
10 0010 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
11 0011 1 * ALL RIGHTS RESERVED. *
12 0012 1 *
13 0013 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
14 0014 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
15 0015 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
16 0016 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
17 0017 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
18 0018 1 * TRANSFERRED. *
19 0019 1 *
20 0020 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
21 0021 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
22 0022 1 * CORPORATION. *
23 0023 1 *
24 0024 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
25 0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
26 0026 1 *
27 0027 1 *
28 0028 1 *****
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: Utility Library
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 LIB$$STRTO_RET converts any condition value signalled by
37 0037 1 STR$COPY or STR$GET1 or STR$FREE1 into the corresponding LIB status
38 0038 1 and an ordinary procedure return to the caller of the procedure
39 0039 1 which established the handler which called LIB$$STRTO_RET.
40 0040 1
41 0041 1 ENVIRONMENT: User mode, re-entrant, AST level or not or mixed.
42 0042 1
43 0043 1 AUTHOR: Rebecca Will CREATION DATE: 22-Jan-1980
44 0044 1
45 0045 1 MODIFIED BY:
46 0046 1
47 0047 1 01 - original
48 0048 1 1-002 - Add prologue file. SBL 24-June-1983
49 0049 1 --
    
```

```

: 51      0050 1 |
: 52      0051 1 | PROLOGUE FILE:
: 53      0052 1 |
: 54      0053 1 |
: 55      0054 1 | REQUIRE 'RTLIN:LIBPROLOG';           ! LIB$ definitions
: 56      0125 1 |
: 57      0126 1 |
: 58      0127 1 | TABLE OF CONTENTS:
: 59      0128 1 |
: 60      0129 1 |
: 61      0130 1 | FORWARD ROUTINE
: 62      0131 1 |     LIB$$STRTO_RET;                 ! Convert a signal to a return
: 63      0132 1 |
: 64      0133 1 |
: 65      0134 1 | MACROS:
: 66      0135 1 |
: 67      0136 1 |     NONE
: 68      0137 1 |
: 69      0138 1 | EQUATED SYMBOLS:
: 70      0139 1 |
: 71      0140 1 |     NONE
: 72      0141 1 |
: 73      0142 1 |
: 74      0143 1 | OWN STORAGE:
: 75      0144 1 |
: 76      0145 1 |
: 77      0146 1 |
: 78      0147 1 | EXTERNAL REFERENCES:
: 79      0148 1 |
: 80      0149 1 |
: 81      0150 1 | EXTERNAL LITERAL
: 82      0151 1 |     LIB$_FATERRLIB,                 ! Fatal error in the library
: 83      0152 1 |     LIB$_STRIS_INT,                 ! String is interlocked
: 84      0153 1 |     LIB$_INSVIRMEM,                 ! Insufficient virtual memory
: 85      0154 1 |     LIB$_INVSTRDES,                 ! Invalid string descriptor
: 86      0155 1 |     STR$_FATINTERR,                 ! Fatal internal error in STR
: 87      0156 1 |     STR$_STRIS_INT,                 ! String is interlocked
: 88      0157 1 |     STR$_ILLSTRCLA,                 ! Illegal string class
: 89      0158 1 |     STR$_INSVIRMEM;                 ! Insufficient virtual memory
    
```

```

91 0159 1 GLOBAL ROUTINE LIB$$STRTO_RET ( ! Convert a signal to a return
92 0160 1     SIG_ARGS_ADR, ! Adr. of signal args vector
93 0161 1     MCH_ARGS_ADR) ! Adr. of mechanism args vector
94 0162 1     = ! Value is success, unless failure from SYSSUNWIND
95 0163 1
96 0164 1 ++
97 0165 1 FUNCTIONAL DESCRIPTION:
98 0166 1
99 0167 1     LIB$$STRTO_RET is called with the argument list passed to a condition
100 0168 1     handler by the condition handling facility. It converts and translates
101 0169 1     the STR signalled condition
102 0170 1     into a LIB return status to the procedure which called the
103 0171 1     procedure which established the handler handling the signal. The
104 0172 1     stack is unwound to the caller of the establisher and the condition code
105 0173 1     is returned as the value in R0.
106 0174 1
107 0175 1     In BLISS the argument list can be passed in toto by using the
108 0176 1     BUILTIN function CALLG and AP register, thus:
109 0177 1
110 0178 1         status = CALLG (.AP, LIB$$SIG_TO_RET);
111 0179 1
112 0180 1     Or more simply by: ENABLE LIB$$SIG_TO_RET ();
113 0181 1     If there is no need for the handler to do any more processing
114 0182 1
115 0183 1 FORMAL PARAMETERS:
116 0184 1
117 0185 1     SIG_ARGS_ADR.rl.ra     Adr. of signal args vector
118 0186 1     MCH_ARGS_ADR.ml.ra     Adr. of mechanism args vector
119 0187 1     any other args to handler
120 0188 1
121 0189 1 IMPLICIT INPUTS:
122 0190 1
123 0191 1     NONE
124 0192 1
125 0193 1 IMPLICIT OUTPUTS:
126 0194 1
127 0195 1     NONE
128 0196 1
129 0197 1 COMPLETION CODES:
130 0198 1
131 0199 1     SSS_NORMAL if SYSSUNWIND ok, else error codes form SYSSUNWIND.
132 0200 1
133 0201 1 SIDE EFFECTS:
134 0202 1
135 0203 1     Causes the stack to marked to be unwound to the caller of the
136 0204 1     establishing procedure of the handler which was called on this signal.
137 0205 1
138 0206 1 --
139 0207 1
140 0208 2 BEGIN
141 0209 2 MAP
142 0210 2     SIG_ARGS_ADR: REF BLOCK[8, BYTE], ! Signal vector
143 0211 2     MCH_ARGS_ADR: REF BLOCK[20, BYTE]; ! mechanism vector
144 0212 2
145 0213 2 ++
146 0214 2 ! If this is unwind condition, just let unwinding continue since
147 0215 2 ! probably it was this handler which invoked the unwind.
  
```

```

: 148      0216      2      !-
: 149      0217      2      !-
: 150      0218      2      IF .SIG_ARGS_ADR[CHF$$_SIG_NAME] EQL $$$_UNWIND THEN RETURN $$$_NORMAL;
: 151      0219      2      !-
: 152      0220      2      !+
: 153      0221      2      ! Copy condition value to saved image of R0
: 154      0222      2      !-
: 155      0223      2      !-
: 156      0224      2      MCH_ARGS_ADR[CHF$$_MCH_SAVRO] =
: 157      0225      2      (SELECTONE .SIG_ARGS_ADR[CHF$$_SIG_NAME] OF
: 158      0226      2      SET
: 159      0227      2      [STR$_FATINTERR] : LIB$_FATERRLIB;
: 160      0228      2      [STR$_ILLSTRCLA] : LIB$_INVSTRDES;
: 161      0229      2      [STR$_INSVIRMEM] : LIB$_INSVIRMEM;
: 162      0230      2      [STR$_STRIS_INT] : LIB$_STRIS_INT;
: 163      0231      2      [OTHERWISE] : .SIG_ARGS_ADR[CHF$$_SIG_NAME];
: 164      0232      2      TES);
: 165      0233      2      !-
: 166      0234      2      !+
: 167      0235      2      ! Set to unwind stack using default depth and default new PC,
: 168      0236      2      ! namely return to caller of the procedure which established the handler
: 169      0237      2      !-
: 170      0238      2      !-
: 171      0239      2      RETURN $UNWIND ();
: 172      0240      1      END;
    
```

! End of LIB\$\$STRTO_RET routine

```

.TITLE LIB$$STRTO_RET Library routine to convert a string signal to a
.IDENT \1-002\
.EXTRN LIB$_FATERRLIB, LIB$_STRIS_INT
.EXTRN LIB$_INSVIRMEM, LIB$_INVSTRDES
.EXTRN STR$_FATINTERR, STR$_STRIS_INT
.EXTRN STR$_ILLSTRCLA, STR$_INSVIRMEM
.EXTRN SY$$UNWIND
.PSECT _LIB$CODE, NOWRT, SHR, PIC, 2
.ENTRY LIB$$STRTO_RET, Save nothing
    MOVL SIG_ARGS_ADR, R0
    MOVL 4(R0), R0
    CMPL R0, #2336
    BNEQ 1$
    MOVL #1, R0
    RET
    MOVL MCH_ARGS_ADR, R1
    CMPL R0, #STR$_FATINTERR
    BNEQ 2$
    MOVL #LIB$_FATERRLIB, R0
    BRB 5$
    CMPL R0, #STR$_ILLSTRCLA
    BNEQ 3$
    MOVL #LIB$_INVSTRDES, R0
    BRB 5$
    CMPL R0, #STR$_INSVIRMEM
    BNEQ 4$
    
```

```

00000920 50 04 AC D0 00002
          50 04 A0 D0 00006
          8F 50 D1 0000A
          04 12 00011
          50 01 D0 00013
          04 04 00016
0000000G 51 08 AC D0 00017 1$:
          8F 50 D1 0001B
          09 12 00022
          50 0000000G 8F D0 00024
          34 11 0002B
0000000G 8F 50 D1 0002D 2$:
          09 12 00034
          50 0000000G 8F D0 00036
          22 11 0003D
0000000G 8F 50 D1 0003F 3$:
          09 12 00046
    
```

```

: 0159
: 0218
:
:
: 0224
: 0227
:
:
: 0228
:
:
: 0229
:
    
```


LIB\$\$STRTO_RET Library routine to convert a string signal to a ^{G 8} 16-Sep-1984 01:17:47
1-002 14-Sep-1984 12:39:26

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBSTRRET.B32;1

: 174 0241 1 END ! End of module LIB\$\$STRTO_RET
: 175 0242 0 ELUDOM

PSECT SUMMARY

Name Bytes Attributes
:_LIB\$CODE 111 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	6	0	581	00:00.7
_\$255\$DUA28:[LIBRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS\$:LIBSTRRET/OBJ=OBJ\$:LIBSTRRET MSRC\$:LIBSTRRET/UPDATE=(ENH\$:LIBSTRRET)

: Size: 111 code + 0 data bytes
: Run Time: 00:02.6
: Elapsed Time: 00:16.2
: Lines/CPU Min: 5500
: Lexemes/CPU-Min: 11840
: Memory Used: 44 pages
: Compilation Complete

LIBSPAWN
LIS

LIBSTATUM
LIS

LIBTRAAZE
LIS

LIBSPANC
LIS

LIBSYMBOL
LIS

LIBTRNLOG
LIS

LIBSKPC
LIS

LIBTIMER
LIS

LIBTPARSE
LIS

LIBTRIMF1
LIS

LIBSTRET
LIS

LIBTRAE2A
LIS