


```

LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  AAAAAA  BBBB BBBB  LL
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  AAAAAA  BBBB BBBB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      II      BBBB BBBB  EEEEEEE  SSSSSS  TT      TT  AA      AA  BBBB BBBB  LL
LL      II      BBBB BBBB  EEEEEEE  SSSSSS  TT      TT  AA      AA  BBBB BBBB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AAAAAAAAAA  BB      BB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AAAAAAAAAA  BB      BB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      II      BB      BB  EE      EE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LLLLLLLL  IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TT      TT  AA      AA  BBBB BBBB  LLLLLLLLLL
LLLLLLLL  IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TT      TT  AA      AA  BBBB BBBB  LLLLLLLLLL

```

```

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
LLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLL  IIIIII  SSSSSSSS

```

```

1 0001 0 MODULE LIB$ESTABLISH (%TITLE'Establish a handler'
2 0002 0 IDENT = '1-002' ! File: LIBESTABL.B32 Edit: SBL1002
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1 *****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
10 0010 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
11 0011 1 * ALL RIGHTS RESERVED. *
12 0012 1 *
13 0013 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
14 0014 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
15 0015 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
16 0016 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
17 0017 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
18 0018 1 * TRANSFERRED. *
19 0019 1 *
20 0020 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
21 0021 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
22 0022 1 * CORPORATION. *
23 0023 1 *
24 0024 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
25 0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
26 0026 1 *
27 0027 1 *
28 0028 1 *****
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: Utility Library
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 This module places the address of a routine into the SRMSA_HANDLER
37 0037 1 offset of the callers stack frame, thereby setting up the routine
38 0038 1 as the callers error handler.
39 0039 1
40 0040 1 ENVIRONMENT: User mode, re-entrant, AST level or not or mixed.
41 0041 1
42 0042 1 AUTHOR: Jonathan M. Taylor CREATION DATE: 6-JUL-77
43 0043 1
44 0044 1 MODIFIED BY:
45 0045 1
46 0046 1 : VERSION
47 0047 1 01 - original
48 0048 1 0-2 - Use SF$ symbols. TNH 8-Oct-77
49 0049 1 0-3 - Declare PSECTS. TNH 19-Dec-77
50 0050 1 0-04 - Change to STARLET library. DGP 20-Apr-78
51 0051 1 0-05 - Change REQUIRE files for VAX system build. DGP 28-Apr-78
52 0052 1 0-06 - Change STARLET to RTLSTARLE to avoid conflicts. DGP 1-May-78
53 0053 1 0-07 - Change file name to LIBESTABL.B32, and change the name of the
54 0054 1 REQUIRE file similarly. JBS 14-NOV-78
55 0055 1 1-001 - Update version number and copyright notice. JBS 16-NOV-78
56 0056 1 1-002 - Use prologue file. SBL 24-Jun-1983
57 0057 1 --

```

LI
Sy
BA
LI
PO
SI

PS
--
L

Ph
--
In
Co
Pa
Sy
Pa
Sy
Ps
Cr
As

Th
11
Th
12
0

Ma
--
S
O
Th
MA

LIB\$ESTABLISH Establish a handler
1-002

L 7
16-Sep-1984 00:50:39
14-Sep-1984 12:38:45

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

Page 2
(2)

**

```
59 0058 1 |
60 0059 1 | PROLOGUE FILE:
61 0060 1 |
62 0061 1 |
63 0062 1 | REQUIRE 'RTLIN:LIBPROLOG';           ! LIB$ definitions
64 0133 1 |
65 0134 1 |
66 0135 1 | TABLE OF CONTENTS:
67 0136 1 |
68 0137 1 |
69 0138 1 | FORWARD ROUTINE
70 0139 1 |
71 0140 1 |     LIB$ESTABLISH;                   ! Establish an error handler for the caller
72 0141 1 |
73 0142 1 |
74 0143 1 | MACROS:
75 0144 1 |
76 0145 1 |
77 0146 1 |
78 0147 1 | EQUATED SYMBOLS:
79 0148 1 |
80 0149 1 |
81 0150 1 |
82 0151 1 | OWN STORAGE:
83 0152 1 |
84 0153 1 |
85 0154 1 |
86 0155 1 | EXTERNAL REFERENCES:
87 0156 1 |
88 0157 1 |
```

```

: 90      0158 1 GLOBAL ROUTINE LIB$ESTABLISH (
: 91      0159 1     NEW_HANDLER) =           ! Adr of adr of users handler
: 92      0160 1
: 93      0161 1 +-
: 94      0162 1 FUNCTIONAL DESCRIPTION:
: 95      0163 1
: 96      0164 1     Move the address passed as an argument to the SF$A_HANDLER
: 97      0165 1     offset of the callers frame. Return address of old handler.
: 98      0166 1
: 99      0167 1 FORMAL PARAMETERS:
:100     0168 1
:101     0169 1     NEW_HANDLER.ra.v       Adr. of the routine to set up as handler
:102     0170 1
:103     0171 1 IMPLICIT INPUTS:
:104     0172 1
:105     0173 1     NONE
:106     0174 1
:107     0175 1 IMPLICIT OUTPUTS:
:108     0176 1
:109     0177 1     NONE
:110     0178 1
:111     0179 1 ROUTINE VALUE:
:112     0180 1
:113     0181 1     OLD_HANDLER.wa.v       previous contents of SF$A_HANDLER
:114     0182 1     of the callers frame.
:115     0183 1
:116     0184 1 COMPLETION CODES:
:117     0185 1
:118     0186 1     NONE
:119     0187 1
:120     0188 1 SIDE EFFECTS:
:121     0189 1
:122     0190 1     The callers stack frame will be modified.
:123     0191 1
:124     0192 1 --
:125     0193 1
:126     0194 2 BEGIN
:127     0195 2
:128     0196 2 LOCAL
:129     0197 2     OLD_HANDLER;           ! store the old handler address
:130     0198 2 BUILTIN
:131     0199 2     FP;
:132     0200 2 MAP
:133     0201 2     FP: REF BLOCK[ BYTE];
:134     0202 2     OLD_HANDLER = ..FP[SF$L SAVE FP];
:135     0203 2     .FP[SF$L SAVE FP] = .NEW_HANDLER;
:136     0204 2     RETURN .OLD_HANDLER;
:137     0205 1 END;                       !End of LIB$ESTABLISH

```

```
.TITLE LIB$ESTABLISH Establish a handler
.IDENT \1-002\

```

```
.PSECT _LIB$CODE, NOWRT, SHR, PIC, 2

```

LIB\$ESTABLISH Establish a handler
1-002

N 7
16-Sep-1984 00:50:39 VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:38:45 [LIBRTL.SRC]LIBESTABL.B32;1

Page 4
(3)

L1
1-

				0000	00000
	50	OC	BE	DO	00002
OC	BE	04	AC	DO	00006
				04	00008

.ENTRY	LIB\$ESTABLISH, Save nothing
MOVL	@12(FP), OLD_HANDLER
MOVL	NEW_HANDLER, -@12(FP)
RET	

:	0158
:	0202
:	0203
:	0205

; Routine Size: 12 bytes, Routine Base: _LIB\$CODE + 0000

LIB\$ESTABLISH Establish a handler
1-002

B 8
16-Sep-1984 00:50:39
14-Sep-1984 12:38:45

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBESTABL.G32;1

Page 5
(4)

LIE
1-

: 139 0206 1 END
: 140 0207 0 ELUDOM

!End of module

PSECT SUMMARY

Name Bytes Attributes
_LIB\$CODE 12 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	1	0	581	00:00.8
_\$255\$DUA28:[LIBRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

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

: Size: 12 code + 0 data bytes
: Run Time: 00:02.1
: Elapsed Time: 00:08.8
: Lines/CPU Min: 5971
: Lexemes/CPU-Min: 8740
: Memory Used: 29 pages
: Compilation Complete

0206 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

The image displays a grid of 100 small technical diagrams or code snippets, arranged in 10 rows and 10 columns. Each diagram is a small-scale representation of a system component or library, often featuring a header with a label and a body of text or a small schematic. The labels are as follows:

- Row 1: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 2: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 3: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 4: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 5: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 6: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 7: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 8: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 9: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS
- Row 10: LIBEMODH LIS, LIBESTMU LIS, LIBEF LIS, LIBEMULAT LIS, LIBFAO LIS, LIBEMODG LIS, LIBEXTV LIS, LIBEDIV LIS, LIBESTABL LIS, LIBFFC LIS

LIBEMODH LIS

LIBESTMU LIS

LIBEF LIS

LIBEMULAT LIS

LIBFAO LIS

LIBEMODG LIS

LIBEXTV LIS

LIBEDIV LIS

LIBESTABL LIS

LIBFFC LIS

LIBFILSCA LIS

LIBEMODF LIS

LIBEMUL LIS

LIBEXTZU LIS

LIBEBCASC LIS

LIBFAOL LIS