





```

1 0001 0 MODULE LIB$FLT_UNDER (%TITLE'Enable/disable floating underflow traps'
2 0002 0 IDENT = '1-002' ! File: LIBFLTUND.B32 Edit: SBL1002
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1 *****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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26 0026 1 *
27 0027 1 *
28 0028 1 *****
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: Utility Library
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 LIB$FLT_UNDER enables or disables floating underflow
37 0037 1 for the calling procedure activation. The previous setting
38 0038 1 of the enable is returned as a value.
39 0039 1
40 0040 1 ENVIRONMENT: User mode, re-entrant, AST level or not or mixed.
41 0041 1
42 0042 1 AUTHOR: Thomas N. Hastings CREATION DATE: 8-Oct-77
43 0043 1
44 0044 1 MODIFIED BY:
45 0045 1
46 0046 1 Thomas N. Hastings, 8-Oct-77: VERSION 0
47 0047 1 01 - original
48 0048 1 0-2 - Declare PSECTS. TNH 19-Dec-77
49 0049 1 0-03 - Change to STARLET library. DGP 20-Apr-78
50 0050 1 0-04 - Set proper frame. TNH 21-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 LIBFLTUND.B32, and change the name
54 0054 1 of the 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-June-1983
57 0057 1 --

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```
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$FLT_UNDER;                   ! Enable/disable floating underflow  
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$FLT_UNDER ( ! Enable/disable floating underflow
91 0159 1     NEW_SETTING) ! Adr. of longword containing new setting
92 0160 1     = ! Value is old setting
93 0161 1
94 0162 1 !++
95 0163 1 FUNCTIONAL DESCRIPTION:
96 0164 1
97 0165 1     LIB$FLT_UNDER enables or disables floating underflow
98 0166 1     for the calling procedure activation. The previous setting
99 0167 1     of the enable is returned as a value.
100 0168 1
101 0169 1 FORMAL PARAMETERS:
102 0170 1
103 0171 1     new_setting.rlu.r     Adr. of longword containing new enable setting.
104 0172 1     Bit 0 = 1 is enable, bit 0 = 0 is disable.
105 0173 1
106 0174 1 IMPLICIT INPUTS:
107 0175 1     NONE
108 0176 1
109 0177 1 IMPLICIT OUTPUTS:
110 0178 1     NONE
111 0179 1
112 0180 1 ROUTINE VALUE:
113 0181 1
114 0182 1     OLD_SETTING.wlu.v     previous contents of SRM$W_PSW[PSW$V_FU]
115 0183 1     in the callers frame.
116 0184 1
117 0185 1 COMPLETION CODES:
118 0186 1     NONE
119 0187 1
120 0188 1 SIDE EFFECTS:
121 0189 1     NONE
122 0190 1
123 0191 1     The callers stack frame will be modified.
124 0192 1
125 0193 1 --
126 0194 1
127 0195 1
128 0196 1 BEGIN
129 0197 2
130 0198 2
131 0199 2 LOCAL
132 0200 2     OLD_SETTING; ! store the old SETTING of floating underflow enable
133 0201 2 BUILTIN
134 0202 2     FP;
135 0203 2 MAP
136 0204 2     NEW_SETTING: REF VECTOR[1, LUNG], ! Scalar call-by-reference
137 0205 2     FP: REF BLOCK[.BYTE];
138 0206 2     OLD_SETTING = .FP[SF$V_FU];
139 0207 2     FP[SF$V_FU] = .NEW_SETTING[0];
140 0208 2     RETURN .OLD_SETTING;
141 0209 1     END; !End of LIB$FLT_UNDER
```

```
.TITLE LIB$FLT_UNDER Enable/disable floating underflow
traps
.IDENT \1-002\
```

LIB\$FLT\_UNDER Enable/disable floating underflow traps  
1-002

F 4  
16-Sep-1984 00:56:11  
14-Sep-1984 12:38:51

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

Page 4  
(3)

```
04 50      04 AE      01      06 0000 00000
   AE      01      06      BC  EF 00002
                                FO 00008
                                04 0000F
```

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

```
.ENTRY LIB$FLT_UNDER, Save nothing      : 0158
EXTZV  #6, #1, 4(FP), OLD_SETTING      : 0206
INSV   @NEW_SETTING, #6, #1, 4(FP)     : 0207
RET                                          : 0209
```

; Routine Size: 16 bytes, Routine Base: \_LIB\$CODE + 0000

LIB  
V03

: R

LIB\$FLT\_UNDER Enable/disable floating underflow traps  
1-002

G 4  
16-Sep-1984 00:56:11  
14-Sep-1984 12:38:51

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

: 143 0210 1 END !End of module  
: 144 0211 0 ELUDOM

PSECT SUMMARY

Name Bytes Attributes  
\_LIB\$CODE 16 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	00:00.7
_\$255\$DUA28:[LIBRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

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

: Size: 16 code + 0 data bytes  
: Run Time: 00:02.0  
: Elapsed Time: 00:14.2  
: Lines/CPU Min: 6236  
: Lexemes/CPU-Min: 10108  
: Memory Used: 30 pages  
: Compilation Complete

