


```

FFFFFFFFF 000000 RRRRRRRR UU UU NN NN LL 000000 CCCCCCCC KK KK
FFFFFFFFF 000000 RRRRRRRR UU UU NN NN LL 000000 CCCCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FFFFFFFFF 00 00 RRRRRRRR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FFFFFFFFF 00 00 RRRRRRRR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 00 00 RR RR UU UU NN NN LL 00 00 CC CCCCCC KK KK
FF 000000 RR RR UUUUUUUUU NN NN LL LLLLLLLLLL 000000 CCCCCCCC KK KK
FF 000000 RR RR UUUUUUUUU NN NN LL LLLLLLLLLL 000000 CCCCCCCC KK KK

```

```

LL 111111 SSSSSSSS
LL 111111 SSSSSSSS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SSSSSS
LL 11 SSSSSS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SS
LLLLLLLLLL 111111 SSSSSSSS
LLLLLLLLLL 111111 SSSSSSSS

```

```

1 0001 0 MODULE FOR$UNLOCK (           ! Implements FORTRAN UNLOCK statement
2 0002 0                               ! File: FORUNLOCK.B32 Edit: JBS1002
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 *
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: FORTRAN Support Library - User Callable
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1     This module implements the FORTRAN UNLOCK statement.
36 0036 1
37 0037 1 ENVIRONMENT: User access mode; mixture of AST level or not.
38 0038 1
39 0039 1 AUTHOR: Steven B. Lionel, CREATION DATE: 17-May-1979
40 0040 1
41 0041 1 MODIFIED BY:
42 0042 1
43 0043 1 1-001 - Original. SBL 17-May-1979
44 0044 1 1-002 - Move the BUILTIN ACTUALCOUNT into the routine, since the next
45 0045 1 BLISS compiler will require it to be there. While we are here,
46 0046 1 clean up the source text a little. Note that this edit does not
47 0047 1 change the code. JBS 22-Aug-1980
48 0048 1 --
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 (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
57 0056 1 |
58 0057 1 |
59 0058 1 | LINKAGES:
60 0059 1 |
61 0060 1 |
62 0061 1 | REQUIRE 'RTLIN:OTSLNK';           ! define all linkages
63 0490 1 |
64 0491 1 |
65 0492 1 | TABLE OF CONTENTS:
66 0493 1 |
67 0494 1 |
68 0495 1 | FORWARD ROUTINE
69 0496 1 |   FOR$UNLOCK;                   ! FORTRAN UNLOCK statement
70 0497 1 |
71 0498 1 |
72 0499 1 | INCLUDE FILES:
73 0500 1 |
74 0501 1 |
75 0502 1 | LIBRARY 'RTLSTARLE';           ! System symbols
76 0503 1 |
77 0504 1 | REQUIRE 'RTLML:FORERR';       ! FORTRAN error number definitions
78 0572 1 |
79 0573 1 | REQUIRE 'RTLML:FORPAR';       ! Inter-module constants
80 0596 1 |
81 0597 1 | REQUIRE 'RTLIN:RTLPSECT';     ! Define DECLARE_PSECTS macro
82 0692 1 |
83 0693 1 | REQUIRE 'RTLML:OTSLUB';       ! Get LUB offsets
84 0833 1 |
85 0834 1 |
86 0835 1 | MACROS:
87 0836 1 |
88 0837 1 |   NONE
89 0838 1 |
90 0839 1 | EQUATED SYMBOLS:
91 0840 1 |
92 0841 1 |   NONE
93 0842 1 |
94 0843 1 | OWN STORAGE:
95 0844 1 |
96 0845 1 |   NONE
97 0846 1 |
98 0847 1 | EXTERNAL REFERENCES:
99 0848 1 |
100 0849 1 |
101 0850 1 | EXTERNAL ROUTINE
102 0851 1 |   FOR$$IOSTAT_HND,             ! Error handler
103 0852 1 |   FOR$$SIGNAL_STO : NOVALUE,  ! convert error code and signal
104 0853 1 |   FOR$$CB_PUSH : JSB_CB_PUSH NOVALUE, ! Get a control block
105 0854 1 |   FOR$$CB_POP : JSB_CB_POP NOVALUE; ! Return a control block
106 0855 1 |
107 0856 1 |
108 0857 1 | PSECT DECLARATIONS:
```

FORSUNLOCK
1-002

: 109
: 110
: 111

0858 1 !
0859 1 DECLARE_PSECTS (FOR);
0860 1

M 3
16-Sep-1984 00:56:44 VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:32:59 [FORRTL.SRC]FORUNLOCK.B32;1

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(2)

! Declare PSECTS for FOR\$ facility

```
113 0861 1 GLOBAL ROUTINE FOR$UNLOCK (UNIT, ERR_EQL) =
114 0862 1
115 0863 1 |++
116 0864 1 | FUNCTIONAL DESCRIPTION:
117 0865 1 |
118 0866 1 |     Call CB PUSH to get a control block for this UNIT.
119 0867 1 |     Do an RMS $FREE on the unit.
120 0868 1 |     Return I/O system to previous state.
121 0869 1 |
122 0870 1 | FORMAL PARAMETERS:
123 0871 1 |
124 0872 1 |     UNIT.rl.v           Unit number (call by value)
125 0873 1 |     ERR_EQL.rl.v       If 1, return IOSTAT value
126 0874 1 |                       If omitted or zero, signal all errors
127 0875 1 |
128 0876 1 | IMPLICIT INPUTS:
129 0877 1 |
130 0878 1 |     LUBSV_OPENED       1 if file previously opened
131 0879 1 |     LUBSV_NOTSEQORG    1 if file not sequential organization
132 0880 1 |
133 0881 1 | IMPLICIT OUTPUTS:
134 0882 1 |
135 0883 1 |
136 0884 1 | ROUTINE VALUE:
137 0885 1 |
138 0886 1 |     An IOSTAT value.
139 0887 1 |
140 0888 1 | SIDE EFFECTS:
141 0889 1 |
142 0890 1 |     All locked records on the unit are unlocked.  If the unit is
143 0891 1 |     not open, or is not relative or indexed organization, the error
144 0892 1 |     FOR$UNLERR - UNLOCK error
145 0893 1 |     is signalled.
146 0894 1 |
147 0895 1 | --
148 0896 1 |
149 0897 1 | BEGIN
150 0898 1 |
151 0899 1 | GLOBAL REGISTER
152 0900 1 |     CCB = K_CCB_REG : REF BLOCK [, BYTE];
153 0901 1 |
154 0902 1 | BUILTIN
155 0903 1 |     ACTUALCOUNT;
156 0904 1 |
157 0905 1 | LOCAL
158 0906 1 |     L_UNWIND_ACTION : VOLATILE,
159 0907 1 |     L_ERR_EQL_PRES : VOLATILE,
160 0908 1 |     STATUS;
161 0909 1 |
162 0910 1 | ENABLE
163 0911 1 |     FOR$$IOSTAT_HND (L_UNWIND_ACTION, L_ERR_EQL_PRES);
164 0912 1 |
165 0913 1 | |++
166 0914 1 | | Set up unwind action and flag if ERR= or IOSTAT was present.
167 0915 1 | |
168 0916 1 | | L_UNWIND_ACTION = FOR$K_UNWINDNOP;
169 0917 1 |
```

```

170 0918 2 IF (ACTUALCOUNT () GTR 1) THEN L_ERR_EQL_PRES = .ERR_EQL ELSE L_ERR_EQL_PRES = 0;
171 0919
172 0920
173 0921 + Get a LUB for this unit.
174 0922 + On return, CCB points to the current control block.
175 0923 -
176 0924 FOR$$CB_PUSH (.UNIT, LUB$K_LUN_MIN);
177 0925 +
178 0926 - Error action is now to pop the LUB.
179 0927
180 0928 L_UNWIND_ACTION = FOR$K_UNWINDPOP;
181 0929 +
182 0930 - If the file is not open, or is not relative or indexed organization,
183 0931 - signal error FOR$_UNLERR.
184 0932
185 0933
186 0934 IF (( NOT .CCB [LUB$V_OPENED]) OR ( NOT .CCB [LUB$V_NOTSEQORG])) THEN FOR$$SIGNAL_STO (FOR$K_UNLERR);
187 0935
188 0936 +
189 0937 - Now unlock the file. Signal errors except for RMSS_RNL which we
190 0938 - choose to ignore (no records were locked).
191 0939
192 0940
193 0941 IF ( NOT $FREE (RAB = .CCB))
194 0942 THEN
195 0943 BEGIN
196 0944
197 0945 WHILE (.CCB [RAB$L_STS] EQL RMSS_RSA) DO
198 0946 BEGIN
199 0947 $WAIT (RAB = .CCB);
200 0948 $FREE (RAB = .CCB)
201 0949 END;
202 0950
203 0951 IF (( NOT .CCB [RAB$L_STS]) AND (.CCB [RAB$L_STS] NEQU RMSS_RNL)) !
204 0952 THEN
205 0953 FOR$$SIGNAL_STO (FOR$K_UNLERR);
206 0954
207 0955 END;
208 0956
209 0957 +
210 0958 - Return the I/O system to its last state.
211 0959
212 0960 FOR$$CB_POP ();
213 0961 +
214 0962 - Return a success IOSTAT code
215 0963
216 0964 RETURN 0;
217 0965 END;

```

! of routine FOR\$UNLOCK

```

.TITLE FOR$UNLOCK
.IDENT \1-002\

.EXTRN FOR$$IOSTAT_HND
.EXTRN FOR$$SIGNAL_STO
.EXTRN FOR$$CB_PUSH, FOR$$CB_POP
.EXTRN SY$$FREE, SY$$WAIT

```

				.PSECT	_FOR\$CODE,NOWRT, SHR, PIC,2	
			081C 00000	.ENTRY	FOR\$UNLOCK, Save R2,R3,R4,R11	: 0861
54	00000000G	00	9E 00002	MOVAB	SYSS\$FREE, R4	
53	00000000G	00	9E 00009	MOVAB	FOR\$\$SIGNAL_STO, R3	
5E		04	C2 00010	SUBL2	#4, SP	
		7E	D4 00013	CLRL	L_ERR_EQL_PRES	: 0897
		AE	D4 00015	CLRL	L_UNWIND_ACTION	
	04	04	AE D4 00015	MOVAL	8\$, (FP)	
6D	006D	CF	DE 00018	MOVL	#1, L_UNWIND_ACTION	: 0916
AE		01	D0 0001D	CMPB	(AP), #1	: 0918
01		6C	91 00021	BLEQU	1\$	
		06	1B 00024	MOVL	ERR_EQL, L_ERR_EQL_PRES	
6E		AC	D0 00026	BRB	2\$	
		02	11 0002A	CLRL	L_ERR_EQL_PRES	
		6E	D4 0002C 1\$:	CLRL	RO	: 0924
		50	D4 0002E 2\$:	MOVL	UNIT, R2	
52		AE	D0 00030	JSB	FOR\$\$CB_PUSH	
	04	00	16 00034	CLRL	L_UNWIND_ACTION	: 0928
	04	AE	D4 0003A	BLBC	-4(CCB), -3\$: 0934
05	A1	05	FC AB E9 0003D	BBS	#3, -95(CCB), 4\$	
		AB	03 E0 00041	PUSHL	#56	
		38	DD 00046 3\$:	CALLS	#1, FOR\$\$SIGNAL_STO	
		63	01 FB 00048	PUSHL	CCB	: 0941
		5B	DD 0004B 4\$:	CALLS	#1, SYSS\$FREE	
		01	FB 0004D	BLBS	RO, 7\$	
64		50	E8 00050	CMP	8(CCB), #99034	: 0945
000182DA		8F	08 AB D1 00053 5\$:	BNEQ	6\$	
		10	12 0005B	PUSHL	CCB	: 0947
00000000G		00	01 FB 0005F	CALLS	#1, SYSS\$WAIT	
		5B	DD 00066	PUSHL	CCB	: 0948
		64	01 FB 00068	CALLS	#1, SYSS\$FREE	
		E6	11 0006B	BRB	5\$	
000181A0		0F	08 AB E8 0006D 6\$:	BLBS	8(CCB), 7\$: 0951
		8F	08 AB D1 00071	CMP	8(CCB), #98720	
		05	13 00079	BEQ	7\$	
		38	DD 0007B	PUSHL	#56	: 0953
		63	01 FB 0007D	CALLS	#1, FOR\$\$SIGNAL_STO	
	00000000G	00	16 00080 7\$:	JSB	FOR\$\$CB_POP	: 0960
		50	D4 00086	CLRL	RO	: 0964
		04	00088	RET		: 0965
		0000	00089 8\$:	.WORD	Save nothing	: 0897
50		08	AC D0 0008B	MOVL	8(AP), RO	
50		04	A0 D0 0008F	MOVL	4(RO), RO	
		F8	A0 9F 00093	PUSHAB	L_ERR_EQL_PRES	
		FC	A0 9F 00096	PUSHAB	L_UNWIND_ACTION	
		02	DD 00099	PUSHL	#2	
		5E	DD 0009B	PUSHL	SP	
00000000G		7E	04 AC 7D 0009D	MOVQ	4(AP), -(SP)	
		00	03 FB 000A1	CALLS	#3, FOR\$\$IOSTAT_HND	
			04 000A8	RET		

: Routine Size: 169 bytes, Routine Base: _FOR\$CODE + 0000

: 218 0966 1

FOR\$UNLOCK
1-002

D 4
16-Sep-1984 00:56:44 VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:32:59 [FORRTL.SRC]FORUNLOCK.B32;1

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: 219 0967 1 END
: 220 0968 1
: 221 0969 0 ELUDOM

. of module FOR\$UNLOCK

PSECT SUMMARY

Name Bytes Attributes
_FOR\$CODE 169 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	8	0	581	00:01.0

COMMAND QUALIFIERS

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

: Size: 169 code + 0 data bytes
: Run Time: 00:09.0
: Elapsed Time: 00:29.9
: Lines/CPU Min: 6460
: Lexemes/CPU-Min: 35280
: Memory Used: 110 pages
: Compilation Complete

