


```

SSSSSSSS TTTTTTTTT KK      KK FFFFFFFF RRRRRRRR MM      MM
SSSSSSSS TTTTTTTTT KK      KK FFFFFFFF RRRRRRRR MM      MM
SS        TT        KK      KK FF        RR      RR MMMM  MMMM
SS        TT        KK      KK FF        RR      RR MMMM  MMMM
SS        TT        KK      KK FF        RR      RR MM    MM MM
SS        TT        KK      KK FF        RR      RR MM    MM MM
SSSSSS    TT        KKKKKK FFFFFFFF RRRRRRRR MM      MM
SSSSSS    TT        KKKKKK FFFFFFFF RRRRRRRR MM      MM
          SS        KK      KK FF        RR  RR  MM      MM
          SS        KK      KK FF        RR  RR  MM      MM
          SS        KK      KK FF        RR    RR MM      MM
          SS        KK      KK FF        RR      RR MM      MM
SSSSSSSS TT        KK      KK FF        RR      RR MM      MM
SSSSSSSS TT        KK      KK FF        RR      RR MM      MM

```

```

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 %TITLE 'Misc save/restore for nesting directives'
2 0002 0 MODULE STKFRM (
3 0003 0 IDENT = 'V04-000'
4 0004 0 %BLISS32[
5 P 0005 0 ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE, NONEXTERNAL=LONG_RELATIVE)
6 0006 0 ]
7 0007 0 ) =
8 0008 1 BEGIN
9 0009 1
10 0010 1 *****
11 0011 1 *
12 0012 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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29 0029 1 *
30 0030 1 *
31 0031 1 *****
32 0032 1
33 0033 1 ++
34 0034 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
35 0035 1
36 0036 1 ABSTRACT: Used by .NOTE, .LIST, .END NOTE and .END LIST to save/restore
37 0037 1 various formatting information.
38 0038 1
39 0039 1
40 0040 1 ENVIRONMENT: Transportable
41 0041 1
42 0042 1 AUTHOR: R.W.Friday CREATION DATE: June, 1978
43 0043 1

```

STKFRM
V04-000

Misc save/restore for nesting directives
Revision History

K 9
16-Sep-1984 01:50:16
14-Sep-1984 13:08:13

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]STKFRM.BLI;1

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```

: 4      0044 1 %SBTTL 'Revision History'
:      0045 1
:      0046 1  MODIFIED BY:
: 48      0047 1
: 49      0048 1      002      REM00002      Ray Marshall      07-Mar-1983
: 50      0049 1      Global edit of all modules. Updated module names, idents,
: 51      0050 1      copyright dates. Changed require files to BLISS library.
: 52      0051 1
: 53      0052 1  --

```

STYI
V04-

```

: 55      0053 1 %SBTTL 'Module Level Declarations'
: 56      0054 1
: 57      0055 1 TABLE OF CONTENTS:
: 58      0056 1
: 59      0057 1
: 60      0058 1 INCLUDE FILES:
: 61      0059 1
: 62      0060 1
: 63      0061 1 LIBRARY 'NXPOR:XPORT';           ! XPORT Library
: 64      0062 1 REQUIRE 'REQ:RNODEF';         ! RUNOFF variant definitions
: 65      0193 1
: 66      U 0194 1 %IF DSRPLUS %THEN
: 67      U 0195 1 LIBRARY 'REQ:DPLLIB';       ! DSRPLUS BLISS Library
: 68      0196 1 %ELSE
: 69      0197 1 LIBRARY 'REQ:DSRLIB';        ! DSR BLISS Library
: 70      0198 1 %FI
: 71      0199 1
: 72      0200 1
: 73      0201 1 MACROS:
: 74      0202 1
: 75      0203 1
: 76      0204 1 EQUATED SYMBOLS:
: 77      0205 1
: 78      0206 1
: 79      0207 1 OWN STORAGE:
: 80      0208 1
: 81      0209 1
: 82      0210 1 EXTERNAL REFERENCES:
: 83      0211 1
: 84      0212 1
: 85      0213 1 EXTERNAL
: 86      0214 1   FRMSTD,
: 87      0215 1   FRMSTK : FORM STACK,
: 88      0216 1   GCA : GCA DEFINITION,
: 89      0217 1   IRAC : IRAC DEFINITION,
: 90      0218 1   SCA : SCA_DEFINITION;
: 91      0219 1
: 92      0220 1 EXTERNAL LITERAL           !Error messages
: 93      0221 1   RNFNSF,
: 94      0222 1   RNFSTD,
: 95      0223 1   RNFUME;
: 96      0224 1
: 97      0225 1 EXTERNAL ROUTINE
: 98      0226 1   ERM,
: 99      0227 1   ERMA,
: 100     0228 1   PNTBAC;
: 101     0229 1

```

```

103 0230 1 %SBTTL 'STKFRM --'
104 0231 1 GLOBAL ROUTINE stkfrm (handler_code) : =
105 0232 1
106 0233 1 !++
107 0234 1 FUNCTIONAL DESCRIPTION:
108 0235 1
109 0236 1     See APSTRACT, above.
110 0237 1
111 0238 1 FORMAL PARAMETERS:
112 0239 1
113 0240 1     Handler_code indicates which command requires formatting
114 0241 1     information to be stacked or unstacked.
115 0242 1     The value 0 means push without checking; the value -1
116 0243 1     means pop without checking. These two values are provided
117 0244 1     for the indexing routines, which have to save this information.
118 0245 1     Values -1 and 0 are also used for handling literals.
119 0246 1     When FRMSTK is allocated, there will be one extra place allocated
120 0247 1     so that at least one entry will remain, even when .NOTES
121 0248 1     and .LISTS are nested to their limits.
122 0249 1
123 0250 1 IMPLICIT INPUTS:      None
124 0251 1
125 0252 1 IMPLICIT OUTPUTS:     None
126 0253 1
127 0254 1 ROUTINE VALUE:
128 0255 1 COMPLETION CODES:
129 0256 1
130 0257 1     Returns TRUE if no errors were detected. Returns FALSE
131 0258 1     if the operation was not done.
132 0259 1
133 0260 1 SIDE EFFECTS:         None
134 0261 1
135 0262 1 --
136 0263 1
137 0264 2 BEGIN
138 0265 2
139 0266 2 SELECT .handler_code OF
140 0267 2 SET
141 0268 2
142 0269 2 [h_note, h_list] :
143 0270 2 BEGIN
144 0271 2
145 0272 2     IF .frmstd EQL frmstk_limit THEN
146 0273 2         BEGIN !Ignore command because of stack overflow
147 0274 2             erma (rnfstd, false);
148 0275 2             RETURN false;
149 0276 2             END;
150 0277 2
151 0278 2         END;
152 0279 2
153 0280 2 [0, h_note, h_list] :
154 0281 2 BEGIN
155 0282 2     !Save items on stack.
156 0283 2     frmstd = .frmstd + 1;
157 0284 2     frmstk [.frmstd, frmstk_fill] = .sca_fill;
158 0285 2     frmstk [.frmstd, frmstk_justify] = .sca_justify;
159 0286 2     frmstk [.frmstd, frmstk_crock] = .sca_crock;

```



```

: 217 0344 3
: 218 0345 3
: 219 0346 4
: 220 0347 4
: 221 0348 4
: 222 0349 4
: 223 0350 4
: 224 0351 4
: 225 0352 4
: 226 0353 4
: 227 0354 4
: 228 0355 4
: 229 0356 4
: 230 0357 4
: 231 0358 4
: 232 0359 4
: 233 0360 4
: 234 0361 4
: 235 0362 4
: 236 0363 2
: 237 0364 2
: 238 0365 2
: 239 0366 1

```

```

IF .frmstk [.frmstd, frmstk_req_d] NEQ .gca_req_depth THEN
  BEGIN
    erma (rnfnsf, false);
    pntbac ();
  END;

!Restore items from stack.
sca_fill = .frmstk [.frmstd, frmstk_fill];
sca_justify = .frmstk [.frmstd, frmstk_justify];
sca_crock = .frmstk [.frmstd, frmstk_crock];
sca_rm = .frmstk [.frmstd, frmstk_rm];
sca_lm = .frmstk [.frmstd, frmstk_lm];
sca_spacing = .frmstk [.frmstd, frmstk_spacing];
sca_do_nbits = .frmstk [.frmstd, frmstk_do_nbits];
sca_kef = .frmstk [.frmstd, frmstk_kef];
sca_index = .frmstk [.frmstd, frmstk_index];
frmstd = .frmstd - 1;
RETURN true;
END;

TES;
true
END;

```

!End of STKFRM

```

.TITLE STKFRM Misc save/restore for nesting directives
.IDENT \V04-000\

.EXTRN FRMSTD, FRMSTK, GCA
.EXTRN IRAC, SCA, RNFNSF
.EXTRN RNFSTD, RNFUME, ERM
.EXTRN ERMA, PNTBAC

```

.PSECT \$CODE\$,NOWRT,2

		07FC 00000	.ENTRY	STKFRM, Save R2,R3,R4,R5,R6,R7,R8,R9,R10	0231
	5A	00000000G EF 9E 00002	MOVAB	PNTBAC, R10	
	59	00000000G 8F D0 00009	MOVL	#RNFUME, R9	
	58	00000000G EF 9E 00010	MOVAB	GCA+188, R8	
	57	00000000G EF 9E 00017	MOVAB	ERMA, R7	
	56	00000000G EF 9E 0001E	MOVAB	IRAC+8, R6	
	55	00000000G EF 9E 00025	MOVAB	FRMSTD, R5	
	54	00000000G EF 9E 0002C	MOVAB	SCA+104, R4	
	53	00000000G EF 9E 00033	MOVAB	FRMSTK-40, R3	
	52	04 AC D0 0003A	MOVL	HANDLER CODE, R2	0266
0000006E	8F	52 D1 0003E	C MPL	R2, #110	0269
		09 13 00045	BEQL	1\$	
00000072	8F	52 D1 00047	C MPL	R2, #114	
		10 12 0004E	BNEQ	2\$	
	0F	65 D1 00050 1\$:	C MPL	FRMSTD, #15	0272
		0B 12 00053	BNEQ	2\$	
		7E D4 00055	CLRL	-(SP)	0274
		00000000G 8F DD 00057	PUSHL	#RNFSTD	
		0087 31 0005D	BRW	6\$	
		52 D5 00060 2\$:	TSTL	R2	0280
		12 13 00062	BEQL	3\$	
0000006E	8F	52 D1 00064	C MPL	R2, #110	


```

00000000G 8F DD 0013F      PUSHL  #RNFNSF
67          02 FB 00145      CALLS  #2, ERMA
6A          00 FB 00148      CALLS  #0, PNTBAC
50          0F C5 0014B 13$: MULL3   #15, FRMSTD, R0
00          EC A340 D0 0014F      MOVL  FRMSTK-60[R0], @SCA+104
FC          F0 A340 D0 00155      MOVL  FRMSTK-56[R0], @SCA+100
08          B4      18 A340 D0 0015B      MOVL  FRMSTK-16[R0], @SCA+112
10          B4      F4 A340 D0 00161      MOVL  FRMSTK-52[R0], @SCA+120
0C          B4      F8 A340 D0 00167      MOVL  FRMSTK-48[R0], @SCA+116
14          B4      FC A340 D0 0016D      MOVL  FRMSTK-44[R0], @SCA+124
40          A4      1C A340 D0 00173      MOVL  FRMSTK-12[R0], SCA+168
1C          B4      20 A340 D0 00179      MOVL  FRMSTK-8[R0], @SCA+132
6C          A4      24 A340 D0 0017F      MOVL  FRMSTK-4[R0], SCA+212
          65 D7 00185      DECL  FRMSTD
          50          01 D0 00187 14$: MOVL  #1, R0
          04 0018A      RET

```

: Routine Size: 395 bytes, Routine Base: \$CODE\$ + 0000

```

: 240          0367 1
: 241          0368 1 END          !End of module
: 242          0369 0 ELUDOM

```

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	395	NOVEC, NOWRT, RD, EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	Symbols			Pages Mapped	Processing Time
	Total	Loaded	Percent		
\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	43	3	86	00:00.3

COMMAND QUALIFIERS

: B: ISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:STKFRM/OBJ=OBJ\$:STKFRM MSRC\$:STKFRM/UPDATE=(ENH\$:STKFRM)

: Size: 395 code + 0 data bytes

