

```

RRRRRRRRRRR   UUU      UUU  NNN      NNN      00000000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRRRRRRRRRR   UUU      UUU  NNN      NNN      00000000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRRRRRRRRRR   UUU      UUU  NNN      NNN      00000000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRRRRRRRRRR   UUU      UUU  NNN      NNN      000      000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRRRRRRRRRR   UUU      UUU  NNN      NNN      000      000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRRRRRRRRRR   UUU      UUU  NNN      NNN      000      000  FFFFFFFFFFFFFFFF  FFFFFFFFFFFFFFFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUU      UUU  NNN      NNN      000      000  FFF      FFF
RRR           RRR   UUUUUUUUUUUUUUUU  NNN      NNN      00000000  FFF      FFF
RRR           RRR   UUUUUUUUUUUUUUUU  NNN      NNN      00000000  FFF      FFF
RRR           RRR   UUUUUUUUUUUUUUUU  NNN      NNN      00000000  FFF      FFF
  
```

Syn

NDX
NDX
NUM
NUM
OPE
OUT
PAC
PAC
PAC
PAC
PAC
PAC
PAC
PAD
PAG
PAG
PAG
PAG
PAG
PAG
PER
PUT
RCO
RIN

RLI
RNO
RNO
RTY
SAV
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR

```

FFFFFFFFF 000000 000000 88888888 000000 TTTTTTTTTT
FFFFFFFFF 000000 000000 88888888 000000 TTTTTTTTTT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FFFFFFFFF 00      00 00      00 88888888 00      00 TT
FFFFFFFFF 00      00 00      00 88888888 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         00      00 00      00 88      88 00      00 TT
FF         000000 000000 88888888 000000 TT
FF         000000 000000 88888888 000000 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
LL         IIIIII  SSSSSSSS
LLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLL IIIIII  SSSSSSSS

```



```

1 00C1 0 MODULE foobot ( IDENT = 'V04-000'
2 P 00C2 0 %BLISS32C, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE,
3 00C3 0 NONEXTERNAL = LONG_RELATIVE)
4 00C4 0 ) =
5 00C5 1 BEGIN
6 00C6 1
7 00C7 1 *****
8 00C8 1 *
9 00C9 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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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: DSR (Digital Standard RUNOFF) / DSRPLUS
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 Puts as many footnotes as possible at the bottom of the current page.
37 0037 1
38 0038 1 ENVIRONMENT: Transportable
39 0039 1
40 0040 1 AUTHOR: R.W.Friday CREATION DATE: November, 1981
41 0041 1

```

Revision History

..	43	0042	1	%SBTTL 'Revision History'
..	44	0043	1	MODIFIED BY:
..	45	0044	1	
..	46	0045	1	004 RER00004 Ron Randall 05-Apr-1983
..	47	0046	1	For DSRPLUS: Added code for footnote numbering.
..	48	0047	1	
..	49	0048	1	003 RER00003 Ron Randall 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	

Module Level Declarations

```

55 0053 1 %SBTTL 'Module Level Declarations'
56 0054 1
57 0055 1 TABLE OF CONTENTS:
58 0056 1
59 0057 1 FORWARD ROUTINE
60 0058 1 FOOBOT : NOVALUE;
61 0059 1
62 0060 1 INCLUDE FILES:
63 0061 1
64 0062 1 LIBRARY 'NXPOR:XPOR';           ! XPORT Library
65 0063 1 REQUIRE 'REQ:RNODEF';      ! RUNOFF variant definitions
66 0194 1
67 U 0195 1 %IF DSRPLUS %THEN
68 U 0196 1 LIBRARY 'REQ:DPLLIB';      ! DSRPLUS BLISS Library
69 0197 1 %ELSE
70 0198 1 LIBRARY 'REQ:DSRLIB';        ! DSR BLISS Library
71 0199 1 %FI
72 0200 1
73 0201 1
74 0202 1 MACROS:
75 0203 1
76 0204 1 This macro makes certain that when blank lines at the top or bottom
77 0205 1 of a page are skipped change bars don't get output.
78 0206 1
79 0207 1 MACRO
80 M 0208 1 NO_BAR_SKIP (N) =
81 M 0209 1 BEGIN
82 M 0210 1 LOCAL
83 M 0211 1 HOLD_BARS;
84 M 0212 1
85 M 0213 1 HOLD_BARS = .TSF_BARS;
86 M 0214 1 TSF_BARS = FALSE;
87 M 0215 1 USKIPL (N);
88 M 0216 1 TSF_BARS = .HOLD_BARS;
89 0217 1 END %;
90 0218 1
91 0219 1 EXTERNAL REFERENCES:
92 0220 1
93 0221 1 EXTERNAL
94 0222 1 FNCT           : FNCT DEFINITION,           ! Footnote control table.
95 0223 1 FNESIZ          : FN EXT SIZE DEFINITION,
96 0224 1 HCT             : HCT DEFINITION,
97 0225 1 PHAN           : PHAN DEFINITION,
98 0226 1 TSF            : TSF_DEFINITION;
99 0227 1
100 0228 1 EXTERNAL LITERAL
101 0229 1 RNFFWF;
102 0230 1
103 0231 1 EXTERNAL ROUTINE
104 0232 1 ERML,
105 0233 1 FOOOUT,
106 0234 1 TPFFIT,
107 0235 1 TPFSKP,
108 0236 1 USKIPL;
109 0237 1

```

Module Level Declarations

```

111 0238 1 GLOBAL ROUTINE foobot : NOVALUE =
112 0239 1
113 0240 1
114 0241 1 ++
115 0242 1 FUNCTIONAL DESCRIPTION:
116 0243 1 See ABSTRACT, above.
117 0244 1
118 0245 1 FORMAL PARAMETERS: None
119 0246 1
120 0247 1 IMPLICIT INPUTS: None
121 0248 1
122 0249 1 IMPLICIT OUTPUTS: None
123 0250 1
124 0251 1 ROUTINE VALUE:
125 0252 1 COMPLETION CODES: None
126 0253 1
127 0254 1 SIDE EFFECTS: None
128 0255 1 --
129 0256 1
130 0257 2 BEGIN
131 0258 2
132 0259 2 |
133 0260 2 | See if there are any footnotes to be output.
134 0261 2 |
135 0262 3 IF (.FNCT_READY NEQ 0)
136 0263 2 THEN
137 0264 2
138 0265 2 |
139 0266 2 | See if these footnotes should be output now.
140 0267 2 | Check for two cases:
141 0268 2 | one in which there's a footnote that's too big to fit on the page,
142 0269 2 | and the other in which there's no such error.
143 0270 2 |
144 0271 2 | Skip over old footnotes, consider the first ready footnote.
145 0272 2 |
146 0273 2 IF .FNESIZ [.FNCT_OLD] GTR
147 0274 3 (.PHAN_L LINES + .HCT_LAYOUTN -
148 0275 4 (IF .HCT_HEADERS
149 0276 4 THEN ! 3 is title line + 2 blank lines.
150 0277 5 3 + (IF .HCT_SUBTITLE THEN 1 ELSE 0)
151 0278 4 ELSE
152 0279 4 0)
153 0280 4
154 U 0281 4 %IF DSRPLUS %THEN
155 U 0282 4 - (IF .FNCT_NUMBERING THEN 1 ELSE 0)
156 0283 4 %FI
157 0284 4
158 0285 3 )
159 0286 2 THEN
160 0287 2
161 0288 2 | The first ready footnote is so lengthy that it requires
162 0289 2 | more space than allowed per page of the document,
163 0290 2 | so force it out now and complain to the user.
164 0291 2 |
165 0292 3 BEGIN
166 0293 3 ERML (RNFFWF);
167 0294 3 FOOTOUT (1) ! Dump one footnote, namely the bad one.

```

```

: 168 0295 3
: 169 0296 3
: 170 0297 3
: 171 0298 3
: 172 0299 3
: 173 0300 3
: 174 0301 3
: 175 0302 3
: 176 0303 3
: 177 0304 3
: 178 0305 3
: 179 0306 3
: 180 0307 3
: 181 0308 3
: 182 0309 3
: 183 0310 3
: 184 0311 3
: 185 0312 3
: 186 0313 3
: 187 0314 3
: 188 0315 3
: 189 0316 3
: 190 0317 3
: 191 0318 3
: 192 0319 3
: 193 0320 3
: 194 0321 3
: 195 0322 3
: 196 0323 3
: 197 0324 3
: 198 0325 3
: 199 0326 3
: 200 0327 3
: 201 0328 3
: 202 0329 3
: 203 0330 3
: 204 0331 1

      END
    ELSE
      : These footnotes are not too lengthy, so see if there is
      : space at the bottom of the page to output them now.
      BEGIN
      LOCAL
      HOW_MANY_FIT;

      : Find out how many footnotes of the ready ones can fit.
      HOW_MANY_FIT = TPFIT ();

      IF (.HOW_MANY_FIT NEQ 0)
      THEN
        : There are some footnotes that will fit. Output them.
        BEGIN
        LOCAL
        HOLD_PAGING;

        HOLD_PAGING = .PHAN_PAGING;
        PHAN_PAGING = FALSE;

        : Position to proper location on page.
        NO_BAR_SKIP (TPFSKP (.HOW_MANY_FIT));
        FOOTOUT (.HOW_MANY_FIT); ! Generate the footnotes now.
        PHAN_PAGING = .HOLD_PAGING;
        END
      END;
    END;
  END;

```

! End of routine FOOBOT

```

.TITLE FOOBOT
.IDENT \V04-000\

.EXTRN FNCT, FNESIZ, HCT
.EXTRN PHAN, TSF, RNFFWF
.EXTRN ERML, FOOTOUT, TPFIT
.EXTRN TPFSKP, USKIPL

```

.PSECT \$CODE\$,NOWRT,2

```

01FC 0000
58 00000000G EF 9E 00002
57 00000000G EF 9E 00009
56 00000000G EF 9E 00010
55 00000000G EF 9E 00017
   00000000G EF D5 0001E
   00000000G EF 4C 13 00024
50 00000000G EF D0 00026

```

```

.ENTRY FOOBOT, Save R2,R3,R4,R5,R6,R7,R8
MOVAB TSF, R8
MOVAB FOOTOUT, R7
MOVAB HCT+32, R6
MOVAB PHAN+40, R5
TSTL FNCT+4
BEQL 6$
MOVL FNCT+12, R0

```

```

: 0238
:
:
: 0262
:
: 0273

```

Module Level Declarations

52	DC	B5		66	C1	0002D	ADDL3	HCT+32, @PHAN+4, R2	:	0274
		10		E8	B6	E9 00032	BLBC	@HCT+8, 3\$:	0275
		05		F8	B6	E9 00036	BLBC	@HCT+24, 1\$:	0277
		51			01	D0 0003A	MOVL	#1, R1	:	
					02	11 0003D	BRB	2\$:	
		51			51	D4 0003F 1\$:	CLRL	R1	:	
					03	C0 00041 2\$:	ADDL2	#3, R1	:	
					02	11 00044	BRB	4\$:	
		52			51	D4 00046 3\$:	CLRL	R1	:	0275
		52			51	C2 00048 4\$:	SUBL2	R1, R2	:	
		52	00000000GEF		40	D1 0004B	CMPL	FNESIZ[RO], R2	:	0274
					13	15 00053	BLEQ	5\$:	
			00000000G		8F	DD 00055	PUSHL	#RNFFWF	:	0293
		00000000G	EF		01	FB 0005B	CALLS	#1, ERML	:	
					01	DD 00062	PUSHL	#1	:	0294
		67			01	FB 00064	CALLS	#1, FOOOUT	:	
						04 00067	RET		:	
		00000000G	EF		00	FB 00068 5\$:	CALLS	#0, TPFIT	:	0308
					50	D0 0006F	MOVL	RO, HOW_MANY_FIT	:	
					38	13 00072 6\$:	BEQL	7\$:	0310
		54		00	B5	D0 00074	MOVL	@PHAN+40, HOLD_PAGING	:	0319
				00	B5	D4 00078	CLRL	@PHAN+40	:	0320
		50			68	D0 0007B	MOVL	TSF, RO	:	0324
52	7C	A0			00	EF 0007E	EXTZV	#0, #1, 124(RO), HOLD_BARS	:	
			7C	A0	01	8A 00084	BICB2	#1, 124(RO)	:	
					53	DD 00088	PUSHL	HOW_MANY_FIT	:	
		00000000G	EF		01	FB 0008A	CALLS	#1, TPF SRP	:	
					50	DD 00091	PUSHL	RO	:	
		00G00000G	EF		01	FB 00093	CALLS	#1, USKIPL	:	
					68	D0 0009A	MOVL	TSF, RO	:	
7C	A0			01	52	FD 0009D	INSV	HOLD_BARS, #0, #1, 124(RO)	:	
					53	DD 000A3	PUSHL	HOW_MANY_FIT	:	0325
					01	FB 000A5	CALLS	#1, FOOOUT	:	
		00			54	D0 000A8	MOVL	HOLD_PAGING, @PHAN+40	:	0326
						04 000AC 7\$:	RET		:	0331

; Routine Size: 173 bytes, Routine Base: \$CODE\$ + 0000

```

: 205      0332 1
: 206      0333 1 END
: 207      0334 0 ELUDOM
! End of module

```

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	173	NOVEC, NOWRT, RD, EXE, NOSHR, LCL REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	20	1	86	00:00.3

COMMAND QUALIFIERS

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

: Size: 173 code + 0 data bytes
: Run Time: 00:04.5
: Elapsed Time: 00:14.5
: Lines/CPU Min: 4453
: Lexemes/CPU-Min: 13266
: Memory Used: 51 pages
: Compilation Complete

ENDWRD LIS	ERROR LIS	FIGURE LIS	FLGSEM LIS	FOOFIL LIS	GCODE LIS
FCTMRA LIS	FENONLY LIS	FJFNFI LIS	FOOBOT LIS	GBLDCL LIS	FNDPLG LIS
FOOOUT LIS	FORMAT LIS				