


```

RRRRRRRR      EEEEEEEEEEE      QQQQQQ      UU      UU      IIIIII      RRRRRRRR
RRRRRRRR      EEEEEEEEEEE      QQQQQQ      UU      UU      IIIIII      RRRRRRRR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RRRRRRRR      EEEEEEEEEEE      QQ      QQ      UU      UU      II      RRRRRRRR
RRRRRRRR      EEEEEEEEEEE      QQ      QQ      UU      UU      II      RRRRRRRR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EE      QQ      QQ      UU      UU      II      RR      RR
RR      RR      EEEEEEEEEEE      QQQQ      QQ      UUUUUUUUUU      IIIIII      RR      RR
RR      RR      EEEEEEEEEEE      QQQQ      QQ      UUUUUUUUUU      IIIIII      RR      RR

```

```

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      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS

```

RI VO

```

1 0001 0 %TITLE 'Process the .REQUIRE directive'
2 0002 0 MODULE REQUIR (
3 0003 0 IDENT = 'V04-000'
4 P 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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24 0024 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
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28 0028 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
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: Processes the .REQUIRE command
37 0037 1
38 0038 1
39 0039 1 ENVIRONMENT: Transportable
40 0040 1
41 0041 1 AUTHOR: R.W.Friday CREATION DATE: July, 1978
42 0042 1

```

REQUIR
V04-000

Process the .REQUIRE directive
Revision History

M 14
16-Sep-1984 01:32:10
14-Sep-1984 13:07:51

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

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```
.. 44 0043 1 %SBTTL 'Revision History'  
.. 45 0044 1  
.. 46 0045 1   MODIFIED BY:  
.. 47 0046 1  
.. 48 0047 1   007   KAD00007   Keith Dawson   07-Mar-1983  
.. 49 0048 1  
.. 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  !--
```

RI
VC

```

54 0052 1 %SBTTL 'Module Level Declarations'
55 0053 1
56 0054 1 : TABLE OF CONTENTS:
57 0055 1
58 0056 1
59 0057 1 : INCLUDE FILES:
60 0058 1
61 0059 1
62 0060 1 LIBRARY 'NXPOR:XPORT';           ! XPORT Library
63 0061 1 REQUIRE 'REQ:RNODEF';         ! RUNOFF variant definitions
64 0192 1
65 U 0193 1 %IF DSRPLUS %THEN
66 U 0194 1 LIBRARY 'REQ:DPLLIB';         ! DSRPLUS BLISS Library
67 0195 1 %ELSE
68 0196 1 LIBRARY 'REQ:DSRLIB';         ! DSR BLISS Library
69 0197 1 %FI
70 0198 1
71 0199 1
72 0200 1 : MACROS:
73 0201 1
74 0202 1 MACRO
75 E 0203 1     erm_t (rnfcodes, str_descr) =
76 E 0204 1     BEGIN
77 E 0205 1     BIND
78 E 0206 1         temp = str_descr : $STR_DESCRIPTOR ();
79 E 0207 1     erme (rnfcodes, .temp [STR$A_POINTER], .temp [STR$H_LENGTH], .semcod)
80 E 0208 1     END %;
81 0209 1
82 0210 1 : EQUATED SYMBOLS:
83 0211 1
84 0212 1
85 0213 1 EXTERNAL LITERAL
86 0214 1     rintex : UNSIGNED (8);
87 0215 1
88 0216 1
89 0217 1 : OWN STORAGE:
90 0218 1
91 0219 1
92 0220 1 : EXTERNAL REFERENCES:
93 0221 1
94 0222 1
95 0223 1 EXTERNAL
96 0224 1     flgt : flag_table,
97 0225 1     fs01 : fixed_string,           !Temporary storage for file-spec
98 0226 1     ira : fixed_string,
99 0227 1     khar,
100 0228 1     ffname : $STR_DESCRIPTOR (CLASS = DYNAMIC), ! Failing file's name
101 0229 1     semcod;
102 0230 1
103 0231 1 EXTERNAL LITERAL           !Error messages
104 0232 1     rnfcor,           ! W - Can't open required file '%S'
105 0233 1     rnfloc,           ! I - on output page %P; on input line %C of page %I of file '%F'
106 0234 1     rnfms,           ! W - Missing or improperly delimited file spec: '%S'
107 0235 1     rnfntd,          ! W - Files nested 'oo deep: '%S'
108 0236 1     rnftr;           ! W - No text allowed after .REQUIRE command: '%S'
109 0237 1
110 0238 1 EXTERNAL ROUTINE

```

REQUIR
V04-000

Process the .REQUIRE directive
Module Level Declarations

B 15
16-Sep-1984 01:32:10
14-Sep-1984 13:07:51

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

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RI
VO

:	111	0239	1	arec,
:	112	0240	1	clh,
:	113	0241	1	endcmt,
:	114	0242	1	erm,
:	115	0243	1	erma,
:	116	0244	1	erme,
:	117	0245	1	getqs,
:	118	0246	1	rskips;
:	119	0247	1	

.....

```

121 0248 1 %SBTTL 'REQ -- main routine body'
122 0249 1 GLOBAL ROUTINE req (handler_code) : NOVALUE =
123 0250 1
124 0251 1 |++
125 0252 1 | FUNCTIONAL DESCRIPTION:
126 0253 1 |
127 0254 1 |     This routine causes RUNOFF to take its input from the file specified as
128 0255 1 |     the parameter to the .REQUIRE command. Spaces, tabs, and comments
129 0256 1 |     following the file-spec are ignored; other characters are not allowed.
130 0257 1 |
131 0258 1 | FORMAL PARAMETERS:
132 0259 1 |
133 0260 1 |     Handler_code is passed by DDCM for conformity with other routines.
134 0261 1 |     It is never used.
135 0262 1 |
136 0263 1 | IMPLICIT INPUTS:      None
137 0264 1 |
138 0265 1 | IMPLICIT OUTPUTS:
139 0266 1 |
140 0267 1 |     FS01 contains the file-spec of the file ".REQUIRED". When CLH gets
141 0268 1 |     called with the operation CLH_OPEN_REQ it expects to find the
142 0269 1 |     file-spec of the file to be opened in FS01.
143 0270 1 |
144 0271 1 | ROUTINE VALUE:
145 0272 1 | COMPLETION CODES:    None
146 0273 1 |
147 0274 1 | SIDE EFFECTS:       None
148 0275 1 |
149 0276 1 | --
150 0277 1 |
151 0278 2 | BEGIN
152 0279 2 |
153 0280 2 | LOCAL
154 0281 2 |     result;
155 0282 2 |
156 0283 2 | rskips (ira);           !Skip spaces and tabs before file-spec.
157 0284 2 | result = getqs (fs01);  !Get file-spec into FS01
158 0285 2 |
159 0286 2 | IF .result EQL getqs_normal
160 0287 2 | THEN
161 0288 2 | !Found a file-spec.
162 0289 3 |     BEGIN
163 0290 3 |     !Skip trailing spaces, tabs, and comments before opening file.
164 0291 3 |     !The entire remainder of the record is skipped.
165 0292 3 |     rskips (ira);       .Skip trailing spaces and tabs
166 0293 3 |
167 0294 3 |     IF .flgt [com_flag, flag_enabled]      !Skip single trailing comment
168 0295 4 |     AND (.khar EQL .flgt [com_flag, flag_character])
169 0296 3 | THEN
170 0297 3 |     endcmt ();
171 0298 3 |
172 0299 3 | WHILE 1 DO
173 0300 4 |     BEGIN
174 0301 4 |     !Skip spaces and tabs
175 0302 4 |     result = arec ();
176 0303 4 |
177 0304 4 |     IF .result EQL end_of_string

```

```

178 0305 4 THEN
179 0306 4 EXITLOOP
180 0307 4 ELSE
181 0308 4
182 0309 4 IF .result EQL cf_comment
183 0310 4 THEN
184 0311 4 !Skip a comment.
185 0312 4 endcmt ()
186 0313 4 ELSE
187 0314 4 !Something other than spaces, tabs, and comments
188 0315 4 !after the file-spec.
189 0316 4 !Note: comments of the form .COMMENT are illegal
190 0317 4 !here. If they are to be allowed, this is
191 0318 4 !the place to put the code to check for them.
192 0319 5 BEGIN
193 0320 5 erma (rnftar, true);
194 0321 5 RETURN
195 0322 5 END
196 0323 3 END;
197 0324 3
198 0325 3 result = clh (clh_push); ! Stack current input file
199 0326 3
200 0327 3 IF .result NEQ clh_normal
201 0328 3 THEN
202 0329 3 !No room to stack current input file.
203 0330 4 BEGIN
204 0331 4 erma (rnfnfd, false);
205 0332 4 RETURN;
206 0333 4 END
207 0334 3 ELSE
208 0335 3
209 0336 3 ! Have ascertained that there is enough room for the control blocks
210 0337 3 ! needed for the processing, so try to open the file.
211 0338 3 BEGIN
212 0339 4
213 0340 4 ! CLH expects to find the file-spec in FS01.
214 0341 4
215 0342 4 result = clh (clh_open_req);
216 0343 4
217 0344 4 IF .result EQL clh_normal ! If CLH returns normal,
218 0345 4 THEN ! then we're done here.
219 0346 4 RETURN
220 0347 4 ! And away we go!!!! Popping the file stack is done
221 0348 4 ! automatically by CLH, when it gets an end of file when
222 0349 4 ! it gets called to read the next input record.
223 0350 4
224 0351 4 ELSE
225 0352 5 BEGIN ! File could not be opened, damnit!
226 0353 5
227 0354 5 erm_t ( rnfcor, fname); ! Can't open REQUIRE file
228 0355 5 clh (clh_pop); ! Continue with previous file.
229 0356 5 erm (rnftoc, 0, 0); ! Identify that files name
230 0357 5
231 0358 5 RETURN;
232 0359 4 END;
233 0360 3 END;
234 0361 3 END

```



```

: 235      0362 2  ELSE
: 236      0363 2  !Missing file-spec, or one not properly delimited.
: 237      0364 2  BEGIN
: 238      0365 2  erma (rnfms, true);
: 239      0366 2  END;
: 240      0367 1  END;

```

!End of REQ

```

.TITLE  REQUIR Process the .REQUIRE directive
.IDENT  \V04-000\

```

```

.EXTRN  RINTES, FLGT, FS01
.EXTRN  IRA, KHAR, FNAME
.EXTRN  SEMCOD, RNFCOR, RNFLOC
.EXTRN  RNFMS, RNFNTD, RNFTAR
.EXTRN  AREC, CLH, ENDCMT
.EXTRN  ERM, ERMA, ERME
.EXTRN  GETQS, RSKIPS

```

.PSECT \$CODE\$,NOWRT,2

			003C 0000	.ENTRY REQ, Save R2,R3,R4,R5	: 0249
	55	00000000G	EF 9E 00002	MOVAB IRA, R5	
	54	00000000G	EF 9E 00009	MOVAB RSKIPS, R4	
	53	00000000G	EF 9E 00010	MOVAB CLH, R3	
			55 DD 00017	PUSHL R5	: 0283
	64		01 FB 00019	CALLS #1, RSKIPS	
		00000000G	EF 9F 0001C	PUSHAB FS01	: 0284
00000000G	EF		01 FB 00022	CALLS #1, GETQS	
	52		50 D0 00029	MOVL R0, RESULT	
			03 13 0002C	BEQL 1\$: 0286
			0097 31 0002E	BRW 6\$	
			55 DD 00031	PUSHL R5	: 0292
	64		01 FB 00033	CALLS #1, RSKIPS	
	14	00000000G	EF E9 00036	BLBC FLGT+56, 3\$: 0294
00000000G	EF	00000000G	EF D1 0003D	CPL KHAR, FLGT+128	: 0295
			07 12 00048	BNEQ 3\$	
00000000G	EF		00 FB 0004A	CALLS #0, ENDCMT	: 0297
00000000G	EF		00 FB 00051	CALLS #0, AREC	: 0302
	52		50 D0 00058	MOVL R0, RESULT	
	01		52 D1 0005B	CPL RESULT, #1	: 0304
			0F 13 0005E	BEQL 4\$	
	04		52 D1 00060	CPL RESULT, #4	: 0309
			E5 13 00063	BEQL 2\$	
			01 DD 00065	PUSHL #1	: 0320
		00000000G	8F DD 00067	PUSHL #RNFTAR	
			61 11 0006D	BRB 7\$	
			07 DD 0006F	PUSHL #7	: 0325
	63		01 FB 00071	CALLS #1, CLH	
	52		50 D0 00074	MOVL R0, RESULT	
	01		52 D1 00077	CPL RESULT, #1	: 0327
			0A 13 0007A	BEQL 5\$	
			7E D4 0007C	CLRL -(SP)	: 0331
		00000000G	8F DD 0007E	PUSHL #RNFNTD	
			4A 11 00084	BRB 7\$	
			09 DD 00086	PUSHL #9	: 0343
	63		01 FB 00088	CALLS #1, CLH	

REQUIR
V04-000

Proces the .REQUIRE directive
REQ -- main routine body

F 15
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[RUNOFF.SRC]REQUIR.BLI;1

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52	50	D0	0008B	MOVL	R0, RESULT
01	52	D1	0008E	CMPL	RESULT, #1
	44	13	00091	BEQL	8\$
	7E	00000000G	EF DD 00093	PUSHL	SEMCOD
		00000000G	EF 3C 00099	MOVZWL	TEMP, -(SP)
		00000000G	EF DD 000A0	PUSHL	TEMP+4
		00000000G	8F DD 000A6	PUSHL	#RNF COR
00000000G	EF	04	FB 000AC	CALLS	#4, ERME
		08	DD 000B3	PUSHL	#8
63	01	FB	000B5	CALLS	#1, CLH
	7E	7C	000B8	CLRQ	-(SP)
		8F	DD 000BA	PUSHL	#RNFLOC
00000000G	EF	03	FB 000C0	CALLS	#3, ERM
		04	000C7	RET	
		01	DD 000C8 6\$:	PUSHL	#1
		8F	DD 000CA	PUSHL	#RNF MFS
00000000G	EF	02	FB 000D0 7\$:	CALLS	#2, ERMA
		04	000D7 8\$:	RET	

0345
0354
0355
0356
0339
0365
0367

; Routine Size: 216 bytes, Routine Base: \$CODE\$ + 0000

: 241 0368 1
: 242 0369 1 END
: 243 0370 0 ELUDOM

!End of module

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	216	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	11 1	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	14 1	86	00:00.2

COMMAND QUALIFIERS

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

REQUIR
V04-000

Process the .REQUIRE directive
REQ -- main routine body

G 15
16-Sep-1984 01:32:10
14-Sep-1984 13:07:51

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

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: 244 0371 0
: Size: 216 code + 0 data bytes
: Run Time: 00:05.6
: Elapsed Time: 00:16.8
: Lines/CPU Min: 3960
: Lexemes/CPU-Min: 23017
: Memory Used: 74 pages
: Compilation Complete

RI
VC

