


```

DDDDDDDD      SSSSSSSS  PPPPPPPP  EEEEEEEEEEE  NN      NN  TTTTTTTTTT
DDDDDDDD      SSSSSSSS  PPPPPPPP  EEEEEEEEEEE  NN      NN  TTTTTTTTTT
DD      DD  SS      PP      PP  EE      NN      NN  TT
DD      DD  SS      PP      PP  EE      NN      NN  TT
DD      DD  SS      PP      PP  EE      NNNN     NN  TT
DD      DD  SS      PP      PP  EE      NNNN     NN  TT
DD      DD      SSSSSS  PPPPPPPP  EEEEEEEEE  NN  NN  NN  TT
DD      DD      SSSSSS  PPPPPPPP  EEEEEEEEE  NN  NN  NN  TT
DD      DD      SS      PP      PP  EE      NN      NNNN  TT
DD      DD      SS      PP      PP  EE      NN      NNNN  TT
DD      DD      SS      PP      PP  EE      NN      NN  TT
DD      DD      SS      PP      PP  EE      NN      NN  TT
DDDDDDDD      SSSSSSSS  PP      EEEEEEEEEEE  NN      NN  TT
DDDDDDDD      SSSSSSSS  PP      EEEEEEEEEEE  NN      NN  TT

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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

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1 0001 0 %TITLE 'Processes the several .DISPLAY <item> directives'  
2 0002 0 MODULE dspent ( IDENT = 'V04-000'  
3 P 0003 0 %BLISS32C, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE,  
4 0004 0 NONEXTERNAL = LONG_RELATIVE)  
5 0005 0 ) =  
6 0006 1 BEGIN  
7 0007 1  
8 0008 1 *****  
9 0009 1 *  
10 0010 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *  
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27 0027 1 *  
28 0028 1 *  
29 0029 1 *****  
30 0030 1  
31 0031 1  
32 0032 1 **  
33 0033 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
34 0034 1  
35 0035 1 ABSTRACT:  
36 0036 1  
37 0037 1 Processes .DISPLAY EXAMPLE, .DISPLAY FIGURE, .DISPLAY TABLE,  
38 0038 1 .DISPLAY APPENDIX, and .DISPLAY CHAPTER directives.  
39 0039 1  
40 0040 1 ENVIRONMENT: Transportable  
41 0041 1  
42 0042 1 AUTHOR: Keith Dawson CREATION DATE: April 1982  
43 0043 1
```



```

: 74      0072 1 %SBTTL 'Module Level Declarations'
: 75      0073 1
: 76      0074 1 : TABLE OF CONTENTS:
: 77      0075 1
: 78      0076 1 FORWARD ROUTINE
: 79      0077 1     DSPENT : NOVALUE;
: 80      0078 1
: 81      0079 1 : INCLUDE FILES:
: 82      0080 1
: 83      0081 1 LIBRARY 'NXPORT:XPORT';           ! XPORT Library
: 84      0082 1 REQUIRE 'REQ:RNODEF';           ! RUNOFF variant definitions
: 85      0213 1
: 86      U 0214 1 %IF DSRPLUS %THEN
: 87      U 0215 1 LIBRARY 'REQ:DPLLIB';           ! DSRPLUS BLISS Library
: 88      0216 1 %ELSE
: 89      0217 1 LIBRARY 'REQ:DSRLIB';           ! DSR BLISS Library
: 90      0218 1 %FI
: 91      0219 1
: 92      0220 1
: 93      0221 1 : OWN STORAGE:
: 94      0222 1
: 95      0223 1 OWN
: 96      0224 1     fs_allocate (e_pre_string, 10),
: 97      0225 1     fs_allocate (e_post_string, 10),
: 98      0226 1     fs_allocate (f_pre_string, 10),
: 99      0227 1     fs_allocate (f_post_string, 10),
100     0228 1     fs_allocate (t_pre_string, 10),
101     0229 1     fs_allocate (t_post_string, 10);
102     0230 1
103     0231 1 : EXTERNAL REFERENCES:
104     0232 1
105     0233 1 EXTERNAL
106     0234 1     ecc           : Secc_blockvector,
107     0235 1     pagen        : page_definition,
108     0236 1     npagen       : page_definition,
109     0237 1     hllist       : counted_list,
110     0238 1     ira          : fixed_string;
111     0239 1
112     0240 1 EXTERNAL LITERAL
113     0241 1     rnfqst;
114     0242 1
115     0243 1 EXTERNAL ROUTINE
116     0244 1     erms,
117     0245 1     getdd,
118     0246 1     getgs,
119     0247 1     rskips,
120     0248 1     skpsep;
121     0249 1

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123 0250 1 %SBTTL 'DSPENT -- main routine'
124 0251 1 GLOBAL ROUTINE dspent (HANDLER) : NOVALUE =
125 0252 1
126 0253 1 +-
127 0254 1 FUNCTIONAL DESCRIPTION:
128 0255 1
129 0256 1 Processes .DISPLAY EXAMPLE, FIGURE, TABLE, CHAPTER, and APPENDIX
130 0257 1 directives.
131 0258 1
132 0259 1 FORMAL PARAMETERS:
133 0260 1
134 0261 1 HANDLER - Indicates which command is to be processed.
135 0262 1
136 0263 1 IMPLICIT INPUTS: None
137 0264 1
138 0265 1 IMPLICIT OUTPUTS:
139 0266 1
140 0267 1 Updates the appropriate field in the ECC blockvector structure.
141 0268 1
142 0269 1 ROUTINE VALUE:
143 0270 1 COMPLETION CODES: None
144 0271 1
145 0272 1 SIDE EFFECTS: None
146 0273 1 --
147 0274 1
148 0275 2 BEGIN
149 0276 2 LOCAL
150 0277 2 getdd_result,
151 0278 2 get_pre_result,
152 0279 2 get_post_result,
153 0280 2 display_code,
154 0281 2 offset;
155 0282 2
156 0283 3 offset = (SELECTONE .handler OF
157 0284 3 SET
158 U 0285 3 %IF dsrplus %THEN
159 UU 0286 3 [h_display_examp] : examp_offset;
160 UU 0287 3 [h_display_figur] : figur_offset;
161 U 0288 3 [h_display_table] : table_offset;
162 0289 3 %FI
163 0290 3 [h_display_chapt] : chap_offset;
164 0291 3 [h_display_appen] : append_offset;
165 U 0292 3 %IF dsrplus %THEN
166 U 0293 3 [h_display_head] : hcoll_offset + .hllist [cl_index];
167 0294 3 %FI
168 0295 3 TES);
169 0296 2
170 0297 2 fs_init (e_pre_string);
171 0298 2 fs_init (e_post_string);
172 0299 2 fs_init (f_pre_string);
173 0300 2 fs_init (f_post_string);
174 0301 2 fs_init (t_pre_string);
175 0302 2 fs_init (t_post_string);
176 0303 2
177 U 0304 2 %IF dsrplus %THEN
178 U 0305 2 ! Skip spaces and tabs before the optional quoted string.
179 U 0306 2 rskips (ira);

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180      U 0307 2
181      U 0308 2      ! Try to get a quoted string.
182      U 0309 2      get_pre_result = (SELECTONE .handler OF
183      U 0310 2          SET
184      U 0311 2          [h_display_examp] : getqs (e_pre_string);
185      U 0312 2          [h_display_figur] : getqs (f_pre_string);
186      U 0313 2          [h_display_table] : getqs (t_pre_string);
187      U 0314 2          TES);
188      U 0315 2
189      U 0316 2      ! Report error if specified string exceeded 5 characters.
190      U 0317 2      IF .get_pre_result EQL getqs_too_long
191      U 0318 2      THEN
192      U 0319 2          BEGIN
193      U 0320 2              SELECTONE .HANDLER OF
194      U 0321 2                  SET
195      U 0322 2                  [h_display_examp] :
196      U 0323 2                  erms (rnfqst, .fs_start (e_pre_string), .fs_length (e_pre_string));
197      U 0324 2                  [h_display_figur] :
198      U 0325 2                  erms (rnfqst, .fs_start (f_pre_string), .fs_length (f_pre_string));
199      U 0326 2                  [h_display_table] :
200      U 0327 2                  erms (rnfqst, .fs_start (t_pre_string), .fs_length (t_pre_string));
201      U 0328 2                  TES);
202      U 0329 2              END;
203      U 0330 2
204      U 0331 2
205      U 0332 2
206      U 0333 2
207      U 0334 2
208      U 0335 2      %FI
209      U 0336 2      ! Skip a comma, spaces and tabs before the display descriptor.
210      U 0337 2      skipsep (ira);
211      U 0338 2
212      U 0339 2      ! Get the display discriptor.
213      U 0340 2      getdd_result = getdd (display_code);
214      U 0341 2
215      U 0342 2      ! Distinguish between missing display code and one that is given.
216      U 0343 2      IF .getdd_result EQL 0
217      U 0344 2      ! No display code supplied. Use the standard display as default.
218      U 0345 2      THEN
219      U 0346 2          display_code = tconvrt_dec_noz;
220      U 0347 2
221      U 0348 2      %IF dsrplus %THEN
222      U 0349 2      ! Skip a comma, spaces and tabs before the second optional quoted string.
223      U 0350 2      skipsep (ira);
224      U 0351 2
225      U 0352 2      ! Try to get a quoted string.
226      U 0353 2      get_post_result = (SELECTONE .handler OF
227      U 0354 2          SET
228      U 0355 2          [h_display_examp] : getqs (e_post_string);
229      U 0356 2          [h_display_figur] : getqs (f_post_string);
230      U 0357 2          [h_display_table] : getqs (t_post_string);
231      U 0358 2          TES);
232      U 0359 2
233      U 0360 2      ! Report error if specified string exceeded 5 characters.
234      U 0361 2      IF .get_post_result EQL getqs_too_long
235      U 0362 2      THEN
236      U 0363 2          BEGIN

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237 U 0364 2      SELECTONE .handler OF
238 U 0365 2      SET
239 U 0366 2      [h_display_examp] :
240 U 0367 2      erms (rnfqst, .fs_start (e_post_string), .fs_length (e_post_string));
241 U 0368 2
242 U 0369 2      [h_display_figur] :
243 U 0370 2      erms (rnfqst, .fs_start (f_post_string), .fs_length (f_post_string));
244 U 0371 2
245 U 0372 2      [h_display_table] :
246 U 0373 2      erms (rnfqst, .fs_start (t_post_string), .fs_length (t_post_string));
247 U 0374 2
248 U 0375 2      TES;
249 U 0376 2      END;
250 U 0377 2      +
251 U 0378 2      Store the string(s) and descriptor gotten, if any.
252 U 0379 2      -
253 U 0380 2      IF (.get_pre_result EQL getqs_normal) OR
254 U 0381 2      (.get_pre_result EQL getqs_too_long)
255 U 0382 2      THEN
256 U 0383 2      BEGIN
257 U 0384 2      SELECTONE .handler OF
258 U 0385 2      SET
259 U 0386 2
260 U 0387 2      [h_display_examp] :
261 U 0388 2      BEGIN
262 U 0389 2      ecc [.offset, ecc$a_pre_ptr] = .fs_start (e_pre_string);
263 U 0390 2      ecc [.offset, ecc$h_pre_len] = .fs_length (e_pre_string);
264 U 0391 2      END;
265 U 0392 2
266 U 0393 2      [h_display_figur] :
267 U 0394 2      BEGIN
268 U 0395 2      ecc [.offset, ecc$a_pre_ptr] = .fs_start (f_pre_string);
269 U 0396 2      ecc [.offset, ecc$h_pre_len] = .fs_length (f_pre_string);
270 U 0397 2      END;
271 U 0398 2
272 U 0399 2      [h_display_table] :
273 U 0400 2      BEGIN
274 U 0401 2      ecc [.offset, ecc$a_pre_ptr] = .fs_start (t_pre_string);
275 U 0402 2      ecc [.offset, ecc$h_pre_len] = .fs_length (t_pre_string);
276 U 0403 2      END;
277 U 0404 2      TES;
278 U 0405 2      END;
279 U 0406 2      XFI
280 U 0407 2      IF .getdd_result EQL 1
281 U 0408 2      THEN
282 U 0409 2      BEGIN
283 U 0410 2      ecc [.offset, ecc$h_display_desc] = .display_code;
284 U 0411 2
285 U 0412 2      IF .offset EQL chap_offset
286 U 0413 2      THEN
287 U 0414 2      BEGIN
288 U 0415 2      pagen [sct_chapt_d] = .display_code;
289 U 0416 2      npagen [sct_chapt_d] = .display_code;
290 U 0417 2      END;
291 U 0418 2
292 U 0419 2      IF .offset EQL append_offset
293 U 0420 2      THEN

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: 294      0421  4      BEGIN
: 295      0422  4      pagen [sct_appen_d] = .display_code;
: 296      0423  4      npagen [sct_appen_d] = .display_code;
: 297      0424  3      END;
: 298      0425  2      END;
: 299      0426  2
: 300      U 0427  2 %IF dsrplus %THEN
: 301      UU 0428  2 IF (.get_post_result EQL getqs_normal) OR
: 302      UU 0429  2 :.get_post_result EQL getqs_too_long)
: 303      UU 0430  2 THEN
: 304      UU 0431  2 BEGIN
: 305      UU 0432  2 SELECTONE .handler OF
: 306      UU 0433  2 SET
: 307      UU 0434  2
: 308      UU 0435  2 [h_display_examp] :
: 309      UU 0436  2 BEGIN
: 310      UU 0437  2 ecc [.offset, ecc$a_post_ptr] = .fs_start (e_post_string);
: 311      UU 0438  2 ecc [.offset, ecc$h_post_len] = .fs_length (e_post_string);
: 312      UU 0439  2 END;
: 313      UU 0440  2
: 314      UU 0441  2 [h_display_figur] :
: 315      UU 0442  2 BEGIN
: 316      UU 0443  2 ecc [.offset, ecc$a_post_ptr] = .fs_start (f_post_string);
: 317      UU 0444  2 ecc [.offset, ecc$h_post_len] = .fs_length (f_post_string);
: 318      UU 0445  2 END;
: 319      UU 0446  2
: 320      UU 0447  2 [h_display_table] :
: 321      UU 0448  2 BEGIN
: 322      UU 0449  2 ecc [.offset, ecc$a_post_ptr] = .fs_start (t_post_string);
: 323      UU 0450  2 ecc [.offset, ecc$h_post_len] = .fs_length (t_post_string);
: 324      UU 0451  2 END;
: 325      UU 0452  2 TES;
: 326      U 0453  2 END;
: 327      0454  2 %FI
: 328      0455  1 END;

```

! End of DSPENT

```

.TITLE DSPENT Processes the several .DISPLAY <item> di
       rective
.IDENT \V04-000\
.PSECT $OWNS,NOEXE,2

```

00000000	0000000A	00000000	00000000	00000	E_PRE_STRING:				
					.LONG	0	0	10	0
				00010	.BLKB	10			
				0001A	.BLKB	2			
00000000	0000000A	00000000	00000000	0001C	E_POST_STRING:				
					.LONG	0	0	10	0
				0002C	.BLKB	10			
				00036	.BLKB	2			
00000000	0000000A	00000000	00000000	00038	F_PRE_STRING:				
					.LONG	0	0	10	0
				00048	.BLKB	10			
				00052	.BLKB	2			
00000000	0000000A	00000000	00000000	00054	F_POST_STRING:				
					.LONG	0	0	10	0

				00064	.BLKB	10			
				0006E	.BLKB	2			
00000000	0000000A	00000000	00000000	00070	T_PRE_STRING:				
					.LONG	0, 0, 10, 0			:
				00080	.BLKB	10			
				0008A	.BLKB	2			
00000000	0000000A	00000000	00000000	0008C	T_POST_STRING:				
					.LONG	0, 0, 10, 0			:
				0009C	.BLKB	10			
					.EXTRN	ECC, PAGEN, NPAGEN			
					.EXTRN	HLLIST, IRA, RNFOST			
					.EXTRN	ERMS, GETDD, GETQS			
					.EXTRN	RSKIPS, SKPSEP			
					.PSECT	\$CODE\$,NOWRT,2			
				000C	.ENTRY	DSPENT, Save R2, R3			: 0251
53	00000000'	EF	9E	00002	MOVAB	E_PRE_STRING, R3			
5E		04	C2	00009	SUBL2	#Z, SP			
50	04	AC	D0	0000C	MOVL	HANDLER, R0			: 0283
1B		50	D1	00010	CMPL	R0, #27			: 0290
		05	12	00013	BNEQ	1\$			
52		0A	D0	00015	MOVL	#10, OFFSET			
		0D	11	00018	BRB	3\$			
1A		50	D1	0001A	CMPL	R0, #26			: 0291
		05	13	0001D	BEQL	2\$			
52		01	CE	0001F	MNEGL	#1, OFFSET			
		03	11	00022	BRB	3\$			
52		0B	D0	00024	MOVL	#11, OFFSET			
	0C	A3	D4	00027	CLRL	E_PRE_STRING+12			: 0297
	10	A3	9E	0002A	MOVAB	E_PRE_STRING+16, E_PRE_STRING			
04	A3	63	D0	0002E	MOVL	E_PRE_STRING, E_PRE_STRING+4			
		A3	D4	00032	CLRL	E_POST_STRING+12			: 0298
1C	A3	2C	A3	9E	00035	MOVAB	E_POST_STRING+16, E_POST_STRING		
20	A3	1C	A3	D0	0003A	MOVL	E_POST_STRING, E_POST_STRING+4		
		44	A3	D4	0003F	CLRL	F_PRE_STRING+12		: 0299
38	A3	48	A3	9E	00042	MOVAB	F_PRE_STRING+16, F_PRE_STRING		
3C	A3	38	A3	D0	00047	MOVL	F_PRE_STRING, F_PRE_STRING+4		
		60	A3	D4	0004C	CLRL	F_POST_STRING+12		: 0300
54	A3	64	A3	9E	0004F	MOVAB	F_POST_STRING+16, F_POST_STRING		
58	A3	54	A3	D0	00054	MOVL	F_POST_STRING, F_POST_STRING+4		
		7C	A3	D4	00059	CLRL	T_PRE_STRING+12		: 0301
70	A3	0080	C3	9E	0005C	MOVAB	T_PRE_STRING+16, T_PRE_STRING		
74	A3	70	A3	D0	00062	MOVL	T_PRE_STRING, T_PRE_STRING+4		
		0098	C3	D4	00067	CLRL	T_POST_STRING+12		: 0302
008C	C3	009C	C3	9E	0006B	MOVAB	T_POST_STRING+16, T_POST_STRING		
0090	C3	008C	C3	D0	00072	MOVL	T_POST_STRING, T_POST_STRING+4		
		00000000G	EF	9F	00079	PUSHAB	IRA		: 0337
00000000G	EF		01	FB	0007F	CALLS	#1, SKPSEP		
			5E	DD	00086	PUSHL	SP		: 0340
00000000G	EF		01	FB	00088	CALLS	#1, GETDD		
			50	D5	0008F	TSTL	GETDD_RESULT		: 0343
			02	12	00091	BNEQ	4\$		
			6E	D4	00093	CLRL	DISPLAY_CODE		: 0346
			50	D1	00095	CMPL	GETDD_RESULT, #1		: 0407
			3F	12	00098	BNEQ	6\$		

00000000GEF40	50	52	24	C5	0009A	MULL3	#36, OFFSET, R0	: 0410
	10	51	6E	D0	0009E	MOVL	DISPLAY_CODE, R1	
		18	51	F0	000A1	INSV	R1, #24, #16, ECC+16[R0]	
		0A	52	D1	000AB	CPL	OFFSET, #10	: 0412
			12	12	000AE	BNEQ	5\$	
00000000G EF	04	04	51	F0	000B0	INSV	R1, #4, #4, PAGEN+12	: 0415
00000000G EF	04	04	51	F0	000B9	INSV	R1, #4, #4, NPAGEN+12	: 0416
		0B	52	D1	000C2	CPL	OFFSET, #11	: 0419
			12	12	000C5	BNEQ	6\$	
00000000G EF	04	00	51	F0	000C7	INSV	R1, #0, #4, PAGEN+13	: 0422
00000000G EF	04	00	51	F0	000D0	INSV	R1, #0, #4, NPAGEN+13	: 0423
			04	000D9	6\$:	RET		: 0455

: Routine Size: 218 bytes, Routine Base: \$CODE\$ + 0000

: 329 0456 1
 : 330 0457 1 END . End of module
 : 331 0458 0 ELUDOM

PSECT SUMMARY

Name	Bytes	Attributes
\$OWNS	166	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$CODE\$	218	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	45	3	86	00:00.2

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:DSPENT/OBJ=OBJ\$:DSPENT MSRC\$:DSPENT/UPDATE=(ENH\$:DSPENT)
 : Size: 218 code + 166 data bytes
 : Run Time: 00:06.9
 : Elapsed Time: 00:20.1
 : Lines/CPU Min: 3971

