


```
PPPPPPPP  AAAAAA  GGGGGGGG  EEEEEEEEE
PPPPPPPP  AAAAAA  GGGGGGGG  EEEEEEEEE
PP      PP  AA      AA  GG      EE
PP      PP  AA      AA  GG      EE
PP      PP  AA      AA  GG      EE
PP      PP  AA      AA  GG      EE
PPPPPPPP  AA      AA  GG      EEEEEEE
PPPPPPPP  AA      AA  GG      EEEEEEE
PP      AAAAAAAAAA  GG  GGGGGG  EE
PP      AAAAAAAAAA  GG  GGGGGG  EE
PP      AA      AA  GG      GG  EE
PP      AA      AA  GG      GG  EE
PP      AA      AA  GGGGGG  EEEEEEE
PP      AA      AA  GGGGGG  EEEEEEE
```

....
....
....
....

```
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
```

PA
VO
.....


```
0001 0 %TITLE 'Processes .PS, .LM, and .RM directives'
0002 0 MODULE PAGE ( IDENT = 'V04-000'
P 0003 0 %BLISS32[, ADDRESSING_MODE (EXTERNAL = long_relative,
0004 0 NONEXTERNAL = long_relative)]
0005 0 ) =
0006 1 BEGIN
0007 1
0008 1 *****
0009 1 *
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0026 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0027 1 *
0028 1 *
0029 1 *****
0030 1
0031 1 ++
0032 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
0033 1
0034 1 ABSTRACT:
0035 1
0036 1 Processes .PAGE SIZE, .LEFT MARGIN, and .RIGHT MARGIN commands.
0037 1
0038 1 ENVIRONMENT: Transportable
0039 1
0040 1 AUTHOR: R.W.Friday CREATION DATE: June, 1978
0041 1
```



```

: 43 0042 1 %SBTTL 'Revision History'
: 44 0043 1
: 45 0044 1 MODIFIED BY:
: 46 0045 1
: 47 0046 1 008 KFA00008 Ken Alden 06-Jul-1983
: 48 0047 1 When GETNUM does not receive a value for .RM, the
: 49 0048 1 right margin will now get set to 70 (default).
: 50 0049 1
: 51 0050 1 007 REM00007 Ray Marshall 20-April-1983
: 52 0051 1 Retrofit decoupling of page size and right margin that was
: 53 0052 1 done for DSRPLUS to now be in affect for DSR.
: 54 0053 1
: 55 0054 1 006 KAD00006 Keith Dawson 07-Mar-1983
: 56 0055 1 Global edit of all modules. Updated module names, idents,
: 57 0056 1 copyright dates. Changed require files to BLISS library.
: 58 0057 1
: 59 0058 1 --

```



```
: 61      0059 1 %SBTTL 'Module Level Declarations'
: 62      0060 1
: 63      0061 1 : TABLE OF CONTENTS:
: 64      0062 1
: 65      0063 1 : INCLUDE FILES:
: 66      0064 1
: 67      0065 1
: 68      0066 1 LIBRARY 'NXPORT:XPORT';      ! XPORT Library
: 69      0067 1 REQUIRE 'REQ:RNODEF';      ! RUNOFF variant definitions
: 70      0198 1
: 71      U 0199 1 %IF DSRPLUS %THEN
: 72      U 0200 1 LIBRARY 'REQ:DPLLIB';      ! DSRPLUS BLISS Library
: 73      0201 1 %ELSE
: 74      0202 1 LIBRARY 'REQ:DSRLIB';      ! DSR BLISS Library
: 75      0203 1 %FI
: 76      0204 1
: 77      0205 1
: 78      0206 1 : EXTERNAL REFERENCES:
: 79      0207 1
: 80      0208 1 EXTERNAL
: 81      0209 1      gca      : gca_definition,
: 82      0210 1      ira      : fixed_string,
: 83      0211 1      nmlst    : number_list,
: 84      0212 1      numprm   : numprm_define,
: 85      0213 1      phan     : phan_definition,
: 86      0214 1      sca      : sca_definition;
: 87      0215 1
: 88      0216 1 EXTERNAL LITERAL
: 89      0217 1      rnfbms,
: 90      0218 1      rnfinm;
: 91      0219 1
: 92      0220 1 EXTERNAL ROUTINE
: 93      0221 1      erma,
: 94      0222 1      glnm;
: 95      0223 1
: 96      0224 1
: 97      0225 1 : OWN STORAGE:
: 98      0226 1
: 99      0227 1 OWN
: 100     0228 1      rm_temp : INITIAL (0);
: 101     0229 1
```



```

: 103 0230 1 GLOBAL ROUTINE page (handler_code) : NOVALUE =
: 104 0231 1
: 105 0232 1 !++
: 106 0233 1 FUNCTIONAL DESCRIPTION:
: 107 0234 1
: 108 0235 1 See the ABSTRACT, above.
: 109 0236 1
: 110 0237 1 FORMAL PARAMETERS:
: 111 0238 1
: 112 0239 1 handler_code - indicates which command is to be processed.
: 113 0240 1
: 114 0241 1 IMPLICIT INPUTS:
: 115 0242 1
: 116 0243 1 numprm - contains a number as processed by getnum.
: 117 0244 1
: 118 0245 1 IMPLICIT OUTPUTS: None
: 119 0246 1
: 120 0247 1 ROUTINE VALUE:
: 121 0248 1 COMPLETION CODES: None
: 122 0249 1
: 123 0250 1 SIDE EFFECTS: None
: 124 0251 1 --
: 125 0252 1
: 126 0253 2 BEGIN
: 127 0254 2
: 128 0255 2 SELECT .handler_code OF
: 129 0256 2 SET
: 130 0257 2
: 131 0258 2 [h_right_margin, h_left_margin] :
: 132 0259 2 IF NOT .num_result
: 133 0260 2 THEN
: 134 0261 2
: 135 0262 2 Ignore command if number is in error.
: 136 0263 2
: 137 0264 2 RETURN;
: 138 0265 2
: 139 0266 2 [h_right_margin] :
: 140 0267 3 BEGIN
: 141 0268 3
: 142 0269 3 IF .num_sign NEQ 0
: 143 0270 3 THEN
: 144 0271 3
: 145 0272 3 Adjust existing margin, + or -.
: 146 0273 3
: 147 0274 4 BEGIN
: 148 0275 4
: 149 0276 4 Save adjustment value if it is positive.
: 150 0277 4 Otherwise, reset it to 0.
: 151 0278 4
: 152 0279 4 IF .num_value GTR 0
: 153 0280 4 THEN
: 154 0281 4 rm_temp = .num_value
: 155 0282 4 ELSE
: 156 0283 4 rm_temp = 0;
: 157 0284 4
: 158 0285 4 num_value = .num_value + .sca_rm;
: 159 0286 3 END;

```



```
160 0287 3
161 0288 3
162 0289 3
163 0290 4
164 0291 4
165 0292 4
166 0293 4
167 0294 4
168 0295 4
169 0296 4
170 0297 3
171 0298 4
172 0299 3
173 0300 4
174 0301 4
175 0302 4
176 0303 4
177 0304 4
178 0305 4
179 0306 4
180 0307 4
181 0308 4
182 0309 4
183 0310 2
184 0311 2
185 0312 2
186 0313 4
187 0314 4
188 0315 4
189 0316 4
190 0317 4
191 0318 4
192 0319 4
193 0320 4
194 0321 4
195 0322 4
196 0323 4
197 0324 4
198 0325 4
199 0326 3
200 0327 4
201 0328 4
202 0329 4
203 0330 4
204 0331 4
205 0332 4
206 0333 4
207 0334 2
208 0335 2
209 0336 2
210 0337 4
211 0338 4
212 0339 4
213 0340 4
214 0341 4
215 0342 4
216 0343 4

IF .num_length EQL 0
THEN
  BEGIN
    sca_rm = 70;    !Current default 6-Jul-1983 [KFA]
    RETURN;
  END;

  ! Right margin is not unlimited.
IF (.num_value LEQ .sca_lm) OR (.num_value GTR 150)
THEN
  BEGIN
    ! Bad margin.
    erma (rnfbms, false);
    RETURN;
  END
ELSE
  sca_rm = .num_value;
END;

[h_left_margin] :
BEGIN
  IF .num_sign NEQ 0
  THEN
    ! Adjust existing margin, + or -.
    num_value = .num_value + .sca_lm;

    IF .num_value GEQ .sca_rm
    THEN
      ! Bad margin.
      BEGIN
        erma (rnfbms, false);
        RETURN;
      END
    ELSE
      sca_lm = .num_value;
    END;
  END;

[h_page_size] :
BEGIN
  ! Turn on paging unless /NOPAGING.
  phan_paging = .phan_cmd_paging;
  ! Get parameters.
```



```
217 0344 3      !
218 0345 3      glnm (2);
219 0346 3
220 0347 3      IF .nmlst_count GEQ 1
221 0348 3      THEN
222 0349 4          BEGIN
223 0350 4              First parameter defines lines per page.
224 0351 4              CASE .nmlst_descr (1) FROM 0 TO 4 OF
225 0352 4                  SET
226 0353 4                      [nm_bad, nm_null] :
227 0354 4                          Use current value if input was bad or not supplied.
228 0355 4                          nmlst_value (1) = .phan_llines;
229 0356 4                      [nm_plus, nm_minus] :
230 0357 4                          Adjust value if adjustment was specified, + or -.
231 0358 4                          nmlst_value (1) = .nmlst_value (1) + .phan_llines;
232 0359 4                      [nm_unsigned] :
233 0360 4                          Nothing to do if an unsigned number.
234 0361 4                          0;
235 0362 4                      TES;
236 0363 4                  IF .nmlst_value (1) LSS phan_min_page_length
237 0364 4                  THEN
238 0365 4                      Page is too short.
239 0366 4                      erma (rnfinm, false)
240 0367 4                  ELSE
241 0368 4                      Set new page length.
242 0369 4                      phan_llines = .nmlst_value (1);
243 0370 4                  END;
244 0371 4              Process page width, if supplied.
245 0372 4              IF .nmlst_count GEQ 2
246 0373 4              THEN
247 0374 4                  BEGIN
248 0375 4                      Second parameter defines page width.
249 0376 4                      CASE .nmlst_descr (2) FROM 0 TO 4 OF
250 0377 4                          SET
251 0378 4
252 0379 4
253 0380 4
254 0381 4
255 0382 4
256 0383 4
257 0384 4
258 0385 4
259 0386 4
260 0387 4
261 0388 3
262 0389 3
263 0390 3
264 0391 3
265 0392 3
266 0393 3
267 0394 4
268 0395 4
269 0396 4
270 0397 4
271 0398 4
272 0399 4
273 0400 4
```



```
: 274 0401 4 [nm_bad, nm_null] :
: 275 0402 4 |
: 276 0403 4 | Use current value if input was bad or not supplied.
: 277 0404 4 |
: 278 0405 4 | nmlst_value (2) = .gca_lwidth;
: 279 0406 4 |
: 280 0407 4 [nm_plus] :
: 281 0408 4 |
: 282 0409 4 | Increase page width.
: 283 0410 4 |
: 284 0411 4 | nmlst_value (2) = .nmlst_value (2) + .gca_lwidth;
: 285 0412 4 |
: 286 0413 4 [nm_minus] :
: 287 0414 4 |
: 288 0415 4 | Decrease page width or right margin.
: 289 0416 4 |
: 290 0417 5 BEGIN
: 291 0418 5 |
: 292 0419 5 | See if adjustment value is same as saved value.
: 293 0420 5 |
: 294 0421 5 IF .rm_temp + .nmlst_value (2) EQL 0
: 295 0422 5 THEN
: 296 0423 5 |
: 297 0424 5 | If so, use it to pull in the right margin only.
: 298 0425 5 |
: 299 0426 6 BEGIN
: 300 0427 6 | sca_rm = .sca_rm + .nmlst_value (2);
: 301 0428 6 |
: 302 0429 6 | Do not change setting of page width.
: 303 0430 6 |
: 304 0431 6 | nmlst_value (2) = .gca_lwidth;
: 305 0432 6 |
: 306 0433 6 | Reset saved value to zero.
: 307 0434 6 |
: 308 0435 6 | rm_temp = 0;
: 309 0436 6 END
: 310 0437 5 ELSE
: 311 0438 5 |
: 312 0439 5 | Decrease page width.
: 313 0440 5 |
: 314 0441 5 | nmlst_value (2) = .nmlst_value (2) + .gca_lwidth;
: 315 0442 5 |
: 316 0443 4 END;
: 317 0444 4 [nm_unsigned] :
: 318 0445 4 |
: 319 0446 4 | Nothing to do if just a number.
: 320 0447 4 |
: 321 0448 4 | 0;
: 322 0449 4 |
: 323 0450 4 TES;
: 324 0451 4 |
: 325 0452 4 IF .nmlst_value (2) GTR 150
: 326 0453 4 THEN
: 327 0454 4 |
: 328 0455 4 | Bad margin specification.
: 329 0456 4 |
: 330 0457 4 |
```



```

: 331      0458 4      erma (rnfbms, false)
: 332      0459 4      ELSE
: 333      0460 4      gca_lwidth = .nmlst_value (2);
: 334      0461 4
: 335      0462 3      END;
: 336      0463 2      END;
: 337      0464 2      TES;
: 338      0465 1      END;

```

! End of PAGE

```

.TITLE PAGE Processes .PS, .LM, and .RM directives
.IDENT \V04-000\

```

```

.PSECT $OWNS$,NOEXE,2

```

```

00000000 00000 RM_TEMP:.LONG 0

```

```

.EXTRN GCA, IRA, NMLST
.EXTRN NUMPRM, PHAN, SCA
.EXTRN RNFBMS, RNFINM, ERMA
.EXTRN GLNM

```

```

.PSECT $CODE$,NOWRT,2

```

```

                                03FC 00000
59 00000000G EF 9E 00002      .ENTRY PAGE, Save R2,R3,R4,R5,R6,R7,R8,R9      : 0230
58 00000000G EF 9E 00009      MOVAB ERMA, R9
57 00000000G EF 9E 00010      MOVAB GCA+140, R8
56 00000000G EF 9E 00017      MOVAB RM_TEMP, R7
55 00000000G EF 9E 0001E      MOVAB PHAN+4, R6
54 00000000G EF 9E 00025      MOVAB SCA+120, R5
53 00000000G EF 9E 0002C      MOVAB NUMPRM+4, R4
52      04 AC D0 00033      MOVAB NMLST+8, R3
0000006D 8F      52 D1 00037      MOVAB HANDLER CODE, R2      : 0255
                                09 13 0003E      CMPL R2, #109      : 0258
000000B1 8F      52 D1 00040      BEQL 1$
                                05 12 00047      CMPL R2, #177
01      FC A4 E8 00049 1$:      BNEQ 2$
                                04 0004D      BLBS NUMPRM, 2$      : 0259
000000B1 8F      52 D1 0004E 2$:      RET
                                39 12 00055      CMPL R2, #177      : 0266
                                04 A4 D5 00057      BNEQ 9$      : 0269
                                10 13 0005A      TSTL NUMPRM+8
50      64 D0 0005C      BEQL 5$      : 0279
                                05 15 0005F      MOVL NUMPRM+4, R0
67      50 D0 00061      BLEQ 3$      : 0281
                                02 11 00064      MOVL R0, RM_TEMP
                                67 D4 00066 3$:      BRB 4$
                                64 00 85 C0 00068 4$:      CLRL RM_TEMP      : 0283
                                08 A4 D5 0006C 5$:      ADDL2 @SCA+120, NUMPRM+4      : 0285
                                06 12 0006F      TSTL NUMPRM+12      : 0288
00      B5 46 8F 9A 00071      BNEQ 6$
                                04 00076      MOVZBL #70, @SCA+120      : 0291
                                64 D0 00077 6$:      RET      : 0290
FC      B5      50 D1 0007A      MOVL NUMPRM+4, R0      : 0298
                                03 14 0007E      CMPL R0, @SCA+116
                                00B5 31 00080 7$:      BGTR 8$
                                BRW 24$

```


	00000096	8F		50	D1	00083	8\$:	CMPL	R0, #150		
				F4	14	0008A		BGTR	7\$		
	00	B5		50	D0	0008C		MOVL	R0, @SCA+120		0308
	0000006D	8F		52	D1	00090	9\$:	CMPL	R2, #109		0312
				13	12	00097		BNEQ	11\$		
			04	A4	D5	00099		TSTL	NUMPRM+8		0315
				04	13	0009C		BEQL	10\$		
		64	FC	B5	D0	0009E		ADDL2	@SCA+116, NUMPRM+4		0320
	00	B5		64	D1	000A2	10\$:	CMPL	NUMPRM+4, @SCA+120		0322
				D8	18	000A6		BGEQ	7\$		
	FC	B5		64	D0	000A8		MOVL	NUMPRM+4, @SCA+116		0332
	000000A8	8F		52	D1	000AC	11\$:	CMPL	R2, #168		0336
				01	13	000B3		BEQL	12\$		
					04	000B5		RET			
	24	B6	28	A6	D0	000B6	12\$:	MOVL	PHAN+44, @PHAN+40		0341
				02	DD	000BB		PUSHL	#2		0345
	00000000G	EF		01	FB	000BD		CALLS	#1, GLNM		
			F8	A3	D5	000C4		TSTL	NMLST		0347
				34	15	000C7		BLEQ	18\$		
			009C	C3	CF	000C9		CASEL	NMLST+164, #0, #4		0353
0011	04 0011	00 0016		000A		000CF	13\$:	.WORD	14\$-13\$,-		
				000A		000D7			16\$-13\$,-		
									15\$-13\$,-		
									15\$-13\$,-		
									14\$-13\$		
				FC	A3	00	B6	D0	000D9	14\$:	0360
							05	11	000DE		
				FC	A3	00	B6	D0	000E0	15\$:	0366
					0D	FC	A3	D1	000E5	16\$:	0376
							0D	18	000E9		
							7E	D4	000EB		0381
							8F	DD	000ED		
							02	FB	000F3		
							05	11	000F6		
				00	B6	FC	A3	D0	000F8	17\$:	0386
					02	F8	A3	D1	000FD	18\$:	0392
							45	19	00101		
							C3	CF	00103		
0010	04 0022	00 0026	00A0	000A			00109	19\$:	CASEL	NMLST+168, #0, #4	0398
				000A			00111		.WORD	20\$-19\$,-	
									23\$-19\$,-		
									22\$-19\$,-		
									21\$-19\$,-		
									20\$-19\$		
				63	00	B8	D0	00113	20\$:	MOVL	@GCA+140, NMLST+8
							16	11	00117		0405
	50			63	C1	00119	21\$:	ADDL3	NMLST+8, RM_TEMP, R0		0421
				0C	12	0011D		BNEQ	22\$		
				63	D0	0011F		ADDL2	NMLST+8, @SCA+120		0427
	00	B5		B8	D0	00123		MOVL	@GCA+140, NMLST+8		0431
		63	00	67	D4	00127		CLRL	RM_TEMP		0435
				04	11	00129		BRB	23\$		0421
				B8	D0	0012B	22\$:	ADDL2	@GCA+140, NMLST+8		0441
	00000096	8F	00	63	D1	0012F	23\$:	CMPL	NMLST+8, #150		0453
				0C	15	00136		BLEQ	25\$		
				7E	D4	00138	24\$:	CLRL	-(SP)		0458
				8F	DD	0013A		PUSHL	#RNFBS		
			69	02	FB	00140		CALLS	#2, ERMA		


```

00 B8          63 04 00143 RET
                  00 00144 25$: MOVL NMLST+8, @GCA+140
                  04 00148 26$: RET
: 0460
: 0465

```

; Routine Size: 329 bytes, Routine Base: \$CODE\$ + 0000

```

: 339          0466 1
: 340          0467 1 END
: 341          0468 0 ELUDOM
:
:                               ! End of module

```

PSECT SUMMARY

Name	Bytes	Attributes
\$OWNS	4	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$CODE\$	329	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	34	2	86	00:00.3

COMMAND QUALIFIERS

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

```

; Size:          329 code + 4 data bytes
; Run Time:      00:08.4
; Elapsed Time:  00:23.9
; Lines/CPU Min: 3362
; Lexemes/CPU-Min: 23216
; Memory Used:   85 pages
; Compilation Complete

```


0347 AH-BT13A-SE
VAX/VMS V4.0

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