





```

1 0001 0 MODULE PAGCMP (
2 0002 0 IDENT = 'V04-000'
3 P 0003 0 %BLISS32[
4 P 0004 0 ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE, NONEXTERNAL=LONG_RELATIVE)
5 0005 0 ]
6 0006 0 ) =
7 0007 1 BEGIN
8 0008 1
9 0009 1 *****
10 0010 1 *
11 0011 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
12 0012 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
13 0013 1 * ALL RIGHTS RESERVED.
14 0014 1 *
15 0015 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
16 0016 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
17 0017 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
18 0018 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
19 0019 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
20 0020 1 * TRANSFERRED.
21 0021 1 *
22 0022 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
23 0023 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
24 0024 1 * CORPORATION.
25 0025 1 *
26 0026 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
27 0027 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
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: Routines for comparing page numbers.
36 0036 1
37 0037 1
38 0038 1 ENVIRONMENT: Transportable
39 0039 1
40 0040 1 AUTHOR: R.W.Friday CREATION DATE: February, 1979
41 0041 1

```

Revision History

:	43	0042	1	XSBTTL 'Revision History'
:	44	0043	1	
:	45	0044	1	MODIFIED BY:
:	46	0045	1	
:	47	0046	1	005 KAD00005 Keith Dawson 07-Mar-1983
:	48	0047	1	Global edit of all modules. Updated module names, idents,
:	49	0048	1	copyright dates. Changed require files to BLISS library.
:	50	0049	1	
:	51	0050	1	--

Module Level Declarations

```
.. 53      0051 1 %SBTTL 'Module Level Declarations'  
.. 54      0052 1  
.. 55      0053 1  
.. 56      0054 1 : TABLE OF CONTENTS:  
.. 57      0055 1 :  
.. 58      0056 1  
.. 59      0057 1 FORWARD ROUTINE  
.. 60      0058 1     DSPEQL,  
.. 61      0059 1     PAGEQL,  
.. 62      0060 1     PAGFND;  
.. 63      0061 1  
.. 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 : MACROS:  
.. 79      0207 1 :  
.. 80      0208 1 :  
.. 81      0209 1 : EQUATED SYMBOLS:  
.. 82      0210 1 :  
.. 83      0211 1 :  
.. 84      0212 1 : OWN STORAGE:  
.. 85      0213 1 :  
.. 86      0214 1 :  
.. 87      0215 1 : EXTERNAL REFERENCES:  
.. 88      0216 1 :  
.. 89      0217 1
```

Routine DPSEQL

```

91 0218 1 %SBTTL 'Routine DPSEQL'
92 0219 1 GLOBAL ROUTINE DSPEQL (PAGE_A, PAGE_B) =
93 0220 1
94 0221 1  !++
95 0222 1  !FUNCTIONAL DESCRIPTION:
96 0223 1
97 0224 1      DSPEQL compares the display characteristics of PAGE_A and PAGE_B
98 0225 1      and returns TRUE if they are equal.  Otherwise it returns FALSE.
99 0226 1
100 0227 1  !FORMAL PARAMETERS:
101 0228 1
102 0229 1      PAGE_A and PAGE_B are the pages whose display characteristics are to be compared.
103 0230 1
104 0231 1  !IMPLICIT INPUTS:      None
105 0232 1
106 0233 1  !IMPLICIT OUTPUTS:     None
107 0234 1
108 0235 1  !ROUTINE VALUE:
109 0236 1  !COMPLETION CODES:
110 0237 1
111 0238 1      Returns TRUE if the display characteristics are the same, else FALSE.
112 0239 1
113 0240 1  !SIDE EFFECTS: None
114 0241 1
115 0242 1  --
116 0243 1
117 0244 2  BEGIN
118 0245 2  MAP
119 0246 2  PAGE_A : REF PAGE_DEFINITION,
120 0247 2  PAGE_B : REF PAGE_DEFINITION;
121 0248 2
122 0249 2  IF .PAGE_A [SCT_PAGE_D] NEQ .PAGE_B [SCT_PAGE_D]
123 0250 2  THEN
124 0251 2      !Page counters don't match.
125 0252 2      RETURN FALSE;
126 0253 2
127 0254 2  !Next try subpage display code.
128 0255 2  IF (.PAGE_A [SCT_SUB_PAGE] NEQ 0)
129 0256 2      AND (.PAGE_B [SCT_SUB_PAGE] NEQ 0)
130 0257 2      AND (.PAGE_A [SCT_SUBPG_D] NEQ .PAGE_B [SCT_SUBPG_D])
131 0258 2  THEN
132 0259 2      !Subpages with different display characteristics.
133 0260 2      RETURN FALSE;
134 0261 2
135 0262 2  !Now compare major section display types
136 0263 2  IF (.PAGE_A [SCT_TYP] EQL .PAGE_B [SCT_TYP])
137 0264 2  !Are there major sections, are they the same?
138 0265 2  THEN
139 0266 2      !Both pages are from the same major type of section.
140 0267 2      !It can also be that there are no major sections, and that will
141 0268 2      !get taken care of by all these tests being not applicable.
142 0269 2  IF (.PAGE_A [SCT_TYP] EQL SCT_CHAPT)
143 0270 2      AND (.PAGE_A [SCT_CHAPT_D] NEQ .PAGE_B [SCT_CHAPT_D])
144 0271 2  THEN
145 0272 2      !Both chapters, but different display characteristics
146 0273 2      RETURN FALSE
147 0274 2  ELSE

```

```

148 0275 3 IF (.PAGE_A [SCT_TYP] EQL SCT_APPEND)
149 0276 3 AND (.PAGE_A [SCT_APPEN_D] NEQ .PAGE_B [SCT_APPEN_D])
150 0277 2 THEN
151 0278 2 !Both appendixes, but different display characteristics
152 0279 2 RETURN FALSE
153 0280 2 ELSE
154 0281 3 IF (.PAGE_A [SCT_TYP] EQL SCT_INDEX)
155 0282 3 AND (.PAGE_A [SCT_INDEX_D] NEQ .PAGE_B [SCT_INDEX_D])
156 0283 2 THEN
157 0284 2 !Both indexes, but different display characteristics
158 0285 2 RETURN FALSE
159 0286 2 ELSE
160 0287 2 !No differences found
161 0288 2 !This can happen if there are are no major sections, or
162 0289 2 !both pages have different types of major sections.
163 0290 2 RETURN TRUE
164 0291 2 ELSE !Avoid compiler complaint.
165 0292 2 RETURN FALSE
166 0293 1 END;

```

.TITLE PAGCMP  
.IDENT \V04-000\

.PSECT \$CODE\$,NOWRT,2

				0004 00000	.ENTRY DSPEQL, Save R2	0219
		50	04	AC 7D 00002	MOVQ PAGE_A, R0	0249
	52	61		60 8D 00006	XORB3 (R0), (R1), R2	
		8F		52 93 0000A	BITB R2, #240	
				5A 12 0000E	BNEQ 5\$	
			02	A0 B5 00010	TSTW 2(R0)	0255
				10 13 00013	BEQL 1\$	
			02	A1 B5 00015	TSTW 2(R1)	0256
				0B 13 00018	BEQL 1\$	
	52	OC	OC	A0 8D 0001A	XORB3 12(R0), 12(R1), R2	0257
		OF		52 93 00020	BITB R2, #15	
				45 12 00023	BNEQ 5\$	
	52	61		60 8D 00025 1\$:	XORB3 (R0), (R1), R2	0263
		OF		52 93 00029	BITB R2, #15	
				3C 12 0002C	BNEQ 5\$	
01	60	04		00 ED 0002E	CMPZV #0, #4, (R0), #1	0269
				0C 12 00033	BNEQ 2\$	
	52	OC	OC	AC 8D 00035	XORB3 12(R0), 12(R1), R2	0270
		8F		52 93 0003B	BITB R2, #240	
				29 12 0003F	BNEQ 5\$	
03	60	04		00 ED 00041 2\$:	CMPZV #0, #4, (R0), #3	0275
				0B 12 00046	BNEQ 3\$	
	52	OD	OD	A0 8D 00048	XORB3 13(R0), 13(R1), R2	0276
		OF		52 93 0004E	BITB R2, #15	
				17 12 00051	BNEQ 5\$	
02	60	04		00 ED 00053 3\$:	CMPZV #0, #4, (R0), #2	0281
				0C 12 00058	BNEQ 4\$	
	52	OD	OD	A0 8D 0005A	XORB3 13(R0), 13(R1), R2	0282
		8F		52 93 00060	BITB R2, #240	

PAGCMP  
V04-000

Routine DPSEQL

J 1  
16-Sep-1984 01:24:54  
14-Sep-1984 13:07:37

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

Page 6  
(4)

PAG  
V04

50	04	12	00064		BNEQ	5\$	
	01	D0	00066	4\$:	MOVL	#1,	R0
		04	00069		RET		
	50	D4	0006A	5\$:	CLRL	R0	
		04	0006C		RET		

```

: 0290
: 0292
: 0293
:

```

: Routine Size: 109 bytes, Routine Base: \$CODE\$ + 0000

: 167 0294 1

```

:
:
:
:
:
:
:

```



Routine PAGEQL

```

: 169 0295 1 %SBTTL 'Routine PAGEQL'
: 170 0296 1 GLOBAL ROUTINE PAGEQL (PAGE_A, PAGE_B, DISPLAY) =
: 171 0297 1
: 172 0298 1 +-
: 173 0299 1 FUNCTIONAL DESCRIPTION:
: 174 0300 1
: 175 0301 1 PAGEQL compares the pages represented by PAGE_A and PAGE_B
: 176 0302 1 and returns TRUE if they are equal. Otherwise it returns FALSE.
: 177 0303 1
: 178 0304 1 FORMAL PARAMETERS:
: 179 0305 1
: 180 0306 1 PAGE_A and PAGE_B are the pages to be compared.
: 181 0307 1 If DISPLAY is TRUE, the display characteristics of the pages
: 182 0308 1 are taken into account, otherwise not.
: 183 0309 1
: 184 0310 1 IMPLICIT INPUTS: None
: 185 0311 1
: 186 0312 1 IMPLICIT OUTPUTS: None
: 187 0313 1
: 188 0314 1 ROUTINE VALUE:
: 189 0315 1 COMPLETION CODES:
: 190 0316 1
: 191 0317 1 Returns TRUE if the pages are the same, else FALSE.
: 192 0318 1
: 193 0319 1 SIDE EFFECTS: None
: 194 0320 1
: 195 0321 1 --
: 196 0322 1
: 197 0323 2 BEGIN
: 198 0324 2 MAP
: 199 0325 2 PAGE_A : REF PAGE_DEFINITION,
: 200 0326 2 PAGE_B : REF PAGE_DEFINITION;
: 201 0327 2
: 202 0328 2 IF .DISPLAY
: 203 0329 2 THEN
: 204 0330 2 IF NOT DSPEQL (.PAGE_A, .PAGE_B)
: 205 0331 2 THEN
: 206 0332 2 !Display characteristics don't match
: 207 0333 2 RETURN FALSE;
: 208 0334 2
: 209 0335 3 RETURN (.PAGE_A [SCT_TYP] EQL .PAGE_B [SCT_TYP] AND
: 210 0336 3 .PAGE_A [SCT_SUB_PAGE] EQL .PAGE_B [SCT_SUB_PAGE] AND
: 211 0337 3 .PAGE_A [SCT_NUMBER] EQL .PAGE_B [SCT_NUMBER] AND
: 212 0338 3 .PAGE_A [SCT_PAGE] EQL .PAGE_B [SCT_PAGE])
: 213 0339 3
: 214 0340 1 END; !End of PAGEQL

```

			003C 00000	.ENTRY PAGEQL, Save R2,R3,R4,R5	: 0296
	0B	0C	AC E9 00002	BLBC DISPLAY, 1\$	: 0328
	7E	04	AC 7D 00006	MOVQ PAGE_A, -(SP)	: 0330
85	AF		02 FB 0000A	CALLS #2, DSPEQL	:
	49		50 E9 0000E	BLBC R0, 6\$	:
	53	04	AC D0 00011 1\$:	MOVL PAGE_A, R3	: 0335

50

	52	08	AC	D0	00015	MOVL	PAGE_B, R2	
			51	D4	00019	CLRL	R1	
	62		63	8D	0001B	XORB3	(R3), (R2), R0	
	OF		50	93	0001F	BITB	R0, #15	
			02	12	00022	BNEQ	2\$	
			51	D6	00024	INCL	R1	
			50	D4	00026	CLRL	R0	
	02	A2	02	A3	B1	00028	CMPW	2(R3), 2(R2)
			02	12	0002D	BNEQ	3\$	
			50	D6	0002F	INCL	R0	
	54		51	D2	00031	MCOML	R1, R4	
	50		54	CA	00034	BICL2	R4, R0	
			51	D4	00037	CLRL	R1	
	04	A2	04	A3	D1	00039	CMP	4(R3), 4(R2)
			02	12	0003E	BNEQ	4\$	
			51	D6	00040	INCL	R1	
	55		50	D2	00042	MCOML	R0, R5	
	51		55	CA	00045	BICL2	R5, R1	
			50	D4	00048	CLRL	R0	
	08	A2	08	A3	D1	0004A	CMP	8(R3), 8(R2)
			02	12	0004F	BNEQ	5\$	
			50	D6	00051	INCL	R0	
	54		51	D2	00053	MCOML	R1, R4	
	50		54	CA	00056	BICL2	R4, R0	
			04	04	00059	RET		
			50	D4	0005A	CLRL	R0	
			04	04	0005C	RET		

0336

0337

0338

0335

0340

: Routine Size: 93 bytes, Routine Base: \$CODE\$ + 006D

: 215 0341 1

: R

:

:

:

:

:

:

:

:

:

:

:

:

:

:

:

:

Routine PAGFND

```

217 0342 1 %SBTTL 'Routine PAGFND'
218 0343 1 GLOBAL ROUTINE PAGFND (PAGEN, PAGE_LIST, COUNT, DISPLAY) =
219 0344 1
220 0345 1 ++
221 0346 1 FUNCTIONAL DESCRIPTION:
222 0347 1
223 0348 1     PAGFND searches through a list of pages to find one which matches.
224 0349 1
225 0350 1 FORMAL PARAMETERS:
226 0351 1
227 0352 1     PAGEN is the page number to be found.
228 0353 1     PAGE_LIST is the list of page numbers to be searched.
229 0354 1     COUNT is the number of entries in PAGE_LIST to be searched.
230 0355 1     If DISPLAY is TRUE, the display characteristics of the pages are
231 0356 1     taken into account, otherwise not.
232 0357 1
233 0358 1 IMPLICIT INPUTS:      None
234 0359 1
235 0360 1 IMPLICIT OUTPUTS:    None
236 0361 1
237 0362 1 ROUTINE VALUE:
238 0363 1 COMPLETION CODES:
239 0364 1
240 0365 1     Returns 0 if no match was found.
241 0366 1     Returns the number of pages that needed to be compared before
242 0367 1     a match was found. This is always at least 1.
243 0368 1
244 0369 1 SIDE EFFECTS: None
245 0370 1
246 0371 1 --
247 0372 1
248 0373 2 BEGIN
249 0374 2 MAP
250 0375 2     PAGEN : REF PAGE DEFINITION,
251 0376 2     PAGE_LIST : REF BLOCKVECTOR [1, PAGE_SCT_SIZE];
252 0377 2
253 0378 2 INCR I FROM 0 TO .COUNT - 1 DO
254 0379 2
255 0380 2     IF PAGEQL (.PAGEN PAGE_LIST [.I, SCT_TYP], .DISPLAY)
256 0381 2     THEN
257 0382 2     RETURN (.I + 1);
258 0383 2
259 0384 2 RETURN 0;                                !Not found.
260 0385 2
261 0386 1 END;                                       !End of PAGFND

```

```

                    0004 00000
                    52      01 CE 00002      .ENTRY PAGFND, Save R2
                    1A 11 00005      MNEGL #1, I
                    10 AC DD 00007 1$:   BRB 2$
                    04 78 0000A      PUSHL DISPLAY
                    08 BC40 9F 0000E      ASHL #4, I, R0
                    04 AC DD 00012      PUSHAB @PAGE_LIST[R0]
                                       PUSHL PAGEN

```

```

: 0343
: 0380
:
:
:
:

```

8A	AF	03	FB	00015	CALLS	#3, PAGEQL
	05	50	E9	00019	BLBC	RO, 2\$
	50	01	A2	9E 0001C	MOVAB	1(R2), RO
				04 00020	RET	
E1	52	0C	AC	F2 00021 2\$:	AOBLSS	COUNT, 1, 1\$
			50	D4 00026	CLRL	RO
			04	00028	RET	

0382  
0380  
0384  
0386

: Routine Size: 41 bytes, Routine Base: \$CODE\$ + 00CA

: 262 0387 1  
 : 263 0388 1 END !End of module  
 : 264 0389 0 ELUDOM

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	243	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	16	1	86	00:00.3

COMMAND QUALIFIERS

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

: Size: 243 code + 0 data bytes  
 : Run Time: 00:06.3  
 : Elapsed Time: 00:16.5  
 : Lines/CPU Min: 3716  
 : Lexemes/CPU-Min: 14971  
 : Memory Used: 52 pages  
 : Compilation Complete

