


```

PPPPPPPP      AAAAAA      SSSSSSSS  LL      000000      000000      KK      KK      AAAAAA      HH      HH
PPPPPPPP?     AAAAAA      SSSSSSSS  LL      000000      000000      KK      KK      AAAAAA      HH      HH
PP      PP     AA      AA      SS      LL      00      00      00      00      KK      KK      AA      AA      HH      HH
PP      PP     AA      AA      SS      LL      00      00      00      00      KK      KK      AA      AA      HH      HH
PP      PP     AA      AA      SS      LL      00      00      00      00      KK      KK      AA      AA      HH      HH
PP      PP     AA      AA      SS      LL      00      00      00      00      KK      KK      AA      AA      HH      HH
PPPPPPPP      AA      AA      SSSSSS   LL      00      00      00      00      KKKKKK      AA      AA      HHHHHHHHHH
PPPPPPPP      AA      AA      SSSSSS   LL      00      00      00      00      KKKKKK      AA      AA      HHHHHHHHHH
PP      AA      AA      SS      LL      00      00      00      00      KK      KK      AAAAAAAAAA      HH      HH
PP      AA      AA      SS      LL      00      00      00      00      KK      KK      AAAAAAAAAA      HH      HH
PP      AA      AA      SS      LL      00      00      00      00      KK      KK      AA      AA      HH      HH
PP      AA      AA      SSSSSSSS  LLLLLLLLLL  000000      000000      KK      KK      AA      AA      HH      HH
PP      AA      AA      SSSSSSSS  LLLLLLLLLL  000000      000000      KK      KK      AA      AA      HH      HH

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LL      I I I I I      SSSSSSSS
LL      I I I I I      SSSSSSSS
LL      I I      SS
LL      I I      SS
LL      I I      SS
LL      I I      SS
LL      I I      SSSSSS
LL      I I      SSSSSS
LL      I I      SS
LL      I I      SS
LL      I I      SS
LL      I I      SS
LLLLLLLLLL  I I I I I      SSSSSSSS
LLLLLLLLLL  I I I I I      SSSSSSSS

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```

1 0001 0 MODULE PASSLOOK_AHEAD ( %TITLE 'Resolve lazy-lookahead'
2 0002 0   _IDENT = '1-002' . File: PASLOOKAH.B32 Edit: SBL1002
3 0003 0   ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
9 0009 1 *  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
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12 0012 1 *  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
13 0013 1 *  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
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24 0024 1 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
25 0025 1 *
26 0026 1 *****
27 0027 1
28 0028 1
29 0029 1
30 0030 1 **
31 0031 1 FACILITY: Pascal Language Support
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1 This procedure is called by the compiled code when a textfile
36 0036 1 file buffer is undefined. If lazy-lookahead is in progress
37 0037 1 for that file, it gets the next record and returns.
38 0038 1
39 0039 1 ENVIRONMENT: User mode - AST reentrant
40 0040 1
41 0041 1 AUTHOR: Steven B. Lionel, CREATION DATE: 1-April-1981
42 0042 1
43 0043 1 MODIFIED BY:
44 0044 1
45 0045 1 1-001 - Original. SBL 1-April-1981
46 0046 1 1-002 - Look at the new FCBSV INITIATE PROMPT to see if PASS$PROMPT_ALL
47 0047 1 should be called. SBL 15-Dec-1982
48 0048 1 --

```

```

: 50      0049 1 %SBTTL 'Declarations'
: 51      0050 1
: 52      0051 1 : PROLOGUE DEFINITIONS:
: 53      0052 1 :
: 54      0053 1
: 55      0054 1 REQUIRE 'RTLIN:PASPROLOG';           ! Externals, Linkages, PSECTs, structures
: 56      0118 1
: 57      0119 1 :
: 58      0120 1 : TABLE OF CONTENTS:
: 59      0121 1 :
: 60      0122 1
: 61      0123 1 FORWARD ROUTINE
: 62      0124 1     PASSLOOK_AHEAD: CALL_SAVEALL NOVALUE,      ! Resolve lazy-lookahead
: 63      0125 1     PASS$LOOK_AHEAD: JSB_LOOK_AHEAD NOVALUE;   ! Internally callable
: 64      0126 1
: 65      0127 1 :
: 66      0128 1 : MACROS:
: 67      0129 1 :
: 68      0130 1 :     NONE
: 69      0131 1 :
: 70      0132 1 : EQUATED SYMBOLS:
: 71      0133 1 :
: 72      0134 1 :     NONE
: 73      0135 1 :
: 74      0136 1 : FIELDS:
: 75      0137 1 :
: 76      0138 1 :     NONE
: 77      0139 1 :
: 78      0140 1 : OWN STORAGE:
: 79      0141 1 :
: 80      0142 1 :     NONE
: 81      0143 1 :

```

```

83 0144 1 %SBTTL 'PASSLOOK AHEAD - Resolve lazy lookahead'
84 0145 1 GLOBAL ROUTINE PASSLOOK_AHEAD (      ! Resolve lazy lookahead
85 0146 1      PFV: REF $PASSPFV_FILE_VARIABLE ! File variable
86 0147 1      ): CALL_SAVEALL NOVALOE =
87 0148 1
88 0149 1
89 0150 1  +-+
90 0151 1  FUNCTIONAL DESCRIPTION:
91 0152 1      PASSLOOKAHEAD is to be called if a textfile file buffer is
92 0153 1      undefined (PFV$V_DFB clear) and the caller wishes to access
93 0154 1      the file buffer. See PASS$LOOK_AHEAD for more information.
94 0155 1
95 0156 1  CALLING SEQUENCE:
96 0157 1
97 0158 1      CALL PASSLOOK_AHEAD (PFV.mr.r)
98 0159 1
99 0160 1  FORMAL PARAMETERS:
100 0161 1
101 0162 1      PFV          - The Pascal File Variable (PFV) passed by reference.
102 0163 1                  The structure of the PFV is defined in PASPFV.REQ.
103 0164 1
104 0165 1  IMPLICIT INPUTS:
105 0166 1
106 0167 1      NONE
107 0168 1
108 0169 1  IMPLICIT OUTPUTS:
109 0170 1
110 0171 1      NONE
111 0172 1
112 0173 1  ROUTINE VALUE:
113 0174 1
114 0175 1      NONE
115 0176 1
116 0177 1  SIDE EFFECTS:
117 0178 1
118 0179 1      See PASS$LOOK_AHEAD
119 0180 1
120 0181 1  SIGNALLED ERRORS:
121 0182 1
122 0183 1
123 0184 1  --
124 0185 1
125 0186 2  BEGIN
126 0187 2
127 0188 2  LOCAL
128 0189 2      FCB: REF $PASSFCB_CONTROL_BLOCK,      ! File control block
129 0190 2      PFV_ADDR: VOLATILE,                  ! Enable argument
130 0191 2      UNWIND_ACT: VOLATILE;                ! Enable argument
131 0192 2
132 0193 2  ENABLE
133 0194 2      PASS$IO_HANDLER (PFV_ADDR, UNWIND_ACT);
134 0195 2
135 0196 2  +-+
136 0197 2  ! Set enable argument for PFV address.
137 0198 2  -
138 0199 2
139 0200 2  PFV_ADDR = PFV [PFV$R_PFV];      ! Set PFV address

```

```

: 140 0201 2
: 141 0202
: 142 0203  | +
: 143 0204  | - Validate and lock PFV
: 144 0205
: 145 0206  | PASS$VALIDATE_PFV (PFV [PFV$R_PFV]; FCB);
: 146 0207
: 147 0208  | +
: 148 0209  | - Set unwind action to unlock file.
: 149 0210
: 150 0211
: 151 0212  | UNWIND_ACT = PASSK_UNWIND_UNLOCK;
: 152 0213
: 153 0214  | +
: 154 0215  | - Call PASS$LOOK_AHEAD to do the work.
: 155 0216
: 156 0217
: 157 0218  | PASS$LOOK_AHEAD (PFV [PFV$R_PFV], FCB [FCB$R_FCB]; FCB);
: 158 0219
: 159 0220
: 160 0221  | +
: 161 0222  | - Unlock file and return.
: 162 0223
: 163 0224  | PFV [PFV$V_LOCK] = 0;
: 164 0225
: 165 0226  | RETURN;
: 166 0227
: 167 0228  | 1
:      END;

```

! End of routine PASS\$LOOK_AHEAD

```

.TITLE PASSLOOK_AHEAD Resolve lazy-lookahead
.IDENT \1-002\

.EXTRN PASSLOOK_AHEAD, PASS$LOOK_AHEAD
.EXTRN PASS$IO_HANDLER
.EXTRN PASS$VALIDATE_PFV

```

.PSECT _PASSCODE, NOWRT, SHR, PIC, 2

			00CF 00000	.ENTRY PASSLOOK_AHEAD, Save R0,R1,R2,R3,R6,R7	: 0145
5E		04	C2 00002	SUBL2 #4, SP	
		7E	D4 00005	CLRL UNWIND_ACT	: 0186
	04	AE	D4 00007	CLRL PFV_ADDR	
6D	001B	CF	DE 0000A	MOVAL 1\$, -(FP)	
56	04	AC	D0 0000F	MOVL PFV, R6	: 0200
04	AE	56	D0 00013	MOVL R6, PFV_ADDR	
	00000000G	00	16 00017	JSB PASS\$VALIDATE_PFV	: 0206
6E		01	D0 0001D	MOVL #1, UNWIND_ACT	: 0212
		0000V	30 00020	BSBW PASS\$LOOK_AHEAD	: 0218
07	A6	80	8F 8A 00023	BICB2 #128, 7(R6)	: 0224
			04 00028	RET	: 0228
			0000 00029 1\$:	.WORD Save nothing	: 0186
50	08	AC	D0 0002B	MOVL 8(AP), R0	
50	04	A0	D0 0002F	MOVL 4(R0), R0	
	F8	A0	9F 00033	PUSHAB UNWIND_ACT	
	FC	A0	9F 00036	PUSHAB PFV_ADDR	
		02	DD 00039	PUSHL #2	

PASSLOOK_AHEAD
1-002

Resolve lazy-lookahead
PASSLOOK_AHEAD - Resolve lazy lookahead

M 7
16-Sep-1984 01:44:39
14-Sep-1984 12:51:39

VAX-11 Bliss-32 V4.0-742
[PASRTL.SRC]PASLOOKAH.B32;1

Page 5
(3)

00000000G 7E 04 5E DD 0003B
00 AC 7D 0003D
03 FB 00041
04 00048

PUSHL SP
MOVQ 4(AP), -(SP)
CALLS #3, PASS\$IO_HANDLER
RET

:
:
:
:

; Routine Size: 73 bytes, Routine Base: _PASS\$CODE + 0000

: 168 0229 1
: 169 0230 1 !<BLF/PAGE>

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ME

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```

0231 1 %SBTTL 'PASS$LOOK_AHEAD - Internally callable procedure'
0232 1 GLOBAL ROUTINE PASS$LOOK_AHEAD (          | Resolve lazy lookahead
0233 1     PFV: REF $PASS$PFV FILE_VARIABLE,      | File variable
0234 1     IN_FCB: REF $PASS$FCB CONTROL_BLOCK;   | Control block
0235 1     FCB: REF $PASS$FCB CONTROL_BLOCK     | Output FCB
0236 1 ): JSB_LOOK_AHEAD NOVALUE =
0237 1
0238 1 ++
0239 1 FUNCTIONAL DESCRIPTION:
0240 1
0241 1     PASS$LOOK_AHEAD is to be called if a textfile file buffer is
0242 1     undefined (PFV$V_DFB clear) and the caller wishes to access
0243 1     the file buffer. The following steps are taken.
0244 1
0245 1     1. If the file is open, and FCBSV_LAZY is clear,
0246 1     return.
0247 1     2. If the file is not open and is not INPUT or OUTPUT,
0248 1     return.
0249 1     3. If the file is not open, and is INPUT or OUTPUT,
0250 1     open it.
0251 1     4. If FCBSV_LAZY is set, then:
0252 1         - If file is enabled for prompting, output
0253 1         partial lines on all enabled files.
0254 1         - Do the $GET from the file.
0255 1         - Clear FCBSV_LAZY, set PFV$V_EOLN, PFV$V_EOF_DEFINED,
0256 1         PFV$V_DFB, PFV$V_VALID as appropriate.
0257 1
0258 1 CALLING SEQUENCE:
0259 1
0260 1     JSB_LOOK_AHEAD PASS$LOOK_AHEAD (PFV.mr.r, IN_FCB.mr.r;
0261 1     FCB.mr.r)
0262 1
0263 1 FORMAL PARAMETERS:
0264 1
0265 1     PFV          - The Pascal File Variable (PFV) for the file.
0266 1
0267 1     IN_FCB       - The File Control Block (FCB) for the file.
0268 1
0269 1     FCB          - The result FCB for the file.
0270 1
0271 1 IMPLICIT INPUTS:
0272 1
0273 1     It is assumed that the caller has verified the PFV and has locked
0274 1     it.
0275 1
0276 1 IMPLICIT OUTPUTS:
0277 1
0278 1     NONE
0279 1
0280 1 COMPLETION STATUS:
0281 1
0282 1     NONE
0283 1
0284 1 SIDE EFFECTS:
0285 1
0286 1     NONE
0287 1

```



```

228 0288 1 ! SIGNALLED ERRORS:
229 0289 1 |
230 0290 1 |
231 0291 1 |
232 0292 1 |
233 0293 2 BEGIN
234 0294 2 LOCAL
235 0295 2 STATUS;
236 0296 2
237 0297 2
238 0298 2 BIND
239 0299 2 RAB = FCB: REF BLOCK [, BYTE]; ! RAB is also FCB address
240 0300 2
241 0301 2 BUILTIN
242 0302 2 TESTBITSC;
243 0303 2
244 0304 2 FCB = IN_FCB [FCB$R_FCB]; ! Set output FCB
245 0305 2
246 0306 2 !+
247 0307 2 ! See if the file is open. If not, but is INPUT or OUTPUT, open it.
248 0308 2 ! Otherwise, return.
249 0309 2 !-
250 0310 2
251 0311 2 IF NOT .PFV [PFV$V_OPEN] ! Not open
252 0312 2 THEN
253 0313 2 BEGIN
254 0314 2 PASS$OPEN IMPLICIT (PFV [PFV$R_PFV], FCB [FCB$R_FCB]; FCB);
255 0315 2 IF NOT .PFV [PFV$V_OPEN] ! Still not open?
256 0316 2 THEN
257 0317 2 RETURN;
258 0318 2 END;
259 0319 2
260 0320 2 !+
261 0321 2 ! Indicate that buffer access is valid.
262 0322 2 !-
263 0323 2
264 0324 2 PFV [PFV$V_EOF_DEFINED] = 1;
265 0325 2 PFV [PFV$V_VALID] = 1;
266 0326 2
267 0327 2 !+
268 0328 2 ! Is lazy lookahead in progress on this file?
269 0329 2 !-
270 0330 2
271 0331 2 IF TESTBITSC (FCB [FCB$V_LAZY])
272 0332 2 THEN
273 0333 2 BEGIN
274 0334 2
275 0335 2 !+
276 0336 2 ! If EOF is true or if this is a string file (READV),
277 0337 2 ! signal "GET after end-of-file".
278 0338 2 !-
279 0339 2
280 0340 2 IF .FCB [FCB$V_EOF] OR .FCB [FCB$V_STRING]
281 0341 2 THEN
282 0342 2 SPASSIO_ERROR (PASS_GETAFTEOF,0);
283 0343 2
284 0344 2 !+

```

```

285 0345 3      | Lazy lookahead is in progress.
286 0346 3      | If this file can initiate prompting, prompt on all enabled files.
287 0347 3      | Then do the $GET.
288 0348 3      |
289 0349 3      |
290 0350 3      IF .FCB [FCB$V_INITIATE_PROMPT]
291 0351 3      THEN
292 0352 3          PASS$PROMPT_ALL ();
293 0353 3
294 0354 3      STATUS = $PASS$RMS_OP ($GET (RAB=.RAB));
295 0355 3
296 0356 3      |
297 0357 3      | +
298 0358 3      | Set up record pointers and move first character to user's
299 0359 3      | file buffer. Do this before we check for errors.
300 0360 3      |
301 0361 3      FCB [FCB$A_RECORD_BEG] = .RAB [RAB$L_RBF];
302 0362 3      FCB [FCB$A_RECORD_CUR] = .FCB [FCB$A_RECORD_BEG];
303 0363 3      FCB [FCB$L_RECORD_LEN] = .RAB [RAB$W_RSZ];
304 0364 3      FCB [FCB$A_RECORD_END] = .FCB [FCB$A_RECORD_BEG] + .FCB [FCB$L_RECORD_LEN];
305 0365 3      IF .RAB [RAB$W_RSZ] EQL 0
306 0366 3      THEN
307 0367 3          BEGIN
308 0368 3              PFV [PFV$V_EOLN] = 1;
309 0369 3              CH$WCHAR (%C' ', .PFV [PFV$A_BUFFER]);
310 0370 3          END
311 0371 3      ELSE
312 0372 3          BEGIN
313 0373 3              PFV [PFV$V_EOLN] = 0;
314 0374 3              CH$WCHAR (.FCB [FCB$A_RECORD_CUR], .PFV [PFV$A_BUFFER]);
315 0375 3          END;
316 0376 3
317 0377 3      IF NOT .STATUS
318 0378 3      THEN
319 0379 3          BEGIN
320 0380 3              |
321 0381 3              | +
322 0382 3              | $GET failed. If RMS$ EOF, simply set EOF. Otherwise
323 0383 3              | signal an error.
324 0384 3              |
325 0385 3              IF .RAB [RAB$L_STS] NEQ RMS$ EOF
326 0386 3              THEN
327 0387 3                  $PASS$IO_ERROR (PASS$ERRDURGET); ! Error during GET
328 0388 3                  FCB [FCB$V_EOF] = 1;
329 0389 3                  PFV [PFV$V_DFB] = 0;
330 0390 3                  PFV [PFV$V_EOLN] = 0;
331 0391 3              END
332 0392 3          ELSE
333 0393 3              BEGIN
334 0394 3                  FCB [FCB$V_EOF] = 0;
335 0395 3                  PFV [PFV$V_DFB] = 1;
336 0396 3                  FCB [FCB$L_RECORD_NUMBER] = .FCB [FCB$L_RECORD_NUMBER] + 1;
337 0397 3              END;
338 0398 3      END;
339 0399 2
340 0400 2
341 0401 2      RETURN;

```


; Routine Size: 182 bytes, Routine Base: _PASS\$CODE + 0049

```

: 344      0404 1
: 345      0405 1 !<BLF/PAGE>
: 346      0406 1 END
: 347      0407 1
: 348      0408 0 ELUDOM

```

. End of module PASS\$LOOK_AHEAD

PSECT SUMMARY

Name	Bytes	Attributes
_PASS\$CODE	255	NOVEC, NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC, ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	9	0	581	00:01.0
_\$255\$DUA28:[PASRTL.OBJ]PASLIB.L32;1	427	96	22	33	00:00.4

COMMAND QUALIFIERS

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

```

: Size:      255 code + 0 data bytes
: Run Time:  00:08.0
: Elapsed Time: 00:28.6
: Lines/CPU Min: 3079
: Lexemes/CPU-Min: 17094
: Memory Used: 112 pages
: Compilation Complete

```


