





```

1 0001 0 MODULE PASSREAD_REAL_F ( %TITLE 'Read an F_floating value'
2 0002 0   -IDENT = '1-002' ! File: PASREAREF.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
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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 module contain. procedures which read an F_floating value
36 0036 1 from a textfile or a string.
37 0037 1
38 0038 1 ENVIRONMENT: User mode - AST reentrant
39 0039 1
40 0040 1 AUTHOR: Steven B. Lionel, CREATION DATE: 1-April-1981
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1
44 0044 1 1-001 - Original. SBL 1-April-1981
45 0045 1 1-002 - Use PASS$END_READ. SBL 26-May-1982
46 0046 1 --
47 0047 1

```

```
.. 49      0048 1 %SBTTL 'Declarations'  
.. 50      0049 1  
.. 51      0050 1 : PROLOGUE DEFINITIONS:  
.. 52      0051 1 :  
.. 53      0052 1  
.. 54      0053 1 REQUIRE 'RTLIN:PASPROLOG';           ! Externals, linkages, PSECTs, structures  
.. 55      0117 1  
.. 56      0118 1  
.. 57      0119 1 : TABLE OF CONTENTS:  
.. 58      0120 1 :  
.. 59      0121 1  
.. 60      0122 1 FORWARD ROUTINE  
.. 61      0123 1     PASSREAD_REAL_F;           ! Read from textfile  
.. 62      0124 1     PASSREADV_REAL_F;         ! Read from string  
.. 63      0125 1  
.. 64      0126 1 :  
.. 65      0127 1 : MACROS:  
.. 66      0128 1  
.. 67      0129 1     NONE  
.. 68      0130 1 :  
.. 69      0131 1 : EQUATED SYMBOLS:  
.. 70      0132 1  
.. 71      0133 1     NONE  
.. 72      0134 1 :  
.. 73      0135 1 : FIELDS:  
.. 74      0136 1  
.. 75      0137 1     NONE  
.. 76      0138 1 :  
.. 77      0139 1 : OWN STORAGE:  
.. 78      0140 1  
.. 79      0141 1     NONE  
.. 80      0142 1 :
```

```
82 0143 1 %SBTTL 'PASSREAD REAL F - Read an F_floating value from textfile'
83 0144 1 GLOBAL ROUTINE PASSREAD REAL F (
84 0145 1     PFV: REF $PASSPFV_FICE_VARIABLE,           ! File variable
85 0146 1     ERROR                                     ! Error unwind address
86 0147 1 ) =
87 0148 1
88 0149 1 ++
89 0150 1 FUNCTIONAL DESCRIPTION:
90 0151 1
91 0152 1     This function reads an F_floating value from the specified textfile
92 0153 1     and returns it as the function value.
93 0154 1
94 0155 1 CALLING SEQUENCE:
95 0156 1
96 0157 1     Single.wf.v = PASSREAD_REAL_F (PFV.mr.r [, ERROR.ja.r])
97 0158 1
98 0159 1 FORMAL PARAMETERS:
99 0160 1
100 0161 1     PFV           - The Pascal File Variable (PFV) passed by reference.
101 0162 1                 The structure of the PFV is defined in PASPFV.REQ.
102 0163 1
103 0164 1     ERROR        - Optional.  If specified, the address to unwind to
104 0165 1                 in case of an error.
105 0166 1
106 0167 1 IMPLICIT INPUTS:
107 0168 1
108 0169 1     NONE
109 0170 1
110 0171 1 IMPLICIT OUTPUTS:
111 0172 1
112 0173 1     NONE
113 0174 1
114 0175 1 ROUTINE VALUE:
115 0176 1
116 0177 1     The F_floating value of the number read.
117 0178 1
118 0179 1 SIDE EFFECTS:
119 0180 1
120 0181 1     If the file is the standard file INPUT or OUTPUT, it is implicitly opened.
121 0182 1
122 0183 1 SIGNALLED ERRORS:
123 0184 1
124 0185 1     INVSYNREA - invalid syntax for real value
125 0186 1     NOTVALTYP- "string" is not a value of type "type"
126 0187 1
127 0188 1 --
128 0189 1
129 0190 2 BEGIN
130 0191 2
131 0192 2 LOCAL
132 0193 2     RESULT,           ! F_floating result value
133 0194 2     DESCR: BLOCK [8, BYTE], ! Descriptor for convert
134 0195 2     FCB: REF $PASSFCB_CONTROL_BLOCK, ! File Control block
135 0196 2     PFV_ADDR: VOLATILE, ! Enable argument
136 0197 2     UNWIND_ACT: VOLATILE, ! Enable argument
137 0198 2     ERROR_ADDR: VOLATILE; ! Enable argument
138 0199 2
```

```

139 0200 2 BUILTIN
140 0201 2 ACTUALCOUNT; ! Count of arguments
141 0202 2
142 0203 2 ENABLE
143 0204 2 PASS$IO_HANDLER (PFV_ADDR, UNWIND_ACT, ERROR_ADDR); ! Enable error handler
144 0205 2
145 0206 2 !+
146 0207 2 ! Get ERROR parameter, if present.
147 0208 2 !-
148 0209 2
149 0210 2 IF ACTUALCOUNT () GEQU 2
150 0211 2 THEN
151 0212 2 ERROR_ADDR = .ERROR; ! Set unwind address
152 0213 2
153 0214 2 PFV_ADDR = PFV [PFV$R_PFV]; ! Set PFV address
154 0215 2
155 0216 2 !+
156 0217 2 ! Validate PFV and get PFV.
157 0218 2 !-
158 0219 2
159 0220 2 PASS$VALIDATE_PFV (PFV [PFV$R_PFV]; FCB);
160 0221 2
161 0222 2 !+
162 0223 2 ! Set unwind action to unlock file.
163 0224 2 !-
164 0225 2
165 0226 2 UNWIND_ACT = PASS$_UNWIND_UNLOCK;
166 0227 2
167 0228 2 !+
168 0229 2 ! Do common initialization.
169 0230 2 !-
170 0231 2
171 0232 2 PASS$INIT_READ (PFV [PFV$R_PFV], FCB [FCB$R_FCB]; FCB);
172 0233 2
173 0234 2 !+
174 0235 2 ! Set up string descriptor for convert call.
175 0236 2 !-
176 0237 2
177 0238 2 DESCR [DSC$B_CLASS] = DSC$_CLASS_S;
178 0239 2 DESCR [DSC$B_DTYPE] = DSC$_DTYPE_T;
179 0240 2
180 0241 2 !+
181 0242 2 ! Call utility routine to find a string that looks like an real.
182 0243 2 ! If we can't find one, signal an error.
183 0244 2 !-
184 0245 2
185 0246 2 IF NOT PASS$GET_REAL (PFV [PFV$R_PFV], FCB [FCB$R_FCB];
186 0247 2 DESCR [DSC$A_POINTER], DESCR [DSC$W_LENGTH], FCB)
187 0248 2 THEN
188 0249 2 $PASS$IO_ERROR (PASS$_INVSYNREA,2,DESCR,.FCB [FCB$L_RECORD_NUMBER]);
189 0250 2
190 0251 2 !+
191 0252 2 ! Call convert routine. If it fails, signal an error.
192 0253 2 !-
193 0254 2
194 0255 2 IF NOT OTS$CVT_T_F (DESCR, RESULT)
195 0256 2 THEN
    
```

```

196 P 0257 2 $PASSIO ERROR (PASS NOTVALTYP,3,DESCR,
197 P 0258 2 UPLIT BYTE (%CHARCOUNT('SINGLE'),'SINGLE'),
198 0259 2 .FCB [FCBSL_RECORD_NUMBER]);
199 0260 2
200 0261 2
201 0262 2 |*
202 0263 2 | Do end-of-READ processing.
203 0264 2 |
204 0265 2 PASS$END_READ (PFV [PFV$R_PFV], FCB [FCB$R_FCB]);
205 0266 2
206 0267 2 RETURN .RESULT;
207 0268 2
208 0269 2 END;
    
```

! End of routine PASS\$READ\_REAL\_F

```

.TITLE PASSREAD_REAL_F Read an F floating value
.IDENT \1-002\

.PSECT _PASS$CODE,NOWRT, SHR, PIC,2

45 4C 47 4E 49 06 0000 P.AAA: .BYTE 6
53 00001 .ASCII \SINGLE\

.EXTRN PASSREAD_REAL_F
.EXTRN PASS$READV_REAL_F
.EXTRN PASS$IO_HANDLER
.EXTRN PASS$VALIDATE_PFV
.EXTRN PASS$INIT_READ, PASS$GET_REAL
.EXTRN PASS$SIGNAL, PASS$INVSYNREA
.EXTRN OTSSCVT_T_F, PASS$NOTVALTYP
.EXTRN PASS$END_READ

.ENTRY PASSREAD_REAL_F, Save R2,R3,R4,R5,R6,R7,R8,-; 0144
R9
MOVAB PASS$SIGNAL, R9
SUBL2 #24, SP
CLRQ ERROR_ADDR 0190
CLRL PFV_ADDR
MOVAL 5$, (FP)
CMPB (AP), #2 0210
BLSSU 1$
MOVL ERROR, ERROR_ADDR 0212
MOVL PFV, R6 0214
MOVL R6, PFV_ADDR
JSB PASS$VALIDATE_PFV 0220
MOVL #1, UNWIND_ACT 0226
JSB PASS$INIT_READ 0232
MOVW #270, DESCR+2 0239
JSB PASS$GET_REAL 0247
MOVL R4, DESCR+4
MOVW R5, DESCR
BLBS R0, 2$
PUSHL -56(FCB) 0249
PUSHAB DESCR
PUSHL #2
MOVZBL #PASS$INVSYNREA, -(SP)
CALLS #4, PASS$SIGNAL
    
```

00000000G	00	14	2D 11 0005F	BRB 4\$	
	14		5E DD 00061 2\$:	PUSHL SP	0255
			AE 9F 00063	PUSHAB DESCR	
			02 FB 00066	CALLS #2, OTSS\$CVT_T_F	
			50 E8 0006D	BLBS R0, 3\$	
		C8	A7 DD 00070	PUSHL -56(FCB)	0259
		83	AF 9F 00073	PUSHAB P.AAA	
		18	AE 9F 00076	PUSHAB DESCR	
			03 DD 00079	PUSHL #3	
	7E	00G	8F 9A 0007B	MOVZBL #PASS\$K_NOTVALTYP, -(SP)	
	69		05 FB 0007F	CALLS #5, PASS\$\$SIGNAL	
			0A 11 00082	BRB 4\$	
			00 16 00084 3\$:	JSB PASS\$END_READ	0265
			6E D0 0008A	MOVL RESULT, R0	0267
			04 0008D	RET	
			50 D4 0008E 4\$:	CLRL R0	0269
			04 00090	RET	
			0000 00091 5\$:	.WORD Save nothing	0190
	50	08	AC D0 00093	MOVL 8(AP), R0	
	50	04	A0 D0 00097	MOVL 4(R0), R0	
		EC	A0 9F 0009B	PUSHAB ERROR_ADDR	
		F0	A0 9F 0009E	PUSHAB UNWIND_ACT	
		F4	A0 9F 000A1	PUSHAB PFV_ADDR	
			03 DD 000A4	PUSHL #3	
			5E DD 000A6	PUSHL SP	
	7E	04	AC 7D 000A8	MOVQ 4(AP), -(SP)	
00000000G	00		03 FB 000AC	CALLS #3, PASS\$\$IO_HANDLER	
			04 000B3	RET	

: Routine Size: 180 bytes, Routine Base: \_PASS\$CODE + 0007

: 209 0270 1  
: 210 0271 1 !<BLF/PAGE>



```

212 0272 1 %SBTTL 'PASS$READV_REAL_F - Read an F_floating from string'
213 0273 1 GLOBAL ROUTINE PASS$READV_REAL_F (
214 0274 1     STRING: REF BLOCK [, BYTE],           ! String descriptor
215 0275 1     ERROR                               ! Error unwind address
216 0276 1     ) =
217 0277 1
218 0278 1 +-+
219 0279 1 FUNCTIONAL DESCRIPTION:
220 0280 1
221 0281 1     This function reads an F_floating from the specified string
222 0282 1     and returns it as the function value.
223 0283 1
224 0284 1 CALLING SEQUENCE:
225 0285 1
226 0286 1     Single.wf.v = PASS$READV_REAL_F (STRING.mt.ds [, ERROR.ja.r])
227 0287 1
228 0288 1 FORMAL PARAMETERS:
229 0289 1
230 0290 1     STRING           - The string to read from, passed as a class S
231 0291 1                   (assumed) descriptor. The length and pointer
232 0292 1                   are updated to reflect the unread string.
233 0293 1
234 0294 1     ERROR           - Optional. If specified, the address to unwind to
235 0295 1                   in case of an error.
236 0296 1
237 0297 1 IMPLICIT INPUTS:
238 0298 1
239 0299 1     NONE
240 0300 1
241 0301 1 IMPLICIT OUTPUTS:
242 0302 1
243 0303 1     NONE
244 0304 1
245 0305 1 ROUTINE VALUE:
246 0306 1
247 0307 1     The value of the F_floating read.
248 0308 1
249 0309 1 SIDE EFFECTS:
250 0310 1
251 0311 1     NONE
252 0312 1
253 0313 1 SIGNALLED ERRORS:
254 0314 1
255 0315 1     NONE
256 0316 1
257 0317 1 --
258 0318 1
259 0319 2 BEGIN
260 0320 2
261 0321 2 LOCAL
262 0322 2     PFV: $PASS$PFV_FILE_VARIABLE, ! Pascal File Variable
263 0323 2     RESULT,                       ! Result value
264 0324 2     ARG_LIST: VECTOR [2, LONG],    ! Argument list
265 0325 2     PFV_ADDR: VOLATILE,            ! Enable argument
266 0326 2     UNWIND_ACT: VOLATILE,          ! Enable argument
267 0327 2     ERROR_ADDR: VOLATILE;         ! Enable argument
268 0328 2
    
```

```

: 269      0329 2  BUILTIN
: 270      0330 2  ACTUALCOUNT;          ! Count of arguments
: 271      0331 2
: 272      0332 2  ENABLE
: 273      0333 2  PASS$IO_HANDLER (PFV_ADDR, UNWIND_ACT, ERROR_ADDR);  ! Enable error handler
: 274      0334 2
: 275      0335 2  !+
: 276      0336 2  ! Get ERROR parameter, if present.
: 277      0337 2  !-
: 278      0338 2
: 279      0339 2  IF ACTUALCOUNT () GEQU 2
: 280      0340 2  THEN
: 281      0341 2  ERROR_ADDR = .ERROR;          ! Set unwind address
: 282      0342 2
: 283      0343 2  PFV_ADDR = PFV [PFV$R_PFV];      ! Set PFV address
: 284      0344 2
: 285      0345 2  !+
: 286      0346 2  ! Set up ARG_LIST.
: 287      0347 2  !-
: 288      0348 2
: 289      0349 2  ARG_LIST [0] = 1;          ! One argument
: 290      0350 2  ARG_LIST [1] = PFV [PFV$R_PFV];  ! PFV address
: 291      0351 2
: 292      0352 2  !+
: 293      0353 2  ! Call PASS$DO_READV to do the work, giving it the address of
: 294      0354 2  ! PASS$READ_REAL_F to call.
: 295      0355 2  !-
: 296      0356 2
: 297      0357 2  PASS$DO_READV (PFV [PFV$R_PFV], .STRING, ARG_LIST, PASS$READ_REAL_F;
: 298      0358 2  RESULT);
: 299      0359 2
: 300      0360 2  RETURN .RESULT;
: 301      0361 2
: 302      0362 1  END;

```

! End of routine PASS\$READV\_REAL\_F

```

                                .EXTRN  PASS$DO_READV
                                .ENTRY  PASS$READV_REAL_F, Save R2,R3,R4,R6
: 0273      SE          20  C2 00002
:          7E  D4 00005
:          04         AE  7C 00007
: 0319      6D          0030  CF  DE 0000A
:          02         6C  91 0000F
:          04         04  1F 00012
:          6E          08  AC  D0 00014
: 0341      08         AE  9E 00018 1$:
: 0343      0C         AE  01  D0 0001D
:          10         AE  9E 00021
:          54         FF22 CF  9E 00026
:          53         0C  AE  9E 0002B
:          56         14  AE  9E 0002F
:          52         04  AC  D0 00033
:          00000000G  00  16 00037
:          04 0003D
:          0000 0003E 2$:
: 0362      .WORD    Save nothing
: 0319

```

PASSREAD\_REAL\_F Read an F\_floating value  
1-002

PASS\$READV\_REAL\_F - Read an F\_floating from stri

E 10  
16-Sep-1984 01:59:26  
14-Sep-1984 12:51:48

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

50	08	AC	D0	00040	MOVL	8(AP), R0
50	04	A0	D0	00044	MOVL	4(R0), R0
	DC	A0	9F	00048	PUSHAB	ERROR_ADDR
	E0	A0	9F	0004B	PUSHAB	UNWIND_ACT
	E4	A0	9F	0004E	PUSHAB	PFV_ADDR
		03	DD	00051	PUSHL	#3
		5E	DD	00053	PUSHL	SP
00000000G	7E	04	AC	7D	MOVQ	4(AP), -(SP)
00	00		03	FB	CALLS	#3, PASS\$IO_HANDLER
			04	00060	RET	

: Routine Size: 97 bytes, Routine Base: \_PASS\$CODE + 00BB

: 303 0363 1  
: 304 0364 1 !<BLF/PAGE>

```

: 306      0365 1 END                                ! End of module PASS$READ_REAL_F
: 307      0366 1
: 308      0367 0 ELUDOM
    
```

PSECT SUMMARY

Name	Bytes	Attributes
_PASS\$CODE	284	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

F Le	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	6	0	581	00:01.0
_\$255\$DUA28:[PASRTL.OBJ]PASLIB.L32;1	427	99	23	33	00:00.4

COMMAND QUALIFIERS

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

```

: Size:      277 code + 7 data bytes
: Run Time:   00:07.2
: Elapsed Time: 00:31.7
: Lines/CPU Min: 3049
: Lexemes/CPU-Min: 12806
: Memory Used: 84 pages
: Compilation Complete
    
```

