```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                        2 ************************************************************************
                                                        3 *                              PFPO.ASM
                                                        4 ************************************************************************
                                                        5 *
                                                        6 *   This file was put into the public domain 2016-05-05
                                                        7 *   by John P. Hartmann. You can use it for anything you like,
                                                        8 *   as long as this notice remains.
                                                        9 *
                                                       10 *   Note that this test runs in problem state. As a result STFL is
                                                       11 *   not a good idea; nor is LPSW for that matter.
                                                       12 *
                                                       13 *   So we terminate by SVC, and we determine architecture mode
                                                       14 *   by seeing where the Restart Old PSW was stored.
                                                       15 *
                                                       16 ************************************************************************
                                                       17 *
                                                       18 *   Temporarily modified by Fish to do NOTHING and test NOTHING!
                                                       19 *   Temporarily modified by Fish to do NOTHING and test NOTHING!
                                                       20 *   Temporarily modified by Fish to do NOTHING and test NOTHING!
                                                       21 *
                                                       22 ************************************************************************
                                                       24 ************************************************************************
                                                       25 *                           Low Core PSWs...
                                                       26 ************************************************************************

                            00000000  00000303     28 PFPO     START 0
00000000                    00000000                 29          USING PFPO,R15

00000000  00090000 00000200                          31          DC    A(X'00090000',GO)    ESA Restart New PSW
00000008                                             32 ROPSW390 DS    0XL8                 ESA/390 Restart Old PSW
00000008  FFFFFFFF FFFFFFFF                          33          DC    X'FFFFFFFFFFFFFFFF'  (if not ones then ESA/390 mode)

00000010                    00000010  00000060     35          ORG   PFPO+X'60'           ESA SVC New PSW
00000060  000A0000 00000000                          36          DC    X'000A0000',A(X'0')  (normal EOJ PSW)

00000068                    00000068  00000068     38          ORG   PFPO+X'68'           ESA Program New PSW
00000068  000A0000 DEADDEAD                          39          DC    X'000A0000',A(X'DEADDEAD')

00000070                    00000070  00000120     41          ORG   PFPO+X'120'
00000120                                             42 ROPSWZ   DS    0XL16                z Restart Old PSW
00000120  FFFFFFFF FFFFFFFF                          43          DC    16X'FF'              (if not ones then z mode)

00000130                    00000130  000001A0     45          ORG   PFPO+X'1A0'          z Restart New PSW
000001A0  00010001 80000000                          46          DC    X'0001000180000000',AD(GO)

000001B0                    000001B0  000001C0     48          ORG   PFPO+X'1C0'          z SVC New PSW
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

000001C0  00020001 80000000                           49          DC    X'0002000180000000',AD(0)

000001D0                      000001D0  000001D0     51          ORG   PFPO+X'1D0'           z Program New PSW
000001D0  00020001 80000000                           52          DC    X'0002000180000000',AD(X'DEADDEAD')
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                       54 ********************************************************************************
                                                       55 *                    Start of actual program...
                                                       56 ********************************************************************************


000001E0                      000001E0  00000200     58           ORG   PFPO+X'200'
00000200                                             59 GO        DS    0H

00000200  95FF F008                     00000008     61           CLI   ROPSW390,X'FF'       Running in ESA/390 mode?
00000204  4770 F21C                     0000021C     62           BNE   EOJ                 Yes, quick EOJ (no PFPO support!)
                                                       63
                                                       64
                                                       65
                                                       66
                                                       67
                                                       68
                                                       69
                                                       70 ********************************************************************************
                                                       71 ********************************************************************************
                                                       72 **
                                                       73 **                        PROGRAMMING NOTE
                                                       74 **
                                                       75 **    Until such time as we can code a PROPER test for this
                                                       76 **    instruction, this test has been purposely neutered.
                                                       77 **
                                                       78 **    It currently does NOTHING and tests NOTHING.
                                                       79 **
                                                       80 **
                                                       81 ********************************************************************************
                                                       82 ********************************************************************************
                                                       83
00000208  47F0 F21C                     0000021C     84           B     EOJ                 *** (See PROGRAMMING NOTE) ***
                                                       85
                                                       86
                                                       87
                                                       88
                                                       89
                                                       90
0000020C  1F33                                       91           SLR   R3,R3               Clear R3 for later CC store
0000020E  5800 F220                     00000220     92           L     R0,=A(X'80000000')  Test for invalid function

00000212  010A                                       94           PFPO  ,                   Perform Floating Point Operation

00000214  B222 0030                                  96           IPM   R3                  Collect condition code from PSW
00000218  5030 F300                     00000300     97           ST    R3,CONDCODE         Save CC

0000021C                                             99 EOJ       DS    0H
0000021C  0A00                                      100           SVC   0                   Load hardwait psw


00000220                                            102           LTORG ,
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
00000220  80000000                            103               =A(X'80000000')

00000224                      00000224  00000300   105          ORG   PFPO+X'300'          Condition Code save area @ X'300'
00000300  00000000                            106 CONDCODE DC    F'0'                    Condition Code from PFPO
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      108 ********************************************************************************
                                                      109 *        Register equates
                                                      110 ********************************************************************************

                              00000000  00000001    112 R0       EQU   0
                              00000001  00000001    113 R1       EQU   1
                              00000002  00000001    114 R2       EQU   2
                              00000003  00000001    115 R3       EQU   3
                              00000004  00000001    116 R4       EQU   4
                              00000005  00000001    117 R5       EQU   5
                              00000006  00000001    118 R6       EQU   6
                              00000007  00000001    119 R7       EQU   7
                              00000008  00000001    120 R8       EQU   8
                              00000009  00000001    121 R9       EQU   9
                              0000000A  00000001    122 R10      EQU   10
                              0000000B  00000001    123 R11      EQU   11
                              0000000C  00000001    124 R12      EQU   12
                              0000000D  00000001    125 R13      EQU   13
                              0000000E  00000001    126 R14      EQU   14
                              0000000F  00000001    127 R15      EQU   15


                                                      129          END
```

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
CONDCODE	F	000300	4	106	97
EOJ	H	00021C	2	99	62 84
GO	H	000200	2	59	31 46
IMAGE	1	000000	772	0	
PFPO	J	000000	772	28	35 38 41 45 48 51 58 105 29
R0	U	000000	1	112	92
R1	U	000001	1	113	
R10	U	00000A	1	122	
R11	U	00000B	1	123	
R12	U	00000C	1	124	
R13	U	00000D	1	125	
R14	U	00000E	1	126	
R15	U	00000F	1	127	29
R2	U	000002	1	114	
R3	U	000003	1	115	91 96 97
R4	U	000004	1	116	
R5	U	000005	1	117	
R6	U	000006	1	118	
R7	U	000007	1	119	
R8	U	000008	1	120	
R9	U	000009	1	121	
ROPSW390	X	000008	8	32	61
ROPSWZ	X	000120	16	42	
=A(X'80000000')	A	000220	4	103	92

MACRO DEFN REFERENCES

No defined macros

```
   DESC    SYMBOL   SIZE    POS      ADDR

Entry: 0

Image      IMAGE     772  000-303  000-303
  Region             772  000-303  000-303
    CSECT  PFPO      772  000-303  000-303
```

```
   STMT                                        FILE NAME
1     c:\Users\Fish\Documents\Visual Studio 2008\Projects\MyProjects\ASMA-0\PFPO\PFPO.asm

** NO ERRORS FOUND **
```