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                        ;
                        ; VCF South East 3.0 - Introduction TO Z-80 Programming
                        ;
                        ; EXAMPLE 1 - Toggle bit D0 of output port FFH at approximately 50 Hz
                        ;
                        ; This source code file can be assembled directly under Windows with
                        ; George Phillips' "ZMAC" Z-80 assembler, using the command:
                        ;
                        ;       zmac vcfex1.z80
                        ;
                        ; This file can also be assembled under CP/M 2.2 with the SLR Z80 assembler
                        ; using the following command:
                        ;
                        ;       Z80ASM VCFEX1/F
                        ;
                        ; Malcolm Macleod - 1 May 2015
                        ;

     -     9C40          CYCLS   EQU     40000D          ; 10 msec = 4,000,000 divided by 100
     -     00FF          PORT    EQU     0FFH            ; We're going to toggle output port 0FFH

     -     0000                  ORG     0000H           ; Our program goes in low memory

    0+10   0000  310080  START   LD      SP,8000H        ; Initialise the stack
   10+4    0003  7A      LOOP    LD      A,D             ; Get current value of D
   14+7    0004  EE01            XOR     1H              ; Toggle the least significant bit
   21+4    0006  57              LD      D,A             ; Save new value of D
   25+11   0007  D3FF            OUT     (PORT),A        ; Output new value of D
   36+17   0009  CD0E00          CALL    DELAY           ; Delay for 10 msec
   53+12   000C  18F5            JR      LOOP            ; Loop back to toggle again

   65+10   000E  010206  DELAY   LD      BC,CYCLS/26D    ; Number of loops required
   75+4    0011  78      DELLOOP LD      A,B             ; Put upper 8 bits of BC into A
   79+4    0012  B1              OR      C               ; Logical or A with lower 8 bits of BC
   83+6    0013  0B              DEC     BC              ; Decrement loop counter
   89+7+5  0014  20FB            JR      NZ,DELLOOP      ; Loop unless BC=0
   96+10   0016  C9              RET                     ; Return to main program loop

     -     0000                  END     START


Statistics:

     4  passes
     0  jr promotions
     6  symbols
    23  bytes
```

Symbol Table:

```
cycls           =9c40
delay               e
delloop            11
loop                3
port            =  ff
start               0
```