

# PSC Simple Debugger#

This is a very simple debugger I have written years ago. It has been used to figure out the hotspots of a program or to slow down the program to be examined.

The "BUG.COM" executable will install a VBI with a wait loop. This loop is slowing down the Atari and thus other programs running. It can be adjusted with "START" and "SELECT". In the top line the tool will display the current CPU instruction pointer. This instruction pointer can be copied to the field on the right with the "OPTION" key (e.g. to examine a specific code area with a hardware monitor such as BiboMon, QMeg or Turbo-Freezer).

## Disk#

[A simple 6502 debugger/sbug6502.atr](#)

## Source#

- [A simple 6502 debugger/BUG.SRC.pdf](#)

```
00010      .LI OFF
00020 *****
00030 * PSC DEBUGGER V.1      *
00040 *****
00050 ;
00060 CASINI      =      $02
00070 BOOT       =      $09
00080 CONSOL     =      $D01F
00090 SDLST      =      $0230
00100 HLPFLG    =      $2DC
00110 VCOUNT     =      $D40B
00111 BZAHL    =      $238
00120 ;
00130 ; OS ADRESSEN
00140 ;
00150 SETVBV     =      $E45C
00160 XITVBV     =      $E462
00170 ;
00180 ;
00190      .OF "D:BUG.COM"
00200      .OR $400
00210 ;
00220 HLPMEM     .HX 000000000000
00240 DL        .HX 707042
00250      .DA TEXT
00260      .HX 0001
00270 DLEND      .HX 0000
00280 TEXT       .AT "\240????-?< , ;??\240@?????@?æ@?????@, ??Ã@?????@"
00290 DECLO      .HX 10E8640A
00300 DECHI      .HX 27030000
00310 ZIFFER     .AT "00000"
00320 DELAY      .HX 77
00330 ;
00340 ;
00350 ;
00360 ;
```

```

00370 X
00380     LDA #X
00390     STA CASINI
00400     LDA /X
00410     STA CASINI+1
00420 ;
00430     LDA BOOT
00440     ORA #$02
00450     STA BOOT
00460 ;
00470     LDA #$04
00480     BIT CONSOL
00490     BNE SETVBI
00500     RTS
00510 ;
00520 SETVBI
00530     LDY #START
00540     LDX /START
00550     LDA #$07
00560     JSR SETVBV
00570     RTS
00580 ;
00590     .OR $0600
00600 ;
00610 START  LDA SDLST+1
00620     CMP /DL
00630     BEQ BUG
00640     LDA SDLST
00650     CLC
00660     ADC #$03
00670     STA DLEND
00680     LDA SDLST+1
00690     ADC #$00
00700     STA DLEND+1
00710     LDA #DL
00720     STA SDLST
00730     LDA /DL
00740     STA SDLST+1
00750 ;
00760 BUG
00770     LDX #6
00780 .1    PLA
00790     STA HLPMEM-1,X
00800     DEX
00810     BNE .1
00820     LDX HLPMEM+1
00830     LDA HLPMEM
00840     JSR BINDEZ
00850 ;
00860 XDSPL
00870     LDX #5
00880     LDY #$12
00890     JSR DSPL2
00900 ;
00910     LDA CONSOL
00920     CMP #6
00930     BNE RESTORE
00940     LDX #5
00950     LDY #$1B

```

```

00960          JSR DSPL2
00970 ;
00980 RESTORE
00990 ;
01000          LDX #0
01010 .1      LDA HLPMEM,X
01020          PHA
01030          INX
01040          CPX #6
01050          BNE .1
01060          LDA DELAY
01070          LDX #0
01080          JSR BINDEZ
01090          LDX #5
01100          LDY #$26
01110          JSR DSPL2
01120 DELMIN
01130          LDA CONSOL
01140          CMP #5
01150          BNE DELPL
01160          LDA DELAY
01170          CMP #$10
01180          BMI DELPL
01190          DEC DELAY
01200 DELPL
01210          LDA CONSOL
01220          CMP #3
01230          BNE WAIT
01240          LDA DELAY
01250          CMP #$7B
01260          BPL WAIT
01270          INC DELAY
01280 WAIT
01290          LDA DELAY
01300 .1      CMP VCOUNT
01310          BNE WAIT
01320          JMP XITVBV
01330 -----
01340 BINDEZ
01350          STA BZAHL
01360          STX BZAHL+1
01370          LDX #4
01380 VORBES
01390          LDA #$10
01400          STA ZIFFER,X
01410          DEX
01420          BPL VORBES
01430          LDX #0
01440 STELLE
01450          LDA BZAHL+1
01460          CMP DECHI,X
01470          BNE TSTHI
01480          LDA BZAHL
01490          CMP DECLO,X
01500 TSTHI
01510          BCC KLEINER
01520          SEC
01530          LDA BZAHL
01540          SBC DECLO,X

```

```
01550      STA BZAHL
01560      LDA BZAHL+1
01570      SBC DECHI ,X
01580      STA BZAHL+1
01590      INC ZIFFER ,X
01600      JMP STELLE
01610 KLEINER
01620      INX
01630      CPX #4
01640      BNE STELLE
01650      CLC
01660      LDA BZAHL
01670      ADC ZIFFER+4
01680      STA ZIFFER+4
01690      RTS
01700 -----
01710 DSPL2
01720      LDA ZIFFER-1 ,X
01730      ORA #$80
01740      STA TEXT ,Y
01750      DEY
01760      DEX
01770      BNE DSPL2
01780      RTS
01790 -----
01800      .OR $2E0
01810      .DA X
01820 -----
```