ZEUS MONITOR Nov. 2021

8-BIT HOBBY COMPUTER BOOTSTRAP CODE

Bootup

At the bootup the Monitor copies memory block \$0000-\$3000 from bank F (EEPROM) to address \$8000 (highmem), than jumps to \$8000 and switch to bank E.

List of commands

>clr

Fills most of the screen with background color.

>dump

Dumps 0x70 bytes starting from specified memory address.

>send

Sends to UART specified amount of bytes starting from specified memory address.

>sysr

Sets system register value. Low nibble of sys reg is used by mem128 module for bank switching.

>load

Writes specified byte set starting from specified memory address.

>jump

Sets Program Counter register (jumps) to specified memory address.

>exec

Executes specified byte set.

>crc7

Calculates crc7 sum augmented with bit0 = 1 (check SD phys layer specs).

Example 1

```
>dump fe08
FE08: 84 00 00 00 00 0A 7F
                    09 CC
                           44
                              FF
      15 9F
             5D 14
FE10:
                              3D
            1D C2
                    43
                       45
                           00
FE18:
      46 55
                       73
                          11
                              59
            1D 80
                   5D
      3D 75
FE20:
                              7C
                          60
             95 68
                   F5 D7
      3C 47
FE28:
                              73
                       48
                           DC
             8D D4
FE30:
      5D 54
                    7D
                    04 CF D7
       5D F5 11 46
FE38:
FE40: CF
          5D C6
                 FD
                    54
                              FÜ
                    13
                       FF D1 D0
       73
          F9
             4D
                 54
          35
             70
                    5E
                              54
                 14
             D5
                 5C
                       63
                           10
                              24
       23
          7F
                    5C
       13
          51
             55
                 3D
                              10
                    0F
                           14
FE60:
                           34
FE68:
                        54
      73 F7
             7C
                4D 4D
                              DD
FE70: 55 9F
             CD F4
                    5B
                       F5
                          16 C7
```





Example 2

```
30 31 32 33
       7e00
                   33
7E00:
                                   33
                   51 C3
               56
       F0
           04
                  CC D5
                                  18
       45
           68
               4C
                                  D5
                                  F1
                      DO
               F5 67
                      D7
                              47
                                   FF
           95
                   F<sub>6</sub>
               4D
                   4E
                           38
       CD
               7C D9
                       10
        54
           0D
           6D
               13
                   91
                       OC.
                           14
                                  F1
       D1
                                   10
               74
                   29
                       D4
           30
                       27
                                   15
           7D
               3F
                           70
        3D
                   7D
                   4F
                       03
                                  DD
        4D
            36
               90
                                   45
7E60:
        33
               3D
                   76
7E68:
        30 13
                                   5C
               44
                       0F
                               0C
```

```
>send 7e00 0008
7E00: 30 31 32 33 74 7D FF
                             D4
             56 51 C3
                       73
7E08:
      FO 04
7E10: 45 68 4C CC D5
                             18
                          75
            30 12
                   13
                             D5
7E18: C5 F3
                       57
7E20: D5 FA F5 67 D0
                          70 F1
                      7C
                       5F
             4D F6 D7
                          47
                             FF
      71 95
7E28:
             1C 4E F5
7E30: CD 44
                       38
                          10
                             F7
            7C D9 1D C7
                          55
                              57
7E38:
       54
         OD.
7E40: D1 6D 13 91 0C
                          51 F1
                       14
            74 29 D4
                       57
7E48: F5
         30
                          53 1D
      3D 7D
            3F 7D 27
                       70
                          5C
                             15
7E50:
7E58: 4D 36 90
                   03
                4F
                             DD
                          57
                       7F
7E60: 33 93 3D 76
                   79
                              45
                       FB
7E68:
       30 13 44 D4
                    0F
                       15
```

```
>jump a000
7E00: 30 31 32 33 74
                51 €3
             56
      F0 04
7E08:
                              18
7E10: 45 68 4C CC D5
                                                 57
                              D5
                   13
                           75
7F18: C5 F3
                12
             30
7E20: D5 FA F5 67 D0
                       7C
             4D F6
                       5F
                              FF
                           47
                    D7
      71 95
7E28:
             1C 4E F5
                              F7
7E30: CD 44
                       38
                          10
       54 0D 7C D9 1D
7E38:
                           51
7E40: D1 6D 13 91 0C
                              F1
                       14
                29 D4
                           53
                              10
                        57
7E48: F5
             74
          30
                              15
                7D 27
                       70
                           5C
      3D 7D
             3F
7E50:
                    03
                           57
                              DD
             90
          36
                 4F
                       7F
      4D
7E58:
7E60: 33 93
             3D
                    79
                       FB
                           5C
                              45
                76
                       15
                              SC
       30 13 44 D4
                           0C
7E68:
                    0F
```

Example 3



