Homework1:Helloworld

Part1: 传统方式

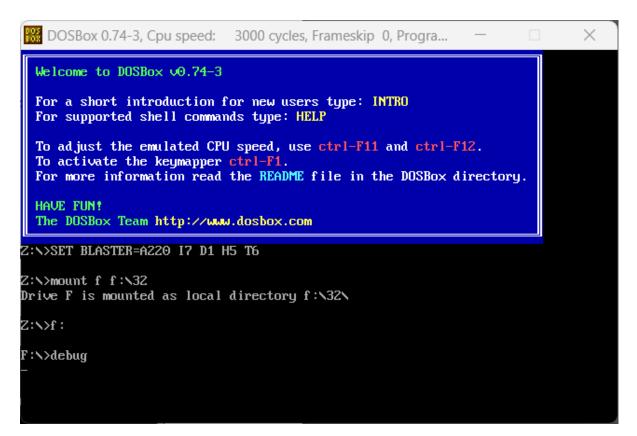
详情见仓库中的文件,代码示例如下:

```
STKSEG SEGMENT STACK
DW 32 DUP(0)
STKSEG ENDS
DATASEG SEGMENT
   MSG DB "Hello World$"
DATASEG ENDS
CODESEG SEGMENT
   ASSUME CS:CODESEG, DS:DATASEG
MAIN PROC FAR
   MOV AX, DATASEG
   MOV DS,AX
   MOV AH,9
   MOV DX,OFFSET MSG
   INT 21H
   MOV AX,4C00H
   INT 21H
MAIN ENDP
CODESEG ENDS
   END MAIN
```

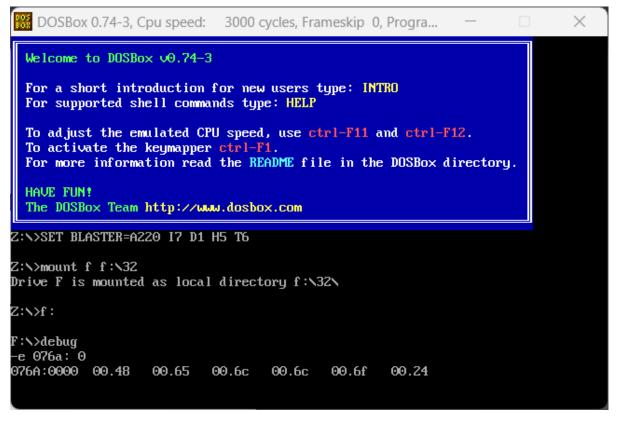
Part2: 另类方式

通过直接写内存方式执行代码, 步骤如下:

1.进入debug:



2.写数据"Hello\$"对应的 ASCII 码 48 65 6c 6c 6f 24 写入内存 Debug 下用-e 076a: 0 回车 一次写入



3.写代码的机器码 b8 6b 07 be d8 ba 02 00 b4 09 cd 21 b8 00 4c cd 21 (17 个字节)写入内存 Debug下用-e 076b: 0 回车 一次写入

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
                                                                          \times
 For a short introduction for new users type: INTRO
 For supported shell commands type: HELP
 To adjust the emulated CPU speed, use ctrl-F11 and ctrl-F12.
 To activate the keymapper ctrl-F1.
 For more information read the README file in the DOSBox directory.
 HAUE FUN!
 The DOSBox Team http://www.dosbox.com
Z:\>mount f f:\32
Drive F is mounted as local directory f:\32\
Z:\>f:
F:\>debug
-e 076a: 0
076A:0000 00.48
                                         00.6f
                  00.65
                                  00.6c
                                                 00.24
                          00.6c
-е 076Ъ: 0
076В:0000 00.Ъ8
                  00.6b
                          00.07
                                  00.be
                                          00.48
                                                 00.ba
                                                         00.02
                                                                 00.00
076B:0008 00.b4
                  00.09
                          00.cd
                                  00.21
                                          84.00
                                                 00.00
                                                         00.4c
                                                                 00.cd
076B:0010 00.21
```

4.修改寄存器及执行,如下图所示

```
BB DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
                                                                            X
                 CX=0000
                           DX=0000
AX=0000
        BX=0000
                                    SP=00FD
                                             BP=0000 SI=0000 DI=0000
                                              NU UP EI PL NZ NA PO NC
                  SS=073F CS=073F
                                    IP=0100
DS=073F
        ES=073F
073F:0100 0000
                                [BX+SI],AL
                       ADD
                                                                   DS:0000=CD
-r cs
CS 073F
:076Ъ
-r ds
DS 073F
:076a
-r
AX=0000
        BX=0000
                 CX=0000
                           DX=0000
                                   SP=00FD
                                             BP=0000 SI=0000 DI=0000
                  SS=073F CS=076B IP=0100
DS=076A ES=073F
                                              NV UP EI PL NZ NA PO NC
                                [BX+SI],AL
076B:0100 0000
                       ADD
                                                                   DS:0000=48
-r ip
IP 0100
:0
r
AX=0000
        BX=0000
                 CX=0000 DX=0000
                                   SP=00FD
                                             BP=0000 SI=0000 DI=0000
                  SS=073F CS=076B
                                              NV UP EI PL NZ NA PO NC
DS=076A ES=073F
                                    IP=0000
076B:0000 B86B07
                       MOV
                                AX,076B
-g
Hello
F:\>_
```