Lab10

Hyunki Lee

Problem1

a. AL = 0019FF2D ZF = 0 SF = 1

b. AL = 0019FF48 ZF = 0 SF = 1

c. AL = 0019FF6F ZF = 0 SF = 1

d. AL = 0019FFA3 ZF = 0 SF = 1 PF = 1

Yes changed. After ‘and, or, xor’ are operated, the result will be stored in the destination operand. Therefore, the value of al which is the destination operand is changed.

Problem2

a. CF = 0 ZF = 0 SF = 0 al = 0019FF0F

b. CF = 0 ZF = 0 SF = 0 bl = 00231006

c. CF = 1 ZF = 0 SF = 1 cl = 00401005

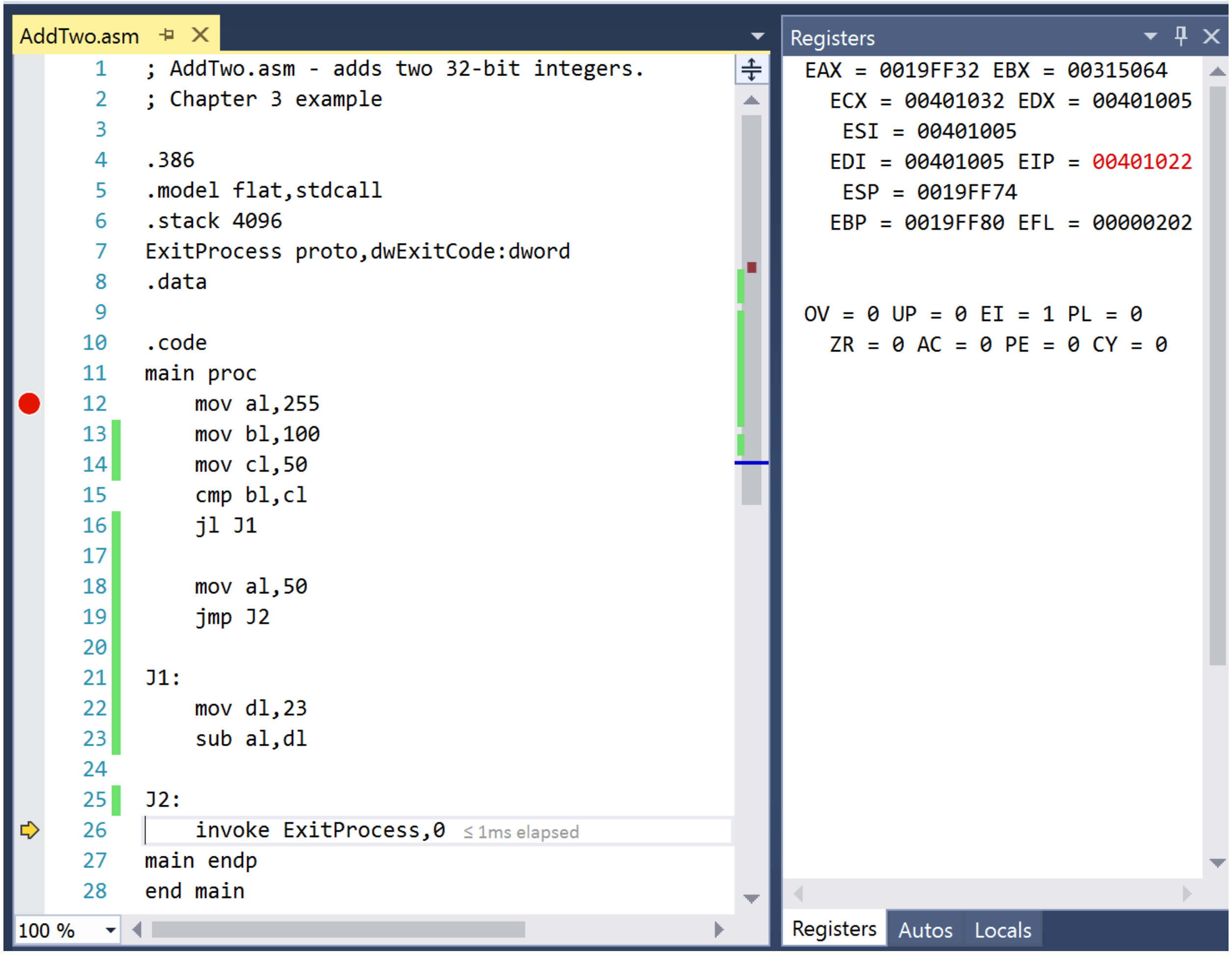
Test: no change

Cmp: no change

The two instructions – test and cmp – are not destructive subtraction of source from destination.

Therefore, the result value of destination operand is not changed.

Problem3

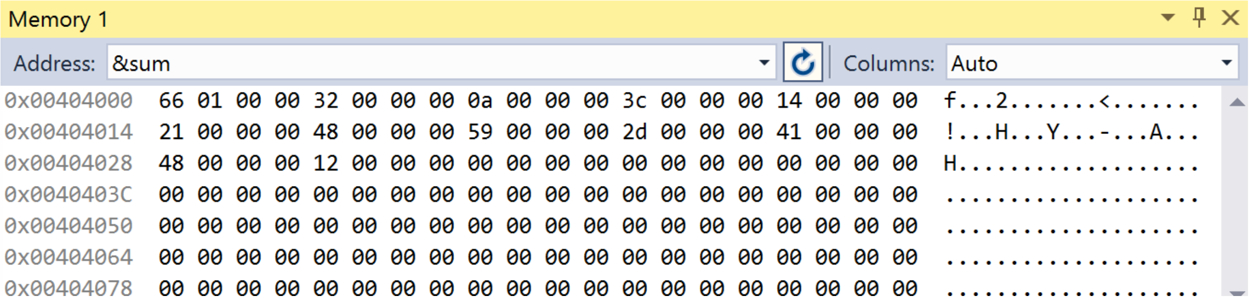


```
; AddTwo.asm - adds two 32-bit integers.
; Chapter 3 example

.386
.model flat,stdcall
.stack 4096
ExitProcess proto,dwExitCode:dword
.data

.code
main proc
    mov al,255
    mov bl,100
    mov cl,50
    cmp bl,cl
    jl J1

    mov al,50
    jmp J2

J1:
    mov dl,23
    sub al,dl

J2:
    invoke ExitProcess,0
main endp
end main
```

```
EAX = 0019FF32 EBX = 00315064
  ECX = 00401032 EDX = 00401005
   ESI = 00401005
  EDI = 00401005 EIP = 00401022
   ESP = 0019FF74
  EBP = 0019FF80 EFL = 00000202


OV = 0 UP = 0 EI = 1 PL = 0
  ZR = 0 AC = 0 PE = 0 CY = 0
```

Final value of al : 0019FF32

Problem4



Address: &sum

Columns: Auto

```
0x00404000  66 01 00 00 32 00 00 00 0a 00 00 00 3c 00 00 00 14 00 00 00  f...2.......<.......
0x00404014  21 00 00 00 48 00 00 00 59 00 00 00 2d 00 00 00 41 00 00 00  !...H...Y...-...A...
0x00404028  48 00 00 00 12 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  H...................
0x0040403C  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ....................
0x00404050  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ....................
0x00404064  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ....................
0x00404078  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ....................
```

Sum: 00000166