

Microprocessor, Microcontrollers and Interface Techniques Lab

Experiment 2 Post Lab

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```
01 a=1234H
02 b=1125H
03 MOV AX, 2*a
04 MOV BX, 3*b
05 ADD AX, BX
06 MOV I0202H, AX
07 HLT
```

emulation: postlab_addition.bin

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Load reload step back single step run step delay ms: 0

registers: H L

AX	57	07
010000: 88 18 4		
010001: 68 18 4		
010002: 68 18 4		
010003: 68 18 4		
010004: 6F 11 0		
010005: 03 00 3		
010006: 03 00 3		
010007: C3 19 5		
010008: 02 00 2		
010009: 02 00 2		
01000A: 02 00 2		
01000B: 02 00 2		
01000C: 90 14 4		
01000D: 90 14 4		
01000E: 90 14 4		
01000F: 90 14 4		
010010: 90 14 4		
010011: 90 14 4		
010012: 90 14 4		
010013: 90 14 4		
010014: 90 14 4		
010015: 90 14 4		
010016: 90 14 4		
010017: 90 14 4		
010018: 90 14 4		
010019: 90 14 4		
01001A: 90 14 4		
01001B: 90 14 4		
01001C: 90 14 4		
01001D: 90 14 4		
01001E: 90 14 4		
01001F: 90 14 4		

MOV AX, 02468H
MOV BX, 0336FH
MOV I00202H, AX
HLT

Random Access Memory

0100:020200	0100:020201	0100:020202	0100:020203	0100:020204	0100:020205	0100:020206	0100:020207	0100:020208	0100:020209	0100:02020A	0100:02020B	0100:02020C	0100:02020D	0100:02020E	0100:02020F	0100:020210	0100:020211	0100:020212	0100:020213	0100:020214	0100:020215	0100:020216	0100:020217	0100:020218	0100:020219	0100:02021A	0100:02021B	0100:02021C	0100:02021D	0100:02021E	0100:02021F
00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

Original source co...

```
01 a=1234H
02 b=1125H
03 MOV AX, 2*a
04 MOV BX, 3*b
05 ADD AX, BX
06 MOV I0202H, AX
07 HLT
```

lines: 7 col: 4

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edit: h\Other computers\My Laptop\College\ECE\Semester 5\Courses\Microprocessor, Microcontroller and Interfacing Techniques\Lab\Experiment 2\postlab_division.asm

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new open examples save compile emulate calculator converter options help about

01 a=2121H
02 b=1111H
03 MOV AX, a-b
04 MOV BX, a-b
05 DIV BX
06 MOV 1220H, AX
07 MOV 1200H, DX
08 HLT

emulator: postlab_division.bin_

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Load reload step back single step run step delay ms: 0

registers: H L

AX	00	03
BX	10	10
CX	00	00
DX	02	02
SI	00	00
DI	00	00
BP	00	00
SP	FF	FF
IP	00	10

01000: 00 184 3
01001: 32 050 2
01002: 32 050 2
01003: 10 016 1
01004: 10 016 1
01005: 10 016 1
01006: F7 247 2
01007: 89 137 2
01008: 89 137 2
01009: 86 086 2
0100A: 74 032 2
0100B: 74 032 2
0100C: 89 137 2
0100D: 16 022 2
0100E: 74 032 2
0100F: 89 137 2
01010: 74 244 2
01011: 74 144 2
01012: 74 144 2
01013: 74 144 2
01014: 74 144 2
01015: 74 144 2
01016: 74 144 2
01017: 74 144 2
01018: 74 144 2
01019: 74 144 2
0101A: 74 144 2
0101B: 74 144 2
0101C: 74 144 2
0101D: 74 144 2
0101E: 74 144 2
0101F: 74 144 2

0100:0010

MOV AX, 03232H
MOV BX, 01010H
DIV BX, 01010H
MOV 1220H, AX
MOV 1200H, DX
HLT

original source co...

01 a=2121H
02 b=1111H
03 MOV AX, a-b
04 MOV BX, a-b
05 DIV BX
06 MOV 1220H, AX
07 MOV 1200H, DX
08 HLT

Random Access Memory

0100:1200
0100:1200 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1210 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1220 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1230 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1240 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1250 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1260 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0100:1270 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

lines: 7 col: 10

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```

01 MOV AX, 4H
02 MOV BX, 2H
03 ADD AX, BX
04 MOV [1104H], AX
05 MOV AX, 4H
06 MOV BX, 2H
07 SUB AX, BX
08 MOV AX, [1104H]
09 MUL CX
10 MOV CX, AX
11 MOV AX, 4H
12 MOV BX, 2H
13 MUL BX
14 MOV [1106H], AX
15 MOV AX, [1106H]
16 DIV CX
17 MOV [1200H], AX
18 MOV [1210H], DX
19 HLT
  
```

emulator: arithmetic_operations.bin

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Load reload step back single step run step delay ms: 0

Registers	H	L
AX	00	08
BX	00	02
CX	00	00
DX	00	00
CS	F400	0174
IP	0174	0000
SS	0100	0000
SP	FF8	0000
BP	0000	0000
SI	0000	0000
DI	0000	0000
DS	0100	0000
ES	0100	0000

BIOS.DI

F4170: FF 255 RES
 F4171: 25 RES
 F4172: C3 207
 F4173: 00 000 NULL
 F4174: CF 207
 F4175: 00 000 NULL
 F4176: 00 000 NULL
 F4177: 00 000 NULL
 F4178: 00 000 NULL
 F4179: 00 000 NULL
 F417A: 00 000 NULL
 F417B: 00 000 NULL
 F417C: 00 000 NULL
 F417D: 00 000 NULL
 F417E: 00 000 NULL
 F417F: 00 000 NULL
 F4180: FF 255 RES
 F4181: 25 RES
 F4182: C3 205
 F4183: 04 004
 F4184: CF 207
 F4185: 00 000 NULL

F400:0174

BIOS.DI

ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD BH, BH
 ADD AL, 0CFH
 ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD [BX + SI], AL
 ADD BH, CL
 ADD [BX + SI], AL
 ...

original source co...

```

05 MOV AX, 4H
06 MOV BX, 2H
07 SUB AX, BX
08 MOV AX, [1104H]
09 MUL CX, AX
10 MOV CX, AX
11 MOV AX, 4H
12 MOV BX, 2H
13 MUL BX, AX
14 MOV [1106H], AX
15 MOV AX, [1106H]
16 DIV CX, [1106H]
  
```

Random Access Memory

update table list

0100:1200 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1210 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1220 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1230 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1240 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1250 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1260 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 0100:1270 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00