

COAL TASK

LAB NUMBER:04

BASIC IDEA:

SO WE NEED TO JUMP ONE MEMORY TO ANOTHER USING ARTHMETIC OPERATOR SO WE CAN BE AT SAME POINT YA KNOW FOR BOTH REGISTER.

PART NUMBER :1

WE FIRST HAVE ONE REGISTER WITH 0000 ADDRESS AND OTHER 0200.

The screenshot shows the DOSBox 0.74-3 interface. At the top, it displays 'DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD'. Below this, a table shows the state of registers: AX=0000, SI=0000, CS=0000, IP=0100, Stack=+0 0000, Flags=7202; BX=0000, DI=0000, DS=0200; CX=0012, BP=0000, ES=19F5, HS=19F5; DX=0000, SP=FFFE, SS=19F5, FS=19F5. Below the registers, a command prompt shows 'CMD >'. The main window displays assembly code starting at address 0100: 60 PUSH A, 1000 ADC [BX+SI], AL, F0 LOCK, 60 PUSH A, 1100 ADC [BX+SI], AX, F0 LOCK, 60 PUSH A, 1000 ADC [BX+SI], AL. To the right of the code is a memory dump showing the contents of memory addresses from DS:0000 to DS:0048, with values mostly being 20 07. At the bottom, a status bar shows '1 Step 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri'.

PART NUMBER : 2

NOW WE JUST ADD 400 WITH ONE.

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DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD
AX 0000 SI 0000 CS 0400 IP 0100 Stack +0 0000 Flags 7202
BX 0000 DI 0000 DS 0200 +2 20CD
CX 0012 BP 0000 ES 19F5 HS 19F5 +4 9FFF OF DF IF SF ZF AF PF CF
DX 0000 SP FFFE SS 19F5 FS 19F5 +6 EA00 0 0 1 0 0 0 0 0

CMD >

0100 3001 XOR [BX+DI],AL
0102 3001 XOR [BX+DI],AL
0104 2000 AND [BX+SI],AL
0106 2000 AND [BX+SI],AL
0108 2000 AND [BX+SI],AL
010A 45 INC BP
010B 005300 ADD [BP+DI+00],DL
010E 2000 AND [BX+SI],AL

DS:0000 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0010 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0020 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0030 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0040 20 07 20 07 20 07 20 07 20 07 20 07 20 07

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PART NUMBER : 3
AT STEP 3 ADD 200 WITH OTHER.

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DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD
AX 0000 SI 0000 CS 0400 IP 0100 Stack +0 0000 Flags 7202
BX 0000 DI 0000 DS 0200 +2 20CD
CX 0012 BP 0000 ES 19F5 HS 19F5 +4 9FFF OF DF IF SF ZF AF PF CF
DX 0000 SP FFFE SS 19F5 FS 19F5 +6 EA00 0 0 1 0 0 0 0 0

[CR] reg=va lue
CMD >DS=0200+0200

0100 3001 XOR [BX+DI],AL
0102 3001 XOR [BX+DI],AL
0104 2000 AND [BX+SI],AL
0106 2000 AND [BX+SI],AL
0108 2000 AND [BX+SI],AL
010A 45 INC BP
010B 005300 ADD [BP+DI+00],DL
010E 2000 AND [BX+SI],AL

DS:0000 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0010 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0020 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0030 20 07 20 07 20 07 20 07 20 07 20 07 20 07
DS:0040 20 07 20 07 20 07 20 07 20 07 20 07 20 07

```

PART NUMBER : 4
NOW WE CAN SEE BOTH ARE AT SAME ADDRESS.

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD

AX 0000	SI 0000	CS 0400	IP 0100	Stack +0 0000	Flags 7202
BX 0000	DI 0000	DS 0400		+2 20CD	
CX 0012	BP 0000	ES 19F5	HS 19F5	+4 9FFF	OF DF IF SF ZF AF PF CF
DX 0000	SP FFFE	SS 19F5	FS 19F5	+6 EA00	0 0 1 0 0 0 0 0

CMD >

20

0100 3001	XOR	[BX+DI],AL	DS:0000	20 00 2B 00 30 00 20 00	0 1 2 3 4 5 6 7	
0102 3001	XOR	[BX+DI],AL	DS:0008	30 00 30 00 30 00 30 00		
0104 2000	AND	[BX+SI],AL	DS:0010	20 00 20 00 46 00 6C 00		
0106 2000	AND	[BX+SI],AL	DS:0018	61 00 67 00 73 00 20 00		
0108 2000	AND	[BX+SI],AL	DS:0020	37 01 32 01 30 01 32 01		
010A 45	INC	BP	DS:0028	20 00 20 00 20 00 20 00		
010B 005300	ADD	[BP+DI+001],DL	DS:0030	20 00 20 00 20 00 20 00		
010E 2000	AND	[BX+SI],AL	DS:0038	20 00 20 00 20 00 20 00		
			DS:0040	20 00 42 00 58 00 20 00		
			DS:0048	30 01 30 01 30 01 30 01		

2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
DS:0000	20	00	2B	00	30	00	20	00	30	00	30	00	30	00	30	00	.+.0. . 0.0.0.0.
DS:0010	20	00	20	00	46	00	6C	00	61	00	67	00	73	00	20	00	. .F.1. a.g.s. .
DS:0020	37	01	32	01	30	01	32	01	20	00	20	00	20	00	20	00	7.2.0.2.
DS:0030	20	00	20	00	20	00	20	00	20	00	20	00	20	00	20	00
DS:0040	20	00	42	00	58	00	20	00	30	01	30	01	30	01	30	01	.B.X. . 0.0.0.0.

1 Step
2 ProcStep
3 Retrieve
4 Help ON
5 BRK Menu
6
7 up
8 dn
9 le
10 ri

c03-01	09/11/2021 10:51 am	ASM File	1 KB
c03-01b	09/11/2021 10:51 am	ASM File	2 KB