

Experiment 5

Class: SE Comp

Year: 2020-21

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String Instruction:

Code:

```
org 100h
.code
    cld
    lea si,[0200h]
    lea di,[0300h]
    mov cx,5
up:
    movsw
    loop up
ret
```

Output:

emu8086 - assembler and microprocessor emulator 4.08

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```
01 org 100h
02 .code
03 cld
04 lea si,[0200h]
05 lea di,[0300h]
06 mov cx,5
07 up:
08 movsw
09 loop up
10 ret
11
12
13
14
15
16
```

emulator: noname.com_

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

registers

	H	L
AX	00	00
BX	00	00
CX	00	00
DX	00	00
CS	F400	
IP	0154	
SS	0700	
SP	FFFA	
BP	0000	
SI	0200	
DI	0300	
DS	0700	
ES	0700	

F400:0154

F4150:	FF	255	RES
F4151:	FF	255	RES
F4152:	CD	205	=
F4153:	20	032	SPA
F4154:	CF	207	±
F4155:	00	000	NULL
F4156:	00	000	NULL
F4157:	00	000	NULL
F4158:	00	000	NULL
F4159:	00	000	NULL
F415A:	00	000	NULL
F415B:	00	000	NULL
F415C:	00	000	NULL
F415D:	00	000	NULL
F415E:	00	000	NULL
F415F:	00	000	NULL
F4160:	FF	255	RES
F4161:	FF	255	RES
F4162:	CD	205	=
F4163:	1A	026	→
F4164:	CF	207	±
F4165:	00	000	NULL

BIOS DI
INT 020h
IRET
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD BH, BH
DEC BP
SBB CL, BH
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD IBX + SI, AL
ADD BH, BH
DEC BP
ADD BH, CL
ADD IBX + SI, AL
ADD IBX + SI, AL
...

screen source reset aux vars debug stack flags

Random Access Memory

F400:0154 update table list

F400:0154	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	1A	±=
F400:0164	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	00	±=
F400:0174	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	04	±=
F400:0184	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	10	±=
F400:0194	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	12	±=
F400:01A4	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	13	±=
F400:01B4	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	16	±=
F400:01C4	CF	00	00	00	00	00	00	00-00	00	00	00	FF	FF	CD	14	±=

Conclusion:

We successfully wrote an assembly language program to move 10 memory locations using String instructions

Exp 05

Aim: To write an assembly language program to move 10 memory locations using string instructions

Algorithm:

- Start the program
- Initialize the counter
- Initialize SI & DI
- Clear direction flag or reset
- Decrement CX
- Stop.

Flow Chart:

