

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX

Z:\>mount x D:\Assembly
Drive X is mounted as local directory D:\Assembly\

Z:\>X:

X:\>nasm ex01.asm -o ex01.com -l ex01.lst

X:\>AFD ex01.com _
```

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202
BX 0000 DI 0000 DS 19F5 +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 B80500	MOV	AX,0005
0103 BB0A00	MOV	BX,000A
0106 01D8	ADD	AX,BX
0108 BB0F00	MOV	BX,000F
010B 01D8	ADD	AX,BX
010D B8004C	MOV	AX,4C00
0110 CD21	INT	21
0112 EB04	JMP	0118

1

DS:0000	CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00
DS:0008	AD DE 1B 05 C5 06 00 00	01 01 01 00 02 FF FF FF
DS:0010	18 01 10 01 18 01 92 01	FF FF FF FF FF FF FF FF
DS:0018	01 01 01 00 02 FF FF FF	FF FF FF FF EB 19 C0 11
DS:0020	FF FF FF FF FF FF FF FF	A2 01 14 00 18 00 F5 19
DS:0028	FF FF FF FF EB 19 C0 11	FF FF FF FF 00 00 00 00
DS:0030	A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00
DS:0038	FF FF FF FF 00 00 00 00	05 00 00 00 00 00 00 00
DS:0040	05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00
DS:0048	00 00 00 00 00 00 00 00	

2

DS:0000	CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	= f.Ω=■ i .†...
DS:0010	18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FFft.
DS:0020	FF FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	δ.L.
DS:0030	A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	ó.....J.
DS:0040	05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00

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

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

AX 0005	SI 0000	CS 19F5	IP 0103	Stack +0 0000	Flags 7200
BX 0000	DI 0000	DS 19F5		+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 B80500	MOV AX,0005	DS:0000	CD 20 FF 9F 00 EA F0 FE
0103 B80A00	MOV BX,000A	DS:0008	AD DE 1B 05 C5 06 00 00
0106 01D8	ADD AX,BX	DS:0010	18 01 10 01 18 01 92 01
0108 B80F00	MOV BX,000F	DS:0018	01 01 01 00 02 FF FF FF
010B 01D8	ADD AX,BX	DS:0020	FF FF FF FF FF FF FF FF
010D B8004C	MOV AX,4C00	DS:0028	FF FF FF FF EB 19 C0 11
0110 CD21	INT 21	DS:0030	A2 01 14 00 18 00 F5 19
0112 EB04	JMP 0118	DS:0038	FF FF FF FF 00 00 00 00
0114 31D2	XOR DX,DX	DS:0040	05 00 00 00 00 00 00 00
		DS:0048	00 00 00 00 00 00 00 00

2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
DS:0000	CD	20	FF	9F	00	EA	F0	FE	AD	DE	1B	05	C5	06	00	00	= f.Ω=■ i ..†...
DS:0010	18	01	10	01	18	01	92	01	01	01	00	02	FF	FF	FF	FFft.
DS:0020	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	EB	19	C0	11		δ.L.
DS:0030	A2	01	14	00	18	00	F5	19	FF	FF	FF	FF	00	00	00	00	6.....J.
DS:0040	05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

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

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

AX 0005	SI 0000	CS 19F5	IP 0106	Stack +0 0000	Flags 7200
BX 000A	DI 0000	DS 19F5		+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 >

0103 B80A00	MOV BX,000A	DS:0000	CD 20 FF 9F 00 EA F0 FE
0106 01D8	ADD AX,BX	DS:0008	AD DE 1B 05 C5 06 00 00
0108 B80F00	MOV BX,000F	DS:0010	18 01 10 01 18 01 92 01
010B 01D8	ADD AX,BX	DS:0018	01 01 01 00 02 FF FF FF
010D B8004C	MOV AX,4C00	DS:0020	FF FF FF FF FF FF FF FF
0110 CD21	INT 21	DS:0028	FF FF FF FF EB 19 C0 11
0112 EB04	JMP 0118	DS:0030	A2 01 14 00 18 00 F5 19
0114 31D2	XOR DX,DX	DS:0038	FF FF FF FF 00 00 00 00
0116 31C0	XOR AX,AX	DS:0040	05 00 00 00 00 00 00 00
		DS:0048	00 00 00 00 00 00 00 00

2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
DS:0000	CD	20	FF	9F	00	EA	F0	FE	AD	DE	1B	05	C5	06	00	00	= f.Ω=■ i ..†...
DS:0010	18	01	10	01	18	01	92	01	01	01	00	02	FF	FF	FF	FFft.
DS:0020	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	EB	19	C0	11		δ.L.
DS:0030	A2	01	14	00	18	00	F5	19	FF	FF	FF	FF	00	00	00	00	6.....J.
DS:0040	05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

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

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

AX 000F SI 0000 CS 19F5 IP 0108 Stack +0 0000 Flags 7204

BX 000A DI 0000 DS 19F5 +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 1 0

CMD >

0106 01D8 ADD AX,BX

0108 B80F00 MOV BX,000F

010B 01D8 ADD AX,BX

010D B804C MOV AX,4C00

0110 CD21 INT 21

0112 EB04 JMP 011B

0114 31D2 XOR DX,DX

0116 31C0 XOR AX,AX

0118 8956E4 MOV [BP-1C],DX

1

DS:0000 CD 20 FF 9F 00 EA F0 FE

DS:0008 AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01

DS:0018 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF

DS:0028 FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19

DS:0038 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00

DS:0048 00 00 00 00 00 00 00 00

2

DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00

= f.Ω≡ i |..†...
.....f.
δ.L.
6.....J.
.....

1 Step

2ProcStep

3Retrieve

4Help ON

5BRK Menu

6

7 up

8 dn

9 le

10 ri

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

AX 000F SI 0000 CS 19F5 IP 0108 Stack +0 0000 Flags 7204

BX 000F DI 0000 DS 19F5 +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 1 0

CMD >

0108 B80F00 MOV BX,000F

010B 01D8 ADD AX,BX

010D B804C MOV AX,4C00

0110 CD21 INT 21

0112 EB04 JMP 011B

0114 31D2 XOR DX,DX

0116 31C0 XOR AX,AX

0118 8956E4 MOV [BP-1C],DX

011B 8946E6 MOV [BP-1A],AX

1

DS:0000 CD 20 FF 9F 00 EA F0 FE

DS:0008 AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01

DS:0018 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF

DS:0028 FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19

DS:0038 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00

DS:0048 00 00 00 00 00 00 00 00

2

DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00

= f.Ω≡ i |..†...
.....f.
δ.L.
6.....J.
.....

1 Step

2ProcStep

3Retrieve

4Help ON

5BRK Menu

6

7 up

8 dn

9 le

10 ri

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

AX 001E

SI 0000

CS 19F5

IP 010D

Stack +0 0000

Flags 7214

BX 000F

DI 0000

DS 19F5

CX 0012

BP 0000

ES 19F5

HS 19F5

DX 0000

SP FFFE

SS 19F5

FS 19F5

+2 20CD

+4 9FFF

+6 EA00

OF DF IF SF ZF AF PF CF

0 0 1 0 0 1 1 0

CMD >

010B 01D8

ADD AX,BX

010D B8004C

MOV AX,4C00

0110 CD21

INT 21

0112 EB04

JMP 0118

0114 31D2

XOR DX,DX

0116 31C0

XOR AX,AX

0118 8956E4

MOV [BP-1C],DX

011B 8946E6

MOV [BP-1A],AX

011E C746F60000

MOV [BP-0A],0000

1

0 1 2 3 4 5 6 7

DS:0000 CD 20 FF 9F 00 EA F0 FE

DS:0008 AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01

DS:0018 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF

DS:0028 FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19

DS:0038 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00

DS:0048 00 00 00 00 00 00 00 00

2

0 1 2 3 4 5 6 7 8 9 A B C D E F

DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00

= f.Ω■ i |..†...

.....ff.

δ. L.

6.....J.

.....

1 Step

2 ProcStep

3 Retrieve

4 Help ON

5 BRK Menu

6

7 up

8 dn

9 le

10 ri

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

AX 4C00

SI 0000

CS 19F5

IP 0110

Stack +0 0000

Flags 7214

BX 000F

DI 0000

DS 19F5

CX 0012

BP 0000

ES 19F5

HS 19F5

DX 0000

SP FFFE

SS 19F5

FS 19F5

+2 20CD

+4 9FFF

+6 EA00

OF DF IF SF ZF AF PF CF

0 0 1 0 0 1 1 0

CMD >

010D B8004C

MOV AX,4C00

0110 CD21

INT 21

0112 EB04

JMP 0118

0114 31D2

XOR DX,DX

0116 31C0

XOR AX,AX

0118 8956E4

MOV [BP-1C],DX

011B 8946E6

MOV [BP-1A],AX

011E C746F60000

MOV [BP-0A],0000

0123 8B46F6

MOV AX,[BP-0A]

1

0 1 2 3 4 5 6 7

DS:0000 CD 20 FF 9F 00 EA F0 FE

DS:0008 AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01

DS:0018 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF

DS:0028 FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19

DS:0038 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00

DS:0048 00 00 00 00 00 00 00 00

2

0 1 2 3 4 5 6 7 8 9 A B C D E F

DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00

DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF

DS:0020 FF FF FF FF FF FF FF FF FF FF FF FF EB 19 C0 11

DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF 00 00 00 00

DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00

= f.Ω■ i |..†...

.....ff.

δ. L.

6.....J.

.....

1 Step

2 ProcStep

3 Retrieve

4 Help ON

5 BRK Menu


6

7 up

8 dn

9 le

10 ri


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

AX 0000	SI 0000	CS 19F5	IP 0100	Stack +0 0000	Flags 7202
BX 0000	DI 0000	DS 19F5		+2 20CD	
CX 0000	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 >

> Program terminated OK

0100	BB0500	MOV	AX,0005
0103	BB0A00	MOV	BX,000A
0106	01D8	ADD	AX,BX
0108	BB0F00	MOV	BX,000F
010B	01D8	ADD	AX,BX
010D	BB004C	MOV	AX,4C00
0110	CD21	INT	21
0112	EB04	JMP	0118

1	0	1	2	3	4	5	6	7	
DS:0000	CD	20	FF	9F	00	EA	FF	FF	
DS:0008	AD	DE	1B	05	C5	06	00	00	
DS:0010	18	01	10	01	18	01	92	01	
DS:0018	01	01	01	00	02	FF	FF	FF	
DS:0020	FF	FF	FF	FF	FF	FF	FF	FF	
DS:0028	FF	FF	FF	FF	EB	19	E4	11	
DS:0030	A2	01	14	00	18	00	F5	19	
DS:0038	FF	FF	FF	FF	00	00	00	00	
DS:0040	05	00	00	00	00	00	00	00	
DS:0048	00	00	00	00	00	00	00	00	

2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
DS:0000	CD	20	FF	9F	00	EA	FF	FF	AD	DE	1B	05	C5	06	00	00	= f.Ω ÷ ..†...
DS:0010	18	01	10	01	18	01	92	01	01	01	01	00	02	FF	FF	FFff.
DS:0020	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	EB	19	E4	11	δ.Σ.
DS:0030	A2	01	14	00	18	00	F5	19	FF	FF	FF	FF	00	00	00	00	ó.....J.
DS:0040	05	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

1 Step

2ProcStep

3Retrieve

4Help ON

5BRK Menu

6

7 up

8 dn

9 le

10 ri