

Lab Report #5

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Flags:

1. Sign Flag (SF):

After any operation if the MSB of the result is 1, it indicates the number is negative and the sign flag becomes set, i.e. 1. If the MSB is 0, it indicates the number is positive and the sign flag becomes reset i.e. 0.

Example:

Code:

```
ASM sf.asm      X  ASM zf.asm
coal > ASM sf.asm
1  [org 0x0100]
2
3  mov ax , 30
4  mov bx , 40
5  sub ax , bx
6
7  mov ax , 0x4c00
8  int 0x21 |
```

Output:

DOSBox 0.74-3, 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 000D	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

0100 BB1E00 MOV AX,001E
0103 BB2800 MOV BX,0028
0106 29D8 SUB AX,BX
0108 B8004C MOV AX,4C00
010B CD21 INT 21
010D C3 RET
010E B9D0 MOV AX,DX
0110 B9DA MOV DX,BX

DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	= f.Q=■ + ..+...
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 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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 up 7 dn 8 le 9 ri

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

AX 001E SI 0000 CS 19F5 IP 0103	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 000D 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 0

CMD > █								█	0 1 2 3 4 5 6 7
0100 BB1E00	MOV AX,001E	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0008 AD DE 1B 05 C5 06 00 00						
0103 BB2800	MOV BX,0028	DS:0010 18 01 10 01 18 01 92 01	DS:0018 01 01 01 00 02 FF FF FF						
0106 29D8	SUB AX,BX	DS:0020 FF FF FF FF FF FF FF	DS:0028 FF FF FF FF EB 19 C0 11						
0108 B8004C	MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0038 FF FF FF FF 00 00 00 00						
010B CD21	INT 21	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00						
010D C3	RET								
010E 89D0	MOV AX,DX								
0110 89DA	MOV DX,BX								
0112 EB04	JMP 0118								

█	0 1 2 3 4 5 6 7	8 9 A B C D E F	█	= f. R≡ █ i .+...f.J.
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	DS:0020 FF FF FF FF FF FF FF	
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0030 A2 01 14 00 18 00 F5 19	DS:0040 05 00 00 00 00 00 00 00	
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0038 FF FF FF FF 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00	
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		
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		

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

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

AX 001E SI 0000 CS 19F5 IP 0106	Stack +0 0000 Flags 7200
BX 0028 DI 0000 DS 19F5	+2 20CD
CX 000D 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 0

CMD > █								█	0 1 2 3 4 5 6 7
0103 BB2800	MOV BX,0028	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0008 AD DE 1B 05 C5 06 00 00						
0106 29D8	SUB AX,BX	DS:0010 18 01 10 01 18 01 92 01	DS:0018 01 01 01 00 02 FF FF FF						
0108 B8004C	MOV AX,4C00	DS:0020 FF FF FF FF FF FF FF	DS:0028 FF FF FF FF EB 19 C0 11						
010B CD21	INT 21	DS:0030 A2 01 14 00 18 00 F5 19	DS:0038 FF FF FF FF 00 00 00 00						
010D C3	RET	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00						
010E 89D0	MOV AX,DX								
0110 89DA	MOV DX,BX								
0112 EB04	JMP 0118								
0114 31D2	XDR DX,DX								

█	0 1 2 3 4 5 6 7	8 9 A B C D E F	█	= f. R≡ █ i .+...f.J.
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	DS:0020 FF FF FF FF FF FF FF	
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0030 A2 01 14 00 18 00 F5 19	DS:0040 05 00 00 00 00 00 00 00	
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0038 FF FF FF FF 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00	
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		
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		

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

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

AX FFF6 SI 0000 CS 19F5 IP 0108 Stack +0 0000 Flags 7285	BX 0028 DI 0000 DS 19F5 +2 20CD	CX 000D 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 1 0 0 1 1
CMD >			
0106 29D8 SUB AX,BX	DS:0000 CD 20 FF 9F 00 EA F0 FE	0 1 2 3 4 5 6 7	I
0108 B8004C MOV AX,4C00	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
010B CD21 INT 21	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
010D C3 RET	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
010E 89D0 MOV AX,DX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00	= f.8= i ..+...H.J.
0110 89DA MOV DX,BX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00
0112 EB04 JMP 0118	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00
0114 31D2 XDR DX,DX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00
0116 31C0 XDR AX,AX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00

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

These set of instructions will set the sign flag to 1 as $30 - 40$ is a negative number.

2. **Zero Flag (Z)** – After any arithmetical or logical operation if the result is 0, the zero flag becomes set i.e. 1, otherwise it becomes reset i.e. 0.

Example:

Code:

ASM zf.asm X ASM af.asm

```
coal > ASM zf.asm
1 [org 0x0100]
2
3 mov ax , 30
4 sub ax , ax
5
6 mov ax , 0x4c00
7 int 0x21 |
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100	Stack +0 0000 Flags 7202
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 000A 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 0 0 0 0

CMD >		1 0 1 2 3 4 5 6 7
0100 B81E00	MOV AX,001E	DS:0000 CD 20 FF 9F 00 EA F0 FE
0103 29C0	SUB AX,AX	DS:0008 AD DE 1B 05 C5 06 00 00
0105 B8004C	MOV AX,4C00	DS:0010 18 01 10 01 18 01 92 01
0108 CD21	INT 21	DS:0018 01 01 01 00 02 FF FF FF
010A 4C	DEC SP	DS:0020 FF FF FF FF FF FF FF FF
010B CD21	INT 21	DS:0028 FF FF FF EB 19 C0 11
010D C3	RET	DS:0030 A2 01 14 00 18 00 F5 19
010E 89D0	MOV AX,DX	DS:0038 FF FF FF 00 00 00 00 00
		DS:0040 05 00 00 00 00 00 00 00 00 00
		DS:0048 00 00 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	= f.Ω≡= i .+...fl.J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 001E SI 0000 CS 19F5 IP 0103	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 000A 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 0 0 0 0

CMD >		1 0 1 2 3 4 5 6 7
0100 B81E00	MOV AX,001E	DS:0000 CD 20 FF 9F 00 EA F0 FE
0103 29C0	SUB AX,AX	DS:0008 AD DE 1B 05 C5 06 00 00
0105 B8004C	MOV AX,4C00	DS:0010 18 01 10 01 18 01 92 01
0108 CD21	INT 21	DS:0018 01 01 01 00 02 FF FF FF
010A 4C	DEC SP	DS:0020 FF FF FF FF FF FF FF
010B CD21	INT 21	DS:0028 FF FF FF EB 19 C0 11
010D C3	RET	DS:0030 A2 01 14 00 18 00 F5 19
010E 89D0	MOV AX,DX	DS:0038 FF FF FF 00 00 00 00 00
0110 89DA	MOV DX,BX	DS:0040 05 00 00 00 00 00 00 00 00 00
		DS:0048 00 00 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	= f.Ω≡= i .+...fl.J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

These set of instructions will set the zero flag to 1.

- 3. Auxiliary Carry Flag (AC)** – This flag is used in BCD number system (0-9). If after any arithmetic or logical operation generates any carry and passes on, this flag becomes set i.e. 1, otherwise it becomes reset i.e. 0. This is the only flag register which is not accessible by the programmer

Example:

Code:

```
coal > af.asm
1 [org 0x0100]
2
3 mov ax , 43
4 mov bx , 39
5
6 add ax , bx
7
8 mov ax , 0x4c00
9 int 0x21
```

Output:

DOSBox 0.74-3, 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 000D	BP 0000	ES 19F5	HS 19F5	+4 9FFF	OF DF IF SF ZF AF FF CF
DX 0000	SP FFFE	SS 19F5	FS 19F5	+6 EA00	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0

CMD > █

0100 BB2B00	MOV	AX,002B
0103 BB2700	MOV	BX,0027
0106 01D8	ADD	AX,BX
0108 B8004C	MOV	AX,4C00
010B CD21	INT	21
010D C3	RET	
010E 89D0	MOV	AX,DX
0110 89DA	MOV	DX,BX

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 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 = f.Ω≡■ i..+...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF,ff.
DS:0020 FF FF FF FF FF FF FF FF EB 19 C0 11 FF FF FF FF EB 19 C0 11 d.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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 [] 7 up 8 dn 9 le 10 ri

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

AX 002B	SI 0000	CS 19F5	IP 0106	Stack +0 0000	Flags 7200
BX 0027	DI 0000	DS 19F5		+2 20CD	
CX 000D	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 0 0 0 0 0 0 0 0

CMD >	1	0 1 2 3 4 5 6 7
0103 BB2700 MOV BX,0027	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0106 01D8 ADD AX,BX	DS:0010 AD DE 1B 05 C5 06 00 00	
0108 B8004C MOV AX,4C00	DS:0018 18 01 10 01 18 01 92 01	
010B CD21 INT 21	DS:0020 01 01 01 00 02 FF FF FF	
010D C3 RET	DS:0028 FF FF FF FF EB 19 C0 11	
010E 89D0 MOV AX,DX	DS:0030 A2 01 14 00 18 00 F5 19	
0110 89DA MOV DX,BX	DS:0038 FF FF FF FF 00 00 00 00	
0112 EB04 JMP 0118	DS:0040 05 00 00 00 00 00 00 00	
0114 31D2 XOR DX,DX	DS:0048 00 00 00 00 00 00 00 00	

Z	0 1 2 3 4 5 6 7	8 9 A B C D E F	= f. R= i. + .
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 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 00		

These set of instructions will set the auxiliary carry flag to 1, as on adding 43 and 39, addition of lower order nibbles B and 9 will generate a carry.

4. Parity Flag (P) –If after any arithmetic or logical operation the result has even parity, an even number of 1 bits, the parity register becomes set i.e. 1, otherwise it becomes reset i.e. 0.

Example:

Code:

```
coal > ASM pf.asm
1 [org 0x0100]
2
3 mov ax , 30
4 mov bx , 40
5
6 sub ax , bx
7
8 mov ax , 0x4c00
9 int 0x21
```

Output:

DOSBox 0.74-3, 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 000D	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 0 0 0 0 0 0 0 0

CMD > []	1	0 1 2 3 4 5 6 7
0100 BB1E00	MOV AX,001E	DS:0000 CD 20 FF 9F 00 EA F0 FE
0103 BB2800	MOV BX,0028	DS:0008 AD DE 1B 05 C5 06 00 00
0106 29D8	SUB AX,BX	DS:0010 18 01 10 01 18 01 92 01
0108 B8004C	MOV AX,4C00	DS:0018 01 01 01 00 02 FF FF FF
010B CD21	INT 21	DS:0020 FF FF FF FF FF FF FF FF
010D C3	RET	DS:0028 FF FF FF FF 00 00 00 00
010E 89D0	MOV AX,DX	DS:0030 A2 01 14 00 18 00 F5 19
0110 89DA	MOV DX,BX	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

Z 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f.R= i. .+..
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 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 00

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

AX	001E	SI	0000	CS	19F5	IP	0103	Stack	+0	0000	Flags	7200
BX	0000	DI	0000	DS	19F5				+2	20CD		
CX	000D	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	E000	0 0 1 0 0 0 0 0 0	

CMD >

0100 B81E00	MOV	AX,001E	1	0	1	2	3	4	5	6	7
0103 BB2800	MOV	BX,0028	DS:0000	CD	20	FF	9F	00	EA	F0	FE
0106 29D8	SUB	AX,BX	DS:0010	AD	DE	1B	05	C5	06	00	00
0108 B8004C	MOV	AX,4C00	DS:0018	18	01	10	01	18	01	92	01
010B CD21	INT	Z1	DS:0020	01	01	01	00	02	FF	FF	FF
010D C3	RET		DS:0028	FF	FF	FF	FF	EB	19	C0	11
010E 89D0	MOV	AX,DX	DS:0030	A2	01	14	00	18	00	F5	19
0110 89DA	MOV	DX,BX	DS:0038	FF	FF	FF	FF	00	00	00	00
0112 EB04	JMP	0118	DS:0040	05	00	00	00	00	00	00	00
DS:0048	00	00	00	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 = f.Ω≡≡ i.+.+...
DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00f.
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FFL.
DS:0020 FF FF FF FF FF FF FF FF FF EB 19 C0 11 FF FF FF FF FF FFJ.
DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF FF 00 00 00 00d.
DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00n.

1 Step	2 ProcStep	3 Retrieve	4 Help	ON	5 BRK	Menu	6	7 up	8 dn	9 le	10 ri
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DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 001E SI 0000 CS 19F5 IP 0106 Stack +0 0000 Flags 7200	BX 0028 DI 0000 DS 19F5 +2 20CD	CX 000D 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 0
--	---------------------------------	---	---

CMD > []		1 0 1 2 3 4 5 6 7
0103 BB2800	MOV BX,BX	DS:0000 CD 20 FF 9F 00 EA F0 FE
0106 29D8	SUB AX,BX	DS:0008 AD DE 1B 05 C5 06 00 00
0108 B8004C	MOV AX,4C00	DS:0010 18 01 10 01 18 01 92 01
010B CD21	INT 21	DS:0018 01 01 01 00 02 FF FF FF
010D C3	RET	DS:0020 FF FF FF FF FF FF FF FF
010E 89D0	MOV AX,DX	DS:0028 FF FF FF EB 19 C0 11
0110 89DA	MOV DX,BX	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		= f.Ω≡■ ↓ ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00R.
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	δ. L.
DS:0020 FF FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	6.....J.
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 00

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

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

AX FFF6 SI 0000 CS 19F5 IP 0108 Stack +0 0000 Flags 7285	BX 0028 DI 0000 DS 19F5 +2 20CD	CX 000D 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 1 0 0 1 1
--	---------------------------------	---	---

CMD > []		1 0 1 2 3 4 5 6 7
0106 29D8	SUB AX,BX	DS:0000 CD 20 FF 9F 00 EA F0 FE
0108 B8004C	MOV AX,4C00	DS:0008 AD DE 1B 05 C5 06 00 00
010B CD21	INT 21	DS:0010 18 01 10 01 18 01 92 01
010D C3	RET	DS:0018 01 01 01 00 02 FF FF FF
010E 89D0	MOV AX,DX	DS:0020 FF FF FF FF FF FF FF FF
0110 89DA	MOV DX,BX	DS:0028 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		= f.Ω≡■ ↓ ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00R.
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	δ. L.
DS:0020 FF FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	6.....J.
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 00

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

This instruction will set the parity flag to 1 as the BCD code of 05H is 00000101, which contains even number of ones i.e. 2.

5. Carry Flag (CY) – Carry is generated when performing n bit operations and the result is more than n bits, then this flag becomes set i.e. 1, otherwise it becomes reset i.e. 0.

During subtraction (A-B), if A>B it becomes reset and if (A<B) it becomes set. Carry flag is also called borrow flag.

Example:

Code:

```
ASM cf.asm      X  ASM of.asm  
coal > ASM cf.asm  
1  [org 0x0100]  
2  
3  mov ax , 30  
4  mov bx , 40  
5  
6  sub ax , bx  
7  
8  mov ax , 0x4c00  
9  int 0x21 |
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 000D 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 BB1E00 MOV AX,001E	0103 BB2B00 MOV BX,0028	0106 29D8 SUB AX,BX	0108 B8004C MOV AX,4000
010B CD21 INT 21	010D C3 RET	010E 89D0 MOV AX,DX	0110 89DA MOV DX,BX
0 1 2 3 4 5 6 7	8 9 A B C D E F	1	0 1 2 3 4 5 6 7
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
2	= f.R=■ i .+...		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
3fl.δ.L.		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
4J.		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
5		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
6		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
7		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
8		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
9		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
10		
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0000 CD 20 FF 9F 00 EA F0 FE
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0010 18 01 10 01 18 01 92 01	DS:0010 18 01 10 01 18 01 92 01
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0020 FF FF FF FF FF FF FF	DS:0020 FF FF FF FF FF FF FF
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00	DS:0030 A2 01 14 00 18 00 F5 19	DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00
ri		

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

AX 001E SI 0000 CS 19F5 IP 0103	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 000D 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 0

CMD >		1 0 1 2 3 4 5 6 7
0100 BB1E00	MOV AX,001E	DS:0000 CD 20 FF 9F 00 EA F0 FE
0103 BB2800	MOV BX,0028	DS:0008 AD DE 1B 05 C5 06 00 00
0106 29D8	SUB AX,BX	DS:0010 18 01 10 01 18 01 92 01
0108 B8004C	MOV AX,4C00	DS:0018 01 01 01 00 02 FF FF FF
010B CD21	INT 21	DS:0020 FF FF FF FF FF FF FF FF FF
010D C3	RET	DS:0028 FF FF FF FF EB 19 C0 11
010E 89D0	MOV AX,DX	DS:0030 A2 01 14 00 18 00 F5 19
0110 89DA	MOV DX,BX	DS:0038 FF FF FF FF 00 00 00 00
0112 EB04	JMP 0118	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	= f.Ω≡ 4 ..+...fl.δ. L. 6.....J.
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 00		

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

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

AX 001E SI 0000 CS 19F5 IP 0106	Stack +0 0000 Flags 7200
BX 0028 DI 0000 DS 19F5	+2 20CD
CX 000D 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 0

CMD >		1 0 1 2 3 4 5 6 7
0103 BB2800	MOV BX,0028	DS:0000 CD 20 FF 9F 00 EA F0 FE
0106 29D8	SUB AX,BX	DS:0008 AD DE 1B 05 C5 06 00 00
0108 B8004C	MOV AX,4C00	DS:0010 18 01 10 01 18 01 92 01
010B CD21	INT 21	DS:0018 01 01 01 00 02 FF FF FF
010D C3	RET	DS:0020 FF FF FF FF FF FF FF FF
010E 89D0	MOV AX,DX	DS:0028 FF FF FF FF EB 19 C0 11
0110 89DA	MOV DX,BX	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	= f.Ω≡ 4 ..+...fl.δ. L. 6.....J.
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 00		

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

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

AX FFF6 SI 0000 CS 19F5 IP 0108 Stack +0 0000 Flags 7285	BX 0028 DI 0000 DS 19F5 +2 20CD	CX 000D 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 1 0 0 1 1
--	---------------------------------	---	---

```

CMD >[1] 0 1 2 3 4 5 6 7
0106 29D8 SUB AX,BX
0108 B8004C MOV AX,4C00 [2] 8 9 A B C D E F
010B CD21 INT 21
010D C3 RET
010E 89D0 MOV AX,DX
0110 89DA MOV DX,BX
0112 EB04 JMP 0118
0114 31D2 XOR DX,DX
0116 31C0 XOR AX,AX
DS:0000 CD 20 FF 9F 00 EA F0 FE 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 FF .....fl. .....
DS:0020 FF FF FF FF FF FF FF FF EB 19 C0 11 02 01 14 00 18 00 F5 19 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 ..... .....
DS:0048 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

```

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

These set of instructions will set the carry flag to 1 as 30 – 40 generates a carry/borrow.

- Overflow Flag (O) – This flag will be set (1) if the result of a signed operation is too large to fit in the number of bits available to represent it, otherwise reset (0). After any operation, if generates any carry and passes does not generates carry, overflow flag becomes set, i.e., 1.

Example:

Code:

```

asm of.asm X
coal > asm of.asm
1 [org 0x0100]
2
3 mov al , 126
4 mov bl , 58
5
6 add al , bl
7
8 mov ax , 0x4c00
9 int 0x21

```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 000B 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 0																																																						
CMD > <pre>0100 B07E MOV AL,7E 0102 B33A MOV BL,3A 0104 00D8 ADD AL,BL 0106 B8004C MOV AX,4C00 0109 CD21 INT 21 010B CD21 INT 21 010D C3 RET 010E 89D0 MOV AX,DX</pre>																																																									
<table border="1"> <thead> <tr> <th>1</th> <th>0</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>DS:0000</td> <td>CD 20 FF 9F 00 EA F0 FE</td> <td>AD DE 1B 05 C5 06 00 00</td> <td>= f.Ω≡≡</td> <td>↓ ..+....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0010</td> <td>18 01 10 01 18 01 92 01</td> <td>01 01 01 00 02 FF FF FF</td> <td>.....f.</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0020</td> <td>FF FF FF FF FF FF FF</td> <td>FF FF FF EB 19 C0 11</td> <td></td> <td>δ. L.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0030</td> <td>A2 01 14 00 18 00 F5 19</td> <td>FF FF FF FF 00 00 00 00</td> <td>6.....J.</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0040</td> <td>05 00 00 00 00 00 00 00</td> <td>00 00 00 00 00 00 00 00</td> <td>.....</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				1	0	1	2	3	4	5	6	7	DS:0000	CD 20 FF 9F 00 EA F0 FE	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 FFf.					DS:0020	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	0	1	2	3	4	5	6	7																																																	
DS:0000	CD 20 FF 9F 00 EA F0 FE	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 FFf.																																																					
DS:0020	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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 007E SI 0000 CS 19F5 IP 0102 Stack +0 0000 Flags 7200	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 000B 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 0																																																						
CMD > <pre>0100 B07E MOV AL,7E 0102 B33A MOV BL,3A 0104 00D8 ADD AL,BL 0106 B8004C MOV AX,4C00 0109 CD21 INT 21 010B CD21 INT 21 010D C3 RET 010E 89D0 MOV AX,DX 0110 89DA MOV DX,BX</pre>																																																									
<table border="1"> <thead> <tr> <th>1</th> <th>0</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>DS:0000</td> <td>CD 20 FF 9F 00 EA F0 FE</td> <td>AD DE 1B 05 C5 06 00 00</td> <td>= f.Ω≡≡</td> <td>↓ ..+....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0010</td> <td>18 01 10 01 18 01 92 01</td> <td>01 01 01 00 02 FF FF FF</td> <td>.....f.</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0020</td> <td>FF FF FF FF FF FF FF</td> <td>FF FF FF EB 19 C0 11</td> <td></td> <td>δ. L.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0030</td> <td>A2 01 14 00 18 00 F5 19</td> <td>FF FF FF FF 00 00 00 00</td> <td>6.....J.</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DS:0040</td> <td>05 00 00 00 00 00 00 00</td> <td>00 00 00 00 00 00 00 00</td> <td>.....</td> <td>.....</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				1	0	1	2	3	4	5	6	7	DS:0000	CD 20 FF 9F 00 EA F0 FE	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 FFf.					DS:0020	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	0	1	2	3	4	5	6	7																																																	
DS:0000	CD 20 FF 9F 00 EA F0 FE	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 FFf.																																																					
DS:0020	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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD -

AX 007E SI 0000 CS 19F5 IP 0104	Stack +0 0000 Flags 7200
BX 003A DI 0000 DS 19F5	+2 20CD
CX 000B 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 0

CMD >	
0102 B33A MOV BL,3A	1 0 1 2 3 4 5 6 7
0104 00D8 ADD AL,BL	DS:0000 CD 20 FF 9F 00 EA F0 FE
0106 B8004C MOV AX,4C00	DS:0008 AD DE 1B 05 C5 06 00 00
0109 CD21 INT 21	DS:0010 18 01 10 01 18 01 92 01
010B CD21 INT 21	DS:0018 01 01 01 00 02 FF FF FF
010D C3 RET	DS:0020 FF FF FF FF FF FF FF FF
010E 89D0 MOV AX,DX	DS:0028 FF FF FF FF EB 19 C0 11
0110 89DA MOV DX,BX	DS:0030 A2 01 14 00 18 00 F5 19
0112 EB04 JMP 0118	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 = f. R≡# 4 .+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF, ft.
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 00B8 SI 0000 CS 19F5 IP 0106	Stack +0 0000 Flags 7A94
BX 003A DI 0000 DS 19F5	+2 20CD
CX 000B 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 1 0 1 1 0 1 1 0

CMD > 1	
0104 00D8 ADD AL,BL	0 1 2 3 4 5 6 7
0106 B8004C MOV AX,4C00	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 CD21 INT 21	DS:0008 AD DE 1B 05 C5 06 00 00
010B CD21 INT 21	DS:0010 18 01 10 01 18 01 92 01
010D C3 RET	DS:0018 01 01 01 00 02 FF FF FF
010E 89D0 MOV AX,DX	DS:0020 FF FF FF FF FF FF FF
0110 89DA MOV DX,BX	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
	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. R≡# 4 .+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF, ft.
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

Overflow flag became set as we added 2 +ve numbers and we got a -ve number

Nested Loops:

Example #1:

Code:

```
asm asorting.asm X  asm dsorting.asm
coal > asm asorting.asm
1  [org 0x0100]
2
3  jmp start
4
5  data: dw 6, 4, 5, 2
6
7  start:
8      mov cx, 4
9
10    outerloop:
11        mov bx, 0
12
13        innerloop:
14            mov ax, [data + bx]
15
16            cmp ax, [data + bx + 2]
17
18            jbe noswap
19            ; the swap potion
20            mov dx, [data + bx + 2]
21            mov [data + bx + 2], ax
22            mov [data + bx], dx
23
24            noswap:
25            add bx, 2
26            cmp bx, 6
27            jne innerloop
28
29            ; check outer loop termination
30            sub cx, 1
31            jnz outerloop
32
33            ; exit system call
34            mov ax, 0x4c00
35            int 0x21
36
37 ; result will be 6 5 4 2
38
39
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0
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CMD >																																																																																																																																															
<table border="1"> <tr><td>0100 E90800</td><td>JMP</td><td>010B</td><td colspan="13"></td></tr> <tr><td>0103 06</td><td>PUSH</td><td>ES</td><td colspan="13"></td></tr> <tr><td>0104 0004</td><td>ADD</td><td>[SI],AL</td><td colspan="13"></td></tr> <tr><td>0106 0005</td><td>ADD</td><td>[DI],AL</td><td colspan="13"></td></tr> <tr><td>0108 0002</td><td>ADD</td><td>[BP+SI],AL</td><td colspan="13"></td></tr> <tr><td>010A 00B90400</td><td>ADD</td><td>[0004+BX+DI],BH</td><td colspan="13"></td></tr> <tr><td>010E BB0000</td><td>MOV</td><td>BX,0000</td><td colspan="13"></td></tr> <tr><td>0111 8B870301</td><td>MOV</td><td>AX,[0103+BX]</td><td colspan="13"></td></tr> </table>																0100 E90800	JMP	010B														0103 06	PUSH	ES														0104 0004	ADD	[SI],AL														0106 0005	ADD	[DI],AL														0108 0002	ADD	[BP+SI],AL														010A 00B90400	ADD	[0004+BX+DI],BH														010E BB0000	MOV	BX,0000														0111 8B870301	MOV	AX,[0103+BX]													
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0104 0004	ADD	[SI],AL																																																																																																																																													
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010A 00B90400	ADD	[0004+BX+DI],BH																																																																																																																																													
010E BB0000	MOV	BX,0000																																																																																																																																													
0111 8B870301	MOV	AX,[0103+BX]																																																																																																																																													
<table border="1"> <tr><td>1</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td></tr> <tr><td>DS:0000</td><td>CD</td><td>20</td><td>FF</td><td>9F</td><td>00</td><td>EA</td><td>F0</td><td>FE</td><td>AD</td><td>DE</td><td>1B</td><td>05</td><td>C5</td><td>06</td><td>00</td><td>00</td></tr> <tr><td>DS:0010</td><td>18</td><td>01</td><td>10</td><td>01</td><td>18</td><td>01</td><td>92</td><td>01</td><td>01</td><td>01</td><td>01</td><td>00</td><td>02</td><td>FF</td><td>FF</td><td>FF</td></tr> <tr><td>DS:0020</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>EB</td><td>19</td><td>C0</td></tr> <tr><td>DS:0030</td><td>A2</td><td>01</td><td>14</td><td>00</td><td>18</td><td>00</td><td>F5</td><td>19</td><td>FF</td><td>FF</td><td>FF</td><td>FF</td><td>00</td><td>00</td><td>00</td><td>00</td></tr> <tr><td>DS:0040</td><td>05</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td></tr> </table>																1	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	EB	19	C0	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	00																																						
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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	FF	EB	19	C0																																																																																																																															
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	00																																																																																																																															

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

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7200	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0
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CMD > [
<table border="1"> <tr><td>0100 E90800</td><td>JMP</td><td>010B</td><td colspan="13"></td></tr> <tr><td>010B B90400</td><td>MOV</td><td>CX,0004</td><td colspan="13"></td></tr> <tr><td>010E BB0000</td><td>MOV</td><td>BX,0000</td><td colspan="13"></td></tr> <tr><td>0111 8B870301</td><td>MOV</td><td>AX,[0103+BX]</td><td colspan="13"></td></tr> <tr><td>0115 3B870501</td><td>CMP</td><td>AX,[0105+BX]</td><td colspan="13"></td></tr> <tr><td>0119 760C</td><td>JNA</td><td>0127</td><td colspan="13"></td></tr> <tr><td>011B 8B970501</td><td>MOV</td><td>DX,[0105+BX]</td><td colspan="13"></td></tr> <tr><td>011F 89870501</td><td>MOV</td><td>[0105+BX],AX</td><td colspan="13"></td></tr> <tr><td>0123 89970301</td><td>MOV</td><td>[0103+BX],DX</td><td colspan="13"></td></tr> </table>																0100 E90800	JMP	010B														010B B90400	MOV	CX,0004														010E BB0000	MOV	BX,0000														0111 8B870301	MOV	AX,[0103+BX]														0115 3B870501	CMP	AX,[0105+BX]														0119 760C	JNA	0127														011B 8B970501	MOV	DX,[0105+BX]														011F 89870501	MOV	[0105+BX],AX														0123 89970301	MOV	[0103+BX],DX													
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011B 8B970501	MOV	DX,[0105+BX]																																																																																																																																																													
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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	FF	EB	19	C0																																																																																																																																															
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	00																																																																																																																																															

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

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

AX 0000 SI 0000 CS 19F5 IP 010E Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010B B90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE
010E BB0000 MOV BX,0000	DS:0008 AD DE 1B 05 C5 06 00 00
0111 8B870301 MOV AX,[0103+BX]	DS:0010 18 01 10 01 18 01 92 01
0115 3B870501 CMP AX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF
0119 760C JNA 0127	DS:0020 FF FF FF FF FF FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0028 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19
0123 89970301 MOV [0103+BX],DX	DS:0038 FF FF FF FF 00 00 00 00
0127 81C30200 ADD BX,0002	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	= f.Q≡# i..+...
DS:0010 18 01 10 01 18 01 92 01R.
DS:0020 FF FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0000 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > [] 0006	1 0 1 2 3 4 5 6 7
010E BB0000 MOV BX,0000	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 760C JNA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF FF EB 19 C0 11
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Q≡# i..+...
DS:0010 18 01 10 01 18 01 92 01R.
DS:0020 FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0115 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	0004
0111 8B870301 MOV AX,[0103+BX]	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 760C JNA 0127	DS:0008 AD DE 1B 05 C5 06 00 00
011B BB970501 MOV DX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
011F B9870501 MOV [0105+BX],AX	DS:0018 01 01 01 00 02 FF FF FF
0123 89970301 MOV [0103+BX],DX	DS:0020 FF FF FF FF FF FF FF FF
0127 81C30200 ADD BX,0002	DS:0028 FF FF FF EB 19 C0 11
012B 81FB0600 CMP BX,0006	DS:0030 A2 01 14 00 18 00 F5 19
012F 75E0 JNZ 0111	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	= f. R≡■ + . + ...
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00R.
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF		δ. L.
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	6.....J.
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 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0119 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	0001
0115 3B870501 CMP AX,[0105+BX]	1 0 1 2 3 4 5 6 7
0119 760C JNA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
011B BB970501 MOV DX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
011F B9870501 MOV [0105+BX],AX	DS:0010 18 01 10 01 18 01 92 01
0123 89970301 MOV [0103+BX],DX	DS:0018 01 01 01 00 02 FF FF FF
0127 81C30200 ADD BX,0002	DS:0020 FF FF FF FF FF FF FF
012B 81FB0600 CMP BX,0006	DS:0028 FF FF FF EB 19 C0 11
012F 75E0 JNZ 0111	DS:0030 A2 01 14 00 18 00 F5 19
0131 81E90100 SUB CX,0001	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	= f. R≡■ + . + ...
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00R.
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF		δ. L.
DS:0020 FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	6.....J.
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 00

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

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

AX 0006 SI 0000 CS 19F5 IP 011B	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 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 0

CMD > 0004-	
0119 760C JNA 0127	0004-
011B 8B970501 MOV DX,[0105+BX]	
011F 89870501 MOV [0105+BX],AX	
0123 89970301 MOV [0103+BX],DX	
0127 81C30200 ADD BX,0002	
012B 81FB0600 CMP BX,0006	
012F 75E0 JNZ 0111	
0131 81E90100 SUB CX,0001	
0135 75D7 JNZ 010E	

1 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
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 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 00

2 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f.Ω≡≡ 4 ...+
DS:0000 CD 20 FF 9F 00 EA F0 FER.
DS:0010 18 01 10 01 18 01 92 01J.
DS:0020 FF FF FF FF FF FF FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 011F	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0

CMD > 0004-	
011B 8B970501 MOV DX,[0105+BX]	0004-
011F 89870501 MOV [0105+BX],AX	
0123 89970301 MOV [0103+BX],DX	
0127 81C30200 ADD BX,0002	
012B 81FB0600 CMP BX,0006	
012F 75E0 JNZ 0111	
0131 81E90100 SUB CX,0001	
0135 75D7 JNZ 010E	
0137 B8004C MOV AX,4C00	

1 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
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 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 00

2 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f.Ω≡≡ 4 ...+
DS:0000 CD 20 FF 9F 00 EA F0 FER.
DS:0010 18 01 10 01 18 01 92 01J.
DS:0020 FF FF FF FF FF FF FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0123	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0

CMD > []	0000	1 0 1 2 3 4 5 6 7
011F 89870501 MOV [0105+BX],AX	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0123 89970301 MOV [0103+BX],DX	DS:0008 AD DE 1B 05 C5 06 00 00	
0127 81C30200 ADD BX,0002	DS:0010 18 01 10 01 18 01 92 01	
012B 81FB0600 CMP BX,0006	DS:0018 01 01 01 00 02 FF FF FF	
012F 75E0 JNZ 0111	DS:0020 FF FF FF FF FF FF FF FF	
0131 81E90100 SUB CX,0001	DS:0028 FF FF FF FF EB 19 C0 11	
0135 75D7 JNZ 010E	DS:0030 A2 01 14 00 18 00 F5 19	
0137 B8004C MOV AX,4C00	DS:0038 FF FF FF FF 00 00 00 00	
013A CD21 INT 21	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	= f.Ω≡■ i ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01	δ. L.
DS:0020 FF FF FF FF FF FF FF FF	6....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0127	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0

CMD > []	0000	1 0 1 2 3 4 5 6 7
0123 89970301 MOV [0103+BX],DX	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00	
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01	
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF	
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF	
0135 75D7 JNZ 010E	DS:0028 FF FF FF FF EB 19 C0 11	
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19	
013A CD21 INT Z1	DS:0038 FF FF FF FF 00 00 00 00	
013C C746DC0000 MOV [BP-24],0000	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	= f.Ω≡■ i ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01	δ. L.
DS:0020 FF FF FF FF FF FF FF	6....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012B Stack +0 0000 Flags 7200	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0004 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF FF FF FF
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	DS:0038 FF FF FF FF 00 00 00 00 00 00
0141 8E5EFC MOV DS,[BP-04]	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ 4 .+...fl.δ. L. 6.....J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012F Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1 1 1
DX 0004 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
012B 81FB0600 CMP BX,0006	DS:0000 CD 20 FF 9F 00 EA F0 FE
012F 75E0 JNZ 0111	DS:0008 AD DE 1B 05 C5 06 00 00
0131 81E90100 SUB CX,0001	DS:0010 18 01 10 01 18 01 92 01
0135 75D7 JNZ 010E	DS:0018 01 01 01 00 02 FF FF FF
0137 B8004C MOV AX,4C00	DS:0020 FF FF FF FF FF FF FF
013A CD21 INT 21	DS:0028 FF FF FF FF EB 19 C0 11
013C C746DC0000 MOV [BP-24],0000	DS:0030 A2 01 14 00 18 00 F5 19
0141 8E5EFC MOV DS,[BP-04]	DS:0038 FF FF FF FF 00 00 00 00 00 00
0144 837D0E00 CMP [DI+0E],0000	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ 4 .+...fl.δ. L. 6.....J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0111	Stack +0 0000 Flags 7295
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 1 0 1 1 1

CMD > []	
0006	
012F 75E0 JNZ 0111	1 0 1 2 3 4 5 6 7
0111 8B870301 MOV AX,[0103+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0115 3B870501 CMP AX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0119 760C JNA 0127	DS:0010 18 01 10 01 18 01 92 01
011B 8B970501 MOV DX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF
011F 89870501 MOV [0105+BX],AX	DS:0020 FF FF FF FF FF EB 19 C0 11
0123 89970301 MOV [0103+BX],DX	DS:0028 FF FF FF FF EB 19 C0 11
0127 81C30200 ADD BX,0002	DS:0030 A2 01 14 00 18 00 F5 19
012B 81FB0600 CMP BX,0006	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 = f.Ω≡≡ i...+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF,fl.
DS:0020 FF 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 6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0115	Stack +0 0000 Flags 7295
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 1 0 1 1 1

CMD > []	
0005	
0111 8B870301 MOV AX,[0103+BX]	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 760C JNA 0127	DS:0008 AD DE 1B 05 C5 06 00 00
011B 8B970501 MOV DX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
011F 89870501 MOV [0105+BX],AX	DS:0018 01 01 01 00 02 FF FF FF
0123 89970301 MOV [0103+BX],DX	DS:0020 FF FF FF FF FF EB 19 C0 11
0127 81C30200 ADD BX,0002	DS:0028 FF FF FF FF EB 19 C0 11
012B 81FB0600 CMP BX,0006	DS:0030 A2 01 14 00 18 00 F5 19
012F 75E0 JNZ 0111	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 = f.Ω≡≡ i...+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF,fl.
DS:0020 FF 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 6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0119	Stack +0 0000 Flags 7200
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0

CMD >	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 760C JNA 0127	DS:0008 AD DE 1B 05 C5 06 00 00
011B 8B970501 MOV DX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
011F 89870501 MOU [0105+BX],AX	DS:0018 01 01 01 00 02 FF FF FF
0123 89970301 MOV [0103+BX],DX	DS:0020 FF FF FF FF FF FF FF FF
0127 81C30200 ADD BX,0002	DS:0028 FF FF FF EB 19 C0 11
012B 81FB0600 CMP BX,0006	DS:0030 A2 01 14 00 18 00 F5 19
012F 75E0 JNZ 0111	DS:0038 FF FF FF FF 00 00 00 00 00
0131 81E90100 SUB CX,0001	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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.Q≡# 4 ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF,f.
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 00 6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00,

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

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

AX 0006 SI 0000 CS 19F5 IP 011B	Stack +0 0000 Flags 7200
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 BP 0000 ES 19F5 HS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
DX 0004 SP FFFE SS 19F5 FS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0

CMD > 1 0005	1 0 1 2 3 4 5 6 7
0119 760C JNA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
011B 8B970501 MOV DX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
011F 89870501 MOU [0105+BX],AX	DS:0010 18 01 10 01 18 01 92 01
0123 89970301 MOV [0103+BX],DX	DS:0018 01 01 01 00 02 FF FF FF
0127 81C30200 ADD BX,0002	DS:0020 FF FF FF FF FF FF FF
012B 81FB0600 CMP BX,0006	DS:0028 FF FF FF EB 19 C0 11
012F 75E0 JNZ 0111	DS:0030 A2 01 14 00 18 00 F5 19
0131 81E90100 SUB CX,0001	DS:0038 FF FF FF FF 00 00 00 00
0135 75D7 JNZ 010E	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.Q≡# 4 ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF,f.
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 00 00 6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00,

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

Example #2:

Code:

```
ASM dsorting.asm X
coal > ASM dsorting.asm
1    [org 0x0100]
2
3    jmp start
4
5    data: dw  6, 4, 5, 2
6
7    start:
8        mov cx, 4
9
10   outerloop:
11       mov bx, 0
12
13   innerloop:
14       mov ax, [data + bx]
15
16       cmp ax, [data + bx + 2]
17
18       ja noswap
19           ; the swap potion
20           mov dx, [data + bx + 2]
21           mov [data + bx + 2], ax
22           mov [data + bx], dx
23
24       noswap:
25           add bx, 2
26           cmp bx, 6
27       jne innerloop
28
29       ; check outer loop termination
30       sub cx, 1
31       jnz outerloop
32
33       ; exit system call
34       mov ax, 0x4c00
35       int 0x21
36
37   ; result will be 2 4 5 6
38
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0																								
CMD > []																											
<table border="1"><tr><td>0100 E90800 JMP 010B</td><td>1 0 1 2 3 4 5 6 7</td><td>DS:0000 CD 20 FF 9F 00 EA F0 FE</td></tr><tr><td>0103 06 PUSH ES</td><td>DS:0008 AD DE 1B 05 C5 06 00 00</td><td>DS:0010 18 01 10 01 18 01 92 01</td></tr><tr><td>0104 0004 ADD [SI],AL</td><td>DS:0018 01 01 01 00 02 FF FF FF</td><td>DS:0020 FF FF FF FF FF FF FF FF</td></tr><tr><td>0106 0005 ADD [DI],AL</td><td>DS:0028 FF FF FF EB 19 C0 11</td><td>DS:0030 A2 01 14 00 18 00 F5 19</td></tr><tr><td>0108 0002 ADD [BP+SI],AL</td><td>DS:0038 FF FF FF FF 00 00 00 00</td><td>DS:0040 05 00 00 00 00 00 00 00</td></tr><tr><td>010A 00B90400 ADD [0004+BX+DI],BH</td><td>DS:0048 00 00 00 00 00 00 00 00</td><td></td></tr><tr><td>010E BB0000 MOV BX,0000</td><td></td><td></td></tr><tr><td>0111 8B870301 MOV AX,[0103+BX]</td><td></td><td></td></tr></table>				0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE	0103 06 PUSH ES	DS:0008 AD DE 1B 05 C5 06 00 00	DS:0010 18 01 10 01 18 01 92 01	0104 0004 ADD [SI],AL	DS:0018 01 01 01 00 02 FF FF FF	DS:0020 FF FF FF FF FF FF FF FF	0106 0005 ADD [DI],AL	DS:0028 FF FF FF EB 19 C0 11	DS:0030 A2 01 14 00 18 00 F5 19	0108 0002 ADD [BP+SI],AL	DS:0038 FF FF FF FF 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	010A 00B90400 ADD [0004+BX+DI],BH	DS:0048 00 00 00 00 00 00 00 00		010E BB0000 MOV BX,0000			0111 8B870301 MOV AX,[0103+BX]		
0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE																									
0103 06 PUSH ES	DS:0008 AD DE 1B 05 C5 06 00 00	DS:0010 18 01 10 01 18 01 92 01																									
0104 0004 ADD [SI],AL	DS:0018 01 01 01 00 02 FF FF FF	DS:0020 FF FF FF FF FF FF FF FF																									
0106 0005 ADD [DI],AL	DS:0028 FF FF FF EB 19 C0 11	DS:0030 A2 01 14 00 18 00 F5 19																									
0108 0002 ADD [BP+SI],AL	DS:0038 FF FF FF FF 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00																									
010A 00B90400 ADD [0004+BX+DI],BH	DS:0048 00 00 00 00 00 00 00 00																										
010E BB0000 MOV BX,0000																											
0111 8B870301 MOV AX,[0103+BX]																											
<table border="1"><tr><td>2 0 1 2 3 4 5 6 7 8 9 A B C D E F</td><td>DS:0000 CD 20 FF 9F 00 EA F0 FE = f.Q≡■ ↓ ..+... DS:0010 18 01 10 01 18 01 92 01,R. DS:0020 FF EB 19 C0 11 δ,L. DS:0030 A2 01 14 00 18 00 F5 19 6.....J. DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00</td></tr><tr><td colspan="2">CMD ></td><td colspan="2">1 Step 2ProcStep 3Retrieve 4Help ON 5BRK Menu 6 7 up 8 dn 9 le 10 ri</td></tr></table>				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 = f.Q≡■ ↓ ..+... DS:0010 18 01 10 01 18 01 92 01,R. DS:0020 FF EB 19 C0 11 δ,L. DS:0030 A2 01 14 00 18 00 F5 19 6.....J. DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	CMD >		1 Step 2ProcStep 3Retrieve 4Help ON 5BRK Menu 6 7 up 8 dn 9 le 10 ri																			
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 = f.Q≡■ ↓ ..+... DS:0010 18 01 10 01 18 01 92 01,R. DS:0020 FF EB 19 C0 11 δ,L. DS:0030 A2 01 14 00 18 00 F5 19 6.....J. DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00																										
CMD >		1 Step 2ProcStep 3Retrieve 4Help ON 5BRK Menu 6 7 up 8 dn 9 le 10 ri																									

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

AX 0000 SI 0000 CS 19F5 IP 010B Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0																											
CMD > []																														
<table border="1"><tr><td>0100 E90800 JMP 010B</td><td>1 0 1 2 3 4 5 6 7</td><td>DS:0000 CD 20 FF 9F 00 EA F0 FE</td></tr><tr><td>010B E90400 MOV CX,0004</td><td>DS:0008 AD DE 1B 05 C5 06 00 00</td><td>DS:0010 18 01 10 01 18 01 92 01</td></tr><tr><td>010E BB0000 MOV BX,0000</td><td>DS:0018 01 01 01 00 02 FF FF FF</td><td>DS:0020 FF FF FF FF FF FF FF FF</td></tr><tr><td>0111 8B870301 MOV AX,[0103+BX]</td><td>DS:0028 FF FF FF EB 19 C0 11</td><td>DS:0030 A2 01 14 00 18 00 F5 19</td></tr><tr><td>0115 3B870501 CMP AX,[0105+BX]</td><td>DS:0038 FF FF FF FF 00 00 00 00</td><td>DS:0040 05 00 00 00 00 00 00 00</td></tr><tr><td>0119 770C JA 0127</td><td>DS:0048 00 00 00 00 00 00 00 00</td><td></td></tr><tr><td>011B BB970501 MOV DX,[0105+BX]</td><td></td><td></td></tr><tr><td>011F 89870501 MOV [0105+BX],AX</td><td></td><td></td></tr><tr><td>0123 89970301 MOV [0103+BX],DX</td><td></td><td></td></tr></table>				0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE	010B E90400 MOV CX,0004	DS:0008 AD DE 1B 05 C5 06 00 00	DS:0010 18 01 10 01 18 01 92 01	010E BB0000 MOV BX,0000	DS:0018 01 01 01 00 02 FF FF FF	DS:0020 FF FF FF FF FF FF FF FF	0111 8B870301 MOV AX,[0103+BX]	DS:0028 FF FF FF EB 19 C0 11	DS:0030 A2 01 14 00 18 00 F5 19	0115 3B870501 CMP AX,[0105+BX]	DS:0038 FF FF FF FF 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00	0119 770C JA 0127	DS:0048 00 00 00 00 00 00 00 00		011B BB970501 MOV DX,[0105+BX]			011F 89870501 MOV [0105+BX],AX			0123 89970301 MOV [0103+BX],DX		
0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE																												
010B E90400 MOV CX,0004	DS:0008 AD DE 1B 05 C5 06 00 00	DS:0010 18 01 10 01 18 01 92 01																												
010E BB0000 MOV BX,0000	DS:0018 01 01 01 00 02 FF FF FF	DS:0020 FF FF FF FF FF FF FF FF																												
0111 8B870301 MOV AX,[0103+BX]	DS:0028 FF FF FF EB 19 C0 11	DS:0030 A2 01 14 00 18 00 F5 19																												
0115 3B870501 CMP AX,[0105+BX]	DS:0038 FF FF FF FF 00 00 00 00	DS:0040 05 00 00 00 00 00 00 00																												
0119 770C JA 0127	DS:0048 00 00 00 00 00 00 00 00																													
011B BB970501 MOV DX,[0105+BX]																														
011F 89870501 MOV [0105+BX],AX																														
0123 89970301 MOV [0103+BX],DX																														
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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 = f.Q≡■ ↓ ..+... DS:0010 18 01 10 01 18 01 92 01,R. DS:0020 FF EB 19 C0 11 δ,L. DS:0030 A2 01 14 00 18 00 F5 19 6.....J. DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00																													
CMD >		1 Step 2ProcStep 3Retrieve 4Help ON 5BRK Menu 6 7 up 8 dn 9 le 10 ri																												

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

AX 0000 SI 0000 CS 19F5 IP 010E Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010B B90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE
010E BB0000 MOV BX,0000	DS:0008 AD DE 1B 05 C5 06 00 00
0111 8B870301 MOV AX,[0103+BX]	DS:0010 18 01 10 01 18 01 92 01
0115 3B870501 CMP AX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF
0119 770C JA 0127	DS:0020 FF FF FF FF FF FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0028 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19
0123 89970301 MOV [0103+BX],DX	DS:0038 FF FF FF FF 00 00 00 00 00
0127 81C30200 ADD BX,0002	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Q≡≡ .I..+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0000 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010E BB0000 MOV BX,0000	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF FF 00 00 00 00
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Q≡≡ .I..+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0115	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 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 0 0

```

CMD >[ ] 0004-
0111 BB870301 MOV AX,[0103+BX]
0115 3B870501 CMP AX,[0105+BX]
0119 770C JA 0127
011B 8B970501 MOV DX,[0105+BX]
011F 89870501 MOV [0105+BX],AX
0123 89970301 MOV [0103+BX],DX
0127 81C30200 ADD BX,0002
012B 81FB0600 CMP BX,0006
012F 75E0 JNZ 0111

```

1	0	1	2	3	4	5	6	7
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	= f.Q≡≡	↓ ..+...					
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FFR.					
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0006 SI 0000 CS 19F5 IP 0119	Stack +0 0000 Flags 7200
BX 0000 DI 0000 DS 19F5	+2 20CD
CX 0004 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 0 0

```

CMD >[ ] 0004-
0115 3B870501 CMP AX,[0105+BX]
0119 770C JA 0127
011B 8B970501 MOV DX,[0105+BX]
011F 89870501 MOV [0105+BX],AX
0123 89970301 MOV [0103+BX],DX
0127 81C30200 ADD BX,0002
012B 81FB0600 CMP BX,0006
012F 75E0 JNZ 0111
0131 81E90100 SUB CX,0001

```

1	0	1	2	3	4	5	6	7
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	= f.Q≡≡	↓ ..+...					
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FFR.					
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0006 SI 0000 CS 19F5 IP 0127 Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0119 770C JA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF FF
0135 75D7 JNZ 010E	DS:0028 FF FF FF FF EB 19 C0 11
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
013A CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00 00
013C C746DC0000 MOV [BP-24],0000	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Ω≡■ i ..+....
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012B Stack +0 0000 Flags 7200	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > █	1 0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF FF FF FF
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	DS:0038 FF FF FF FF 00 00 00 00
0141 8E5EFC MOV DS,[BP-04]	DS:0040 05 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Ω≡■ i ..+....
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012F Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
012B 81FB0600 CMP BX,0006	DS:0000 CD 20 FF 9F 00 EA F0 FE
012F 75E0 JNZ 0111	DS:0008 AD DE 1B 05 C5 06 00 00
0131 81E90100 SUB CX,0001	DS:0010 18 01 10 01 18 01 92 01
0135 75D7 JNZ 010E	DS:0018 01 01 01 00 02 FF FF FF
0137 B8004C MOU AX,4C00	DS:0020 FF FF FF FF FF FF FF FF
013A CD21 INT 21	DS:0028 FF FF FF FF EB 19 C0 11
013C C746DC0000 MOU [BP-24],0000	DS:0030 A2 01 14 00 18 00 F5 19
0141 BE5EFC MOU DS,[BP-04]	DS:0038 FF FF FF FF 00 00 00 00
0144 837D0E00 CMP [DI+0E],0000	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	= f.Ω≡≡ ≡ ..+...R. δ. L. 6.....J..
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 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
0004 012F 75E0 JNZ 0111	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOU AX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOU DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF
011F 89870501 MOU [0105+BX],AX	DS:0028 FF FF FF FF EB 19 C0 11
0123 89970301 MOU [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Ω≡≡ ≡ ..+...R. δ. L. 6.....J..
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 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 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0115	Stack +0 0000 Flags 7295
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 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 1 0 1 1 1

```

CMD > [ ] 0005
0111 8B870301 MOV AX,[0103+BX]
0115 3B870501 CMP AX,[0105+BX]
0119 770C JA 0127
011B 8B970501 MOV DX,[0105+BX]
011F 89870501 MOV [0105+BX],AX
0123 89970301 MOV [0103+BX],DX
0127 81C30200 ADD BX,0002
012B 81FB0600 CMP BX,0006
012F 75E0 JNZ 0111

```

1 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	= f.Ω≡■ 4 ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0018 AD DE 1B 05 C5 06 00 00fl.
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0028 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	DS:0038 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	DS:0048 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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 0004 SI 0000 CS 19F5 IP 0119	Stack +0 0000 Flags 7295
BX 0002 DI 0000 DS 19F5	+2 20CD
CX 0004 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 1 0 1 1 1

```

CMD > [ ] 0005
0115 3B870501 CMP AX,[0105+BX]
0119 770C JA 0127
011B 8B970501 MOV DX,[0105+BX]
011F 89870501 MOV [0105+BX],AX
0123 89970301 MOV [0103+BX],DX
0127 81C30200 ADD BX,0002
012B 81FB0600 CMP BX,0006
012F 75E0 JNZ 0111
0131 81E90100 SUB CX,0001

```

1 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	= f.Ω≡■ 4 ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FF	DS:0018 AD DE 1B 05 C5 06 00 00fl.
DS:0020 FF FF FF FF FF FF FF	FF FF FF FF EB 19 C0 11	DS:0028 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	DS:0038 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	DS:0048 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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 0004 SI 0000 CS 19F5 IP 011B Stack +0 0000 Flags 7295	+2 20CD	+4 9FFF OF DF IF SF ZF AF PF CF	+6 EA00 0 0 1 1 0 1 1 1
BX 0002 DI 0000 DS 19F5			
CX 0004 BP 0000 ES 19F5 HS 19F5			
DX 0000 SP FFFE SS 19F5 FS 19F5			

CMD >	0005	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 770C JA 0127		DS:0008 AD DE 1B 05 C5 06 00 00	
011B 8B970501 MOV DX,[0105+BX]		DS:0010 18 01 10 01 18 01 92 01	
011F 89870501 MOV [0105+BX],AX		DS:0018 01 01 01 00 02 FF FF FF	
0123 89970301 MOV [0103+BX],DX		DS:0020 FF FF FF FF FF FF FF FF	
0127 81C30200 ADD BX,0002		DS:0028 FF FF FF EB 19 C0 11	
012B 81FB0600 CMP BX,0006		DS:0030 A2 01 14 00 18 00 F5 19	
012F 75E0 JNZ 0111		DS:0038 FF FF FF FF 00 00 00 00	
0131 81E90100 SUB CX,0001		DS:0040 05 00 00 00 00 00 00 00	
0135 75D7 JNZ 010E		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	= f.Ω≡≡ 4 .+....
DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00fl.
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF	δ. L.
DS:0020 FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19 FF FF FF FF 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 011F Stack +0 0000 Flags 7295	+2 20CD	+4 9FFF OF DF IF SF ZF AF PF CF	+6 EA00 0 0 1 1 0 1 1 1
BX 0002 DI 0000 DS 19F5			
CX 0004 BP 0000 ES 19F5 HS 19F5			
DX 0005 SP FFFE SS 19F5 FS 19F5			

CMD >	0005	1 0 1 2 3 4 5 6 7	DS:0000 CD 20 FF 9F 00 EA F0 FE
011B 8B970501 MOV DX,[0105+BX]		DS:0008 AD DE 1B 05 C5 06 00 00	
011F 89870501 MOV [0105+BX],AX		DS:0010 18 01 10 01 18 01 92 01	
0123 89970301 MOV [0103+BX],DX		DS:0018 01 01 01 00 02 FF FF FF	
0127 81C30200 ADD BX,0002		DS:0020 FF FF FF FF FF FF FF FF	
012B 81FB0600 CMP BX,0006		DS:0028 FF FF FF EB 19 C0 11	
012F 75E0 JNZ 0111		DS:0030 A2 01 14 00 18 00 F5 19	
0131 81E90100 SUB CX,0001		DS:0038 FF FF FF FF 00 00 00 00	
0135 75D7 JNZ 010E		DS:0040 05 00 00 00 00 00 00 00	
0137 B8004C MOV AX,4C00		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	= f.Ω≡≡ 4 .+....
DS:0000 CD 20 FF 9F 00 EA F0 FE AD DE 1B 05 C5 06 00 00fl.
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF	δ. L.
DS:0020 FF	6.....J.
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 00

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

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

AX 0004	SI 0000	CS 19F5	IP 0123	Stack +0 0000	Flags 7295
BX 0002	DI 0000	DS 19F5		+2 20CD	
CX 0004	BP 0000	ES 19F5	HS 19F5	+4 9FFF	OF DF IF SF ZF AF PF CF
DX 0005	SP FFFE	SS 19F5	FS 19F5	+6 EA00	0 0 1 1 0 1 1 1

CMD >		0004									
011F	89870501	MOV	[0105+BX],AX	1 0 1 2 3 4 5 6 7							
0123	89970301	MOV	[0103+BX],DX	DS:0000 CD 20 FF 9F 00 EA F0 FE							
0127	81C30200	ADD	BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00							
012B	81FB0600	CMP	BX,0006	DS:0010 18 01 10 01 18 01 92 01							
012F	75E0	JNZ	0111	DS:0018 01 01 01 00 02 FF FF FF							
0131	81E90100	SUB	CX,0001	DS:0020 FF FF FF FF FF FF FF FF							
0135	75D7	JNZ	010E	DS:0028 FF FF FF FF EB 19 C0 11							
0137	B8004C	MOV	AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19							
013A	CD21	INT	21	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							

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

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

AX 0004	SI 0000	CS 19F5	IP 0127	Stack +0 0000	Flags 7295
BX 0002	DI 0000	DS 19F5		+2 20CD	
CX 0004	BP 0000	ES 19F5	HS 19F5	+4 9FFF	OF DF IF SF ZF AF PF CF
DX 0005	SP FFFE	SS 19F5	FS 19F5	+6 EA00	0 0 1 1 0 1 1 1

CMD >		0004									
0123	89970301	MOV	[0103+BX],DX	1 0 1 2 3 4 5 6 7							
0127	81C30200	ADD	BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE							
012B	81FB0600	CMP	BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00							
012F	75E0	JNZ	0111	DS:0010 18 01 10 01 18 01 92 01							
0131	81E90100	SUB	CX,0001	DS:0018 01 01 01 00 02 FF FF FF							
0135	75D7	JNZ	010E	DS:0020 FF FF FF FF FF FF FF FF							
0137	B8004C	MOV	AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11							
013A	CD21	INT	21	DS:0030 A2 01 14 00 18 00 F5 19							
013C	C746DC0000	MOV	[BP-24],0000	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							

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

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

AX 0004 SI 0000 CS 19F5 IP 012B Stack +0 0000 Flags 7200	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF EB 19 C0 11
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	DS:0038 FF FF FF FF 00 00 00 00 00 00
0141 BE5EFC MOV DS,[BP-04]	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ i .+...R.δ. L. 6.....J.
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 EB 19 C0 11	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 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 012F Stack +0 0000 Flags 7291	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 0 1 0 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD > 1 0 1 2 3 4 5 6 7	
012B 81FB0600 CMP BX,0006	DS:0000 CD 20 FF 9F 00 EA F0 FE
012F 75E0 JNZ 0111	DS:0008 AD DE 1B 05 C5 06 00 00
0131 81E90100 SUB CX,0001	DS:0010 18 01 10 01 18 01 92 01
0135 75D7 JNZ 010E	DS:0018 01 01 01 00 02 FF FF FF
0137 B8004C MOV AX,4C00	DS:0020 FF FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0028 FF FF FF FF EB 19 C0 11
013C C746DC0000 MOV [BP-24],0000	DS:0030 A2 01 14 00 18 00 F5 19
0141 BE5EFC MOV DS,[BP-04]	DS:0038 FF FF FF FF 00 00 00 00 00 00
0144 837D0E00 CMP [DI+0E],0000	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ i .+...R.δ. L. 6.....J.
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 EB 19 C0 11	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 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7291	+2 ZOCD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 0 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	0004	1 0 1 2 3 4 5 6 7
012F 75E0 JNZ 0111	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00	
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01	
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF	
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF FF	
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF EB 19 C0 11	
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19	
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF 00 00 00 00 00	
012B 81FB0600 CMP BX,0006	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.REF = .+...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FFREF.
DS:0020 FF EB 19 C0 11	delta 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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0006 SI 0000 CS 19F5 IP 0127 Stack +0 0000 Flags 7200	+2 ZOCD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0003 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	0004	1 0 1 2 3 4 5 6 7
0119 770C JA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00	
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01	
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF	
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF FF	
0135 75D7 JNZ 010E	DS:0028 FF FF FF EB 19 C0 11	
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19	
013A CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00	
013C C746DC0000 MOV [BP-24],0000	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.REF = .+...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FFREF.
DS:0020 FF EB 19 C0 11	delta 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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

P.T.O

Sorting:

Ascending Order:

Code:

```
asm asorting.asm X      asm dsorting.asm
coal > asm asorting.asm
1   [org 0x0100]
2
3   jmp start
4
5   data: dw 6, 4, 5, 2
6
7   start:
8       mov cx, 4
9
10  outerloop:
11      mov bx, 0
12
13  innerloop:
14      mov ax, [data + bx]
15
16      cmp ax, [data + bx + 2]
17
18      jbe noswap
19          ; the swap potion
20          mov dx, [data + bx + 2]
21          mov [data + bx + 2], ax
22          mov [data + bx], dx
23
24      noswap:
25          add bx, 2
26          cmp bx, 6
27          jne innerloop
28
29      ; check outer loop termination
30      sub cx, 1
31      jnz outerloop
32
33      ; exit system call
34      mov ax, 0x4c00
35      int 0x21
36
37 ; result will be 6 5 4 2
38
39
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0
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CMD >																																																																																																																																															
<table border="1"> <tr><td>0100 E90800</td><td>JMP</td><td>010B</td><td colspan="13"></td></tr> <tr><td>0103 06</td><td>PUSH</td><td>ES</td><td colspan="13"></td></tr> <tr><td>0104 0004</td><td>ADD</td><td>[SI],AL</td><td colspan="13"></td></tr> <tr><td>0106 0005</td><td>ADD</td><td>[DI],AL</td><td colspan="13"></td></tr> <tr><td>0108 0002</td><td>ADD</td><td>[BP+SI],AL</td><td colspan="13"></td></tr> <tr><td>010A 00B90400</td><td>ADD</td><td>[0004+BX+DI],BH</td><td colspan="13"></td></tr> <tr><td>010E BB0000</td><td>MOV</td><td>BX,0000</td><td colspan="13"></td></tr> <tr><td>0111 8B870301</td><td>MOV</td><td>AX,[0103+BX]</td><td colspan="13"></td></tr> </table>																0100 E90800	JMP	010B														0103 06	PUSH	ES														0104 0004	ADD	[SI],AL														0106 0005	ADD	[DI],AL														0108 0002	ADD	[BP+SI],AL														010A 00B90400	ADD	[0004+BX+DI],BH														010E BB0000	MOV	BX,0000														0111 8B870301	MOV	AX,[0103+BX]													
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1 Step 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7200	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0
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CMD > [
<table border="1"> <tr><td>0100 E90800</td><td>JMP</td><td>010B</td><td colspan="13"></td></tr> <tr><td>010B B90400</td><td>MOV</td><td>CX,0004</td><td colspan="13"></td></tr> <tr><td>010E BB0000</td><td>MOV</td><td>BX,0000</td><td colspan="13"></td></tr> <tr><td>0111 8B870301</td><td>MOV</td><td>AX,[0103+BX]</td><td colspan="13"></td></tr> <tr><td>0115 3B870501</td><td>CMP</td><td>AX,[0105+BX]</td><td colspan="13"></td></tr> <tr><td>0119 760C</td><td>JNA</td><td>0127</td><td colspan="13"></td></tr> <tr><td>011B 8B970501</td><td>MOV</td><td>DX,[0105+BX]</td><td colspan="13"></td></tr> <tr><td>011F 89870501</td><td>MOV</td><td>[0105+BX],AX</td><td colspan="13"></td></tr> <tr><td>0123 89970301</td><td>MOV</td><td>[0103+BX],DX</td><td colspan="13"></td></tr> </table>																0100 E90800	JMP	010B														010B B90400	MOV	CX,0004														010E BB0000	MOV	BX,0000														0111 8B870301	MOV	AX,[0103+BX]														0115 3B870501	CMP	AX,[0105+BX]														0119 760C	JNA	0127														011B 8B970501	MOV	DX,[0105+BX]														011F 89870501	MOV	[0105+BX],AX														0123 89970301	MOV	[0103+BX],DX													
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011B 8B970501	MOV	DX,[0105+BX]																																																																																																																																																													
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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	00																																																																																																																																															

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

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

AX 0000 SI 0000 CS 19F5 IP 010E Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010B B90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE
010E BB0000 MOV BX,0000	DS:0008 AD DE 1B 05 C5 06 00 00
0111 8B870301 MOV AX,[0103+BX]	DS:0010 18 01 10 01 18 01 92 01
0115 3B870501 CMP AX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF
0119 760C JNA 0127	DS:0020 FF FF FF FF FF FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0028 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19
0123 89970301 MOV [0103+BX],DX	DS:0038 FF FF FF FF 00 00 00 00
0127 81C30200 ADD BX,0002	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	= f.Q≡# i..+...
DS:0010 18 01 10 01 18 01 92 01R.
DS:0020 FF FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0000 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > [] 0006	1 0 1 2 3 4 5 6 7
010E BB0000 MOV BX,0000	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 760C JNA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF FF EB 19 C0 11
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Q≡# i..+...
DS:0010 18 01 10 01 18 01 92 01R.
DS:0020 FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0115 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	0004
0111 8B870301 MOV AX,[0103+BX]	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 760C JNA 0127	DS:0008 AD DE 1B 05 C5 06 00 00
011B BB970501 MOV DX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
011F B9870501 MOV [0105+BX],AX	DS:0018 01 01 01 00 02 FF FF FF
0123 89970301 MOV [0103+BX],DX	DS:0020 FF FF FF FF FF FF FF FF
0127 81C30200 ADD BX,0002	DS:0028 FF FF FF EB 19 C0 11
012B 81FB0600 CMP BX,0006	DS:0030 A2 01 14 00 18 00 F5 19
012F 75E0 JNZ 0111	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	= f.Ω≡■ + .+...R.J.
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 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 00		

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

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

AX 0006 SI 0000 CS 19F5 IP 0119 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	0001
0115 3B870501 CMP AX,[0105+BX]	1 0 1 2 3 4 5 6 7
0119 760C JNA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
011B BB970501 MOV DX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
011F B9870501 MOV [0105+BX],AX	DS:0010 18 01 10 01 18 01 92 01
0123 89970301 MOV [0103+BX],DX	DS:0018 01 01 01 00 02 FF FF FF
0127 81C30200 ADD BX,0002	DS:0020 FF FF FF FF FF FF FF
012B 81FB0600 CMP BX,0006	DS:0028 FF FF FF EB 19 C0 11
012F 75E0 JNZ 0111	DS:0030 A2 01 14 00 18 00 F5 19
0131 81E90100 SUB CX,0001	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	= f.Ω≡■ + .+...R.J.
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 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 00		

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

P.T.O

Descending Order:

Code:

```
ASM dsorting.asm X
coal > ASM dsorting.asm
1    [org 0x0100]
2
3    jmp start
4
5    data: dw  6, 4, 5, 2
6
7    start:
8        mov cx, 4
9
10   outerloop:
11       mov bx, 0
12
13   innerloop:
14       mov ax, [data + bx]
15
16       cmp ax, [data + bx + 2]
17
18       ja noswap
19           ; the swap potion
20           mov dx, [data + bx + 2]
21           mov [data + bx + 2], ax
22           mov [data + bx], dx
23
24       noswap:
25           add bx, 2
26           cmp bx, 6
27       jne innerloop
28
29       ; check outer loop termination
30       sub cx, 1
31       jnz outerloop
32
33       ; exit system call
34       mov ax, 0x4c00
35       int 0x21
36
37   ; result will be 2 4 5 6
38
```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0																						
CMD > █																									
<table border="1"> <tr> <td>0100 E90800 JMP 010B</td> <td>1 0 1 2 3 4 5 6 7</td> </tr> <tr> <td>0103 06 PUSH ES</td> <td>DS:0000 CD 20 FF 9F 00 EA F0 FE</td> </tr> <tr> <td>0104 0004 ADD [SI],AL</td> <td>DS:0008 AD DE 1B 05 C5 06 00 00</td> </tr> <tr> <td>0106 0005 ADD [DI],AL</td> <td>DS:0010 18 01 10 01 18 01 92 01</td> </tr> <tr> <td>0108 0002 ADD [BP+SI],AL</td> <td>DS:0018 01 01 01 00 02 FF FF FF</td> </tr> <tr> <td>010A 00B90400 ADD [0004+BX+DI],BH</td> <td>DS:0020 FF FF FF FF FF FF FF FF</td> </tr> <tr> <td>010E BB0000 MOV BX,0000</td> <td>DS:0028 FF FF FF EB 19 C0 11</td> </tr> <tr> <td>0111 8B870301 MOV AX,[0103+BX]</td> <td>DS:0030 A2 01 14 00 18 00 F5 19</td> </tr> <tr> <td></td> <td>DS:0038 FF FF FF FF 00 00 00 00</td> </tr> <tr> <td></td> <td>DS:0040 05 00 00 00 00 00 00 00</td> </tr> <tr> <td></td> <td>DS:0048 00 00 00 00 00 00 00 00</td> </tr> </table>				0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	0103 06 PUSH ES	DS:0000 CD 20 FF 9F 00 EA F0 FE	0104 0004 ADD [SI],AL	DS:0008 AD DE 1B 05 C5 06 00 00	0106 0005 ADD [DI],AL	DS:0010 18 01 10 01 18 01 92 01	0108 0002 ADD [BP+SI],AL	DS:0018 01 01 01 00 02 FF FF FF	010A 00B90400 ADD [0004+BX+DI],BH	DS:0020 FF FF FF FF FF FF FF FF	010E BB0000 MOV BX,0000	DS:0028 FF FF FF EB 19 C0 11	0111 8B870301 MOV AX,[0103+BX]	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
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2 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f.Q≡■ 4 ..+...																								
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1 Step 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri																									

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

AX 0000 SI 0000 CS 19F5 IP 010B Stack +0 0000 Flags 7200	BX 0000 DI 0000 DS 19F5 +2 20CD	CX 003C 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 0																						
CMD >																									
<table border="1"> <tr> <td>0100 E90800 JMP 010B</td> <td>1 0 1 2 3 4 5 6 7</td> </tr> <tr> <td>010B E90400 MOV CX,0004</td> <td>DS:0000 CD 20 FF 9F 00 EA F0 FE</td> </tr> <tr> <td>010E BB0000 MOV BX,0000</td> <td>DS:0008 AD DE 1B 05 C5 06 00 00</td> </tr> <tr> <td>0111 8B870301 MOV AX,[0103+BX]</td> <td>DS:0010 18 01 10 01 18 01 92 01</td> </tr> <tr> <td>0115 3B870501 CMP AX,[0105+BX]</td> <td>DS:0018 01 01 01 00 02 FF FF FF</td> </tr> <tr> <td>0119 770C JA 0127</td> <td>DS:0020 FF FF FF FF FF FF FF</td> </tr> <tr> <td>011B BB970501 MOV DX,[0105+BX]</td> <td>DS:0028 FF FF FF EB 19 C0 11</td> </tr> <tr> <td>011F 89870501 MOV [0105+BX],AX</td> <td>DS:0030 A2 01 14 00 18 00 F5 19</td> </tr> <tr> <td>0123 89970301 MOV [0103+BX],DX</td> <td>DS:0038 FF FF FF FF 00 00 00 00</td> </tr> <tr> <td></td> <td>DS:0040 05 00 00 00 00 00 00 00</td> </tr> <tr> <td></td> <td>DS:0048 00 00 00 00 00 00 00 00</td> </tr> </table>				0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7	010B E90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE	010E BB0000 MOV BX,0000	DS:0008 AD DE 1B 05 C5 06 00 00	0111 8B870301 MOV AX,[0103+BX]	DS:0010 18 01 10 01 18 01 92 01	0115 3B870501 CMP AX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF	0119 770C JA 0127	DS:0020 FF FF FF FF FF FF FF	011B BB970501 MOV DX,[0105+BX]	DS:0028 FF FF FF EB 19 C0 11	011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19	0123 89970301 MOV [0103+BX],DX	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
0100 E90800 JMP 010B	1 0 1 2 3 4 5 6 7																								
010B E90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE																								
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2 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f.Q≡■ 4 ..+...																								
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DS:0040 05 00 00 00 00 00 00 00																								
1 Step 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri																									

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

AX 0000 SI 0000 CS 19F5 IP 010E Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010B B90400 MOV CX,0004	DS:0000 CD 20 FF 9F 00 EA F0 FE
010E BB0000 MOV BX,0000	DS:0008 AD DE 1B 05 C5 06 00 00
0111 8B870301 MOV AX,[0103+BX]	DS:0010 18 01 10 01 18 01 92 01
0115 3B870501 CMP AX,[0105+BX]	DS:0018 01 01 01 00 02 FF FF FF
0119 770C JA 0127	DS:0020 FF FF FF FF FF FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0028 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19
0123 89970301 MOV [0103+BX],DX	DS:0038 FF FF FF FF 00 00 00 00 00
0127 81C30200 ADD BX,0002	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Q≡# 4 ..+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0000 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > [] 0006	1 0 1 2 3 4 5 6 7
010E BB0000 MOV BX,0000	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF FF EB 19 C0 11
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Q≡# 4 ..+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0115 Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	0004
0111 BB870301 MOV AX,[0103+BX]	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE
0119 770C JA 0127	DS:0008 AD DE 1B 05 C5 06 00 00
011B 8B970501 MOV DX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
011F 89870501 MOV [0105+BX],AX	DS:0018 01 01 01 00 02 FF FF FF
0123 89970301 MOV [0103+BX],DX	DS:0020 FF FF FF FF FF FF FF FF
0127 81C30200 ADD BX,0002	DS:0028 FF FF FF EB 19 C0 11
012B 81FB0600 CMP BX,0006	DS:0030 A2 01 14 00 18 00 F5 19
012F 75E0 JNZ 0111	DS:0038 FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Ω≡≡ ≡ ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01d. l.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0119 Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	0004
0115 3B870501 CMP AX,[0105+BX]	1 0 1 2 3 4 5 6 7
0119 770C JA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
011B 8B970501 MOV DX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
011F 89870501 MOV [0105+BX],AX	DS:0010 18 01 10 01 18 01 92 01
0123 89970301 MOV [0103+BX],DX	DS:0018 01 01 01 00 02 FF FF FF
0127 81C30200 ADD BX,0002	DS:0020 FF FF FF FF FF FF FF FF
012B 81FB0600 CMP BX,0006	DS:0028 FF FF FF EB 19 C0 11
012F 75E0 JNZ 0111	DS:0030 A2 01 14 00 18 00 F5 19
0131 81E90100 SUB CX,0001	DS:0038 FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Ω≡≡ ≡ ...+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01d. l.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0127 Stack +0 0000 Flags 7200	+2 20CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0119 770C JA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF FF
0135 75D7 JNZ 010E	DS:0028 FF FF FF FF EB 19 C0 11
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
013A CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00 00
013C C746DC0000 MOV [BP-24],0000	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Q≡■ i ..+...fl.J.
DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0010 18 01 10 01 18 01 92 01
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 00
DS:0040 05 00 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012B Stack +0 0000 Flags 7200	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > 1	0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF FF FF FF
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	DS:0038 FF FF FF FF 00 00 00 00 00
0141 8E5EFC MOV DS,[BP-04]	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Q≡■ i ..+...fl.J.
DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0010 18 01 10 01 18 01 92 01
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 00
DS:0040 05 00 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 012F Stack +0 0000 Flags 7295	+2 Z0CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > █	1 0 1 2 3 4 5 6 7
012B 81FB0600 CMP BX,0006	DS:0000 CD 20 FF 9F 00 EA F0 FE
012F 75E0 JNZ 0111	DS:0008 AD DE 1B 05 C5 06 00 00
0131 81E90100 SUB CX,0001	DS:0010 18 01 10 01 18 01 92 01
0135 75D7 JNZ 010E	DS:0018 01 01 01 00 02 FF FF FF
0137 B8004C MOU AX,4C00	DS:0020 FF FF FF FF FF FF FF FF
013A CD21 INT 21	DS:0028 FF FF FF FF EB 19 C0 11
013C C746DC0000 MOU [BP-24],0000	DS:0030 A2 01 14 00 18 00 F5 19
0141 BE5EFC MOU DS,[BP-04]	DS:0038 FF FF FF FF 00 00 00 00
0144 837D0E00 CMP [DI+0E],0000	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	= f.Ω≡■ 1..+...
DS:0010 18 01 10 01 18 01 92 01fl.
DS:0020 FF FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0006 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7295	+2 Z0CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > █ 0004	1 0 1 2 3 4 5 6 7
012F 75E0 JNZ 0111	DS:0000 CD 20 FF 9F 00 EA F0 FE
0111 8B870301 MOU AX,[0105+BX]	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOU DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF
011F 89870501 MOU [0105+BX],AX	DS:0028 FF FF FF FF EB 19 C0 11
0123 89970301 MOU [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF FF 00 00 00 00
012B 81FB0600 CMP BX,0006	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	= f.Ω≡■ 1..+...
DS:0010 18 01 10 01 18 01 92 01fl.
DS:0020 FF FF FF FF FF FF FFδ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0115 Stack +0 0000 Flags 7295	+2 20CD	+4 9FFF OF DF IF SF ZF AF PF CF
BX 0002 DI 0000 DS 19F5	+6 EA00 0 0 1 1 0 1 1 1	
CX 0004 BP 0000 ES 19F5 HS 19F5		
DX 0000 SP FFFE SS 19F5 FS 19F5		

CMD > []	0005	1 0 1 2 3 4 5 6 7
0111 8B870301 MOV AX,[0103+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0008 AD DE 1B 05 C5 06 00 00
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01	DS:0018 01 01 01 00 02 FF FF FF
0119 770C JA 0127	DS:0020 FF FF FF FF FF FF FF FF	DS:0028 FF FF FF FF EB 19 C0 11
011B 8B970501 MOV DX,[0105+BX]	DS:0030 A2 01 14 00 18 00 F5 19	DS:0038 FF FF FF FF 00 00 00 00
011F 89870501 MOV [0105+BX],AX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00
0123 89970301 MOV [0103+BX],DX		
0127 81C30200 ADD BX,0002		
012B 81FB0600 CMP BX,0006		
012F 75E0 JNZ 0111		

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 = f. R≡■ 4 . + ...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF, fl.	DS:0018 01 01 01 00 02 FF FF FF δ, L.
DS:0020 FF EB 19 C0 11	DS:0028 FF FF FF FF EB 19 C0 11 6.....J.
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
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 00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0119 Stack +0 0000 Flags 7295	+2 20CD	+4 9FFF OF DF IF SF ZF AF PF CF
BX 0002 DI 0000 DS 19F5	+6 EA00 0 0 1 1 0 1 1 1	
CX 0004 BP 0000 ES 19F5 HS 19F5		
DX 0000 SP FFFE SS 19F5 FS 19F5		

CMD > []	0005	1 0 1 2 3 4 5 6 7
0115 3B870501 CMP AX,[0105+BX]	DS:0000 CD 20 FF 9F 00 EA F0 FE	DS:0008 AD DE 1B 05 C5 06 00 00
0119 770C JA 0127	DS:0010 18 01 10 01 18 01 92 01	DS:0018 01 01 01 00 02 FF FF FF
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF FF	DS:0028 FF FF FF FF EB 19 C0 11
011F 89870501 MOV [0105+BX],AX	DS:0030 A2 01 14 00 18 00 F5 19	DS:0038 FF FF FF FF 00 00 00 00
0123 89970301 MOV [0103+BX],DX	DS:0040 05 00 00 00 00 00 00 00	DS:0048 00 00 00 00 00 00 00 00
0127 81C30200 ADD BX,0002		
012B 81FB0600 CMP BX,0006		
012F 75E0 JNZ 0111		
0131 81E90100 SUB CX,0001		

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 = f. R≡■ 4 . + ...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF, fl.	DS:0018 01 01 01 00 02 FF FF FF δ, L.
DS:0020 FF EB 19 C0 11	DS:0028 FF FF FF FF EB 19 C0 11 6.....J.
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
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 00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 011B Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	0005
0119 770C JA 0127	
011B 8B970501 MOV DX,[0105+BX]	
011F 89870501 MOV [0105+BX],AX	
0123 89970301 MOV [0103+BX],DX	
0127 81C30200 ADD BX,0002	
012B 81FB0600 CMP BX,0006	
012F 75E0 JNZ 0111	
0131 81E90100 SUB CX,0001	
0135 75D7 JNZ 010E	

1 0 1 2 3 4 5 6 7		
DS:0000 CD 20 FF 9F 00 EA F0 FE	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 FFfl.
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0004 SI 0000 CS 19F5 IP 011F Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	0005
011B 8B970501 MOV DX,[0105+BX]	
011F 89870501 MOV [0105+BX],AX	
0123 89970301 MOV [0103+BX],DX	
0127 81C30200 ADD BX,0002	
012B 81FB0600 CMP BX,0006	
012F 75E0 JNZ 0111	
0131 81E90100 SUB CX,0001	
0135 75D7 JNZ 010E	
0137 B8004C MOV AX,4C00	

1 0 1 2 3 4 5 6 7		
DS:0000 CD 20 FF 9F 00 EA F0 FE	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 FFfl.
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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0004 SI 0000 CS 19F5 IP 0123 Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	
0004	
011F 89870501 MOV [0105+BX],AX	1 0 1 2 3 4 5 6 7
0123 89970301 MOV [0103+BX],DX	DS:0000 CD 20 FF 9F 00 EA F0 FE
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF FF
0135 75D7 JNZ 010E	DS:0028 FF FF FF FF EB 19 C0 11
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
013A CD21 INT 21	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

Z 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.Q≡■ i ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FFfl.
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	6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0127 Stack +0 0000 Flags 7295	+2 20CD
BX 0002 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 1 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	
0004	
0123 89970301 MOV [0103+BX],DX	1 0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF FF FF FF
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	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

Z 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.Q≡■ i ..+...
DS:0010 18 01 10 01 18 01 92 01	01 01 01 00 02 FF FF FFfl.
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	6.....J.
DS:0040 05 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00

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

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

AX 0004 SI 0000 CS 19F5 IP 012B Stack +0 0000 Flags 7200	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0127 81C30200 ADD BX,0002	DS:0000 CD 20 FF 9F 00 EA F0 FE
012B 81FB0600 CMP BX,0006	DS:0008 AD DE 1B 05 C5 06 00 00
012F 75E0 JNZ 0111	DS:0010 18 01 10 01 18 01 92 01
0131 81E90100 SUB CX,0001	DS:0018 01 01 01 00 02 FF FF FF
0135 75D7 JNZ 010E	DS:0020 FF FF FF FF FF FF FF FF
0137 B8004C MOV AX,4C00	DS:0028 FF FF FF EB 19 C0 11
013A CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
013C C746DC0000 MOV [BP-24],0000	DS:0038 FF FF FF FF 00 00 00 00
0141 8E5EFC MOV DS,[BP-04]	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	= f. R≡# i .+...fl.δ. L.J.
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 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 00

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

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

AX 0004 SI 0000 CS 19F5 IP 012F Stack +0 0000 Flags 7291	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 0 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD > 1	0 1 2 3 4 5 6 7
012B 81FB0600 CMP BX,0006	DS:0000 CD 20 FF 9F 00 EA F0 FE
012F 75E0 JNZ 0111	DS:0008 AD DE 1B 05 C5 06 00 00
0131 81E90100 SUB CX,0001	DS:0010 18 01 10 01 18 01 92 01
0135 75D7 JNZ 010E	DS:0018 01 01 01 00 02 FF FF FF
0137 B8004C MOV AX,4C00	DS:0020 FF FF FF FF FF FF FF FF
013A CD21 INT 21	DS:0028 FF FF FF EB 19 C0 11
013C C746DC0000 MOV [BP-24],0000	DS:0030 A2 01 14 00 18 00 F5 19
0141 8E5EFC MOV DS,[BP-04]	DS:0038 FF FF FF FF 00 00 00 00
0144 837D0E00 CMP [DI+0E],0000	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	= f. R≡# i .+...fl.δ. L.J.
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 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 00

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

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

AX 0004 SI 0000 CS 19F5 IP 0111 Stack +0 0000 Flags 7291	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 1 0 1 0 1
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	0004	1 0 1 2 3 4 5 6 7
012F 75E0 JNZ 0111	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0111 8B870301 MOV AX,[0103+BX]	DS:0008 AD DE 1B 05 C5 06 00 00	
0115 3B870501 CMP AX,[0105+BX]	DS:0010 18 01 10 01 18 01 92 01	
0119 770C JA 0127	DS:0018 01 01 01 00 02 FF FF FF	
011B 8B970501 MOV DX,[0105+BX]	DS:0020 FF FF FF FF FF FF FF FF	
011F 89870501 MOV [0105+BX],AX	DS:0028 FF FF FF EB 19 C0 11	
0123 89970301 MOV [0103+BX],DX	DS:0030 A2 01 14 00 18 00 F5 19	
0127 81C30200 ADD BX,0002	DS:0038 FF FF FF 00 00 00 00 00	
012B 81FB0600 CMP BX,0006	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. R≡■ i . + ...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF R.
DS:0020 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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

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

AX 0006 SI 0000 CS 19F5 IP 0127 Stack +0 0000 Flags 7200	+2 Z0CD
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0003 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0005 SP FFFE SS 19F5 FS 19F5	

CMD >	0006	1 0 1 2 3 4 5 6 7
0119 770C JA 0127	DS:0000 CD 20 FF 9F 00 EA F0 FE	
0127 81C30200 ADD BX,0002	DS:0008 AD DE 1B 05 C5 06 00 00	
012B 81FB0600 CMP BX,0006	DS:0010 18 01 10 01 18 01 92 01	
012F 75E0 JNZ 0111	DS:0018 01 01 01 00 02 FF FF FF	
0131 81E90100 SUB CX,0001	DS:0020 FF FF FF FF FF FF FF FF	
0135 75D7 JNZ 010E	DS:0028 FF FF FF EB 19 C0 11	
0137 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19	
013A CD21 INT 21	DS:0038 FF FF FF 00 00 00 00 00	
013C C746DC0000 MOV [BP-24],0000	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. R≡■ i . + ...
DS:0010 18 01 10 01 18 01 92 01 01 01 01 00 02 FF FF FF R.
DS:0020 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 2 ProcStep 3 Retrieve 4 Help ON 5 BRK Menu 6 7 up 8 dn 9 le 10 ri

Lab Work:

Code:

```

ASH lab.asm  X
coal > ASH lab.asm
1  [org 0x0100]
2
3  mov ax , 17
4  again2:
5      mov bx , 255
6      again1:
7          mov cx , 255
8          again:
9              dec cx
10             jnz again
11
12             dec bx
13             jnz again1
14
15             dec ax
16             jnz again2
17
18     mov ax , 0x4c00
19     int 0x21
20

```

Output:

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

AX 0000 SI 0000 CS 19F5 IP 0100 Stack +0 0000 Flags 7202	+2 20CD	+4 9FFF OF DF IF SF ZF AF PF CF	+6 EA00 0 0 1 0 0 0 0 0 0
BX 0000 DI 0000 DS 19F5			
CX 0017 BP 0000 ES 19F5 HS 19F5			
DX 0000 SP FFFE SS 19F5 FS 19F5			
CMD >			
0100 BB0500 MOV AX,0005	I 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
0103 BB0500 MOV BX,0005		DS:0010 18 01 10 01 18 01 92 01	
0106 B90500 MOV CX,0005		DS:0018 01 01 01 00 02 FF FF FF	
0109 49 DEC CX		DS:0020 FF FF FF FF FF FF FF FF	
010A 75FD JNZ 0109		DS:0028 FF FF FF FF EB 19 C0 11	
010C 4B DEC BX		DS:0030 A2 01 14 00 18 00 F5 19	
010D 75F7 JNZ 0106		DS:0038 FF FF FF FF 00 00 00 00	
010F 48 DEC AX		DS:0040 05 00 00 00 00 00 00 00	
Z 0 1 2 3 4 5 6 7 8 9 A B C D E F		DS:0048 00 00 00 00 00 00 00 00	
DS:0000 CD 20 FF 9F 00 EA F0 FE	= f.R■ i ..+...	DS:0010 18 01 10 01 18 01 92 01ff.
DS:0018 01 01 01 00 02 FF FF FF		DS:0020 FF FF FF FF EB 19 C0 11δ. L.
DS:0028 FF FF FF FF FF FF FF		DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0038 FF FF FF FF 00 00 00 00		DS:0040 05 00 00 00 00 00 00 00
1 Step 2ProcStep 3Retrieve 4Help ON 5BRK Menu 6 up 7 dn 8 le 9 ri			

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

AX 0005 SI 0000 CS 19F5 IP 0103 Stack +0 0000 Flags 7200	+2 Z00D
BX 0000 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0017 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0100 BB0500 MOU AX,0005	DS:0000 CD 20 FF 9F 00 EA F0 FE
0103 BB0500 MOU BX,0005	DS:0008 AD DE 1B 05 C5 06 00 00
0106 B90500 MOU CX,0005	DS:0010 18 01 10 01 18 01 92 01
0109 49 DEC CX	DS:0018 01 01 01 00 02 FF FF FF
010A 75FD JNZ 0109	DS:0020 FF FF FF FF FF EB 19 C0 11
010C 4B DEC BX	DS:0028 FF FF FF FF EB 19 C0 11
010D 75F7 JNZ 0106	DS:0030 A2 01 14 00 18 00 F5 19
010F 48 DEC AX	DS:0038 FF FF FF FF 00 00 00 00 00 00
0110 75F1 JNZ 0103	DS:0040 05 00 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 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	= f. R≡■ i .+...fl.J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0106 Stack +0 0000 Flags 7200	+2 Z00D
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0017 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
0103 BB0500 MOU BX,0005	DS:0000 CD 20 FF 9F 00 EA F0 FE
0106 B90500 MOU CX,0005	DS:0008 AD DE 1B 05 C5 06 00 00
0109 49 DEC CX	DS:0010 18 01 10 01 18 01 92 01
010A 75FD JNZ 0109	DS:0018 01 01 01 00 02 FF FF FF
010C 4B DEC BX	DS:0020 FF FF FF FF FF EB 19 C0 11
010D 75F7 JNZ 0106	DS:0028 FF FF FF FF EB 19 C0 11
010F 48 DEC AX	DS:0030 A2 01 14 00 18 00 F5 19
0110 75F1 JNZ 0103	DS:0038 FF FF FF FF 00 00 00 00 00 00
0112 BB004C MOU AX,4C00	DS:0040 05 00 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 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	= f. R≡■ i .+...fl.J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7200	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0005 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
0106 B90500 MOU CX,0005	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT 21	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	= f.Ω≡■ i ..+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7200	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	DS:0040 05 00 00 00 00 00 00 00
DS:0048 00 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	= f.Ω≡■ i ..+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7200	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0004 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF 00 00 00 00 00 00
0115 CD21 INT 21	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 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	= f.Ω≡≡ i .+...ft. δ. L. 6....J.
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	
DS:0028 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:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	

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

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

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7204	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0003 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 1 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF 00 00 00 00 00
0117 0000 ADD [BX+SI],AL	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	= f.Ω≡≡ i .+...ft. δ. L. 6....J.
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	
DS:0028 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:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7204	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0003 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 1 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >		1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE	= f.Q≡■ i ..+...
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00ft.
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01	δ.L.
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FFJ.
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF FF EB 19 C0 11	
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19	
0112 B8004C MOV AX,4C00	DS:0038 FF FF FF FF 00 00 00 00	
0115 CD21 INT 21	DS:0040 05 00 00 00 00 00 00 00	
	DS:0048 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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7200	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0002 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >		1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE	= f.Q≡■ i ..+...
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00ft.
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01	δ.L.
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FFJ.
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11	
0112 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19	
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00	
0117 0000 ADD [BX+SI],AL	DS:0040 05 00 00 00 00 00 00 00	
	DS:0048 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 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: AFD - X

AX 0005 SI 0000 CS 19F5 IP 0109	Stack +0 0000 Flags 7200
BX 0005 DI 0000 DS 19F5	+2 20CD
CX 0002 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 0

CMD > []	
010A 75FD JNZ 0109	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
00115 CD21 INT 21	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	= f.Ω≡■ i .+...
DS:0010 18 01 10 01 18 01 92 01fl.
DS:0020 FF FF FF FF FF FF FF FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7200
BX 0005 DI 0000 DS 19F5	+2 20CD
CX 0001 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 0

CMD > []	
0109 49 DEC CX	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
010C 4B DEC BX	DS:0008 AD DE 1B 05 C5 06 00 00
010D 75F7 JNZ 0106	DS:0010 18 01 10 01 18 01 92 01
010F 48 DEC AX	DS:0018 01 01 01 00 02 FF FF FF
0110 75F1 JNZ 0103	DS:0020 FF FF FF FF FF FF FF
0112 B8004C MOV AX,4C00	DS:0028 FF FF FF EB 19 C0 11
00115 CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
00117 0000 ADD [BX+SI],AL	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	= f.Ω≡■ i .+...
DS:0010 18 01 10 01 18 01 92 01fl.
DS:0020 FF FF FF FF FF FF FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109	Stack +0 0000 Flags 7200
BX 0005 DI 0000 DS 19F5	+2 20CD
CX 0001 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 0

CMD > []	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOV AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT 21	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	= f.Ω≡≡ i .+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7244
BX 0005 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 1 0 1 0

CMD > []	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	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	= f.Ω≡≡ i .+...fl.δ. L. 6.....J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010C Stack +0 0000 Flags 7244	+2 20CD
BX 0005 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0000 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 1 0 1 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
010C 4B DEC BX	DS:0008 AD DE 1B 05 C5 06 00 00
010D 75F7 JNZ 0106	DS:0010 18 01 10 01 18 01 92 01
010F 48 DEC AX	DS:0018 01 01 01 00 02 FF FF FF
0110 75F1 JNZ 0103	DS:0020 FF FF FF FF FF FF FF
0112 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
0115 CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
0117 0000 ADD [BX+SI],AL	DS:0038 FF FF FF FF 00 00 00 00
0119 0000 ADD [BX+SI],AL	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	= f.Q≡■ i..+...fl.δ.L. 6.....J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010D Stack +0 0000 Flags 7200	+2 20CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0000 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > 1	0 1 2 3 4 5 6 7
010C 4B DEC BX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010D 75F7 JNZ 0106	DS:0008 AD DE 1B 05 C5 06 00 00
010F 48 DEC AX	DS:0010 18 01 10 01 18 01 92 01
0110 75F1 JNZ 0103	DS:0018 01 01 01 00 02 FF FF FF
0112 B8004C MOV AX,4C00	DS:0020 FF FF FF FF FF FF FF
0115 CD21 INT 21	DS:0028 FF FF FF FF EB 19 C0 11
0117 0000 ADD [BX+SI],AL	DS:0030 A2 01 14 00 18 00 F5 19
0119 0000 ADD [BX+SI],AL	DS:0038 FF FF FF FF 00 00 00 00
011B 0000 ADD [BX+SI],AL	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	= f.Q≡■ i..+...fl.δ.L. 6.....J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109	Stack +0 0000 Flags 7200
BX 0004 DI 0000 DS 19F5	+2 20CD
CX 0005 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 0

CMD >	
0106 B90500 MOU CX,0005	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ i .+...fl. δ. L. 6....J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7200
BX 0004 DI 0000 DS 19F5	+2 20CD
CX 0004 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 0

CMD >■	
0109 49 DEC CX	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
010C 4B DEC BX	DS:0008 AD DE 1B 05 C5 06 00 00
010D 75F7 JNZ 0106	DS:0010 18 01 10 01 18 01 92 01
010F 48 DEC AX	DS:0018 01 01 01 00 02 FF FF FF
0110 75F1 JNZ 0103	DS:0020 FF FF FF FF FF FF FF
0112 B8004C MOU AX,4C00	DS:0028 FF FF FF EB 19 C0 11
0115 CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
0117 0000 ADD [BX+SI],AL	DS:0038 FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 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	= f.Ω≡≡ i .+...fl. δ. L. 6....J.
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 EB 19 C0 11
DS:0030 A2 01 14 00 18 00 F5 19	FF FF FF 00 00 00 00 00 00
DS:0040 05 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109	Stack +0 0000 Flags 7200
BX 0004 DI 0000 DS 19F5	+2 20CD
CX 0004 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 0

CMD > []	
010A 75FD JNZ 0109	[] 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11
0112 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7204
BX 0004 DI 0000 DS 19F5	+2 20CD
CX 0003 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 > []	
0109 49 DEC CX	[] 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
010C 4B DEC BX	DS:0008 AD DE 1B 05 C5 06 00 00
010D 75F7 JNZ 0106	DS:0010 18 01 10 01 18 01 92 01
010F 48 DEC AX	DS:0018 01 01 01 00 02 FF FF FF
0110 75F1 JNZ 0103	DS:0020 FF FF FF FF FF FF FF FF
0112 B8004C MOV AX,4C00	DS:0028 FF FF FF FF EB 19 C0 11
0115 CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
0117 0000 ADD [BX+SI],AL	DS:0038 FF FF FF FF 00 00 00 00 00 00
	DS:0040 05 00 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7204	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0003 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 1 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT 21	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	= f. R≡■ i .+...fl.J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7200	+2 Z0CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0002 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	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	= f. R≡■ i .+...fl.J.
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 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 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7200	+2 20CD
BX 0004 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0002 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	[] 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF FF FF FF
010F 48 DEC AX	DS:0028 FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT 21	DS:0040 05 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00

[] 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f. R≡■ i .+...ft.J.
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

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

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

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7200	+2 20CD
BX 0003 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0002 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > []	[] 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 Ea F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	DS:0040 05 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00

[] 0 1 2 3 4 5 6 7 8 9 A B C D E F	= f. R≡■ i .+...ft.J.
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	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

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

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

AX 0005 SI 0000 CS 19F5 IP 0109 Stack +0 0000 Flags 7200	+2 20CD
BX 0003 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0002 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD >	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF EB 19 C0 11
010F 48 DEC AX	DS:0028 FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT Z1	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A Stack +0 0000 Flags 7200	+2 20CD
BX 0003 DI 0000 DS 19F5	+4 9FFF OF DF IF SF ZF AF PF CF
CX 0001 BP 0000 ES 19F5 HS 19F5	+6 EA00 0 0 1 0 0 0 0 0 0
DX 0000 SP FFFE SS 19F5 FS 19F5	

CMD > 1	0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT Z1	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	DS:0040 05 00 00 00 00 00 00 00 00
	DS:0048 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7200
BX 0001 DI 0000 DS 19F5	+2 20CD
CX 0001 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 0

CMD > █	1 0 1 2 3 4 5 6 7
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0028 FF FF FF FF EB 19 C0 11
0112 B8004C MOU AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF FF 00 00 00 00
0117 0000 ADD [BX+SI],AL	DS:0040 05 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:0048 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DS:0000 CD 20 FF 9F 00 EA F0 FE	= f.Ω≡■ i ..+...
DS:0010 18 01 10 01 18 01 92 01ft.
DS:0020 FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 0109	Stack +0 0000 Flags 7200
BX 0001 DI 0000 DS 19F5	+2 20CD
CX 0001 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 0

CMD >	1 0 1 2 3 4 5 6 7
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
0109 49 DEC CX	DS:0008 AD DE 1B 05 C5 06 00 00
010A 75FD JNZ 0109	DS:0010 18 01 10 01 18 01 92 01
010C 4B DEC BX	DS:0018 01 01 01 00 02 FF FF FF
010D 75F7 JNZ 0106	DS:0020 FF FF FF FF FF EB 19 C0 11
010F 48 DEC AX	DS:0028 FF FF FF FF EB 19 C0 11
0110 75F1 JNZ 0103	DS:0030 A2 01 14 00 18 00 F5 19
0112 B8004C MOU AX,4C00	DS:0038 FF FF FF FF 00 00 00 00
0115 CD21 INT 21	DS:0040 05 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:0048 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DS:0000 CD 20 FF 9F 00 EA F0 FE	= f.Ω≡■ i ..+...
DS:0010 18 01 10 01 18 01 92 01ft.
DS:0020 FF	δ. L.
DS:0030 A2 01 14 00 18 00 F5 19	6.....J.
DS:0040 05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010A	Stack +0 0000 Flags 7244
BX 0001 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 1 0 1 0

CMD >	1 0 1 2 3 4 5 6 ?
0109 49 DEC CX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010A 75FD JNZ 0109	DS:0008 AD DE 1B 05 C5 06 00 00
010C 4B DEC BX	DS:0010 18 01 10 01 18 01 92 01
010D 75F7 JNZ 0106	DS:0018 01 01 01 00 02 FF FF FF
010F 48 DEC AX	DS:0020 FF FF FF FF FF FF FF FF
0110 75F1 JNZ 0103	DS:0028 FF FF FF EB 19 C0 11
0112 B8004C MOV AX,4C00	DS:0030 A2 01 14 00 18 00 F5 19
0115 CD21 INT 21	DS:0038 FF FF FF 00 00 00 00 00
0117 0000 ADD [BX+SI],AL	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	= f.Ω≡≡ i ..+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005 SI 0000 CS 19F5 IP 010C	Stack +0 0000 Flags 7244
BX 0001 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 1 0 1 0

CMD >	1 0 1 2 3 4 5 6 ?
010A 75FD JNZ 0109	DS:0000 CD 20 FF 9F 00 EA F0 FE
010C 4B DEC BX	DS:0008 AD DE 1B 05 C5 06 00 00
010D 75F7 JNZ 0106	DS:0010 18 01 10 01 18 01 92 01
010F 48 DEC AX	DS:0018 01 01 01 00 02 FF FF FF
0110 75F1 JNZ 0103	DS:0020 FF FF FF FF FF FF FF
0112 B8004C MOV AX,4C00	DS:0028 FF FF FF EB 19 C0 11
0115 CD21 INT 21	DS:0030 A2 01 14 00 18 00 F5 19
0117 0000 ADD [BX+SI],AL	DS:0038 FF FF FF 00 00 00 00 00
0119 0000 ADD [BX+SI],AL	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	= f.Ω≡≡ i ..+...
DS:0000 CD 20 FF 9F 00 EA F0 FEfl.
DS:0010 18 01 10 01 18 01 92 01δ. L.
DS:0020 FF FF FF FF FF FF FF	6.....J.
DS:0030 A2 01 14 00 18 00 F5 19
DS:0040 05 00 00 00 00 00 00 00

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

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

AX 0005	SI 0000	CS 19F5	IP 010D	Stack +0 0000	Flags 7244
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 1 0 1 0

CMD > []		1 0 1 2 3 4 5 6 7
010C 4B	DEC BX	DS:0000 CD 20 FF 9F 00 EA F0 FE
010D 75F7	JNZ 0106	DS:0008 AD DE 1B 05 C5 06 00 00
010F 48	DEC AX	DS:0010 18 01 10 01 18 01 92 01
0110 75F1	JNZ 0103	DS:0018 01 01 01 00 02 FF FF FF
0112 B8004C	MOV AX,4C00	DS:0020 FF FF FF FF FF FF FF FF
0115 CD21	INT 21	DS:0028 FF FF FF FF EB 19 C0 11
0117 0000	ADD [BX+SI],AL	DS:0030 A2 01 14 00 18 00 F5 19
0119 0000	ADD [BX+SI],AL	DS:0038 FF FF FF FF 00 00 00 00
011B 0000	ADD [BX+SI],AL	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		= f.Q== i ..+...ft.J.
DS:0000 CD 20 FF 9F 00 EA F0 FE	AD DE 1B 05 C5 06 00 00	= f.Q== 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 EB 19 C0 11 J.
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 00

1 Step | 2 ProcStep | 3 Retrieve | 4 Help | 0N | 5 BRK | Menu | 6 | 7 up | 8 dn | 9 le | 10 ri |