

.model small

;Macro to Display Message

display macro msg

 lea dx,msg

 mov ah,09h

 int 21h

endm

.DATA

LIST DB 01H,05H,07H,10H,12H,14H

NUMBER EQU (\$-LIST)

KEY DB 012H

MSG1 DB 0DH,0AH,"ELEMENT FOUND INT LIST....\$"

MSG2 DB 0DH,0AH,"ELEMENT NOT FOUND.....\$"

.CODE

START:

MOV AX,@DATA

MOV DS,AX

MOV CH,NUMBER-1

MOV CL,00H

AGAIN:

MOV SI,OFFSET LIST

XOR AX,AX

CMP CL,CH

JE NEXT

JNC FAILED

NEXT:

MOV AL,CL

ADD AL,CH

SHR AL,01H

MOV BL,AL

XOR AH,AH

MOV BP,AX

MOV AL,DS:[BP][SI]

CMP AL,KEY

JE SUCCESS

JC INCLOW

MOV CH,BL

DEC CH

IMP AGAIN

INCLOW:

MOV CL,BL

INC CL

JMP AGAIN

SUCCESS:

DISPLAY MSG1

JMP FINAL

FAILED:

DISPLAY MSG2

FINAL:

MOV AH,4CH

INT 21H

END

The screenshot shows the DOSBox 0.74-3 interface. The title bar reads "DOSBox 0.74-3, Cpu speed: max 100% cycles, Frameskip 0, Prog...". The menu bar includes File, Edit, View, Search, Run, Watch, Options, Calls, and Help. The main window is divided into several panes:

- Source:** Displays assembly code with addresses and instructions. The current instruction is at address 1DD0:0010: `8CC0 MOV AX,ES`.
- Registers:** A list of 16 registers with their current values. For example, AX = 0000, BX = 0000, CX = 0000, DX = 0000, SP = 0080, BP = 0000, SI = 0000, DI = 0000, DS = 051A, ES = 051A, SS = 1F37, CS = 1DD0, IP = 0010, FL = 0200.
- Memory:** Shows a dump of memory starting at address 051A:0000. The first line is `CD 20 FF 9F 00 EA FF FF AD DE 6C 02 CD 03 32 03`.
- Command:** Shows the command line: `CU0101 Warning: No symbolic information for C:\MASM\masm.EXE`.

At the bottom, there is a status bar with keyboard shortcuts: <F8=Trace> <F10=Step> <F5=Go> <F6=Window> <F3=Display>.