

CODE:

.MODEL SMALL

;MACRO DISPLAY THE 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 IN THE LIST...\$"

MSG2 DB 0DH,0AH,"SEARCH FAILED!! ELEMENT NOT FOUND IN THE LIST \$"

.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

JMP AGAIN

INCLOW:MOV CL,BL

INC AL

JMP AGAIN

SUCCESS:DISPLAY MSG1

JMP FINAL

FAILED:DISPLAY MSG2

FINAL:MOV AH,4CH

INT 21H

END

OUTPUT:

```

DOSBox 0.74-3, Cpu speed: max 100% cycles, Frameskip 0, Prog...

File	Edit	View	Search	Run	Watch	Options	Calls	Help	
local									
source1 CS:IP									
source2									
052A:0000	B82E05	MOV	AX,052E						AX = 0912
052A:0003	8ED8	MOV	DS,AX						BX = 0004
052A:0005	B505	MOV	CH,05						CX = 0503
052A:0007	B100	MOV	CL,00						DX = 0015
052A:0009	BE0E00	MOV	SI,000E						SP = 0000
052A:000C	33C0	XOR	AX,AX						BP = 0004
052A:000E	3ACD	CMP	CL,CH						SI = 000E
052A:0010	7402	JZ	0014						DI = 0000
memory1 byte DS:0000									DS = 052E
051A:0000	CD 20 FF 9F 00 EA FF FF AD DE 6C 02 CD 03 32 03						ES = 051A	SS = 0529	
051A:0010	CD 03 4B 0A CD 03 FF 04 01 01 01 00 02 03 FF FF ..K....						CS = 052A	IP = 003F	
051A:0020	FF FF FF FF FF FF FF FF FF FF FF FF 10 05 72 22						FL = 0246		
memory2 byte DS:0000 (ACTIVE)									
051A:0000	CD 20 FF 9F 00 EA FF FF AD DE 6C 02 CD 03 32 03								
051A:0010	CD 03 4B 0A CD 03 FF 04 01 01 01 00 02 03 FF FF ..K....								
command									
052E:0000	09 90 BD 16 34 00 B4 09-CD 21 B4 4C CD 21 01 05								
052E:0010	07 10 12 14 12 0D 0A 45-4C 45 4D 45 4E 54 20 46								
>									
<F8=Trace> <F10=Step> <F5=Go> <F6=Window> <F3=Display>									