File   Edit   Search   View   Options   Help

C:\MASM\A5.ASM

```
.model small
; MACRO TO 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 ($-LIST)
KEY DB 012H
MSG1 DB 0DH,   "ELEMENTS FOUND IN LIST....$"
MSG2 DB 0DH,   "SSEARCH FAAILED? 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
```

F1=Help   Line:22   Col:10

```
  File   Edit   Search   View   Options   Help
                                    C:\MASM\A5.ASM

            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
```
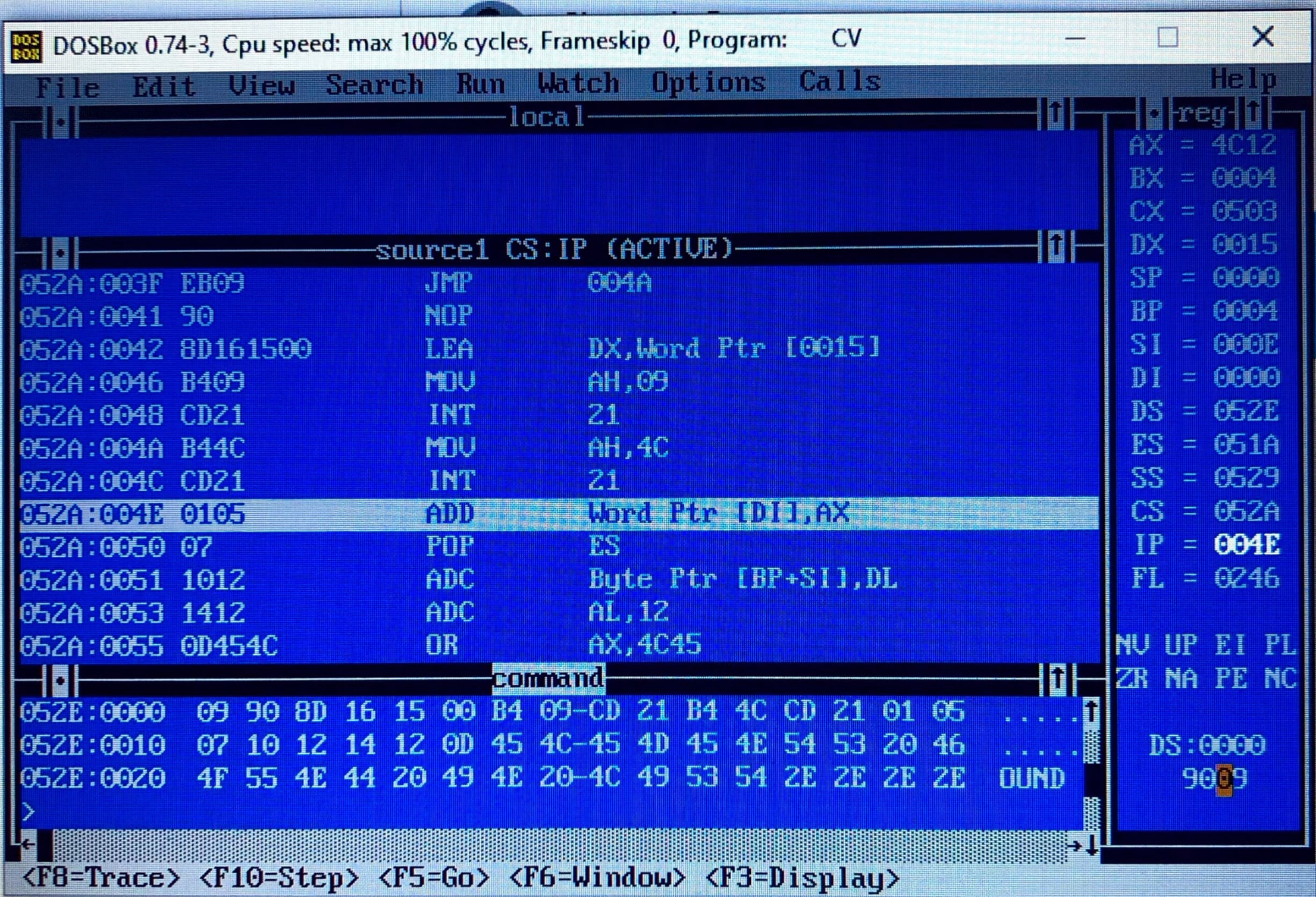
F1=Help

```asm
        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 CL
        JMP AGAIN
SUCCESS:DISPLAY MSG1
        JMP FINAL
FAILED: DISPLAY MSG1
FINAL:  MOV AH, 4CH
        INT 21H
END START
```

```
DOSBox 0.74-3, Cpu speed: max 100% cycles, Frameskip 0, Program:    CV        —  □  X

 File   Edit   View   Search   Run   Watch   Options   Calls                          Help
┌─┤•├──────────────────────local───────────────────────┤↑├  ┌─┤•├reg┤↑├
│                                                        │   │ AX = 4C12
│                                                        │   │ BX = 0004
│                                                        │   │ CX = 0503
├─┤•├─────────────source1 CS:IP (ACTIVE)──────────────┤↑├  │ DX = 0015
│052A:003F EB09              JMP         004A            │   │ SP = 0000
│052A:0041 90                NOP                         │   │ BP = 0004
│052A:0042 8D161500          LEA         DX,Word Ptr [0015]  │ SI = 000E
│052A:0046 B409              MOV         AH,09           │   │ DI = 0000
│052A:0048 CD21              INT         21              │   │ DS = 052E
│052A:004A B44C              MOV         AH,4C           │   │ ES = 051A
│052A:004C CD21              INT         21              │   │ SS = 0529
│052A:004E 0105              ADD         Word Ptr [DI],AX│   │ CS = 052A
│052A:0050 07                POP         ES              │   │ IP = 004E
│052A:0051 1012              ADC         Byte Ptr [BP+SI],DL │ FL = 0246
│052A:0053 1412              ADC         AL,12           │   │
│052A:0055 0D454C            OR          AX,4C45         │   │ NV UP EI PL
├─┤•├──────────────────────command────────────────────┤↑├  │ ZR NA PE NC
│052E:0000   09 90 8D 16 15 00 B4 09-CD 21 B4 4C CD 21 01 05   ......↑ │
│052E:0010   07 10 12 14 12 0D 45 4C-45 4D 45 4E 54 53 20 46   .....   │ DS:0000
│052E:0020   4F 55 4E 44 20 49 4E 20-4C 49 53 54 2E 2E 2E 2E   OUND    │    9089
│>                                                            │
│←                                                          →↓│
 <F8=Trace>  <F10=Step>  <F5=Go>  <F6=Window>  <F3=Display>
```

```
DOSBox 0.74-3, Cpu speed:    3000 cycles, Frameskip 0, Program:  DOSBOX    —  □  X

C:\>cd masm

C:\MASM>edit a5.asm

C:\MASM>MASM A5;;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


   51488 + 465056 Bytes symbol space free

       0 Warning Errors
       0 Severe  Errors

C:\MASM>LINK A5;;


Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


LINK : warning L4021: no stack segment


C:\MASM>CV A5
ELEMENTS FOUND IN LIST....
C:\MASM>
```