

南京林业大学



汇编语言上机实验 任务书

实验七 寻址方式在结构化数据访问中的应用

代码:

```
assume cs:codesg
```

```
data segment
```

```
    db '1975','1976','1977','1978','1979','1980','1981','1982','1983'
    db '1984','1985','1986','1987','1988','1989','1990','1991','1992'
    db '1993','1994','1995'
    dd 16,22,382,1356,2390,8000,16000,24486,50065,97479
    dd 140417,197514,345980,590827,803530,1183000,1843000
    dd 2759000,3753000,4649000,5937000
    dw 3,7,9,13,28,38,130,220,476,778,1001,1442,2258
    dw 2793,4037,5635,8226,11542,14430,15257,17800
```

```
data ends
```

```
table segment
```

```
    db 21 dup('year summ ne ?? ')
```

```
table ends
```

```
codesg segment
```

```
start:
```

```
    mov     ax, data
    mov     ds, ax
    mov     ax, table
    mov     es, ax
    mov     bx, 0
    mov     di, 21*4*2
    mov     bp, 0
    mov     cx, 21
```

```
s:
```

```
    mov     ax, [bx]
    mov     es:[bp], ax
    mov     ax, [bx+2]
    mov     es:[bp+2], ax
    mov     ax, [bx+21*4]
    mov     es:[bp+5], ax
    mov     dx, [bx+21*4+2]
```

```

mov     es:[bp+7], dx
div     word ptr [di]
mov     dx, [di]
mov     es:[bp+0Ah], dx
mov     es:[bp+0Dh], ax
add     bx, 4
add     di, 2
add     bp, 16
loop    s

mov     ax, 4C00h
int     21h

```

codesg ends

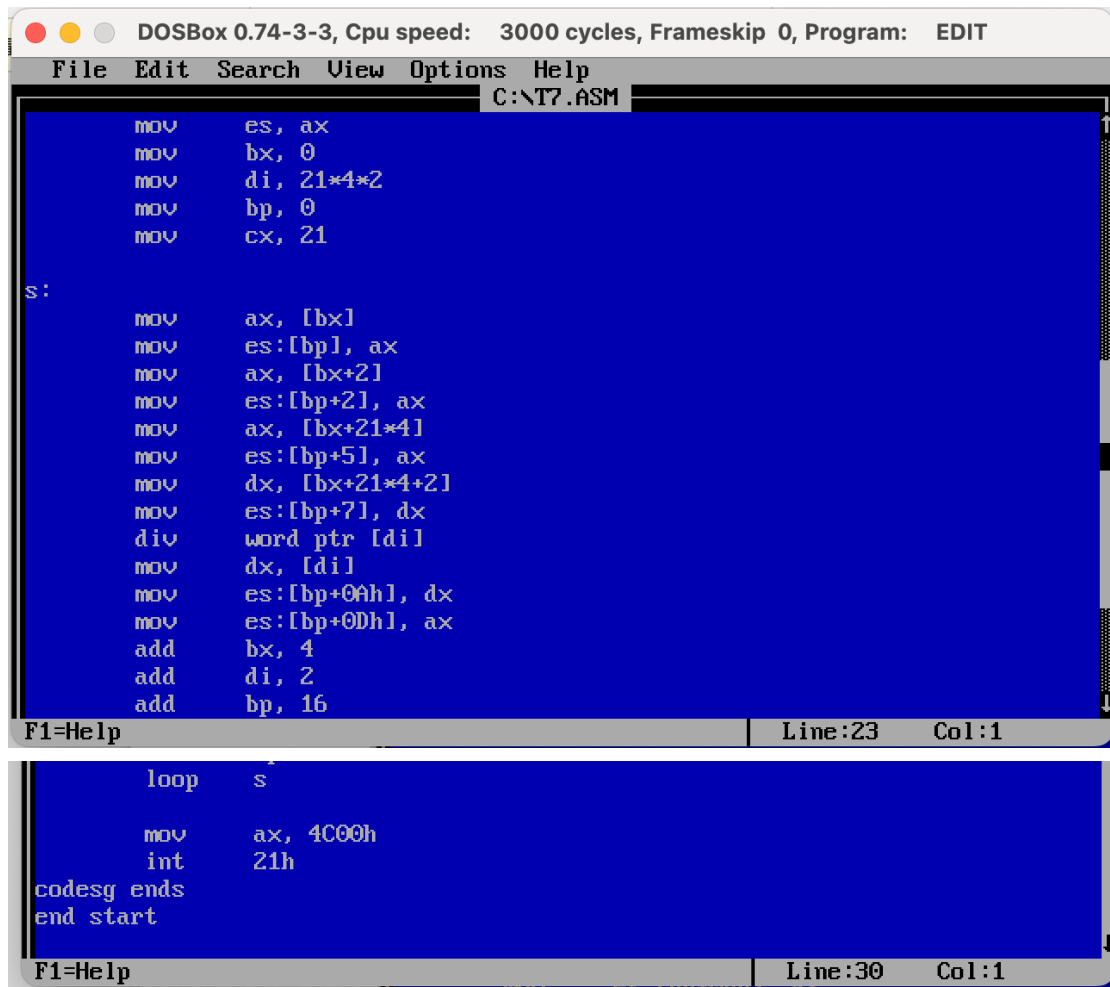
end start

输入代码:

```

DOSBox 0.74-3-3, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\NT7.ASM
assume cs:codesg
data segment
    db '1975', '1976', '1977', '1978', '1979', '1980', '1981', '1982', '1983'
    db '1984', '1985', '1986', '1987', '1988', '1989', '1990', '1991', '1992'
    db '1993', '1994', '1995'
    dd 16,22,382,1356,2390,8000,16000,24486,50065,97479
    dd 140417,197514,345980,590827,803530,1183000,1843000
    dd 2759000,3753000,4649000,5937000
    dw 3,7,9,13,28,38,130,220,476,778,1001,1442,2258
    dw 2793,4037,5635,8226,11542,14430,15257,17800
data ends
table segment
    db 21 dup('year summ ne ?? ')
table ends
codesg segment
start:
    mov ax, data
    mov ds, ax
    mov ax, table
F1=Help Line:1 Col:1

```



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

File Edit Search View Options Help

C:\T7.ASM

```
mov     es, ax
mov     bx, 0
mov     di, 21*4*2
mov     bp, 0
mov     cx, 21

s:
mov     ax, [bx]
mov     es:[bp], ax
mov     ax, [bx+2]
mov     es:[bp+2], ax
mov     ax, [bx+21*4]
mov     es:[bp+5], ax
mov     dx, [bx+21*4+2]
mov     es:[bp+7], dx
div     word ptr [di]
mov     dx, [di]
mov     es:[bp+0Ah], dx
mov     es:[bp+0Dh], ax
add     bx, 4
add     di, 2
add     bp, 16

loop    s

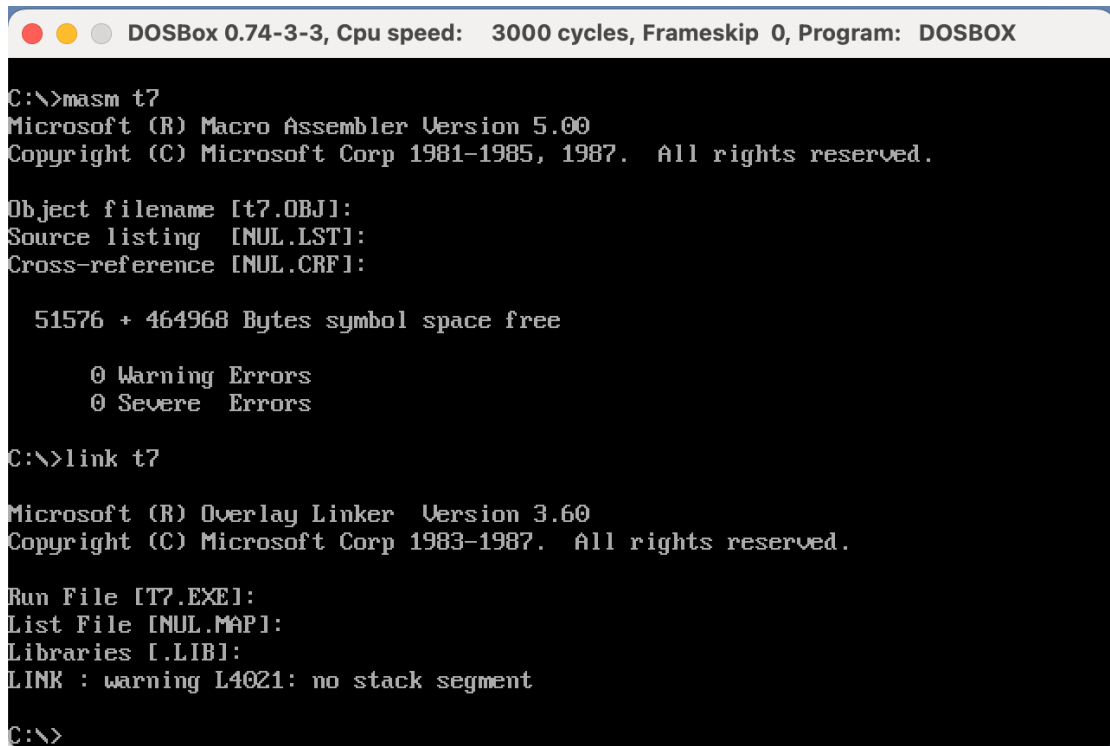
mov     ax, 4C00h
int     21h

codesg ends
end start
```

F1=Help Line:23 Col:1

F1=Help Line:30 Col:1

编译、链接:



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

```
C:\>masm t7
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

Object filename [t7.OBJ]:
Source listing [NUL.LST]:
Cross-reference [NUL.CRF]:

51576 + 464968 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link t7

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

Run File [T7.EXE]:
List File [NUL.MAP]:
Libraries [.LIB]:
LINK : warning L4021: no stack segment

C:\>
```

运行:

```

DOSBox 0.74-3-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
List File [NUL.MAP]:
Libraries [.LIB]:
LINK : warning L4021: no stack segment

C:\>debug t7.exe

-u
078D:0000 B86A07      MOV     AX,076A
078D:0003 8ED8        MOV     DS,AX
078D:0005 B87807      MOV     AX,0778
078D:0008 8EC0        MOV     ES,AX
078D:000A BB0000      MOV     BX,0000
078D:000D BFA800      MOV     DI,00A8
078D:0010 BD0000      MOV     BP,0000
078D:0013 B91500      MOV     CX,0015
078D:0016 8B07        MOV     AX,[BX]
078D:0018 26          ES:
078D:0019 894600      MOV     [BP+00],AX
078D:001C 8B4702      MOV     AX,[BX+02]
078D:001F 26          ES:
078D:0020 894602      MOV     [BP+02],AX

-g

Program terminated normally

```

查看运行结果:

```

DOSBox 0.74-3-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
076A:00B0 1C 00 26 00 82 00 DC 00-DC 01 0A 03 E9 03 A2 05 ..&.....
076A:00C0 D2 08 E9 0A C5 0F 03 16-22 20 16 2D 5E 38 99 3B .....^B.;
076A:00D0 88 45 00 00 00 00 00 00-00 00 00 00 00 00 00 .E.....
076A:00E0 31 39 37 35 20 10 00 00-00 20 03 00 20 05 00 20 1975 ....
076A:00F0 31 39 37 36 20 16 00 00-00 20 07 00 20 03 00 20 1976 ....
076A:0100 31 39 37 37 20 7E 01 00-00 20 09 00 20 2A 00 20 1977 ~... *.
076A:0110 31 39 37 38 20 4C 05 00-00 20 0D 00 20 68 00 20 1978 L... h.
076A:0120 31 39 37 39 20 56 09 00-00 20 1C 00 20 55 00 20 1979 U... U.
076A:0130 31 39 38 30 20 40 1F 00-00 20 26 00 20 D2 00 20 1980 @... &.
076A:0140 31 39 38 31 20 80 3E 00-00 20 82 00 20 7B 00 20 1981 .>... f.
076A:0150 31 39 38 32 20 A6 5F 00-00 20 DC 00 20 6F 00 20 1982 ._... o.
076A:0160 31 39 38 33 20 91 C3 00-00 20 DC 01 20 69 00 20 1983 .... i.
076A:0170 31 39 38 34 20 C7 7C 01-00 20 0A 03 20 7D 00 20 1984 .!... }.
076A:0180 31 39 38 35 20 81 24 02-00 20 E9 03 20 8C 00 20 1985 .$...
076A:0190 31 39 38 36 20 8A 03 03-00 20 A2 05 20 88 00 20 1986 ....
076A:01A0 31 39 38 37 20 7C 47 05-00 20 D2 08 20 99 00 20 1987 !G...
076A:01B0 31 39 38 38 20 EB 03 09-00 20 E9 0A 20 D3 00 20 1988 ....
076A:01C0 31 39 38 39 20 CA 42 0C-00 20 C5 0F 20 C7 00 20 1989 .B...
076A:01D0 31 39 39 30 20 18 0D 12-00 20 03 16 20 D1 00 20 1990 ....
076A:01E0 31 39 39 31 20 38 1F 1C-00 20 22 20 20 E0 00 20 1991 8... "
076A:01F0 31 39 39 32 20 58 19 2A-00 20 16 2D 20 EF 00 20 1992 X.*. -
076A:0200 31 39 39 33 20 28 44 39-00 20 5E 38 20 04 01 20 1993 (D9. ^B
076A:0210 31 39 39 34 20 28 F0 46-00 20 99 3B 20 30 01 20 1994 (.F. .: 0.
076A:0220 31                                     1

```