chapter 11

实验11

code

```
1  assume cs:code,ds:data
2
3  data segment
4      db "Beginner's All-purpose Symbolic Instruction Code.",0
5  data ends
6
7
8  code segment
9  start:
10     mov ax,data
11     mov ds,ax
12     mov si,0
13     mov di,160*10+2*5
14
15     call show_letter
16     call letterc
17     add di,160
18     call show_letter
19
20     mov ax,4c00h
21     int 21h
22
23     letterc:
24         push ax
25         push bx
26         push cx
27         push dx
28         push si
29         push di
30         push ds
31         push es
32
33         mov si,0
34
35     letterc_bg:
36         mov al,ds:[si]
37
38         cmp al,0
39         je letterc_end
40
41         cmp al,'a'
42         jb next
43         cmp al,'z'
44         ja next
45         ;and al,11011111b
46         sub al,20h
```

```asm
47            mov ds:[si],al

49        next:
50            inc si
51            jmp letterc_bg
52    letterc_end:
53        pop es
54        pop ds
55        pop di
56        pop si
57        pop dx
58        pop cx
59        pop bx
60        pop ax
61        ret

63    show_letter:
64        push ax
65        push bx
66        push cx
67        push dx
68        push si
69        push di
70        push ds
71        push es
72    show_letter_bg:
73        mov ax,0b800h
74        mov es,ax
75        ; mov di,160*10+2*5

77        mov cx,0

79        show:
80            mov al,ds:[si]

82            mov cl,al
83            jcxz show_letter_end

85            mov ah,2
86            mov es:[di],ax
87            inc si
88            inc di
89            inc di
90            jmp show

92    show_letter_end:
93        pop es
94        pop ds
95        pop di
96        pop si
97        pop dx
98        pop cx
99        pop bx
100        pop ax
101        ret
102 code ends
103 end start
```

Screenshot

```
Z:\>c:

C:\>MASM 1.asm;
Microsoft (R) Macro Assembler Version 5.00
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  51624 + 464920 Bytes symbol space free

    Beginner's All-purpose Symbolic Instruction Code.
    BEGINNER'S ALL-PURPOSE SYMBOLIC INSTRUCTION CODE.

C:\>LINK 1.obj;

Microsoft (R) Overlay Linker  Version 3.60
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LINK : warning L4021: no stack segment

C:\>debug 1.exe
-q

C:\>1

C:\>
```