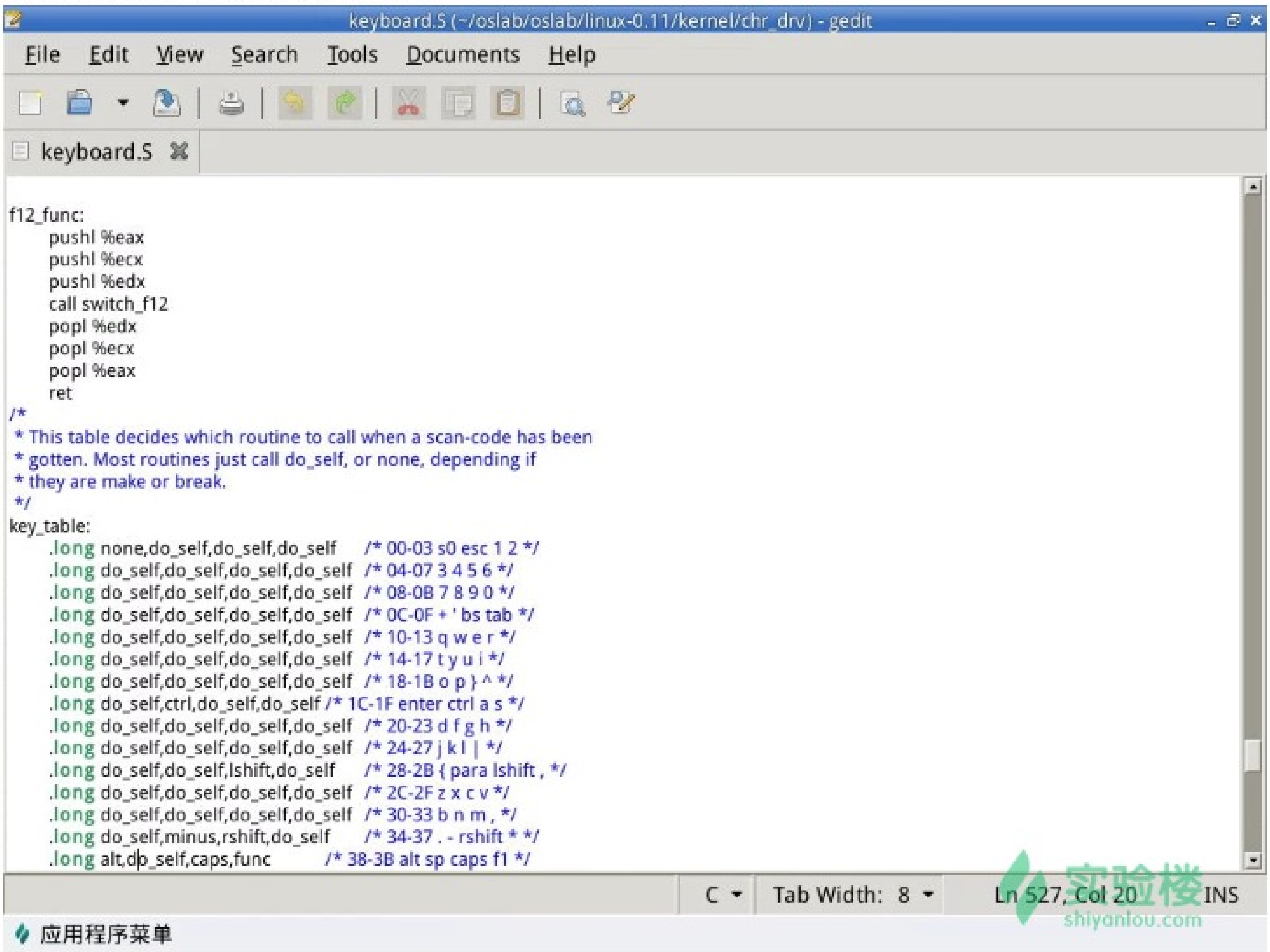
吴梦圆 L58 2017-02-11 14:55 Linux 计算机专业课

“操作系统原理与实践”实验报告

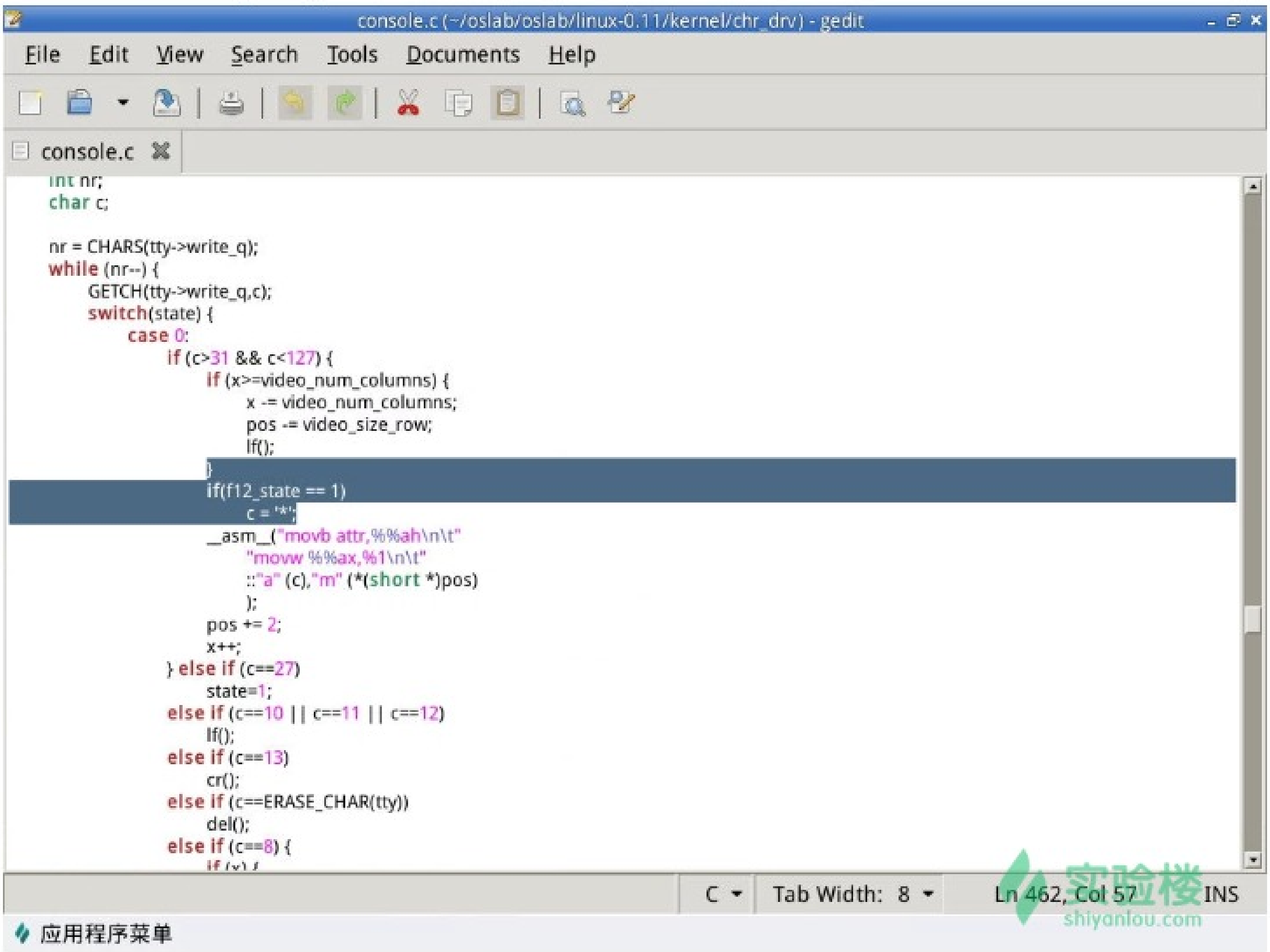
终端设备的控制

1.sched.h中添加一行：int f12_state; 2.sched.c中添加:f12_state=0; void swicth_f12(void){ if ....}3.keyboard.S 添加函数f12_func, 修改key_table中f12相应字段



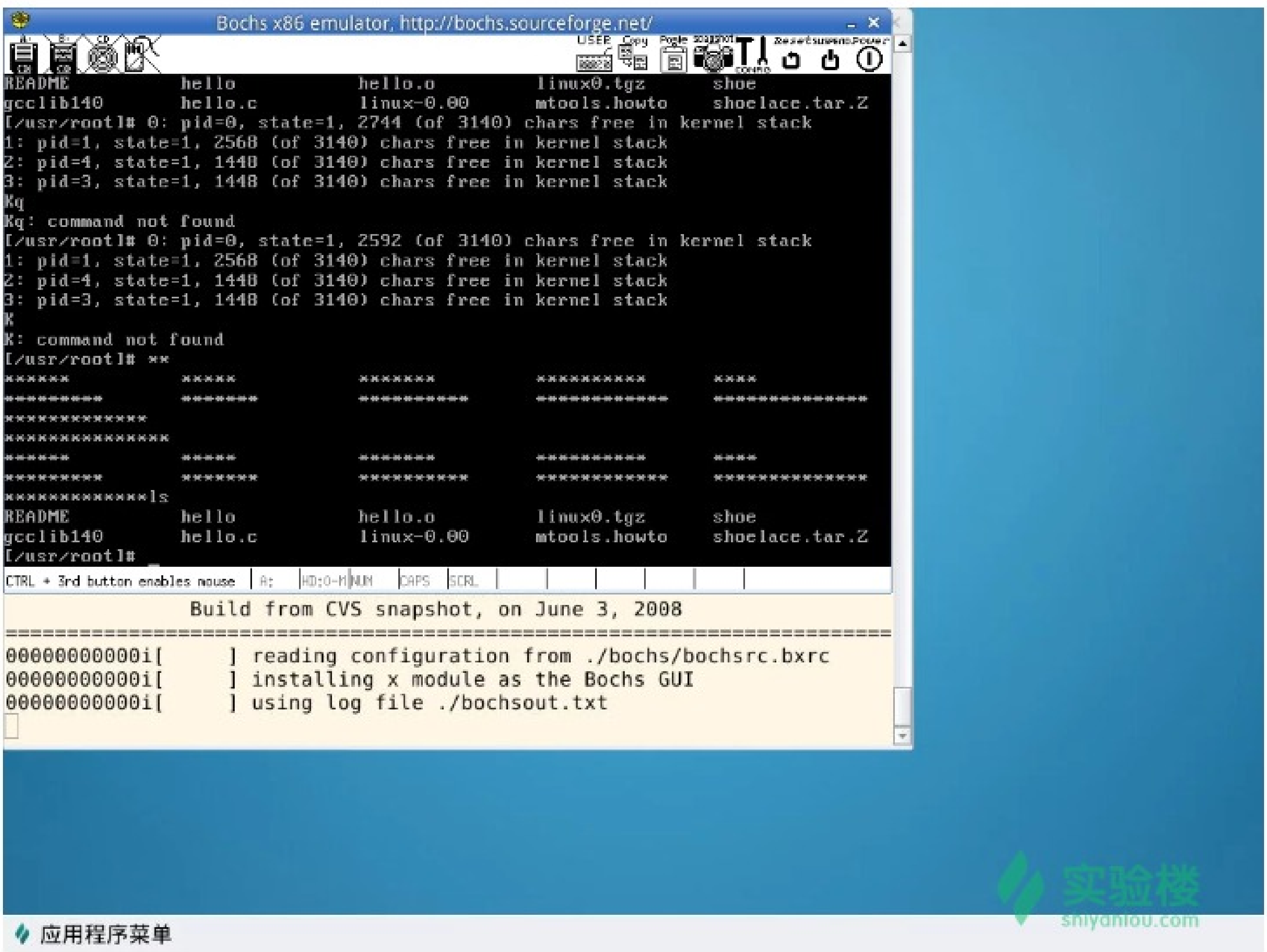
```
f12_func:
        pushl %eax
        pushl %ecx
        pushl %edx
        call switch_f12
        popl %edx
        popl %ecx
        popl %eax
        ret
/*
 * This table decides which routine to call when a scan-code has been
 * gotten. Most routines just call do_self, or none, depending if
 * they are make or break.
 */
key_table:
        .long none,do_self,do_self,do_self      /* 00-03 s0 esc 1 2 */
        .long do_self,do_self,do_self,do_self   /* 04-07 3 4 5 6 */
        .long do_self,do_self,do_self,do_self   /* 08-0B 7 8 9 0 */
        .long do_self,do_self,do_self,do_self   /* 0C-0F + ' bs tab */
        .long do_self,do_self,do_self,do_self   /* 10-13 q w e r */
        .long do_self,do_self,do_self,do_self   /* 14-17 t y u i */
        .long do_self,do_self,do_self,do_self   /* 18-1B o p } ^ */
        .long do_self,ctrl,do_self,do_self /* 1C-1F enter ctrl a s */
        .long do_self,do_self,do_self,do_self   /* 20-23 d f g h */
        .long do_self,do_self,do_self,do_self   /* 24-27 j k l | */
        .long do_self,do_self,lshift,do_self    /* 28-2B { para lshift , */
        .long do_self,do_self,do_self,do_self   /* 2C-2F z x c v */
        .long do_self,do_self,do_self,do_self   /* 30-33 b n m , */
        .long do_self,minus,rshift,do_self      /* 34-37 . - rshift * */
        .long alt,do_self,caps,func        /* 38-3B alt sp caps f1 */
```

4.console.c中修改con_write()函数如下



```
    int nr;
    char c;

    nr = CHARS(tty->write_q);
    while (nr--) {
        GETCH(tty->write_q,c);
        switch(state) {
            case 0:
                if (c>31 && c<127) {
                    if (x>=video_num_columns) {
                        x -= video_num_columns;
                        pos -= video_size_row;
                        lf();
                    }
                    if(f12_state == 1)
                        c = '*';
                    __asm__("movb attr,%%ah\n\t"
                        "movw %%ax,%1\n\t"
                        ::"a" (c),"m" (*(short *)pos)
                        );
                    pos += 2;
                    x++;
                } else if (c==27)
                    state=1;
                else if (c==10 || c==11 || c==12)
                    lf();
                else if (c==13)
                    cr();
                else if (c==ERASE_CHAR(tty))
                    del();
                else if (c==8) {
                    if (x) {
```



```
README          hello           hello.o         linux0.tgz      shoe
gcclib140       hello.c         linux-0.00      mtools.howto    shoelace.tar.Z
[/usr/root]# 0: pid=0, state=1, 2744 (of 3140) chars free in kernel stack
1: pid=1, state=1, 2568 (of 3140) chars free in kernel stack
2: pid=4, state=1, 1448 (of 3140) chars free in kernel stack
3: pid=3, state=1, 1448 (of 3140) chars free in kernel stack
Kq
Kq: command not found
[/usr/root]# 0: pid=0, state=1, 2592 (of 3140) chars free in kernel stack
1: pid=1, state=1, 2568 (of 3140) chars free in kernel stack
2: pid=4, state=1, 1448 (of 3140) chars free in kernel stack
3: pid=3, state=1, 1448 (of 3140) chars free in kernel stack
K
K: command not found
[/usr/root]# **
******          *****           *******         **********      ****
*********       *******         **********      ************    **************
*************
***************
******          *****           *******         **********      ****
*********       *******         **********      ************    **************
*************ls
README          hello           hello.o         linux0.tgz      shoe
gcclib140       hello.c         linux-0.00      mtools.howto    shoelace.tar.Z
[/usr/root]# _
```

```
                 Build from CVS snapshot, on June 3, 2008
==========================================================================
00000000000i[     ] reading configuration from ./bochs/bochsrc.bxrc
00000000000i[     ] installing x module as the Bochs GUI
00000000000i[     ] using log file ./bochsout.txt
```