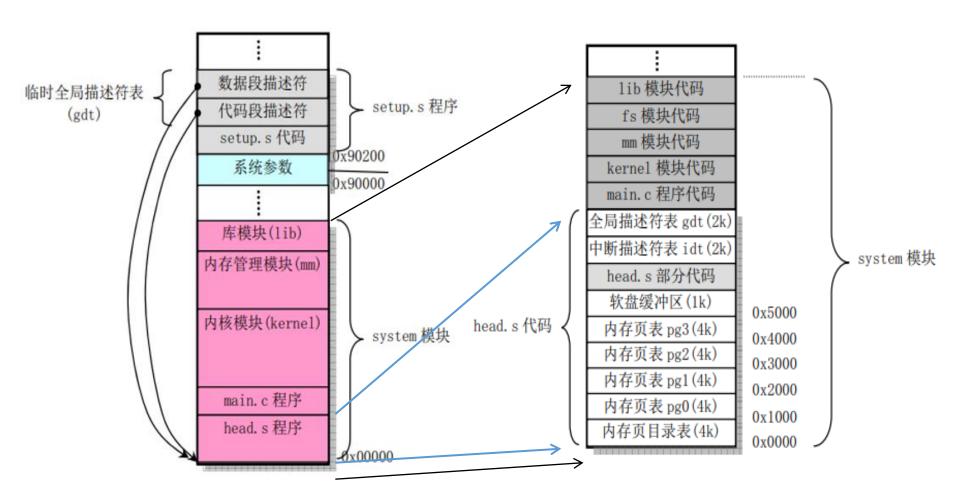
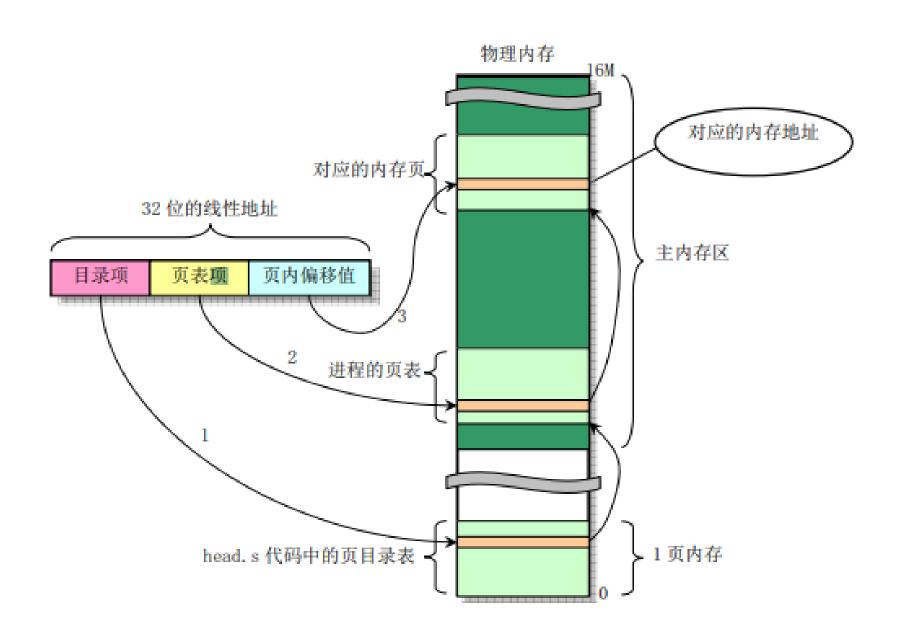
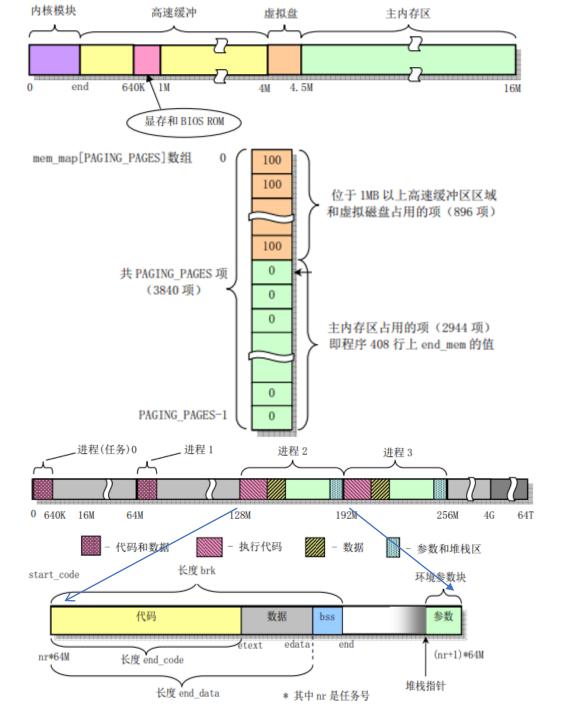
\boot\head.s \init\main.c



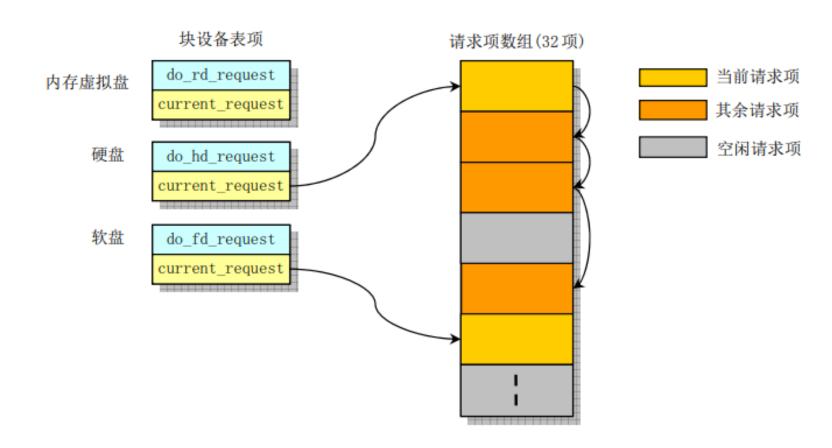


```
mem_init(main_memory_start, memory_end);
trap_init();
blk_dev_init();
chr_dev_init();
tty_init();
time_init();
sched_init();
buffer_init(buffer_memory_end);
hd_init();
floppy init();
sti();
move_to_user_mode();
if (!fork()) {
                        /* we count on t
      init();
```



```
mem_init(main_memory_start, memory_end);
trap_init();
blk_dev_init();
chr_dev_init();
tty_init();
time_init();
sched_init();
buffer_init(buffer_memory_end);
hd_init();
floppy init();
sti();
move_to_user_mode();
if (!fork()) {
                        /* we count on t
     init();
```

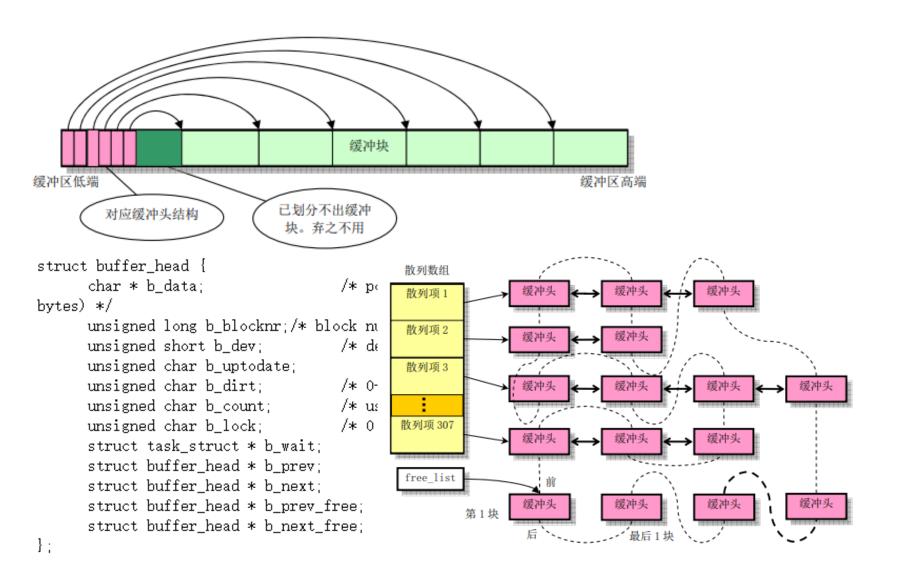
```
struct blk_dev_struct {
     void (*request_fn) (void);
     struct request * current_request;
};
```



```
struct tty_struct {
     struct termios termios;
     int pgrp;
     int stopped;
     void (*write)(struct tty_struct * tty);
     struct tty_queue read_q;
     struct tty_queue write_q;
     struct tty_queue secondary;
     };
                                                 read write.c
                            系统调用 read, write
                                                                         文件系统中
                               字符设备接口
                                                   char_dev. c
                        tty_write()
                                          tty_read()
                                                          tty_io.c
                                                                          字符设备驱动程序
                                          secondary
                                                    copy_to_cooked()
                                       回显 echo
                           write_q
                                                      read_q
                           con_write()
                                                 put_queue()
                            console. c
                                                 keyboard. S
                        主机显示器
                                                        主机键盘
                                                                         控制台终端设备
```

```
mem_init(main_memory_start, memory_end);
trap_init();
blk_dev_init();
chr_dev_init();
tty_init();
▶time_init();
sched_init();
buffer_init(buffer_memory_end);
hd_init();
floppy init();
sti();
move_to_user_mode();
if (!fork()) {
                         /* we count on t
      init();
```

```
struct tss_struct {
                                                                       long back_link;
                                                                       long esp0;
                                                                                                      #define INIT TASK \
struct task_struct {
/* these are hardcoded - don't touch */
                                                                       long ss0;
                                                                                                      /* state etc */
                                                                                                                         \{0, 15, 15, \setminus
                                                                                                      /* signals */0, {{},},0, \
      long state: /* -1 unrunnable, 0 runnable, >0 stopped */
                                                                       long esp1;
                                                                                                      /* ec, brk... */
      long counter:
                                                                                                                         0, 0, 0, 0, 0, 0, \setminus
                                                                       long ss1;
                                                                                                      /* pid etc.. */
                                                                                                                        0, -1, 0, 0, 0, \
      long priority;
                                                                       long esp2;
                                                                                                      /* uid etc */0, 0, 0, 0, 0, 0, \
      long signal;
                                                                       long ss2;
                                                                                                      /* alarm */ 0,0,0,0,0,0,\
      struct sigaction sigaction[32];
                                                                       long cr3;
                                                                                                      /* math */ 0, \
      long blocked: /* bitmap of masked signals */
                                                                       long eip;
                                                                                                      /* fs info */-1,0022, NULL, NULL, NULL, 0, \
/* various fields */
                                                                       long eflags;
                                                                                                      /* filp */ {NULL,}, \
      int exit_code;
                                                                                                            { \
                                                                       long eax, ecx, edx, ebx;
      unsigned long start_code, end_code, end_data, brk, start_stack;
                                                                                                                   {0,0}, \
                                                                       long esp;
      long pid, father, pgrp, session, leader;
                                                                                                      /* ldt */
                                                                                                                   \{0x9f, 0xc0fa00\}, \
      unsigned short uid, euid, suid;
                                                                       long ebp;
                                                                                                                   \{0x9f, 0xc0f200\}, \
      unsigned short gid, egid, sgid;
                                                                       long esi;
                                                                                                            }, \
      long alarm;
                                                                       long edi;
                                                                                                                   {0, PAGE_SIZE+(long)&init_task,(
                                                                                                      /*tss*/
      long utime, stime, cutime, cstime, start_time;
                                                                       long es;
                                                                                                              0, 0, 0, 0, 0, 0, 0, 0, \
      unsigned short used_math;
                                                                                                             0, 0, 0x17, 0x17, 0x17, 0x17, 0x17, 0x17,
                                                                       long cs:
/* file system info */
                                                                                                              _LDT(0),0x800000000, \
                                                                       long ss;
                         /* -1 if no tty, so it must be signed */
      int tty:
                                                                                                                   {} \
                                                                       long ds;
      unsigned short umask;
                                                                                                            }, \
                                                                       long fs;
      struct m_inode * pwd;
                                                                       long gs;
      struct m_inode * root;
      struct m inode * executable;
                                                                       long ldt;
      unsigned long close_on_exec;
                                                                       long trace_bitmap;
      struct file * filp[NR_OPEN];
                                                                       struct i387_struct i387;
/* ldt for this task 0 - zero 1 - cs 2 - ds&ss */
      struct desc_struct ldt[3];
// tss for this task */
      struct tss_struct tss;
};
```



```
mem_init(main_memory_start, memory_end);
trap_init();
blk_dev_init();
chr_dev_init();
tty_init();
time_init();
sched_init();
buffer_init(buffer_memory_end);
hd_init();
floppy_init();
sti();
move_to_user_mode();
if (!fork()) {
                        /* we count on t
      init();
```

