

CS3204 Operating Systems - Fall 2000
Instructor: Dr. Craig A. Struble
Virtual Memory Management in Linux: Corrections 1

Assigned: Monday, Nov. 6

Due: 11:59.59 p.m., Thursday, Nov. 16

1 Corrections

There are three corrections to the project specification. First, the system call provided in the spec does not work as advertised because `double` parameters are too big to be passed to system calls. The following system call should work fine.

```
asm linkage int sys_my_call(int x, short y) {  
    return (int)(x + y);  
}
```

The usage of `_syscall2(...)` changes to

```
_syscall2(int, my_call, int, x, short, y);
```

for the modified system call.

Second, the file for `kill_proc_info(...)` is `/usr/src/linux/kernel/signal.c` not `/usr/src/linux/kernel/sys.c`.

Finally, the important structure in `/usr/src/linux/include/linux/kernel_stat.h` is `kernel_stat` not `kernel_struct`. In order to access the kernel statistics, you need to use the appropriate, `extern`, (global) variable declared in the same header file.

2 Boot Disks

Making appropriate boot disks for RedHat 6.2 to use your modified kernel is easy. Compile and install your kernel as described in the specification. Do NOT execute `make bzdisk` or make modifications to LILO however. Instead, after you have installed your modified kernel using the provided `kerninst` script, execute the command

```
/sbin/mkbootdisk 2.2.14-os
```

This will create a bootdisk that will boot the kernel `/boot/vmlinuz-2.2.14-os`, which should exist if you followed the instructions in the specification.