CSCI 4320 November 22, 2006

Administrivia

• (None.)

Slide 1

A Very Little About the Linux Kernel

- (This is mostly from the book Linux Kernel Internals, by Beck et al.)
- Some interesting features/characteristics:
 - Demand loading of executables.
 - "Buffer cache" for disk data.
 - Shared libraries (analogous to Windows DLLs).
 - Many file systems (including the /proc fakeout).

Slide 2

CSCI 4320 November 22, 2006

A Very Little About the Linux Kernel, Continued

- Interesting statistic about 2.0 version lines of C code per component (470,000 total):
 - Device drivers 377,000
 - Network 25,000
 - Virtual file system layer 13,500
 - File systems (13 of them) 50,000
 - Initialization 4,000 (plus 2800 assembler)
 - Co-processor (3550 assembler)
 - Remainder 20,000

A Very Little About the Linux Kernel, Continued

- Linux Documentation Project (LDP) Web site has an online book on the kernel that may be worth skimming. See "useful/interesting links" page for URL.
- Source code for kernel used to be in /usr/src/kernels, but apparently not with recent distributions. Available from http://www.kernel.org. Copy of latest stable version in /users/cs4320/LinuxSource/. (Let's look at some things.)

Slide 4

Slide 3

CSCI 4320 November 22, 2006

Minute Essay

- None sign in.
- (And best wishes for a good holiday weekend!)

Slide 5