IT 240
Shell Scripting for Administrators

Chapter 9
Controlling Processes

Stan J. Senesy
IT Program/CCS
New Jersey Institute of Technology

Process Basics

- A process is a program in execution
- A program is stored on disk or other storage device and may be executed, at which time it becomes a process
- A command is a program that is part of the operating system

Process Basics

- The *ps* command allows you to view information about processes running on your system
  - With no arguments, it shows only your processes
  - With the *-ef* or *aux* arguments, it shows all processes running on the system

Process Basics

- The special variable *$$* holds the process *PID* of the current process
- The special variable *$!* holds the *PID* of the last process executed in the background

The */proc* File System

- */proc* holds information on running processes as well as hardware related information
- */proc* appears to be a normal directory on the disk
- Every process has a directory under */proc* where the directory name is the PID
- Inside each directory, you'll find information about that particular process

More Process Basics

- Processes may be terminated with the *kill* command
- The & symbol runs a process in the background
- Commands or scripts may be run with the exec command rather than directly
- Back-ticks ` are used to execute a command within them (newer scripts might use parentheses instead)

More Process Basics

- The expression evaluator *expr* may be used to evaluate many types of expressions, including math
- A special shell variable *$?* captures the exit condition of a program or script