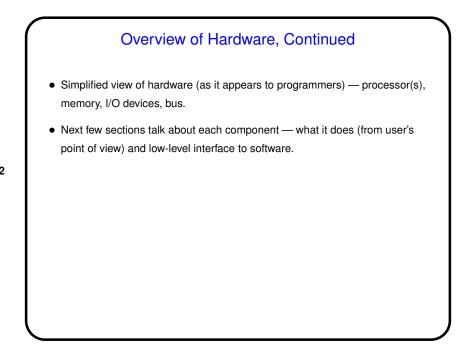
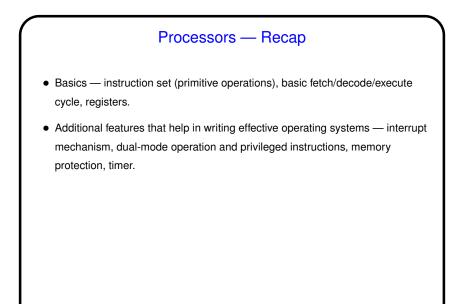
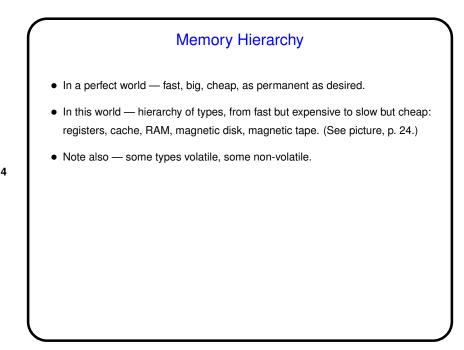


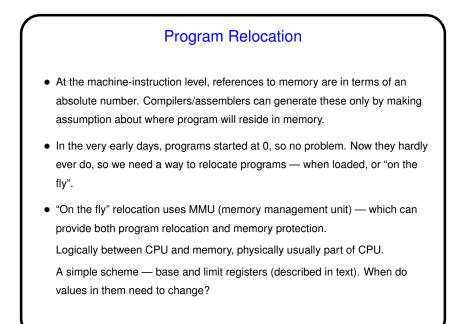
Slide 1

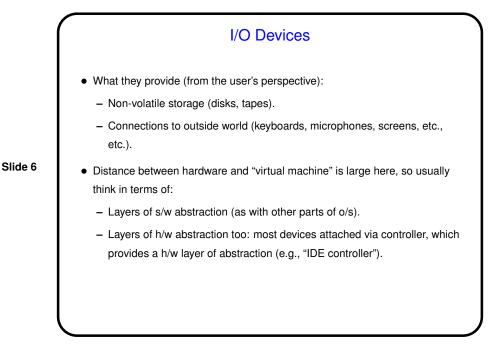


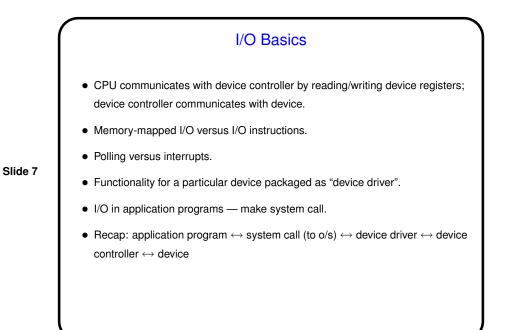


Slide 3









Operating System Services, Again

- Process management.
- Memory management.
- I/O subsystem.
- File systems.
- Security.
- Shell (discussed last time).

Process Management

• "Process" abstraction to represent one of a collection of "things happening at the same time".

A working definition — "program in execution" (program code plus associated variables, sequence of states tracking progress through code and changes in variables).

Slide 9

- "Concurrent" execution via interleaving of actions.
 In effect, each process has a "virtual CPU", with the actual CPU repeatedly suspending one process to work on another ("context switch").
- O/s must provide a way to manage this, including ways to create processes, allow/force them to terminate, communicate among them (e.g., to coordinate/synchronize).

