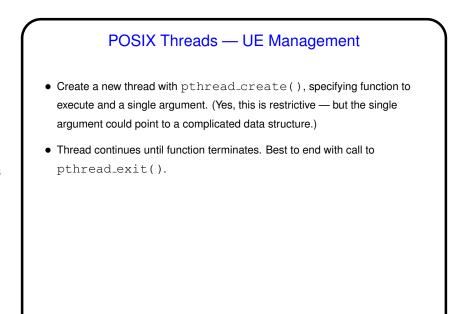
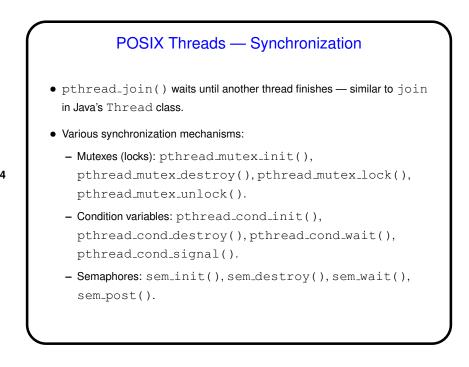
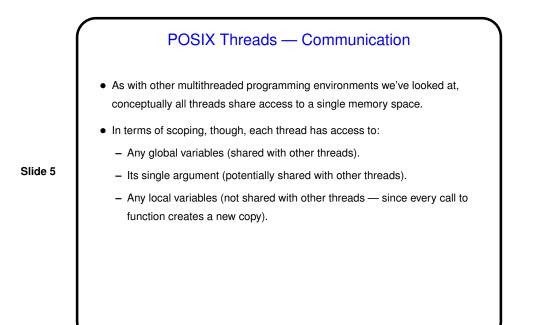
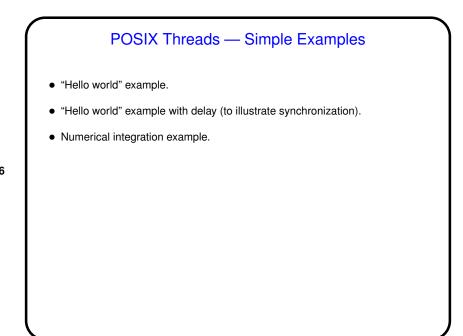


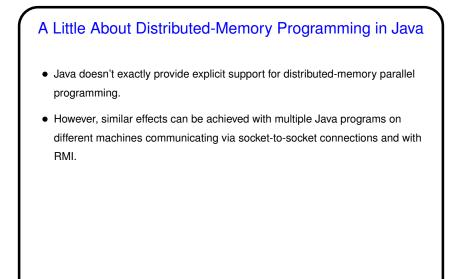
A Little About Multithreaded Programming with POSIX Threads
POSIX threads ("pthreads"): widely-available set of functions for multithreaded programming, callable from C/C++.
Same ideas as multithreaded programming with OpenMP and Java, but not as nicely packaged (my opinion). Might be more widely available than OpenMP compilers, though.







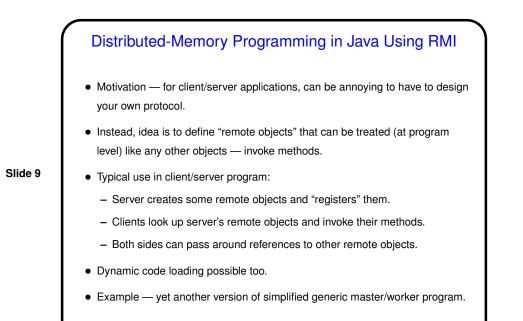




Distributed-Memory Programming in Java Using Sockets

• Client/server model:

- Server sets up "server socket" specifying port number, then waits to accept connections. Connection generates socket.
- Client connects to server by giving name/IPA and port number generates a socket.
- On each side, get input/output streams for socket. Program must define protocol for the two sides to communicate.



Distributed-Memory Programming in Java — RMI, Quick How-To

- Define a class for remote objects:
 - Define interface that extends Remote
 - Define class that implements that interface, extends a Java "remote object" class. Can also include other methods, only available locally.
- Slide 10
- Write code using classes if using as remote object, reference interface; otherwise can reference class.
- Compile and execute:
 - Compile as usual. (Prior to Java 1.5, an extra step was required to generate "stubs" to be used in communicating with remote objects as remote objects.
 - Make classes network-accessible.
 - Start rmiregistry.

