

Outline for October 23, 2008

1. Memory Management
 - a. How programs interact with memory
 - b. Compilers, assemblers, linkers, loaders
 - c. Absolute addressing and the execution cycle
2. Hardware
 - a. Bare machine
 - b. Resident monitors and fence addresses
 - c. Implementing fence addresses
3. Relocation
 - a. When to bind program addresses to absolute addresses
 - b. Loading process into memory
 - c. Dynamic relocation
 - d. Swapping
 - e. Various optimizations
4. Simple memory management schemes
 - a. Multiple partitions
 - b. Multiple fixed regions
 - i. Job scheduling
 - ii. Memory allocation
 - c. Multiple variable regions
 - i. Job scheduling
 - ii. Memory allocation schemes
 - iii. Compaction
 - iv. Memory fragmentation
5. Paging
 - a. Pages, frames, page numbers and offsets
 - b. Job scheduling
 - c. Implementing paging: page table
 - d. Caching