



CS 3530 OS

System Simulation with Threads

Part 2

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Extend our model of a computer system.

- Processor w/cache Thread
- Memory Thread
- Virtual Memory Manager Thread (new)
- I/O-Disk Thread (new)
- The processor/cache communicates with the VM system through registers (address-reg, data-reg) located within the CPU (using shared memory).
- The VM system communicates through shared memory to memory or the I/O-disk using:
 - Address bus
 - Data bus.

- The VM system determines whether a page is in physical or Virtual mem (on disk).
- Real mem is 10 pages in size (holds 10 characters as in part 1).
- Virtual mem holds 20 pages (each holding a character) initialized A-T. Physical mem is no longer initialized.
- Processor generates addresses from 1-20 (or 0-19).
- Page replacement algorithm – whatever is easiest for you to do now. Will expand later.

- Data Assigned: Monday April 6, 2009
- Due: Monday April 13, at Midnight
- Part of today, and April 13 used for lab work time.

- Turn in by email by Midnight on April 13:
 - documented java code

End

Of

Today's

Lecture.



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