

Outline for May 23, 2008

Reading: Text, §6, 7, 10

1. Greetings and felicitations!
2. Device Hardware
continued from last lecture
 - a. Communication lines: simplex, half-duplex, full duplex
3. Example device driver: line clock, programmable clock
4. Example device driver: disk device driver
 - a. virtual disk as a linear array of sectors, reducing latencies
 - b. ordering outstanding disk requests:
 - i. first come, first serve: saturation
 - ii. pickup
 - iii. shortest seek time first
 - iv. SCAN (elevator algorithm), LOOK
 - v. N-Step SCAN, N-Step LOOK
 - vi. C-SCAN, C-LOOK
 - vii. sector queueing
5. Process Interface
 - a. file; system calls (open, close, position file pointer, read, write, miscellaneous control commands)
 - b. blocking: synchronous, asynchronous (latter requires a handler and a wait system calls)