



f) [2 p] What does the concept “memory-mapped I/O” mean? How else would you implement I/O? What advantage do you have with memory-mapped I/O? What disadvantage?

g) [2 p] Device driver (DD) running on the CPU copies large amount of data from memory to some device (e.g., disk). DD co-operates closely with the device controller process (DC) running on the device controller for that device.

How is data transfer implemented when interrupt-driven I/O (indirect I/O) is used?

Explain especially, when data is copied from some place to another and how does DD process state change during I/O.

h) [1 p] (continuation to previous problem)

How does the situation change, if DMA (direct memory access) I/O is used?