**device controller** is responsible for moving the data between

the peripheral devices that it controls and its local buffer storage

**direct memory access (DMA)** is used. After setting

up buffers, pointers, and counters for the I/O device, the device controller

transfers an entire block of data directly to or from its own buffer storage to

memory, with no intervention by the CPU.

Only one interrupt is generated per

block, to tell the device driver that the operation has completed, rather than

the one interrupt per byte generated for low-speed devices.While the device

controller is performing these operations, the CPU is available to accomplish

other work.