

I/O management



- I/O devices vary greatly and new types of I/O devices appear frequently
 - Various methods to control them and to manage their performances
- ➔ Ports, buses, device controllers connect to various devices

I/O Device Interfaces

Port - connection point for device (e.g. serial port)

Bus - daisy chain or shared direct access

e.g. Peripheral Component Interconnect Bus (PCI)

e.g. Universal Serial Bus (USB)

Controller (host adapter) - electronics that operate port, bus, device (e.g. Northbridge, Southbridge, graphics controller, DMA, NIC, ...)

- Can be integrated or separated (host adapter)
- Contains processor, microcode, private memory, bus controller, etc