1. The hardware lines used by PC peripherals (such as printers or modems) to communicate to the microprocessor that the device is ready to send or receive data. Because of the limited amount of these designated by hardware and operating system designers years back, this function is often a major source of connectivity problems. Under most circumstances IRQs are unique and cannot be shared unless the operating system allows it. There is a number from 0 to 15 associated with them on most current microcomputers. See headache! Windows 98SE, Windows ME, 2000, NT and XP are doing better in that they can allow several IRQs to be shared without consequence.
2. A set of 16 hardware lines in the PC Bus architecture, that when asserted by the I/O device, notifies the CPU that the device is in need of servicing. IRQ's 2 and 9 are cascaded, as this is the way that the PC architecture was extended from the 8 bit 8 IRQ “PC/XT” bus to the 16 bit 286 “AT” bus. On most 32 bit protected mode operating systems, peripherals cannot share an IRQ, as the OS would not know which of the two peripherals needed servicing.
3. See interrupt and cascaded interrupt.