

# What is an IRQ?

An IRQ is an interrupt request from a device. Currently they can come in over a pin, or over a packet. Several devices may be connected to the same pin thus sharing an IRQ.

An IRQ number is a kernel identifier used to talk about a hardware interrupt source. Typically this is an index into the global `irq_desc` array, but except for what `linux/interrupt.h` implements the details are architecture specific.

An IRQ number is an enumeration of the possible interrupt sources on a machine. Typically what is enumerated is the number of input pins on all of the interrupt controller in the system. In the case of ISA what is enumerated are the 16 input pins on the two i8259 interrupt controllers.

Architectures can assign additional meaning to the IRQ numbers, and are encouraged to in the case where there is any manual configuration of the hardware involved. The ISA IRQs are a classic example of assigning this kind of additional meaning.