I/O Controller

(too old to reply)

Computer Freak 12 years ago

On a typical microprocessor, a distinct I/O address is used to refer to the I/O data registers and a distinct address for the control and status registers in an I/O controller for a given device. Such registers are refered to as ports. In intel 8088, two I/O instruction formats are used. In one format, the 8-bit opcode specifies an dI/O operation; this is followed by an 8-bit port address. Other I/O opcodes imply that the port address is in the 16-bit DX register. How many ports can the 8088 address in each I/O addressing mode???
Thank you!

Eric P. 12 years ago

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If it is a serial port, then obviously just one at a time.
However on a parallel port, it can control up to 7 or 15
devices simultaneously (device 0 is reserved as the cpu id).

Eric

Del Cecchi 12 years ago

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In the former case, the processor can address 8 ports, one for each bit.
The ports are enabled by setting a bit corresponding to the port.

In the second case, which works much the same, 64 ports can be addressed.
The first byte on the bus selects one of eight groups of eight ports.
The second byte selects the port within the group.

del cecchi

Peter Dickerson 12 years ago

...

This is a trick question. Obviously each addressing mode addresses one port.

P

cat12 12 years ago

Hi I am doing a course for the A+ computer maintenance at college which
that does answer my question