

Re: send more than 8 bits with parallel port

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- *From:* Jonathan Kirwan <jkirwan@xxxxxxxxxxxxxxxx>
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On Wed, 22 Feb 2006 16:20:58 GMT, "Michael A. Terrell"
<mike.terrell@xxxxxxxxxxxxxxxx> wrote:

Jonathan Kirwan wrote:

On Tue, 21 Feb 2006 14:15:56 GMT, NoSpam@xxxxxxxxxxxxx (Bob Masta)
wrote:

<snip>

Others have answered the hardware aspect of your question. However, note that if you plan to use this on PCs running Windows versions later than 9x, you will have to use a special ring 0 device driver to have access to the printer port. (GIVEIO and USERPORT are two that I have heard of, but haven't tried myself.) That might be one advantage for using the serial port, which can be accessed through more-or-less standard Windows API functions.

Another thing to think about is that parallel printer ports are rumored to be slated for extinction... but then again, aren't we all!

You know? What bugs me about this very true point is that we are losing all of the really good hobbyist interfaces for adapting a PC. The ISA bus was really nice and not too complex for a serious hobbyist to use, in adding boards. Gone now, or nearly so. Ever consider trying to do a PCI card as a hobbyist? Reflection wave bus, 2ns clock skew on 33MHz and 1ns clock skew on 66MHz with a 1.5" +/- 0.1" trace length for the clock (often serpentine in order to get there), etc. Just getting equipment to monitor the analog characteristics for debugging a design is a fortune. Lose the parallel, lose the serial, add USB 2.0, replace the old IDE controller cables with SATA 2, and

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what are you left with to use, anymore? It's getting to be a pain in the ...

Well, of course, there are microcontroller boards. But then you lose out on the excellent and easy availability of very excellent and well documented development tools.

Jon

PC-104 is just a reconfigured ISA bus and the cards stack rather than plug into a motherboard. The last ones I worked with had a Cyrix 586 CPU, and were running embedded NT in the Microdyne/L3-com RCB2000 telemetry receiving system. I still have some of the data on the board around here, somewhere.

Yes. But I think the PC-104 is dying. As I understand it, from talking with a few key manufacturers in that business, the ability to secure PC-compatible CPUs _with_ the ability to provide PC-104 signaling isn't likely to survive many more years. They are meeting (or were) to try and see if they could collectively (some of the bigger ones, anyway) pony up for their own ASIC design to handle the PC-104 bus, before the remaining suppliers stop making their parts. But I fear this whole attempt will fail and they will be forced to use PC-104+ only (PCI.)

I'm not privy to the whole picture, but here is about how I see it.

There were some CPU manufacturers who provided x86 CPUs with ISA interfaces. But there are several pressures away from what remains of these, if anything does. For one, customers are usually looking for faster and faster CPUs, even in the PC-104 business. And faster CPUs probably use the front side bus arrangement for the CPU, followed by a chip that mediates between that and the PCI, followed by another chip that mediates between the PCI and the ISA and has all kinds of sideband channels back to the chip that handles the front side to PCI, since ISA DMA transactions cannot be properly remapped as PCI transactions and require "special support." No one wants to keep making the PCI to ISA bridge for that mess -- except maybe the PC-104 folks. But they don't have the business level to keep those current makers making those chips. And I don't think they have the steam themselves to get into that business.

So it will go away, soon. I think.

Jon

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