

Notebook Considerations and the Phase-out of PCMCIA

By John Lindberg

One of the challenges we face in the hydrographic software business is trying to keep up with the changes in hardware. With all the new and exciting pieces of equipment coming out, we are also facing the extinction of many tried and true pieces of equipment. For example, what do you do with all those ISA GPS cards you have lying around? Good luck finding an ISA slot in desktop PCs these days! Even better luck try finding something supported in Windows Vista!!

For many years, the portable solution for hydrographic data collection was the use of a laptop with serial ports. When I started with this company in 1997, almost every notebook had an RS-232 serial port. Some even had two serial ports, or you could buy a docking station with more ports and possibly even an ISA slot! If you needed more serial ports, you simply bought a PCMCIA to serial card. These came in 1, 2 and 4 serial port configurations. Pop the card into the slot, load the drivers and you were good to go.

With the advent of USB, we started seeing RS-232 ports (and parallel ports) disappearing from laptops. While USB was great for running printers and scanners, you can forget about critical time-tagging. (Don't get me on a USB rant! Just stay away from USB to serial devices for survey work!!!!)

Now we are seeing the same thing happening with PCMCIA cards. The majority of modern laptops do not have these slots any more, so buyer beware! Most are coming out with PC Express slots, which is a thinner slot and totally incompatible with PCMCIA cards!

"So what are we supposed to do now?" you may ask.

Well there are a few alternatives. If you are on a tight budget and only need 2 serial ports, you can go to your "Super Saver Mart" and buy an off-the-shelf notebook, but make sure it has a PC Express slot. If so, you can purchase a one or two port PC Express-to-serial adapter from a manufacturer like Quatech. (Quatech will also be offering a 4 port PC Express card sometime in June 2008. Quatech makes the best PCMCIA-to-Serial cards in my opinion, so if their PC Express cards are anything like the PCMCIA cards, we'll all be in great shape!)

What I would recommend is to do a little research on the web and find a notebook that still supports PCMCIA cards. There are still plenty of these to be found and you may



Quatech's DSP-100 2-Port PCMCIA to Serial Adapter

find additional support for other peripherals. For example, I purchased a Dell Precision laptop that has a PCMCIA slot, a PC Express slot, AND a serial port! Other manufacturers like Toshiba and Fujitsu have similar offerings, so check out the manufacturers' websites. You may pay more but at least you can support your current peripherals.

With the phase-out of the PCMCIA architecture, we are also seeing lack of support from manufacturers who make these adapter cards, particularly with Windows Vista. For many of these devices you can try XP or Win 2000 drivers but don't count on these to work.

One noted example of this lack of support for PCMCIA is for the National Instruments DAQCard-6024E PCMCIA card. This is the A/D card we use for analog sidescan and sub-bottom data collection. For the most part, these work great in Win 2000 and XP. I recently tried to install it on my Vista machine and found that the drivers would not install properly. After searching throughout the NI website I found this:

"Devices Not Supported in NI-DAQmx on Windows Vista

"The following devices are not supported in NI-DAQmx on Windows Vista, the 32-bit version, or on Windows Vista x64, the 64-bit version:

"NI DAQCard-6024E 200 kS/s, 12-bit, 16 analog input channel, two analog output channel, 8 digital I/O line, two counter/timer device "

After more searching throughout the site I found that they are trying to move everybody over to a USB solution! So much for critical time-tagging! Let's hope their USB drivers are a bit more stringent than the USB virtual serial drivers we have all come to loath and hate! (If I am sounding a bit feisty it's because it is almost 2PM and I still have not had lunch....) So if you still have this 6024E PCMCIA card stay away from Vista! It ain't gonna work!

A few years ago, we also offered a PCMCIA hardlock, but the manufacturer ceased to support these, too! So you can see where this is all going. (I somehow managed to "trick" my Windows Vista PC to see my PCMCIA hardlock. If anybody else has trouble with their PCMCIA hardlock, email me at john@hypack.com and I'll try to point you in the correct direction, though, thanks to Vista, I cannot guarantee that my workaround will work for you!)

So what all this comes down to is that you really need to research before you buy a notebook, based on your survey needs and the equipment and peripherals you are currently using. A little bit of research now will save a lot of unnecessary aggravation later on!

