



Choosing a tough field computer

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Making the right decisions on the computer and the communication card/interface you use can make or break your day out in the field. Everyone in our Technical department is experienced in working with many types of systems and have heard some horror stories lately with newer form factors. We have a pretty good idea on what works and what doesn't.

So far the consensus is that a dedicated data-acquisition *tough* computer is essential. One that can take the physical abuse and sustain the day-in and day-out grind of field data collection. While most laptops are relatively inexpensive these days, the ones that can take abuse cost more than triple and have less options!

More important than price is the way that your GPS, sounder and other devices plug into your HYPACK® data collection computer. Cardbus PC Card form factor cards are fading fast. I can't remember the last time I went into an electronics store and saw a machine with this type of card slot. These were the best serial adapter options, but I guess the IEEE decided otherwise. Most laptops now come with the Express Card option. The express card still works in most instances, but at times can be flimsy and awkward out the side of the laptop. The configuration that gives these problems are 34mm Cards in a 54mm slot. The existence of an ExpressCard | 54 serial adapter that fits snugly in your machine is not readily available on the market. Express Card | 34 with a 34mm slot or a old school PC card would be a better choice if you want to go the laptop route. The most preferred route is to use a more rugged, mounted computer. Some models offer no moving parts and 12 volt connection!

FIGURE 1. Express Cards and CardBus (left), Tangent PC (right)



Tangent and smallpc.com offer nice models that are proven tough.



FIGURE 2. *Small PC*

Whether getting abused on a dredge or strapped down to your skiff, these rugged computers are a good option to take the worries out of mobile marine computing.

For the **Operating system** we recommend that you use either Windows XP or Windows Vista on a 32-bit System. Although 64-bit systems do work, it seems that many third-party hardware device drivers are not up to par based on the 64-bit processing architecture and RAM allocation. If you do decide to get that 64-bit computer that you have been eyeing, make sure you have plenty of time upfront to do some testing with the computer system. Make sure that all your communication card drivers and your video card drivers are doing the job for all your required survey applications.

Another tip to help your system run at its best: Get all your Windows® updates! This certainly can do nothing but help! Windows® is responsible for HYPACK® running on your computer. If you have an old service pack get it all caught up.

Either on a dredge getting abused or strapped down to your skiff, these rugged computers running Windows® XP or Vista 32-bit are a good options to take the worries out of mobile marine computing.