

No. 210: USB HUBS

By Stan Kaplan, WB9RQR
715 N Dries Street, Saukville 53080 (262) 268-1949
wb9rqr@att.net

Back in July 2013 I wrote about USB ports (#184: USB) and how they were a replacement for the old parallel (printer) and serial ports. Surely since then, you have used one on your desktop or laptop machine to connect a flash drive, printer, keyboard, mouse, camera or any of a number of other devices. The USB port has become a ubiquitous tool, and it will continue to expand.

If you have an older laptop, there may be only two USB ports on the machine. That means that, if you want to connect an external mouse and an external keyboard, all your USB ports will be used up. If you want to transfer photographs from your camera to the hard drive, you will first need to unplug the mouse or the keyboard. What is the solution? Sure, a laptop with more USB ports would solve the issue, but even one with four or six ports might run out. There is a solution.

Before I get to the solution, let me mention another problem. USB connectors wear out through constant connects and disconnects. It is said that around 1,500 connects is about all you can expect from a USB cable or socket. That's not good! The solution will also provide a sort of expendable, outboard socket array that takes much of the wear and tear away from your expensive desktop or laptop machine. If the solution wears out, you can always buy another one for much less money than a new computer. Much less.

Of course, the solution I am talking about is a USB hub. Basically, it is a small box containing between three or four and a dozen or more USB sockets. (Theoretically, the box could contain 126 such sockets, but most everyone would consider that overkill.) Also, the box (typically) sports a cable that plugs into your computer. Plug it in, and one of your USB ports now services three, four or a dozen or more USB connections.

A word of caution. Each of your computer's single USB-2 ports can handle only 5 volts at 500 ma. If you connect a hub that does not have its own power source, it is quite easy to exceed that 500 ma limit, and, at best, your machine will shut down the port. The message is simple. Don't buy a hub that does not have its own plug in power cube. A powered version is not that much more expensive than a version that is not self-powered. Then, each of those new ports will have a full half-amp capacity.

What about cost? A non-powered 4-port hub can range from \$3 to \$15 as of this writing. A self-powered unit with a dozen ports can run as little as \$23. Do a Google search for Self-Powered USB Hubs to find what you need at your price range.

Another caveat. Don't bother getting a "USB-3 Compliant" hub to use with your old laptop or desktop that supports only USB-2. Only if your machine exhibits a blue-colored USB-3 socket will it pay for you to look for a USB-3 hub. If you do spend the extra money for the USB-3 hub and you have only a USB-2 computer, the hub will just work at USB-2 speeds.

On the other hand, some self-powered units come with four USB-2 ports and four USB-3 ports. That would permit you to be prepared for a newer computer in the future. There seems to be no end of choices! Happy Computing!