



Chips without clocks?

By John C. Dvorak
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Are we finally about to see chips without clocks? This has been a goal of some advanced designers, and now at least two companies hope to bring some working products to market. I hope the timing is right!

The two names to look out for are Fulcrum Microsystems, of Pasadena, California, and fund-seeking, London-based Self-Timed Solutions. Fulcrum is doing a RISC chip, and Self-Timed Solutions is coming out with a clockless version of the ARM chip. Every chip company is looking at this idea, since it offers new design strategies. Theorists, many from Caltech, believe that reliance on a central clock to time all the signals within a chip becomes too cumbersome as performance demands increase. A clockless architecture would surely end chip-marketing wars based on timing speeds.

The Big Scare Dept.: A new development in the open-source movement needs comment. It's called viral open-source, among other terms. Apparently, it has CEOs of more than a few software companies spooked. Personally, I think it's a comeuppance for the ludicrous licensing overhead that we've been saddled with since the early days.

The situation is kind of hard to follow, but essentially, some general public licenses (GPLs) say that if any code generated by a compiler gets into any commercial product, then the commercial product falls into the public domain, or into open-source, or whatever. A lawyer friend of mine described the possibilities, and they are very interesting. If you have a rogue programmer who moves some GPL code into your product, then your product may suddenly become subject to the GPL—or worse, depending on the original license.

Let me take it to an extreme. Let's say I design a compiler. In the license agreement, I clearly state that any product that uses anything created by my compiler must become public-domain. Some programmer working for you then uses my compiler, and your product has one line of my code in it. Your product is now public-domain by law, since such licenses are legal and binding. Go sue the coder—if you can find him. In a state that passes the Uniform Computer Information Transactions Act (UCITA), you may not even be able to litigate. You are just out of luck. Interesting, eh?

Finding That File Dept.: Windows XP users soon realize that the OS's search function has been changed to include only registered file types. That's why you can't find those old WordStar files any more. According to Microsoft, this change is meant to improve performance. To me, it makes the search function useless.

There is a Registry fix that makes Win XP look at all the files, the way Windows 2000 and Windows 98 do. But why bother, when you can buy a tool that is much more powerful and versatile, such as FileLocator Pro, from Mythicsoft (www.mythicsoft.com)? A single-user license is extremely cheap, at \$12.99.



FileLocator Pro digs through even ZIP and CAB files. For you old-timers who are trying to find that WordStar document you lost years ago, the newest version of FileLocator Pro flips the WordStar high-order bit, so the preview window shows the text properly. The preview window is very important when you're looking for lost files, and Win XP search without a window can be agonizing. My advice: Get FileLocator Pro. This product is a gem. Highly recommended.

While We're on the Subject of Microsoft Dept.: Can anyone out there even imagine the sheer number of Win XP error messages sent to Microsoft every day? The company must have collected billions by now. Sometimes my machine sends two or three a day. It must be a nightmare.

And since I'm complaining, let me openly ask Microsoft about something that makes no sense to me. The other day, I made a three-picture panorama. Microsoft Photo Editor choked on it and showed this error message: "The Image is too large (too many bytes)." The picture was merely 2.4MB. I could open it in Adobe Photoshop, PixWizard, and half a dozen other products but not Microsoft Photo Editor. Microsoft is promoting itself as the center of the multimedia universe, but the Microsoft default image editor can't open even a relatively small image. Does this remind anyone of the concept that 640K ought to be enough memory for anyone? Just baffling.

Genuinely Interesting Hardware Dept.: While playing around with wireless 802.11b gear for my column, I was seriously impressed by the D-Link AirPlus DWL-900AP+ wireless access point. I ended up installing it. What struck me was not so much its low price (\$99 list) but that it can be programmed as an access point, a bridge, a repeater, or a client. It can also be used as a DHCP server.

The DWL-900AP+ can run at an enhanced 22 Mbps. It has a lone RJ-45 connector and a little OS you can use to tell the thing what you want it to be. If you replace it with an access point, for example, you can program it to serve as something else. It also incorporates 256-bit encryption.

This, to me, is the epitome of modern gear. Geez, why buy anything else?