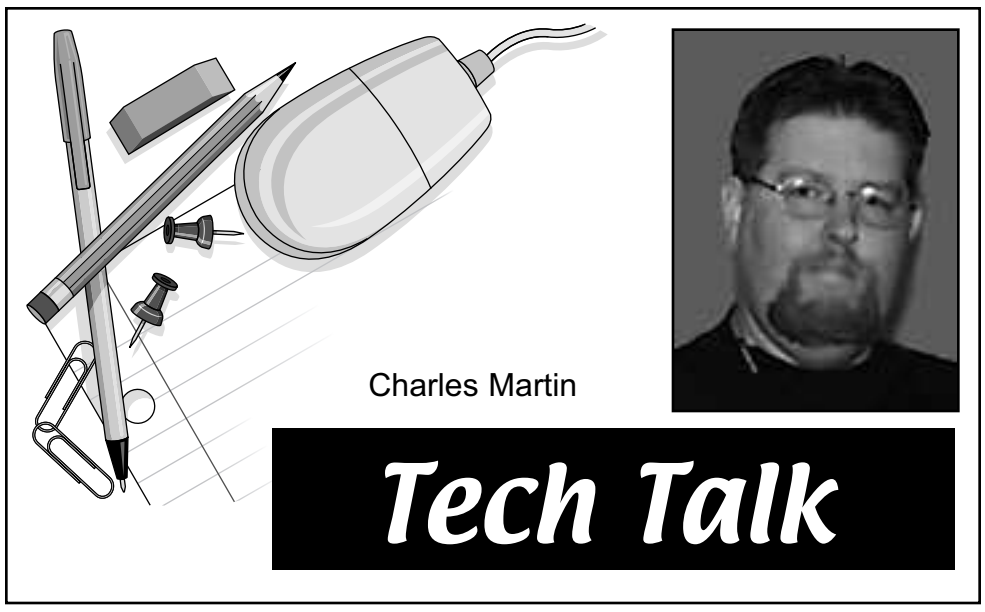
Apple moving to Intel - flying pigs spotted in skies

Apple's "switch" to Intel chips is actually good news for Mac and PC users alike ... here's why



This past Monday was a remarkable day in the history of personal computers, regardless of what type of computer you use. In part, this was because Apple, a company who has a profound impact on the industry far in excess of its actual units sold, has announced that they will transition their Macintoshes to using Intel chips beginning next year.

More importantly, however, that announcement was part of a bigger picture – an event in a sequence of events that are bringing enormous change to the entire computing world.

Some of you are rolling your eyes out there, I can tell. "Oh good, more change – yessir, that's just what the computer business (and computer users) need," you're probably thinking. You're certainly justified in feeling that the whole of the computer industry could be accurately compared to a badly-designed rollercoaster, that not only whirls and twists its poor long-suffering riders in every conceivable way, and periodically dumps them out on their ear as well.

A better analogy, however, is the ocean – waves on the top (where you and I and the rest of the mere mortals sit) may seem bouncy, but are not really indicative of what's going on underneath, which can sometimes be relatively calm and sometimes be quite surprisingly turbulent. We're entering a deep-turbulence period, folks.

Macs on Intel, Up is Down, Right is Left

For those of you who don't follow this stuff as closely as us geeky types, here in a nutshell is what happened: Apple, who has been getting it's processors from IBM and from Freescale (formerly a part of Motorola), has advertised (and it has been independently acknowledged) that their chips were faster (in some ways), cooler and more energy-efficient – and this, along with their superior operating system, made Macs better for most users than PCs running Windows on Intel chips.

This, along with the Macs' strong resistance to viruses and security issues and all the other sorts of headaches that plague Windows users, has started to have an effect – the company is making buckets of money, and their hugely successful iPod is drawing fed up Windows users into experimenting or at least considering the Mac platform. Growth in Mac shipments has been running at about three times higher than the PC industry as a whole for about the last nine months. It's nothing that's going to topple Microsoft's dominance or anything, but it was growing Apple in leaps and bounds in terms of gross revenue – they went from a $6 billion/year company to a $9 billion/year company in the space of 18 months.

Still, there were storm clouds brewing on this rosy horizon. IBM, after two years, has been unable to crack the three-gigahertz barrier – or lower their heat and power requirements. And when they finally did, just recently, it was because they had obtained contracts to supply processors for all three of the new advanced video-game consoles. Their work on general-use chips such as the sort Apple requires had ground to a halt in favor of their new customers.

This spelled big trouble for Apple in a year or two's time, when Intel and other PC chipmakers were expected to move ahead on dramatically better chip designs. Worse yet, IBM was so tied up supplying chips to the game system makers (who will sell millions of units over the next year or so), there were serious delays in even delivering the quantity of chips Apple needed. This could have spelled ruination for the company.

Luckily for us all, Steve Jobs is a phenomenally good long-range thinker. When he first moved the company from their proprietary OS 9 to the UNIX-based OS X, one of his key goals was platform independence. Apple's gotten burned by chip makers before, and he wanted Apple to have an OS that could run on almost anything – even Intel chips. To that end, Apple initiated a top-secret project that's been rarely talked about for the last five years – make OS X run on Intel chips. Each release of OS X has been able to run on Intel chips ever since, but the option was considered a "last resort" option.

Breaking Up is Hard to Do

Suddenly, it looked like Plan "B" was necessary, but along the way, an interesting thing happened – Intel, who have been trying to woo Apple into using them for over a decade, turned out to be very compatible with Apple's future plans. Here's the part that should be of high interest to Windows users who don't plan to make any changes – in the course of explaining this big shift to his loyal army of Mac users and developers, Jobs made a point of showing off information about Intel's future roadmap – something the company themselves are notoriously tight-lipped about. In this, we learned that Intel has finally solved their power and heat issues, and is ready to make some dramatic improvements in speed and functionality over the next year. We're not talking about another "speed bump" beyond 3.6GHz – we're talking about a whole new approach to number-crunching that will dramatically improve both how fast we do computing, and how much we can do in computing.

I've talked in this space before about the concepts of *64-bit computing* (an exponential increase in the capacity of computers to handle data) and *dual-core processors* (essentially, two processors on a single chip, meaning almost double your current processing power) before, so we won't rehash it here. You can find old copies of Tech Talk at the Florida Macintosh User Group's Web site, at *www.flmug.org/techtalk.html*.

Finally, we know when this next evolution in computing is scheduled to start in earnest: Summer 2006, though you can expect a lot of talk and maybe some shipping products before then. Some Web sites are already talking about Intel's secret new "Dothan" chip, which may well be one of the chips used in the new Intel-running Macs.

Facts Vs. Myth

The tech press has, as per usual, done a really bad job explaining to Windows and Mac users (and others) what this all means and why you should care. Allow me to boil it down:

1. **Apple will survive.** This is good news not just for Mac users, who clearly have an interest, but also Windows and Linux users, who too often don't. Like em or not, Apple is the leading force in innovation in computer hardware, design and software. The popular joke is that Longhorn, the next major version of Windows, has been delayed so long because Redmond's engineers can't copy OS X fast enough.
2. **The Megahertz race is finally over.** Macs and Windows machines will be using the same speed chips. Speed comparisons will finally be a thing of the past (or, more accurately, will move into a nitpickier arena).
3. **Mac users could gain a huge advantage.** The new mid-2006 Intel-based Macs will be able to dual-boot Windows at real-time speeds, but Windows users won't be able to run OS X on their Dells. There's more to a computer than its processor, and Apple will try to ensure that OS X only runs on Apple-branded hardware. The good news however, is that Windows users will probably find that Apple's machines will come down in cost, and offer them a processor that can both run their old software and a frankly better suite of stuff as well for around the same price with a processor they trust. This may get them to give Macs a more serious look.
4. **The 64-bit computing race is now officially on.** Along with the introduction of dual-core processors which will improve performance without raising heat/energy or costs significantly, you can expect Microsoft to devote a lot more resources to moving their user base to 64-bit versions of Windows. Though this will engender some pain, ultimately it will be very good for everyone.
5. **Gaming will finally move off the desktop.** IBM has made up its mind – they want to own console gaming, and they've come up with chips that will make that experience *way* better than the neverending upgrade cycle PC gamers currently endure. This will move hardcore gamers *away* from PCs and *towards* consoles – meaning that users who have some actual *work* to do will get a lot more done. But don't worry – there will always be Solitaire. Even on Macs :).