# THE INSIDER'S GUIDE TO MICROPROCESSOR HARDWARE



# THE EDITORIAL VIEW

THE NEW PC FROM HELL

By Tom R. Halfhill {7/30/07-01}

Getting a new computer used to be fun. Unpack it, set it up, turn it on, start computing. Often, it took less than an hour. Long before marketers began yapping about OOBE (out-of-box experience), the initial experience was relatively good. Computers were simpler, software

didn't try to do a zillion things, and the operating system was a nearly invisible service running in the background not a dictatorial narcissist demanding constant attention.

Times have changed. Last month I helped my brother purchase and set up his first new home computer in eight years. What should have been an easy job became a two-day ordeal that would be comical if it weren't such a sad commentary on today's PC industry. The villains include hardware manufacturers, software publishers, documentation writers, mass-market retailers, and corporate downsizers. All are clueless about serving their primary customers ordinary users. And it seems to be getting worse, not better.

# Our Deceptively Good Start

My brother had four main reasons for buying a new PC. First, his son plays clarinet in the school band and needs to run a special program that tests his proficiency, using a microphone plugged into a home computer. Second, my brother decided to upgrade from dial-up Internet service to high-speed broadband, taking advantage of a bundled plan from his cable-TV provider. Third, the family wants to get some MP3 players and use the computer to rip their library of CDs. Fourth, they want to convert home movies made with a digital camera into video DVDs compatible with any DVD player. None of those tasks was practical on their eight-year-old PC with Windows 98, 64MB of RAM, and 4GB hard drive. Our adventure began gaily, like the maiden voyage of the Titanic. At Best Buy, we found a surprisingly knowledgeable salesman and a great price on an Acer PC. We got a complete system with a dual-core AMD processor, 2GB of RAM, 320GB hard drive, Windows Vista Premium, wide-screen LCD monitor, Lexmark all-in-one printer/scanner/ fax machine, Motorola cable modem, Microsoft Office (Student/Teacher Edition), and two stacks of blank DVDs and CDs. By signing up for Cox broadband service at the store, we also got 30 days of free Internet access and discounts on the modem and computer. The whole package, including tax, cost less than \$800. And the Acer has some handy features, such as easy-to-reach USB ports and memory-card slots on the front panel. Overall, a great deal.

At home, we quickly hit our first iceberg. While assembling the LCD monitor, we noticed that the screen tilted downward, toward the floor. That couldn't be right. But the screen resisted our attempts to straighten it, and we were reluctant to apply too much force. We couldn't find any levers that might release the tension holding the screen in place. The single page of terse instructions said nothing about adjustments. My brother decided to call the store for advice.

Thus began the first of our many journeys into the mazes of automated phone menus. These days, reaching even the lowest-level flunky by telephone is nearly as difficult as calling Microsoft and getting Bill Gates to answer.

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Eventually, my brother reached a member of the vaunted Best Buy Geek Squad. The Geek Squad is a team of technical experts (ahem) that provides IT services to Best Buy customers and other lost souls. The young geek we reached said our Acer LCD monitor wasn't made to tilt. That feature, he informed us, is limited to luxury brands, like IBM.

Of course, I knew he was wrong. Even if the screen wasn't adjustable, it would have been fixed in a vertical position, not angled toward the floor, as if staring forlornly at our feet. So we called Best Buy and navigated the phone menus again. This time we asked for our knowledgeable salesman, but he was off duty, probably in primal-scream therapy. Finally, we reached another person who actually walked onto the sales floor and examined a monitor identical to ours. He found that the screen does indeed tilt—it merely requires more force than we were comfortable applying at first. He confirmed that there was no lever to release the tension. Thus assured, we succeeded in using brute force to adjust the monitor to a comfortable angle.

If setting up a monitor could be so troublesome, we wondered what greater horrors might lie ahead. It didn't take long to find out.

### Are You Sure? Really Sure?

We tried booting the system for the first time. Nothing happened. I kept pressing the front-panel power button. The Acer wouldn't come to life. Soon we discovered that the power button is a hair trigger. The slightest touch activates it, with no tactile feedback. By pressing the button with customary force, apparently I had switched the power on and off so quickly that the computer couldn't respond.

After I touched the button softly, the machine began booting. It's a good thing Acer had tossed a sheet of paper into the box, warning us that the initial startup of Windows Vista might take 30 minutes. It took much longer, even though Vista was preinstalled. I guess "preinstalled" means something different than it used to. Throughout this anxious period, the hard drive thrashed wildly as the world's most ballyhooed operating system performed mysterious calisthenics known only to the covens of programmers in Redmond.

Eventually, Vista guided us through its initial configuration process. This didn't go too badly at first, except for Vista's annoying habit of nagging users with endless pop-up dialogs. Vista requests permission for every little thing. Almost every action prompted Vista to ask, "Are you sure? The action you are about to perform is a potential security risk and may cause warts"...or something like that. My eyes began glossing over.

After hours of initialization and configuration, we were worn out, but Vista was eager for more. It practically begged to go online to Microsoft Update so it could download additional megabytes of mystery code to chew on. But we hadn't yet connected the cable modem. I knew better than to feed Vista's voracious appetite with a creaky dial-up connection.

### Looking for the Internet

So we decided to hook up the cable modem next. This seemingly simple task consumed half a day. I still can't explain it. We used a portable TV to verify that the cable jacks in my brother's computer room and other rooms in his house emitted a clear TV signal, but the modem couldn't find a data signal when plugged into any of the same jacks.

First, we suspected that Cox hadn't yet activated his Internet service. However, multiple calls to Cox tech support (enduring the usual phone menus, of course) confirmed that Internet service was active.

Cox's on-screen installation wizard cautioned that the modem might need several minutes to establish its first online connection. Hours later, the modem continued to sit there, blinking impotently. Motorola's documentation suggested that the modem couldn't find a dynamic IP address. We tried attaching the modem to cable jacks in other rooms. Still no Internet.

Another call to Cox found a tech-support person who concluded our modem must be defective. He advised us to exchange it for another one at Best Buy. We were reluctant, because the store was some distance away, and the traffic was discouraging. Besides, the modem powered up all right—it just couldn't find the Internet. So we dialed Cox again, hoping for better advice.

My brother reached a woman who seemed more knowledgeable than previous tech-support people. She suggested that a filter in the outside cable box might be blocking our Internet access. Removing the filter would require a truck roll—and a hefty service charge. But her suggestion reminded my brother that his home's previous owner had installed a wireless router in the computer-room closet to distribute Internet service throughout the house. That fact seemed to rule out the presence of a filter. Although the previous owner had removed the wireless router, my brother remembered that it had been attached not to a wall jack but to a length of coaxial cable on the closet floor.

Bingo! Problem solved. When we attached the modem to this mysterious coil of cable—which disappears into a hole drilled in the floor—the modem quickly found Cox's server, obtained an IP address, and delivered us the Internet. I'm still not sure how or why. Don't know, don't care. At least we had a working computer, monitor, and modem. Not bad for 12 hours' work.

We let Vista snort all the code it wanted from Microsoft Update. The hour was late, so we postponed installing the printer and application software until the next day.

### Always Read the Fine Print

The Lexmark all-in-one printer/scanner/fax that came with the Acer is a low-end model, but perfectly adequate for my brother's purposes. It's a USB plug-and-play appliance, so I figured it would be easy to install. Wrong again.

We immediately hit a snag when the setup instructions told us to insert two ink cartridges into the printer. Lexmark

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provided a big cartoon drawing of two cartridges—one color, one black—flying into the appropriate slots. Big cartoon arrows made the task seem foolproof. Our problem was that we could find only one cartridge packed in the box. We had a color cartridge, but no black cartridge. We tore through the packaging, searching every nook and cranny where a devious manufacturer might hide an ink cartridge. No luck.

Back on the phone to Best Buy. More phone menus. Finally we reached a salesperson and complained that we had been shorted an ink cartridge. He quickly asked if we had purchased a specific Lexmark model. We had. He informed us that this model doesn't include a black cartridge—something we would have known, he scolded, if we had read the fine print on the box. We examined the box closely. Sure enough, we found some tiny print in a corner that said a black cartridge wasn't included. Our bad! We should have known better than to believe the instructions. Fine print rules.

Once over this hurdle, we eventually got the printer and scanner to work. I advised my brother to purchase a black cartridge as soon as possible. Until he does, the printer will combine all three inks in the color cartridge to produce black, thereby emptying the color cartridge three times faster. Dang, those Lexmark folks are clever. Makes me want to rush out and buy one of their products, too.

### Burned by the DVD Burner

One of my brother's goals was to make DVDs from his digital camera's video files, so we decided to try that next. As I was demonstrating how easy it is to use the Acer's conveniently located front card slots, my finger accidentally touched the computer's hair-trigger power button, which is inconveniently located right next to the slots. Surprise! Vista promptly shut down the computer—without asking "Are you sure?"

It figures. Ever since we had set up the computer, Vista had hounded us with "Are you sure?" pop-ups for trivial actions. But when I bumped the computer's on/off button, Vista gleefully powered down the system without requesting confirmation or offering any other options. I don't know if this flaw is Acer's or Microsoft's, but someone needs a remedial course in user-interface design. Not to mention a good spanking.

After restarting the computer, we copied video files from an SD card onto the hard drive, warily avoiding the hair-trigger power button. We launched Vista's built-in software for making DVDs. The wizard wasn't too hard to understand, and it offered several choices of attractive DVD navigation menus. Lulled into complacency, we initiated the transcoding and burning process. I knew it would take a while, even on the latest dual-core system, because transcoding video formats is a compute-intensive job. My brother's video clips totaled about an hour, and they took about an hour to transcode.

When transcoding was finished and the computer began writing video data to the DVD, the program suddenly

bombed. A rather snippy error message complained that the process couldn't continue, for unspecified reasons. We had just burned our first shiny coaster.

We repeated this process a few more times, changing parameters, such as the write speed. Each run took an hour, and each run produced another useless disc. The transcoding seemed to succeed, but the computer bailed out when writing the DVD. I suspected that Acer's DVD drive didn't like the brand of blank DVDs we had purchased, because I've had similar problems with other DVD writers. My suspicion was correct. A few days later, my brother verified that a different brand worked fine.

Meanwhile, he tried burning an audio CD. It worked, but the CD-R would play on only one of several players he tested. All the CD players are recent products and play other homemade CD-Rs. Once again, the problem was brand sensitivity. The two stacks of blank DVDs and CDs we had bought with the computer are worthless to him.

Well, at least my brother has a new computer that will run his son's clarinet-proficiency program, right? Oops, guess not. It turns out the program isn't compatible with Vista yet. Maybe next year. My brother's old computer was too old to run the software, and his new computer is too new to run the software. Isn't that funny?

## Lessons Learned

To recap, we had trouble with every component of this brand-new system: the monitor, computer, modem, printer, and optical drive. At times, Vista drove us nuts. Two stacks of blank discs proved useless.

Some people will say we invited our tortures for not buying a Mac or using Linux. Oh, please. Recently, I helped a friend make the transition from Windows to Mac, and Apple isn't perfect, either. Better perhaps, but not perfect. I found the Mac's file-search dialog even more confusing than Windows XP's. And my friend's PowerBook crashed spectacularly when we ejected the USB flash drive that I had used to move her files. She had to phone AppleCare tech support just to get her machine running again.

As for Linux, even the Ubuntu distro still isn't easy enough for mere mortals. Besides, my brother had other requirements that ruled out alternatives to Windows.

No, most of our problems were caused by poor product design, sloppy programming, illiterate documentation, perfunctory customer service, and clueless tech support. How is it possible to botch up something as simple as an on/off power button? Why must instructions be as terse as a teenager's text messages? Is the cost of a black ink cartridge so great that it's worth ruining a customer's out-of-box experience?

And these problems are rampant. The day after I finished working on my brother's computer, I spent another day helping my father migrate his email from Earthlink to Embarq. His DSL provider is abandoning Earthlink in favor of Embarq's webmail. It's the worst mail client I've ever seen—and I started with CompuServe's text-based email in

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1982. Embarq's webmail was so wretched that I phoned tech support and demanded a POP3 account. Now my father is using Mozilla's much better standalone mail client.

Do my stories sound familiar? How many of you are the help desk for your friends and family? We are the real geek squad—except we aren't a squad, we are legion. It feels like companies are outsourcing their tech support to those of us who can cope with these problems. Maybe the problems won't get solved until we unionize and go on strike.  $\diamond$ 

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