ComputorEdge™ Online — 03/13/09

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Digital Dave

"Digital Dave answers your tech questions." by *Digital Dave*

A reader wants to run antivirus software from a flash drive; a reader's new external SATA drive isn't much faster than his old ATA drive; why would a reader's computer be shutting down at random intervals?

Dear Digital Dave,

I've read your column for years, so now I have a question for you. Is there any program available to enable a person to use a CD or USB memory stick to run antivirus/spyware programs from?

I have a couple of boys in my house who have an unmitigated talent for downloading garbage that cripples anything I've had loaded on the hard drive—too many times to count. I'm familiar with BitDefender online checker, and have used it successfully a couple of times, but it takes forever, even on a cable modem.

Charlie Holmes
Chula Vista, Calif.

Dear Charlie,

People are realizing the need for antivirus software on their flash drive, both to protect the flash drive and to check other computers. Most versions of antivirus software need to install pieces of the program on the main machine, making them unsuitable for use from the flash drive. I did locate a couple that appear to work in the circumstances that you describe.

The first is Portable ClamWin (*www.clamwin.com/content/view/118/89/*) on a USB or removable drive. I have not yet done this, so any thoughts from others would be useful.

Another option is AntiVir PersonalEdition Classic (free) (*www.free-av.com/en/products/1/ avira_antivir_personal__free_antivirus.html*). My understanding is that you merely select the flash drive upon installation. Again, I have not done this myself, so I would be interested to hear from others who have.

Even if you have antivirus software on a flash drive, it's important to make sure that there is antivirus software running on all the computers as well. As viruses can be very difficult to remove once infected, an important feature of most antivirus software is the ability to prevent a virus from being installed in the first place. That can work only with software running on the system all the time.

Digital Dave

Dear Digital Dave,

I have an external hard drive (HD) enclosure with an older Seagate ATA drive in it. I have it connected using USB. I recently bought a new Thermaltake external HD enclosure. When I received it, I thought it

was a SATA/USB enclosure. I hadn't realized it was strictly SATA. So, I ran to Fry's and purchased a Seagate Barracuda 500GB drive.

The salesman told me how much faster the SATA drive would be. I installed the new drive, which is really a piece of cake, no cables needed. It just slid right into the HD enclosure's SATA connector. I connected it to a USB port and it works just fine. But I am not really seeing that it is faster than my old ATA external drive. Is this because it is limited by the USB? Or is it faster and I just am not "feeling" it?

Steve
Escondido

Dear Steve,

One of the issues with using external hard drives is that they are limited by the speed of the interface (i. e., USB, FireWire). Internal drives connected directly to the motherboard can take advantage of the higher speed of the newer SATA drives. To add to the confusion, speeds are listed in bits per second (bps) or bytes per second (Bps), making comparisons more difficult. (There are eight bits in a byte.)

USB 2.0, the current standard, has a maximum transfer rate of 480Mbits/sec (60MB/sec). An average ATA drive will do about 133MB/sec. As you can see, your old drive was limited by the USB port—not accounting for compression and software tricks. While a SATA drive is much faster, as an external drive it is not likely that you will see much improvement in speed.

The next USB standard (3.0) will support speeds up to 5Gbits/sec (600MB/sec). Devices using USB 3.0 are not expected to be commercially available much before 2010. Then you will see the SATA speed in an external drive. However, by that time, the hard drives are likely to be much faster.

Digital Dave

Dear Digital Dave,

I've got a two-year-old Vista 32-bit PC built around an Intel D975XBX2 motherboard, with 4GB RAM and all Service Packs and updates installed. Lately, it has been shutting down for no apparent reason, sometimes once per day or sometimes every five minutes or so, even while operating in Safe Mode. It will usually restart within a minute or so.

I recently updated the BIOS as well as installed various program updates. Could this problem have anything to do with the BIOS update, or is it possibly a power supply acting up?

Mike Ranftle
Poway, Calif.

Dear Mike,

While there are number of possible causes for a computer shutting down at random times, one of the most common is overheating of the CPU. There is a built-in sensor that will close down the computer when the Tjunction temperature (maximum rated temperature) for the CPU is reached. Once the CPU temperature has cooled, the computer can be restarted—only to overheat again.

To check how your processor is doing, there is a free program called Core Temp (*www.alcpu.com/ CoreTemp/*). It has both a 32-bit and 64-bit version. Core Temp will display the actual CPU temperature (each core on dual-core processors) and the Tjunction (see Figure 1).
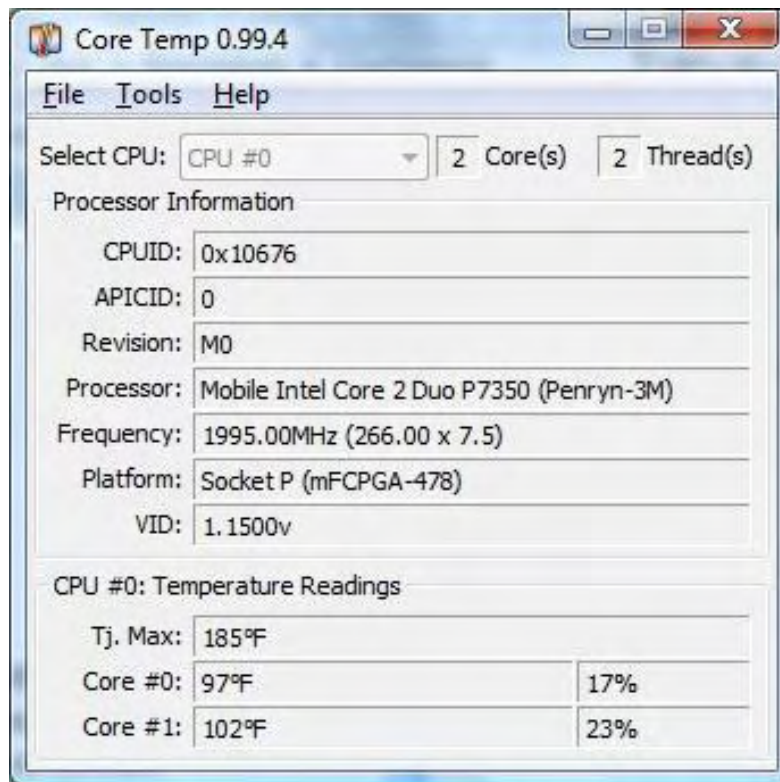
Figure 1. Core Temp screen.

If you can see that your CPU is running hot, then there are a few things that you should check. Make sure the CPU fan is operating properly. (This will require the removal of a panel or case cover.) The fan on the CPU should be spinning while the computer is turned on.

Sometimes the CPU fans will become clogged with dust, reducing efficiency. Use a small vacuum to clean the fan and all vents. If after cleaning the dust out of the computer (do this only when the computer power is off), the CPU temperature has not dropped, then you may have a CPU fan-speed problem. There are programs for checking fan speed available, although I would tend to buy a new, more powerful fan.

If it's not the CPU overheating, I'd say it's most likely the power supply either overheating or just malfunctioning. There is a remote chance that it is getting power spikes from the wall or a faulty surge protector. Also, if there is a device such as a room fan or air conditioner plugged into the same surge protector, the PC will not be insulated from surges generated by that device. That could also trip the power supply.

It's probably just overheating or faulty, though, and should be replaced. I've often seen unusual problems corrected with the replacement of the power supply.

The problem is not likely to relate to your BIOS update. If none of the above corrected your problem, then you should check any error messages that are displayed on the reboot. They may indicate memory problems or another operating system problem.

Digital Dave

Flash Drive Security

"They're handy, portable and easy to lose." by Michael J. Ross

> The diminutive size and light weight of flash drives makes them ideal for portable data storage, but it also makes them easily lost or stolen. Flash drive manufacturers and security software developers are creating a variety of solutions.

In the earliest years of personal computers being used in offices and homes throughout the land, if you wanted to transfer a file from one computer to another, you would insert a floppy disk into the floppy disk drive of the source computer, copy the file from the hard drive onto the floppy disk, listen to the data being written to the floppy disk (sometimes with an alarming grinding noise), "sneaker net" the floppy over to the target computer, and hope that said computer could read the file from the floppy.

These floppies had a nontrivial rate of failure, so there was no guarantee of success. This is especially true for those disks that had been used as aerial weapons by angry or mischievous programmers, computer room technicians, or IT support staffers. The first generation of floppies, invented by IBM, had a diameter of eight inches, making them ideal as nerd Frisbees. The next generation, at 5.25 inches, did not possess nearly the same lift as their predecessors, and thus worked better as the nerd's answer to Ninja throwing stars. The third and final type of floppy, at 3.5 inches and encased in hard plastic, wasn't even floppy. Some say that's when computers grew up and became less fun.

But most of those floppies, regardless of size or computer room lethality, have been swept into the dustbin of computing history—replaced by CDs, DVDs and thumb drives as the preferred forms of removable computer media. Those first two types are round, unlike the floppies of old, and consequently better approximate a miniature Frisbee (that's why AOL sent us all those discs, right?). But, unlike floppies, they are more easily scratched. In addition, they are not nearly as portable as USB flash drives—also known as thumb drives, memory sticks, pen drives and jump drives. This unsurpassed portability has made flash drives extremely popular, and no nerd's key chain is complete without one. In fact, demand for thumb drives is so strong that their usage has grown exponentially. Companies that used to hand out sales information on diskettes are now giving away thumb-drive equivalents.

Small and Feeling Insecure

"I don't want your wallets. Just hand over your Flash Drives"

The diminutive size and light weight of thumb drives also make them easy to lose, and equally easy for a thief to pocket in an instant. Their storage capacity has grown from 8MB (in 2000) to 64GB (as of this writing). This means even more valuable information that an individual can carry—more than 45,000 times that of a standard 3.5-inch diskette! Yet it also means even more valuable information that an individual can inadvertently compromise. Several organizations in the United States alone have managed to do just that, including a school that lost a flash drive containing the names and Social Security numbers of 6,500 former students. Even more alarming, shoppers in a bazaar near Bagram, Afghanistan could have purchased flash drives formerly owned by the U.S. Army containing classified military information.

These two examples point out what is becoming painfully obvious to businesses, governments and other organizations that store large quantities of sensitive information: Storing this data on a flash drive may be incredibly convenient, but it can be equally unsafe, given how easy it is to lose one of these small devices—either as a result of your own carelessness, or a thief's cleverness. In response to this growing problem, flash drive manufacturers and security software developers are creating a variety of solutions—involving hardware techniques, software and even biometrics.

Fortunately, these efforts are paying off decidedly, resulting in a growing number of options to keep this "data on the go" from going too far afield.

Hardware with No Soft Spots

One method of securing the data on a USB flash drive is to manufacture the device so it has encryption embedded in the hardware itself, by having the device's microprocessor automatically encrypt data being written to the device, and decrypting it when the owner is reading that data from the device's memory. The primary advantage to this method is that the chip can be programmed so that after a certain number of false password attempts, the encrypted data is erased from memory, permanently. Software-only security measures cannot offer this feature, because their encrypted data can be copied from the device's memory, as a backup, prior to trying candidate passwords. If all of those attempts fail, and the software were to delete the data, the data could simply be restored from the backup, for another try.

One disadvantage to this embedded-option method is that these drives typically cost more than secure drives using encryption software not embedded in the device's chip. Secondly, if the legitimate owner of the drive forgets the password, his data is effectively lost—the electronic equivalent of a paper shredder. This may never be a problem for people who keep meticulous track of their passwords, but could prove disastrous for anyone else, and especially anyone with poor recall. This is definitely a case where a minor organic memory problem could turn into a major electronic memory problem!

Manufacturers of hardware-secured flash drives include IronKey (*www.ironkey.com/*), Kanguru Solutions (*www. kanguru.com/*), Kingston Technology (*www.kingston.com/*), and SanDisk (*www.sandisk.com/*).

Hardened Software

Given the greater expense of encryption-chip USB flash drives, as well as the higher risk of catastrophic data loss, many buyers opt for software encryption flash drives—such as those products manufactured by Lexar (*www.lexar.com/*)—which make no use of microprocessor-based encryption.

Software-based encryption systems are often referred to as employing on-the-fly encryption (OTFE), which means that when the user has successfully entered their password for their flash drive, then all of the files on the drive are instantly accessible, and are decrypted as they are read off of the drive. Examples of OTFE schemes include FreeOTFE (*www.freeotfe.org/*) and TrueCrypt (*www.truecrypt.org/*).

FreeOTFE is designed for computers running Microsoft Windows, as well as PDAs and other mobile devices running Windows Mobile (for those, the product is known as FreeOTFE4PDA). Just as its name implies, FreeOTFE is free for use by all, and the project has every intention of keeping it that way. It is also open source, meaning that anyone can examine the code for flaws—unlike proprietary software. As a consequence, with more programmers and security experts able to scrutinize the source code, the chances of it containing substantial security holes are greatly reduced. The product does not need to be installed, is available in several languages, supports all the best publicly available encryption methods, and even optionally supports security tokens and smart cards.

TrueCrypt, like FreeOTFE, creates a virtual encrypted disk on the USB flash drive. It also supports Linux and Mac OS X. For people who are crossing national borders and want to keep their private data private, TrueCrypt has a highly regarded feature whereby an entire instance of Windows XP or Vista, as well as the user's personal data in that partition, can be encrypted and hidden so well that its existence is completely deniable.

Biological Metrics

The third and most futuristic category of flash security measures is the use of biometrics—at this point limited to fingerprint scanning and confirmation. An example of this is the Kanguru Bio Slider II (*www.kanguru.com/bioslider2.html*), a USB 2.0 flash drive that uses proprietary fingerprint-recognition technology. When a new owner begins using her drive, she places a thumb or finger on the sensor until her fingerprint has been completely captured and stored in memory. From that moment forward, she would use the drive by inserting it into any USB port and then swiping a finger across the sensor, to access her data. Multiple fingerprints can be used, and all of them are stored on the drive itself, along with the security program. Consequently, nothing needs to be installed on the hardware containing the USB port.

Yet fingerprints are probably not the only biometric technology in the future of flash drive security. With the remarkable advances made recently in retinal scanning for identification purposes, there will most likely be a time in the future when biometric security systems for flash drives move beyond using fingerprints, and instead require the device owner to stare intently at the device to prove his or her identity. But given the hardware requirements for retinal scanning, that may be a ways off.

Perhaps the most critical bit of advice that can be offered to the prospective purchaser of a USB flash drive is that it does not matter how much memory capacity it has, how strong its security methods, or how sleek its exterior; what matters most is that the data on it should be fully backed up on some sort of computer media that is in a different physical location. These media can include hard drives, optical discs (CDs or DVDs), or Web-based remote-storage services.

In a pinch, you could even use old-fashioned diskettes, assuming that your coworkers will give you back the ones you used as Friday afternoon projectiles when the boss had already disappeared for the weekend.

Michael J. Ross is a Web developer (*www.ross.ws*), writer, and freelance editor. He creates Web sites that help entrepreneurs turn their ideas into profitable online businesses.

Linux on a Flash Drive

"Shrinking OS meets growing-capacity drives." by Michael J. Ross

> Linux is an operating system shrinking in size, while USB flash drives are growing in capacity. It was inevitable that a point would be reached at which Linux could be running on a simple flash drive.

Linux, the most widely used free and open-source operating system in the world, has been a favorite for running back-end servers for many years now. This is understandable, given its many features: a rich tool set, legendary stability, Unix ancestry, and no licensing fees—to name just a few. These features have made Linux, in its various editions (known as "distributions" or "distros") increasingly popular with corporations and other entities that do not have the time or patience to deal with the headaches of flaky and bloated operating systems.

The advantages that Linux brings to the server side have also won over countless consumers on the client side, where individuals usually do not need the networking capabilities of Linux, but still appreciate a stable and lower-cost operating system for their personal computers. At first, Linux on the client side was mostly running on desktop computers, and not laptops, partly because the latter category is rife with proprietary hardware components for which Linux device drivers had not yet been developed. But as laptop manufacturers saw the mounting enthusiasm and market penetration of the "little operating system that could," they made great strides in offering those needed drivers.

Linux is already lean—especially compared to Microsoft Windows—and is, in a sense, getting leaner all the time, as more distros are created that consume less disk space and system memory. These slimmed-down distros are ideal for running on older computers that may have last functioned using DOS, or even Windows 3.1, but could never support Windows 2000, XP, or especially Vista. Those lightweight distros are also the best choices for various handheld devices that do not have native operating systems built in.

Your Data in Your Pocket

On the one hand, we have an operating system that is shrinking in size. On the other hand, we have USB flash drives that are growing in capacity—having reached a phenomenal 64 gigabytes (GB) as of this writing. It was inevitable that a point would be reached at which Linux could be running on a simple flash drive—an enticing possibility unanticipated not that long ago.

There are a number of reasons why you would want to be able to run Linux on a flash drive. For instance, you may be scheduled for upcoming travel, during which you will not be able to bring a laptop, for whatever reason—or, a laptop might be allowed, but would be unwise, due to risk of theft, confiscation or damage. Yet you still want to be able to use your familiar Linux environment, as well as your personal files and browser bookmarks, and your favorite applications and their settings, on whatever computer you have access to at your destination. In this case, a Linux distro on a large-capacity flash drive would be a terrific choice.

Admittedly, at the destination where you have access to someone else's computer—such as at a library or Internet café—you might be able to plug in a flash drive that houses only your data, without any operating system or installed applications, and use the operating system of the computer. But many of those public Internet providers do not allow you to connect removable media to their computers, and even if they did, their machines may not be running the most up-to-date security software, such as programs to detect viruses, spyware, and other malware. Bringing your own security measures with you is the ultimate solution.

Linux in a Flash

USB flash drives containing an entire Linux installation are not the first generation of a portable Linux. That

distinction can be claimed by "live CDs," which is the nickname given to Linux distributions burned onto CD-Rs and CD-RWs. A pioneer in this realm is Knoppix (*www.knoppix.net/*). You could pop a Knoppix live CD into an Intel PC, boot off of the CD, and be running Linux, regardless of what operating system might be on the hard drive. This meant that you could try out a Linux distro without having to create a separate partition for it, install it on the hard drive, and deal with the complexity and potential problems of dual-booting a mixed operating system environment (unlike dual-booting multiple versions of Windows alone, which is more straightforward and less risky).

The next stage in the evolution of portable Linux was the development of distros that could be run on a flash drive, which was made possible by the new ability of PCs—even palmtops—to boot off of USB devices. But those distros were not capable of storing changes to that drive (a problem seen earlier with live CDs, and only partly mitigated by writing user data to a disc). This problem would have had less impact in our future, as more user data and applications move from the desktop to the Web. But at the time, most user data was stored locally. As a consequence, static Linux distros on flash drives were truly useful only to individuals who wanted to surf the Web using their customary environment, on someone else's machine, and possibly upload data already written to the flash drive—but not download any files to their flash drive, or make environment changes on the go.

That was the situation a few years ago. Nowadays, there are a number of Linux distributions that are specifically intended to run off of a USB flash drive, with the user able to make modifications to the environment and copy external data onto the drive, including files downloaded from the Internet. These newer distros are able to do this by implementing a memory overlay system that supports the saving of data on the same drive as the operating system itself. These distributions include Damn Small Linux (*www.damnsmalllinux.org/*), Fedora (*fedoraproject. org/*), Puppy Linux (*www.puppylinux.org/*) , Ubuntu (*www.ubuntu.com/*), and Xubuntu (*www.xubuntu.org/*). There are many more, but this is a good sampling. Also note that some of them may require the use of UNetbootin (*unetbootin.sourceforge.net/*) in order to create a portable Linux desktop.

Decisions, Decisions

Given that there are multiple Linux distros that could easily fit on your flash drive, which one should you choose? All of the aforesaid options differ from one another to varying extents, and thus offer their own advantages. Moreover, there are differences in their processes of installing on a flash drive; hence, we will not cover the details of that process for each one. However, we can consider some differences between two of the most popular candidates, which also happen to be two of the pioneers in the area of portable Linux.

Figure 1. Fedora home page.

Fedora (*fedoraproject.org/*), put out by Red Hat, is one of the more venerable and well-respected distributions in the marketplace. It has a reputation for being rather innovative and open to change, in terms of incorporating new capabilities and directions that are on the leading edge, and which usually become incorporated into most other distributions—many of which always seem to be playing catch-up. As for its graphical user interface (GUI), throughout much of its history, Fedora has utilized the Gnome desktop, at the expense of its primary alternative, KDE.

But the number one downside to being on the "bleeding edge" is, well, bleeding. Past versions of Fedora tended to be buggy and less stable versus some other distributions that added changes at a more measured pace, such as SUSE (*www.novell.com/linux/*) (now owned by Novell). Nonetheless, the latest version, Fedora 10, is the most stable yet, and a safe choice for trying out Linux on your flash drive, or any other platform, for that matter. To get more information on making Fedora bootable on a flash drive, see the organization's "Making USB Media" instructions (*docs.fedoraproject.org/install-guide/f10/en_US/sn-making-media.html#id3163538*).

Figure 2. Ubuntu homepage.

Ubuntu (*www.ubuntu.com/*) may lack the (checkered) history of Fedora, but it certainly makes up for it in popularity. The Ubuntu organization made a wise move when it announced to the world, a number of years ago, that anyone could order one or more copies of Ubuntu on CD, and the organization would provide those discs free of charge, even paying for the postage. This is a major factor in Ubuntu rising quickly to the top of the popularity chart, because if there is one thing that the Linux community is in favor of, it's the concept of "free."

Another influential factor is that Ubuntu gained a reputation as a well-designed distribution: complete, and yet easy to install and use; polished, and yet approachable, with a friendly user community; up-to-date with recent versions of applications, and yet quite stable. For more information on making Ubuntu bootable on a flash drive, see its "Install Ubuntu from a USB stick" instructions (*help.ubuntu.com/community/Installation/FromUSBStick*).

So the next time you want to take your data and favorite applications on the road, and you would rather leave the laptop at home (assuming you even have one), consider putting everything on a USB flash drive, with one of the Linux distros mentioned here, or perhaps another one you have discovered.

Michael J. Ross is a Web developer (*www.ross.ws*), writer, and freelance editor. He creates Web sites that help entrepreneurs turn their ideas into profitable online businesses.
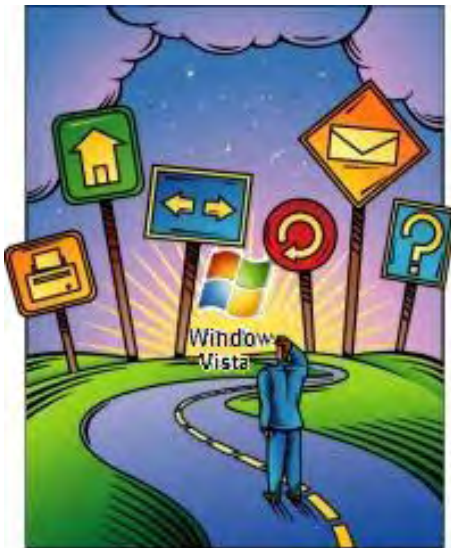
Windows Vista Tips and Tricks

"Save Time by Using Favorite Links in Windows Explorer" by Jack Dunning

Many people ignore the existence of the Favorite Links feature. However, if you take the time to play with it, you will most likely fall in love with this extra feature of Windows Vista.

I have heard some people complain about Windows Explorer (also called Computer) in Windows Vista because it doesn't look quite the same. While it may look a little different from the old Windows XP Windows Explorer, it has all the same functionality—and more. If properly used, the extra features will make it much easier to do your work.

To open Windows Explorer, select Computer from the right side of the Start menu or hit the E key while holding down the Microsoft flag key (Flag+E). These both will open a window similar to Figure 1. The window will appear with an overall view of your computer system displaying installed as well as mapped drives and connected devices.
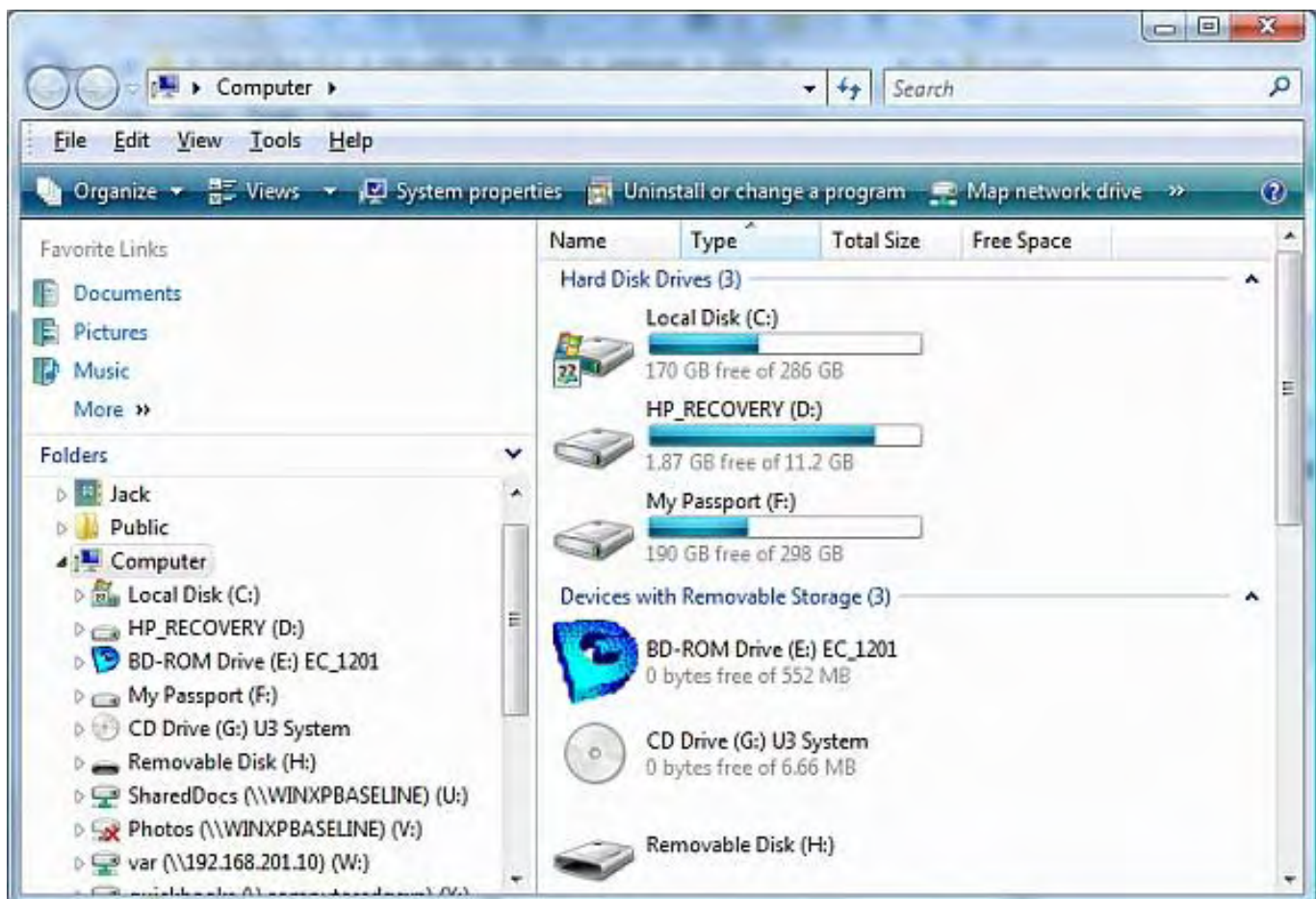
Figure 1. Windows Explorer in Windows Vista.

How your Windows Explorer will look depends upon the settings you used when last opened. If you have no Menu Bar (File/Edit/View/Tools/Help), then you can add it, and any preview panes, by selecting Layout from the Organize menu.

Part of the reason that people are annoyed by the new Windows Explorer is that the navigation pane on the left-hand side has two parts. The top part is call Favorite Links and will contain some default directories such as Documents, Pictures, Music and More. The bottom part is the old-style Windows Explorer hierarchy. If you don't see the folder (directory) tree, then it's possible that it's hidden. If you click the up arrow on the right side of the word Folders, the tree structure should open. Selecting any drive/folder in the tree will display its contents in the pane on the right (see Figure 2).
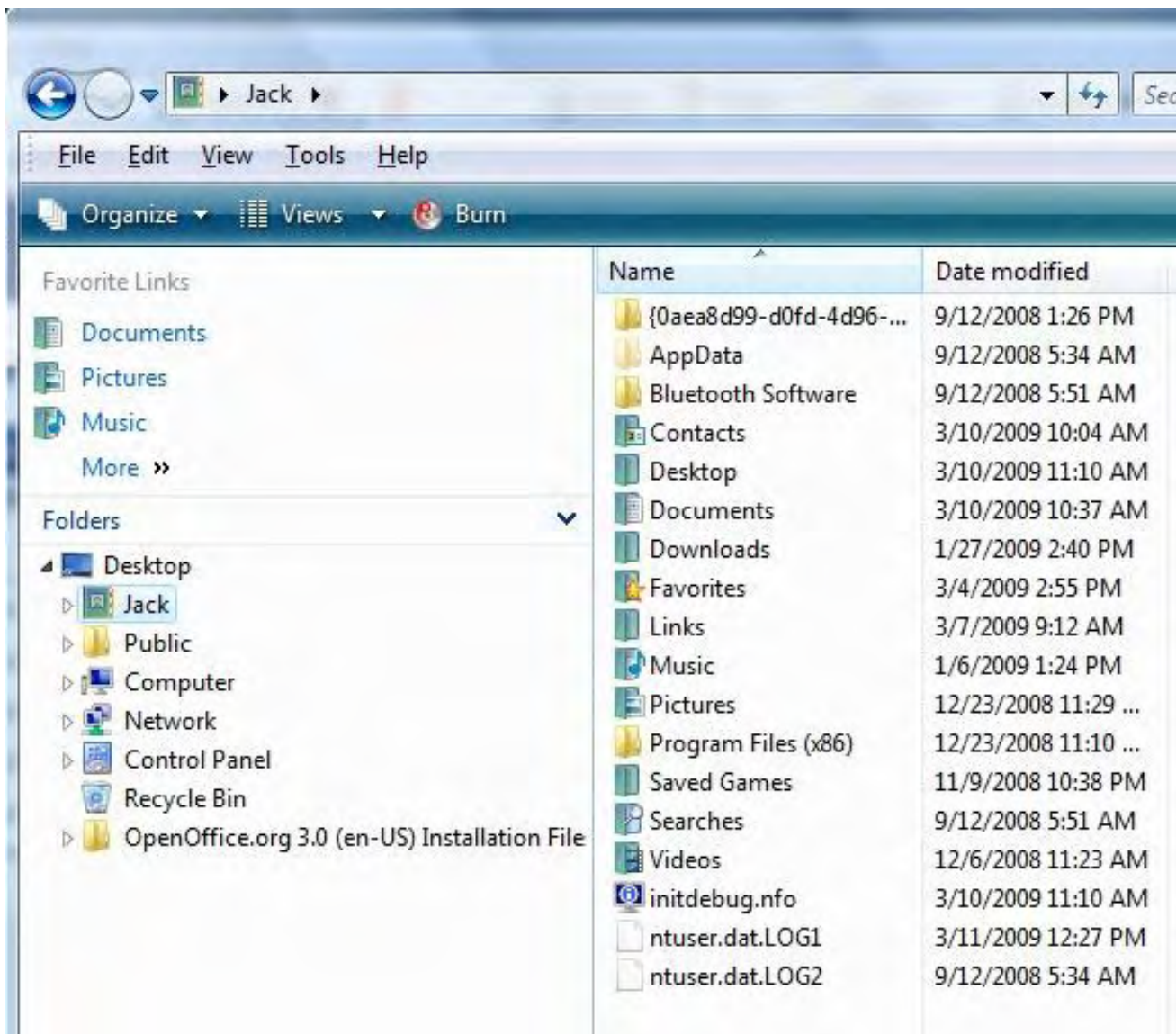

Figure 2. Windows Explorer with a folder selected.

Admittedly, the Favorite Links portion of the window at the top can be a bit confusing. It looks as if there are additional folders other than those in the directory tree. Favorite Links are merely shortcuts to the folders that already exist in the file structure. They are only a method for quickly accessing folders that are used regularly. The initial set of shortcuts seen in Windows Explorer are suggestions. Each can be removed or others can be added. It's important to remember that opening the shortcuts (i.e., Documents) will open the user's actual folder, accessing

the same directory that is found as C:\Users\(user name)\Documents in the directory tree below. Any changes made in one view will affect the other view.

Favorite Links is a matter of convenience. If you don't often directly work with the files and folders, you may not need to use Favorites at all. For example, if you normally use your word processor, or other programs, for creating and saving your files, there may be little reason to view the folder contents outside of an application. Even when you e-mail, there is a browse dialog for attaching files. However, if you look closely at the Open and Save dialogs in many of your programs, you will notice that the layout closely resembles the layout of Windows Explorer—including the Favorite Links!

The significance of this is that you will be able to tailor Windows Explorer to eliminate much of the directory digging that you normally need to do. For example, when I work with each issue of *ComputorEdge*, I need to regularly access the folder containing the current issue files. The files are located several levels down in the directory tree. Expanding the various levels of the structure each time I open the folder becomes tedious (see Figure 3).
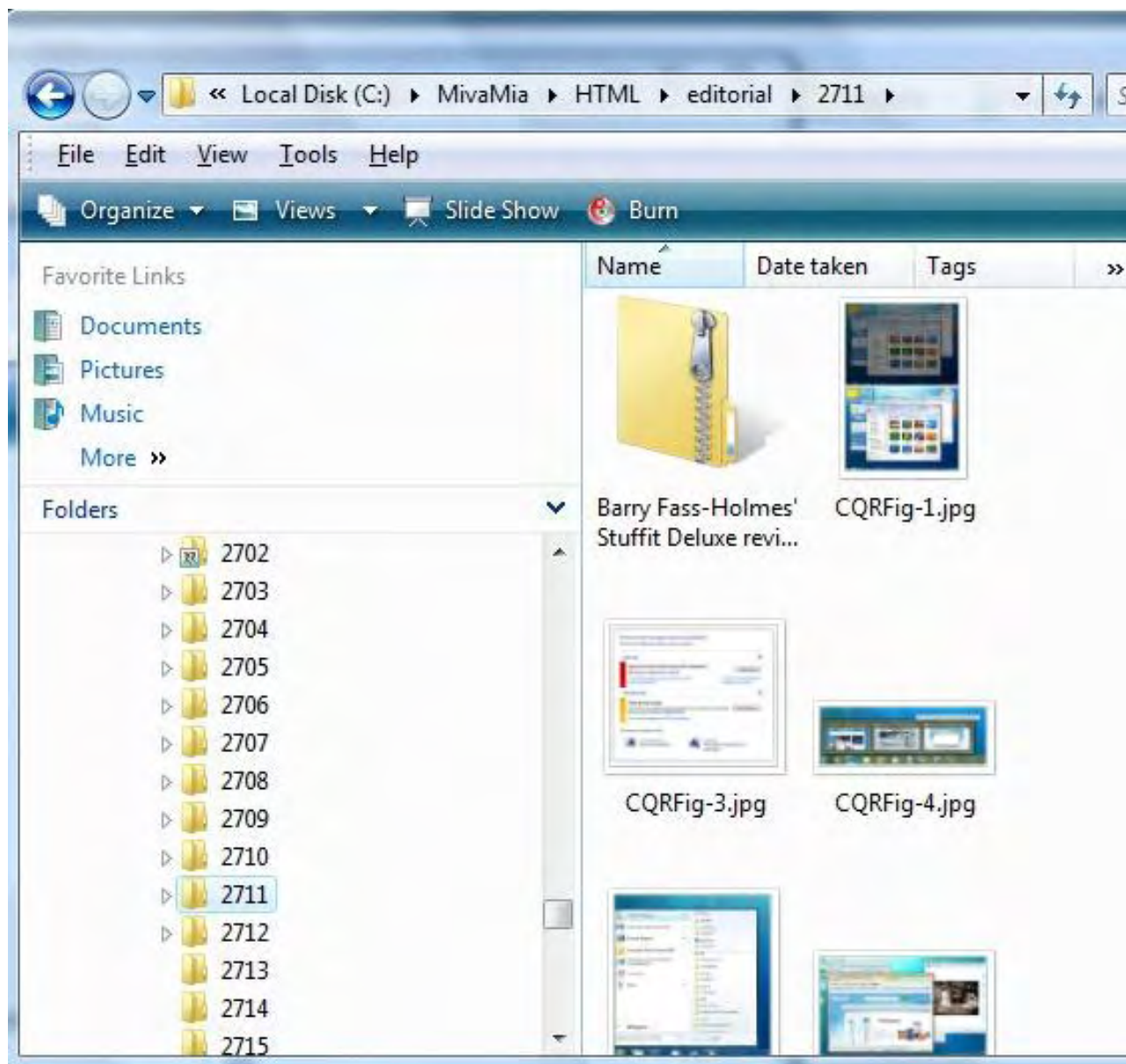

Figure 3. Drilling down a number of levels in Windows Explorer.

I can simplify the procedure by dragging (click and hold down the left-mouse button on the desired folded and

move the cursor to the Favorite Links section) the folder up to Favorite Links. A shortcut is created with the same name and direct access to the working folder. I can then minimize the Folders structure with the down arrow to the right of Folders, giving me quick and easy access each time I open Windows Explorer (see Figure 4).
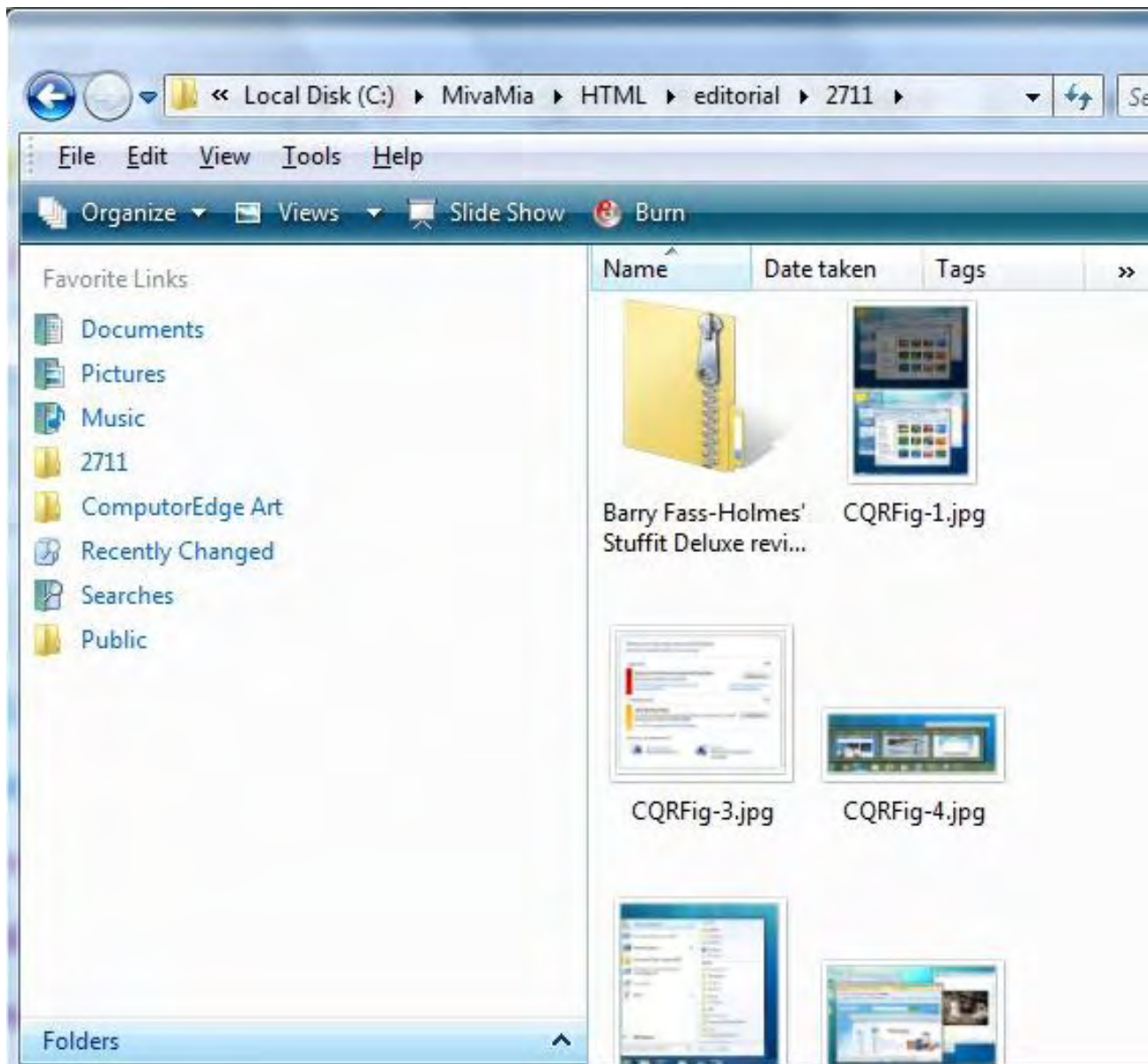
Figure 4. Folders added to Favorite Links in Window Explorer.

After an issue is published—when I no longer need to access the linked folder—I can remove the link with a right-click and selecting Remove Link. Then, I drag in the new issue folder to create the next week's shortcut.

There is a major bonus to using this Favorite Links feature. Each time I open or save a file in OpenOffice (and many other programs), my Favorite Links are available when browsing (see Figure 5). (The favorites are also available when attaching files to an e-mail in Windows Mail.)
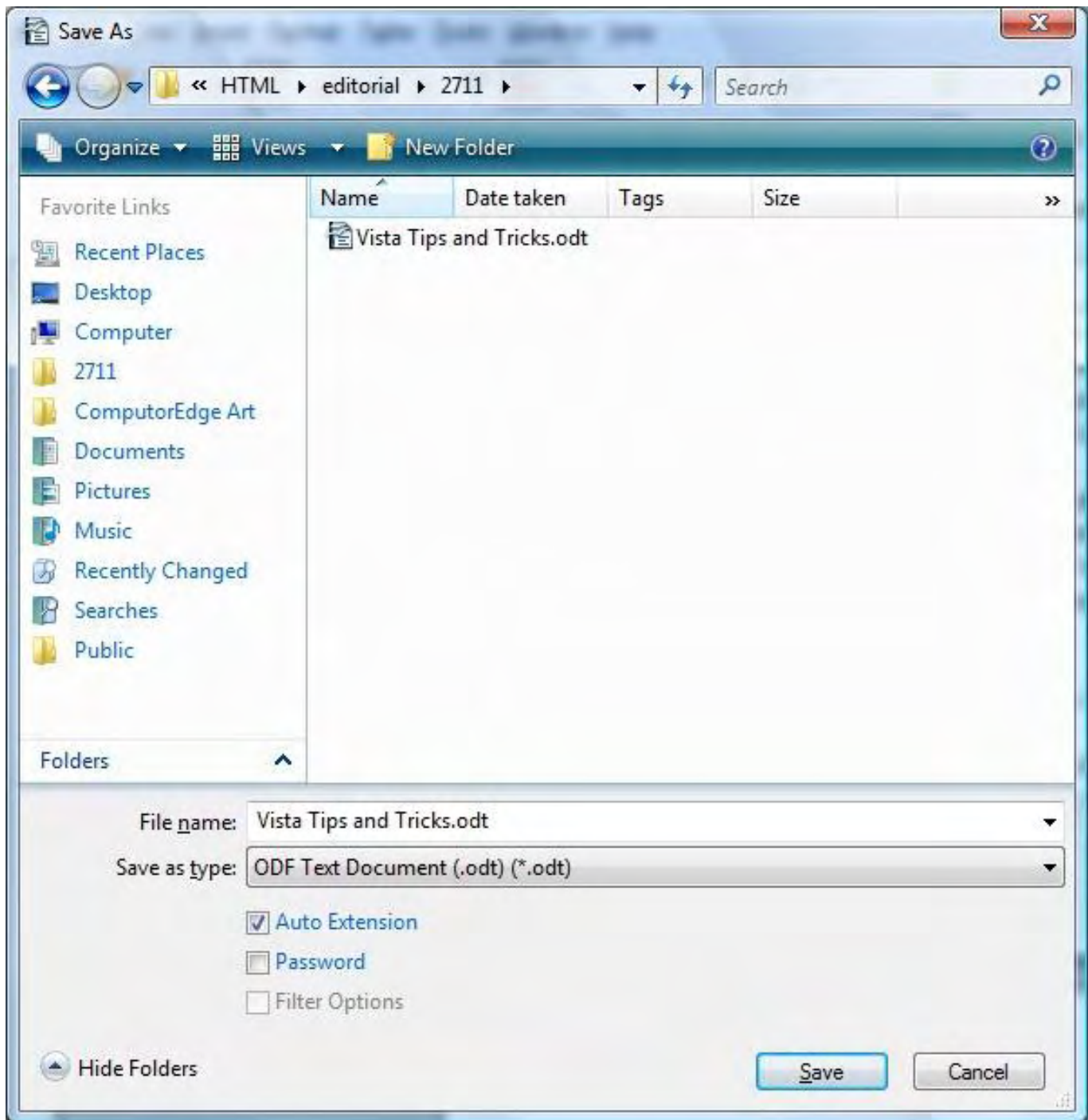
Figure 5. Save As dialog in OpenOffice.

(If you notice the favorite called ComputorEdge Art, it is actually a shortcut to a folder of the same name on a thumb drive.)

How you might use Favorite Links in Windows Explorer totally depends upon the type of work that you do. Many people ignore the existence of the Favorite Links feature. However, if people take the time to play with it, and note which programs will use those favorites in the Open and Save dialogs, they will most likely fall in love with this extra feature of Windows Vista.

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Wally Wang's Apple Farm

"New Macintosh Models" by Wally Wang

> After a seeming eternity of waiting, Apple released updates to the Mac Pro, iMac and Mac mini. Also, Microsoft is running a promotion for Office 2008 for the Mac; and a tip on removing USB flash drives from your Mac.

November 14, 2008 was the first rumored date when new Macintosh desktop models would appear. Then it switched to the first week of January. Finally, after a seeming eternity of waiting, Apple released updates to the Mac Pro, iMac and Mac mini.

If you just want the best technical parts possible, you don't want a Macintosh. For the price of a $599 Mac mini, you get 1GB of RAM, a 120GB hard drive and a 2.0GHz Intel Core 2 Duo processor. For that same amount of money, you can get a PC that comes with 3GB of RAM, a 640GB hard drive and a 2.6GHz processor.

All this processing power will run Vista decently, but it's still not a Macintosh.

Now toss in the added hassle of using antivirus programs, anti-spyware programs, disk defragmenters and Windows Registry optimizers (all of which you can get for free), and you still have a hardware bargain, but does it really matter?

If Apple could sell products with comparable technical specifications, the Macintosh would be a far better bargain. Still, the difference lies not just with the hardware specifications, but with the user's experience.

With Windows, you may notice that your computer gradually slows down over time, which can be easily remedied with a Registry optimizer, but you have to know that a Registry optimizer can fix such slowdowns and that you need to run this type of program periodically.

To further speed up a computer that used to run much faster, you can also use a disk defragmenter. Again, you have to know how disk defragmenting can slow down your computer and run these programs periodically.

Free antivirus and anti-spyware programs can keep your computer safe, but once again, you have to know where to find these free programs and understand what they do and how to use them. Slip up once, and your computer suddenly can fall prey to an attack, such as through the latest Koobface virus, currently infecting Windows users who visit Facebook.

Get the point? To use Windows safely and effectively, you need to learn a lot of technical stuff that most people probably don't care to know and don't want to know. This would be like cranking up your car every morning to get it started, driving to work with a stick-shift transmission, and then changing the oil every time you parked your car.

If you just want to use a computer without knowing about its technical details, the Macintosh is much easier to use. If you enjoy digging into the technical details of a computer and operating system, you can do that with the Macintosh, too, by peeking inside its Unix underpinnings and using an ancient command-line interface to run Unix programs.

For the longest time, Windows was a great compromise. It was good enough and cheap enough that using anything else just didn't make sense. Now, with the growing software library of the Macintosh, Windows is losing its primary advantage. With the inexpensive Mac mini available, it's now cost-effective to buy a Macintosh (despite not getting the latest hardware inside).

Basically, the difference boils down to paying more for less hassle (Macintosh) or paying less for more hassle (Windows).

Technical specifications aside, what's your time worth? For me, the answer is easy. I just spent $900 buying a souped-up Mac mini with 4GB of RAM and a 320GB hard disk. The price and hardware inside is less important than having a computer packed inside a small box that could hook up to a regular monitor, keyboard and mouse through a KVM (Keyboard, Video, Mouse) switch that also plugs into my Vista PC.

This KVM switch lets me connect the Mac mini to a PC, which both share the same keyboard, monitor and mouse. A tap on the keyboard switches the display from showing me Vista or Mac OS X. Needless to say, I spend most of my time with Mac OS X.

When Windows 7 arrives, I'll buy a $500 PC that comes preinstalled with Windows 7, and then I'll still wind up spending most of my time with Mac OS X. To share files between my Mac mini and my PC, I just use a USB flash drive that easily plugs into each computer's USB port.

The flash drive combined with the KVM switch gives me the best of both worlds, while keeping Windows and Mac OS X separate.

For those times when I need to run an actual Windows program regularly, I run VMware's Fusion with Windows 2000 running in a virtual machine. The reason I use Windows 2000 is for its smaller RAM requirements (256MB). I spend most of my time on my Mac mini with occasional forays into Windows 2000 in my virtual machine. If I absolutely need to use Vista to run a particular program, I run it in its own separate PC to avoid hogging the memory in my Macintosh if I had installed Vista in a virtual machine.

Vista isn't bad, but for five years of development and $1 billion, it's hard to see where all that time and money went. I'm actually looking forward to Windows 7, but I'm still sticking with the Macintosh.

<p style="text-align:center">*   *   *</p>

Vista helped sour a lot of people's loyalty from Windows to the Macintosh, and now Microsoft Office 2007 is having the same negative effect on many people. Office 2007 is actually a slick little program, but its new Ribbon interface takes time to learn, and most people would rather spend that time getting work done rather than learning another way to use a program they thought they had already mastered.

When Microsoft's Macintosh Business Unit asked if Mac users wanted the same Ribbon interface for Microsoft Office for the Mac, the answer was a resounding no! Rather than force unwanted changes down everyone's throat, Microsoft let Office 2008 for the Mac retain the traditional pull-down menus.

That means anyone familiar with using Windows XP and Microsoft Office 2003 will have more hassles trying to migrate to Vista and Office 2007 than if they switched to Mac OS X and Office 2008 for the Mac.

Although Microsoft Office 2008 for the Mac isn't quite as feature-complete as its Windows sibling, Office 2008

for the Mac is still the comfortable Microsoft Office that most of us have come to learn and rely on.

Now through June 30, Microsoft is offering a promotion of 50 percent off Office 2008 Special Media Edition and 10 percent off Office 2008 Home and Student Edition, with the purchase of any new Macintosh. If you're ready to switch to the Macintosh from Windows, this is a way to maintain compatibility with Windows users while staying within the familiar comfort of Microsoft Office.

Figure 1. Microsoft's promotion for Office 2008 for the Mac.

* * *

It's always tempting to plug a USB flash drive into a computer and then yank it out again, but don't do it! If you pull a USB flash drive out, the computer could be trying to write data to it. Yanking it out too soon means your files on that flash drive could get corrupted, which is a fancy term that means you could lose everything stored on your flash drive.

Before removing any USB flash drive plugged into your Macintosh, click on the Finder icon on the Dock and open a Finder window. Look for the name of your USB flash drive in the left pane of the Finder window, and click on the Eject icon that appears to the right. When the USB flash drive icon disappears, it's safe to yank the flash drive out of your Macintosh.

Figure 2. How to safely eject a USB flash drive from a Macintosh.

In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around *The Byte Buyer* dangling participles with Jack Dunning and go to the gym to pump iron with Dan Gookin.

Wally is responsible for *Microsoft Office 2007 for Dummies*, *Breaking Into Acting for Dummies*, *Beginning Programming All-in-One Reference for Dummies*, and *Mac All-in-One Reference for Dummies* from *www. dummies.com*, as well as, *Steal This Computer Book 4.0*, *Visual Basic Express 2005: Now Playing*, and *My New Mac* from *www.nostarch.com*. He is also the co-author of *Strategic Entrepreneurism* from *www.selectbooks.com*.

Every Saturday morning from 9:00 am - 10:00 am in San Diego, you can hear Wally with fellow co-hosts Dane Henderson and Candace Lee, on the radio show CyberSports Today (*www.cybersportstoday.com*), which covers the video gaming industry on ESPN Radio 800 AM. Wally covers the military history side of the video game industry.

When not performing stand-up comedy or writing computer books, he likes to paper trade stocks with the video game Stock Reflex (*www.plimus.com/jsp/download_trial.jsp?contractId=1722712&referrer=wwang*).

Wally can be reached at *wally@computoredge.com*.

Little Linux Lessons: Tips and Tricks from Users

"Linux users share ideas and ask for help." by ComputorEdge Staff

A reader cautions that one Linux distro may not be right for you, but work well for someone else. Also, a tip on a key command that helps when you've entered characters backward.

More Advice for Newbies

In response to David in the February 27 column:

Not recommending a distribution of Linux based on personal experience is very counter-Linux. Ubuntu may not be a good choice for some people, but the perfect choice for others. Most distributions come with a Live version, allowing anyone to boot to a version of Linux and use it without actually installing it on the hard drive. I would always recommend getting the Live version and taking it for a spin before installing it onto the hard drive. Installation of Ubuntu could not be any easier (my 12-year-old son did it with no help from me). As for the heavily modified comment, well, all distributions are heavily modified just about as equally as Ubuntu is. They all have the same kernel and various configurations of the KDE or Gnome desktop environments (yes, there are others, but these two are the most popular).

So, when testing and recommending a particular distribution of Linux, keep an open mind and remember: What doesn't work for you may be perfect for someone else.

Cliff Goniea, San Diego

Swap Those Characters

For those of us with mild dyslexia, there is a key command that will help us in our desire to get things straight. This is good to know even if you just want to freak out someone who's looking over your shoulder.

After inadvertently entering any two characters backwards, it can be a hassle to delete and re-enter one of the characters. Next time, use CTRL-T (upper- or lower-case t, it makes no difference) and the characters will swap.

```
$ mna
```

Oops! CTRL-T

```
$ man
```

<p align="center">*   *   *</p>

If you have an opinion on these or other Linux topics, then please let us know. Also, if you have another Linux tip that works for you and would like to pass it along (or have a question), please drop us a line at Linux Lessons (ceeditor@computoredge.com).

Rob, The ComputorTutor Does Visual Basic for Applications

"More on the Access VBA Toolbox" by Rob Spahitz

Last week, we started exploring some of the Access form controls and how you can use VBA to better work with them. This week, we look at the rest of the controls in the toolbox.

Last week, we started exploring some of the Access form controls and how you can use VBA to better work with them. This week, we look at the rest of the controls in the toolbox.

Last week we went through the toolbox, as seen in Figure 1, and explored the label, text box, and option group box with option button. Let's continue.

Figure 1. The Access Toolbox.

Open yourself a new database or pick one of our previous databases found at *www.dogopoly.com/ce* and open a new form in Design mode.

Toggle Buttons

The next item in the toolbox is the toggle button, located just under the label (which appears as "Aa" in the toolbox). Select it and click near the top-left corner of the blank form to drop it there. One thing you'll notice is that the picture in the toolbox looks nothing like the items added to your form (which looks like just a square). In case you're not familiar with this control, since it's not very commonly used, this control looks like a button in one state; when you click it, it stays in the down position until you click it again.

So how might you use this? Well, it can act like a check box in that it shows one of two states. As such, the most useful event in the Properties window is On Click. Let's program that (i.e., double-click on the On Click event to create an Event Procedure, then click on the "..." button next to it to get into the Visual Basic area).

You should see some code similar to this:

```
Private Sub Toggle0_Click()

End Sub
```

You could simply program it to display a message when it is clicked (or unclicked) when the form is in Run mode. However, a more interesting task is to show a message that shows the current state of the button (down or up).

To do this, we need to learn a bit more about this control. We can do some exploring by typing the name of the control and putting a period after it. If VB recognizes the object, it will usually pop up a list of things that are related to that control, as seen in Figure 2. This list is called the Intellisense list.
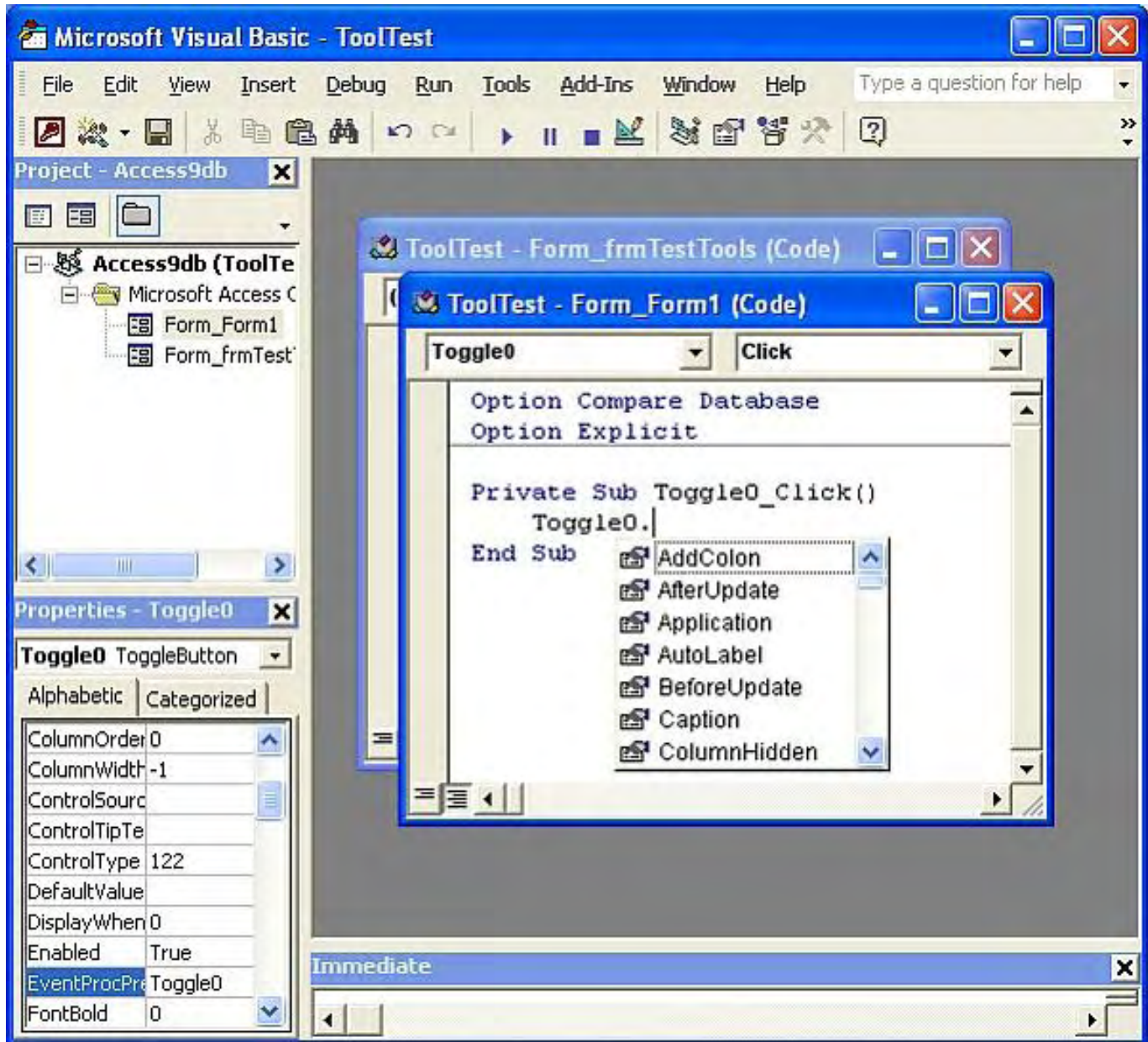
Figure 2. Toggle control features.

The list is alphabetized, which is great if you know what you're looking for, but not so good if you need to search for something. The newer version of VB manages this a bit better, but that's not available in Access yet (not even the latest 2007 version).

As you scroll down the list, you'll notice that the items in the list have various pictures next to them. You might recognize the hand holding the paper, since that's the picture used by Access to identify the property window. So, yes, that means this item is a property! Elsewhere in the list, you might see a green 3-D block with speed lines coming out of it. This represents methods, also known as procedures (subroutines and functions). These are

actions that the object can perform. We'll learn about these at a later time.

For now, we'll see if we can find out how to detect the current state. When you don't know what you're looking for, you have to use your English skills and reasoning to find a property that might give you what you want. Sometimes the help files can assist, so learn how to press the F1 key when you need extra help. For Microsoft controls, that's usually pretty good, but other controls may not offer this, so the "discovery" idea is often more reliable.

So as you look down the list of properties for the toggle button, you'll see some named AddColon, AfterUpdate, Application, and a variety of others. In this case, I'll help you out. Most controls in Access have a property named Value that will identify the current state. Let's try adding this code to the procedure to check:

```
Private Sub Toggle0_Click()
    MsgBox Toggle0.Value
End Sub
```

Now when you run the form and click on the button, see what you get. When I first click the button, a message box appears showing -1. If I click it again, I get 0. It appears that we can use the Value property to determine the state of the button. By the way, in the computer world the number zero usually represents the concept of False and any other value represents True. However, in VB, the preferred value for True is -1. So it appears that the Value property shows us True or False.

Let's fix our code to add a message box that shows us a different message for down or up. To do this, we'll need to use VB's "If" command. The basic idea of IF is that it will check a condition and either do one set of commands if true, or another set of commands if false. So try this:

```
Private Sub Toggle0_Click()
    If Toggle0.Value = True Then
        MsgBox "Button is down."
    Else
        MsgBox "Button is up."
    End If
End Sub
```

Notice that as you type, VB will try to help with some things. However, this version still leaves it up to you to correctly type a lot of the code. Check your code carefully. In a future column, we'll explore how to deal with code problems, a process known as debugging.

For now, run the form, click on the button, and notice the two different messages you get depending on if the button is down or up.

Option Buttons

The next item in the toolbox is the Option button. This is also known as a radio button. We saw this last week with the option group. However, this can also be used without the group box. Be aware that option buttons are not intended to be stand-alone controls. When you select an option button, it will deselect other option buttons in the same container (such as a group box or the form). Oddly enough, without putting these into an option group, they act more like checkboxes. However, this is not really the proper use for an option button, so I'll simply suggest not using them this way; instead, use them in conjunction with option groups.

Check Boxes

Continuing on in the toolbox, you see the Check Box. These work pretty much as you would expect. And, as seen earlier with the toggle button, the Value property can be used in VB to check the state. By the way, you could also attach this to a database field using the Control Source. As long as the field is a "yes/no" field, it does the job very well.

Combo Boxes

The next tool is the useful combo box. This is a combination of a text box and a list box. I'm sure you've worked with these as a user, where you click on the arrow at the right and it opens up a list of choices.

Go ahead and drop one next to the toggle button on the form. When you do this, Access launches a wizard to try to get more information about how you want to manage the list portion. The wizard, as shown in Figure 3, probably looks familiar.
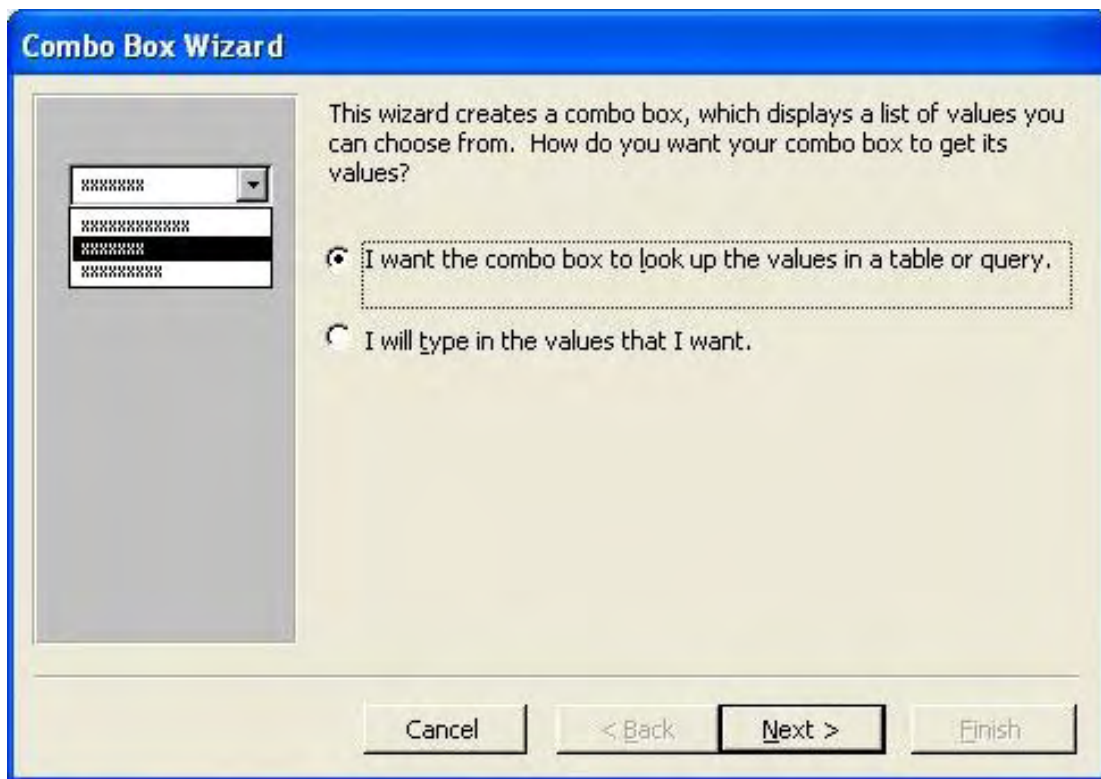
Figure 3. Combo box wizard.

When we were doing table design, if you set the data type to Lookup Wizard you got this same wizard. You can look through the *ComputorEdge* archives for one of my columns that described how to do this, somewhere around September 2008. When you complete the wizard, you'll have a set of values (manually entered or pulled from a database table or query) that will appear in the list portion of the combo box.

OK, so looking at this from VB, what can you do with it? Well, for one thing, you can look at the Value property to see what text is in there.

There are a variety of other things that can be done, such as checking the information in the list and checking what is typed one character at a time, but I'll reserve these for a future column.

List Boxes

After the Combo Box in the toolbox is the List Box. This is similar to the Combo Box, but it shows the entire list portion, but no text box. When you add it to a form, you get the same wizard asking for the data source. Again, the Value property is useful for determining the current item. In addition, you may want to check the ListCount property to find out how many items are in the list or ListIndex to determine which item in the list is currently selected. Again, we'll learn more about this in a future column.

Command Buttons

On to the next control: the Command Button. This is the one we've used before. It lets us do just about anything when clicked. Although there are some useful properties, in VB you usually don't use these properties, so we'll move on and use this control in other examples in the future.

Images

Want to add a nice picture to your form? The next control lets you add an image. Although you may not usually interact with an image, let's add something that's a little more fun. Suppose that you wanted to select a picture from your hard drive and have that appear in the image control? Let's make that happen.

Add an image control to your form. A wizard will appear asking you to supply a starting picture. Go ahead and add one (maybe from your My Pictures folder under My Documents). Although we can program it to ask for a new picture when you click, we'll save that for an upcoming column.

Tab Control

I'm skipping over a few controls that you will probably rarely use. These are the Unbound and Bound Object Frames. I'll also skip the Page Break, since you typically do not program that. Likewise with the SubForm, Line and Rectangle control. The one remaining is the Tab Control. You've probably used these before, but may not know how they work.

Create a new form so we have room for this. Add a Tab Control near the top-right corner. Notice how the control shows two tabs called Page1 and Page2, as shown in Figure 4.
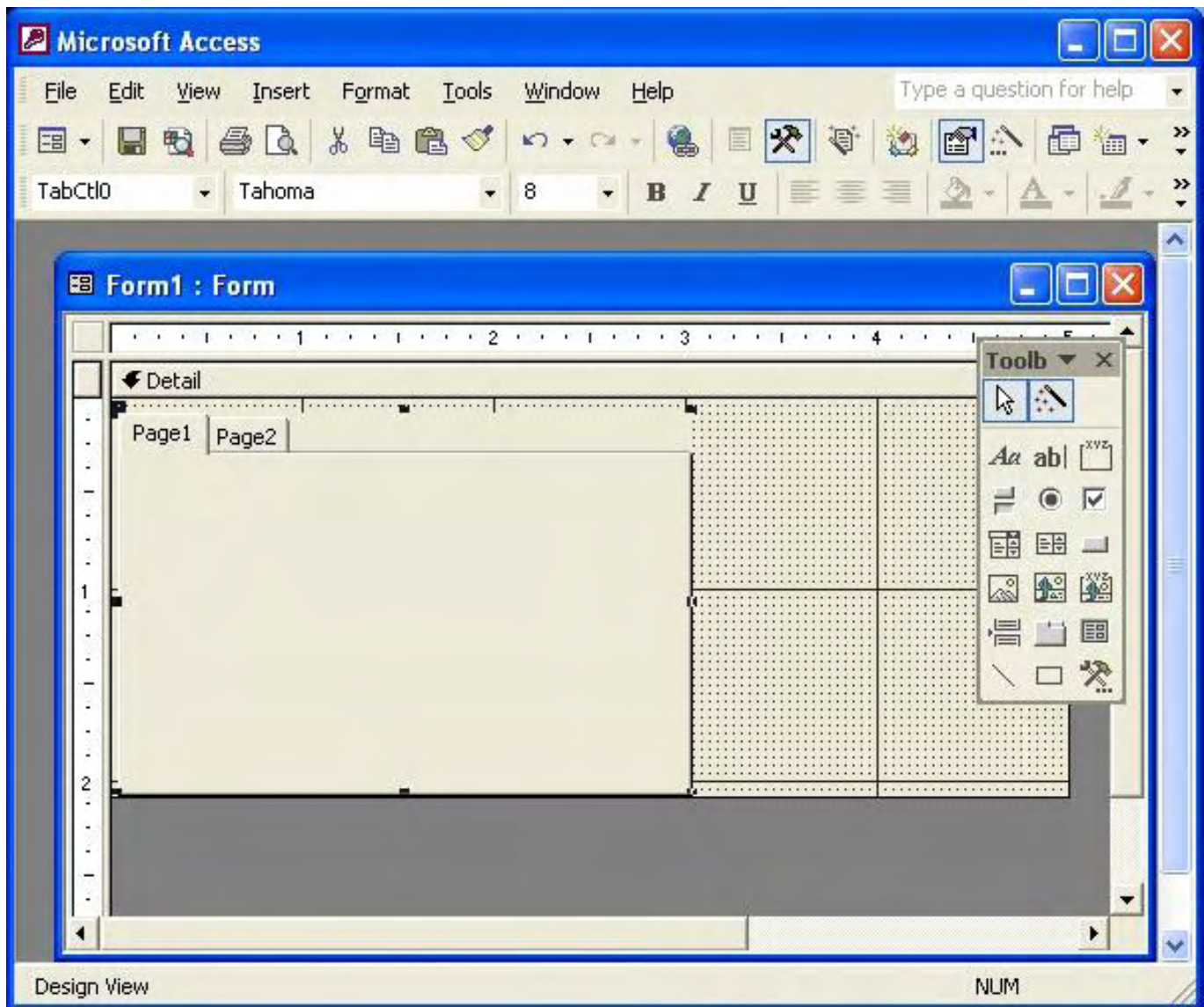
Figure 4. Tab Control.

First, understand that the tab control is really just a container. Although it has properties, methods and events, the interesting part comes from the pages that you can add. If you program the click event, it will apply to the container. Instead, let's program the pages so that if you click on one, it jumps to the other.

First, make sure you have Page1 selected. You can do this by clicking on the tab that shows Page1 or selecting it in the Access properties window. Now program the click event like this:

```
Private Sub Page1_Click()
    Me.TabCtl0.Pages.Item(1).SetFocus
End Sub
```

Go back and program the other tab like this:

```
Private Sub Page2_Click()
    Me.TabCtl0.Pages.Item(0).SetFocus
End Sub
```

Now when you run the form, if you click on the main area of a tab page, it will switch to the other tab.

How does this work? Well, obviously we are intercepting a click on the page. When that happens, it runs this code:

```
Me.TabCtl0.Pages.Item(1).SetFocus
```

"Me" represents the current container object, the form. The dot indicates that we are talking to something inside Me. TabCt10 is the name of the tab control. Since it is also a container, we have to dig deeper to find the pages. Note that the tab control contains a collection of pages, so we can ask it to tell us how many pages there are. But we're just looking at the pages and asking it to tell us about the items on the page and tell us about one specific item. In this case, the Pages are numbered starting at zero, so when I refer to item 1, it means the second item in the collection. The last part, SetFocus, tells VB to change the focus to the identified item, Page2, which means that Access will switch to that page if it is not already active (which it won't be if we're on Page1).

By the way, there are some shortcuts you can take with the above code. For example, you don't have to use Me and could simply put:

```
TabCtl0.Pages.Item(1).SetFocus
```

In addition, the Item property is assumed and can be omitted, leaving you with:

```
TabCtl0.Pages(1).SetFocus
```

Wrap-Up

So we've looked at most of the default controls available in the Access toolbox. Many don't require much VB programming because they have plenty of useful properties. However, you will often need to refer to them in VB.

Next week, we'll see how you can add other controls, such as a calendar or Web browser, without having to do much, if any, programming.

Rob has been in the computer industry for over 25 years and is currently a part-time teacher, offering classes in Excel, Access, Visual Basic, and a variety of other technical tools. He has loved *ComputorEdge* since 1990 and can be contacted at *RSpahitz@Dogopoly.com*.

Looking for a great boardgame? Grab a copy from DOGOPOLY.com (*dogopoly.com*) and have a dog-gone great time.

Worldwide News & Product Reviews

"The latest in tech news and hot product reviews." by Charles Carr

Five Ways to Avoid Adware and Malware—Tips to protect your valuable data; Will Amazon Kindle Your Love Affair With E-Books?—Will you love it or hate it?; These Phones Are No Phonies—A review of Phiaton's MS 400 earphones; Stuff Your Digital Stuff—A review of StuffIt Deluxe for file compression.

Five Ways to Avoid Adware and Malware

Seth Geisler from the personal tech support hotline BluePhone (*www.bluephone.com*) has some tips to help us avoid two of computerdom's most persistent and treacherous pests: adware and malware:

Most folks have measures in place to protect their computers and vital information when they're browsing the Internet. However, with new adware and malware threats identified regularly, any browsing or downloading can leave a computer exposed, especially if the user is unaware of what to look out for. Here's what to do:

Since adware and malware removal are more difficult than prevention, it makes sense to be educated and prevent a malware infection before it happens. Be most careful when considering downloading anything off the Internet, and if doing so, consider these five tips to ensure that playing it safe is playing it smart!

1. Be proactive—Have inbound and outbound firewalls enabled, plus antivirus and anti-spyware software installed. This will alert you that someone is trying to access a targeted computer to put software on it. Major antivirus companies have adware and malware protection combined. Norton and CA are popular suite options. AVG, Avira and Avast offer free standalone antivirus software, while Lavasoft and SuperAntiSpyware offer free standalone anti-spyware software.

It's also a good idea use a broadband router instead of directly connecting your computer to a high-speed modem. Most broadband routers include a hardware firewall that provides additional protection. Finally, ensure that you have all the latest security updates for your operating system and applications by visiting the manufacturer's Web sites or turning on automatic updates.

2. Stick to familiar Web sites—When searching for common information, make sure it is from a reputable source. If during the search the site that pops up is not recognized, at the very least, be wary of the links and downloads offered on that site. Popular, heavy-traffic sites such as About, YouTube, MSN, Yahoo, Wikipedia, and any number of familiar news sites are sure to be safer bets.

3. Download from reputable sites—Downloading presents the greatest danger of introducing adware or malware into a system. Accidentally downloading an unwanted program instead of the one that is really wanted is a common mistake. As well, downloading one program, only to have it bundled with potentially unwanted software programs can be a common problem. Reputable downloads sites like CNET Download.com, Softonic and Softpedia offer editor and user ratings for more insight into other people's experiences with a particular program.

4. Check for unfamiliar programs—Every now and then, it's a good idea to check the programs listed in the Control Panel to see if there are programs that you don't recognize. If something doesn't look like it belongs there, and it can be identified as unnecessary, remove it. If it cannot be determined what exactly it is, search for that particular program online, or run a scan with one of the options outlined in step five.

5. Run regular scans—Antivirus and anti-spyware software should be running regular and automatic system scans to detect issues. Real-time protection should be turned on as well as automatic updates. Research continues to show that people are commonly infected by malware simply because their antivirus software was not up-to-date.

Will Amazon Kindle Your Love Affair With E-Books?

Recently, Amazon.com CEO Jeff Bezos announced the highly anticipated Kindle 2.0 e-book reader. Anna Klassmann De Souza, PR rep for several Web-based book-buying/trading solutions, makes the case both for and against the Kindle:

This begs the question: e-books are growing, but does the hype outweigh the demand for now? Many readers prefer tangible books to staring at computer screens, and how about getting that pricey device sandy when reading at the beach? And what's the avid reader to do during the economic downturn?
The Kindle currently costs $360. That's one heck of an investment to try to save some money in the long run, especially in this economy. Renting books (bestsellers and classics) can start at $9.95 (for three or more books a month) and lets members cancel any time—a far less expensive way to read. Many new titles cost far more than the $10 usually advertised for Kindle books. If regular book prices are $25, the high price of $359 would mean you'd have to buy 24 e-books at $10 each just to cover the initial cost. Only then will savings start to kick in.

Books become memories, memories that many like to share with others—certainly e-books don't allow for multi-licensing, so once you download onto your machine, the option of sharing becomes obsolete—not so with tangible novels.

Eric Ginsberg, VP of Marketing for BookSwim.com, notes, "Without doubt the book industry is struggling, and new innovations like the Kindle (for e-books), BookSwim.com (for rental) and Paperbackswap.com (for online swapping) are the future of literary distribution. Taking readers out of brick-and-mortar stores and libraries allows consumers to browse, read reviews and ultimately choose a book that best suits their needs in a quicker and more efficient way. But BookSwim and similar services, unlike the Kindle, still provides a try-before-you-buy aspect preferred by readers."

These Phones Are No Phonies

You may not have heard of Phiaton as often (or ever) as headphone mainstays such as Sennheiser, Bose or AKG, but that may be about to change if the pair of Phiaton's Moderna Series (MS) 400 phones I recently checked out is any indication.

Phiaton's MS 400 (*www.phiaton.com*), about $250, are of the closed-ear type designed to reduce as much outside interference as possible. That's good, because you'll want to hear every nuance these babies are capable of delivering: rich bass, subtle mids and crisp highs. A lot of that great sound is due to the MS 400's carbon fiber enclosure, which eliminates much of the sound leakage that plagues other headphones. They're also easy on the ears in another important way: in the comfort department. I was able to wear them for hours without any problems whatsoever.

The Phiaton MS 400s were able to reproduce sounds other top-quality headphones I own could not. If you're a hard-core audiophile or just someone who wants to hear everything you were meant to hear, definitely give them a try.

Tech specs:
Drivers: 40 mm electrodynamic
Sensitivity: 98 dB
Impedance: 32 ohm
Max input power: 1000 mW
Weight: 6.5 oz/185g
Flexible "fold and go" design includes compact carrying case
6.3 mm stereo gold-plated plug

Review contributed by Janie McPhene

Stuff Your Digital Stuff

StuffIt Deluxe (SID) would be a charter member of the Macintosh software hall of fame if such a thing existed. This venerable product was invented by a high school student, marketed for years by a small company called Aladdin Systems (*en.wikipedia.org/wiki/Stuffit*), and ultimately came under ownership of Smith Micro Software,

Inc (*www.smithmicro.com/*).

SID's current incarnation (v.13) goes by the moniker StuffIt Deluxe 2009. It is a collection of utility programs for file compression (*en.wikipedia.org/wiki/File_compression*) (i.e., shrinking the size of individual files that have redundant data bits) and folder archiving (i.e., shrinking and maintaining the hierarchy of folders containing files that have redundant data bits).

What's special about SID? For one thing, it supports browsing and selectively decompressing individual files from within archives.This can be a considerable timesaver compared to Mac OS X's built-in Archive Utility, which decompresses everything within an archive (zip) file even though you might need to decompress only one specific file. Additional useful features that distinguish SID include encryption (which protects confidential information within archive files), backup scheduling and restore, compatibility with 30 different archive file types (e.g., zip, tar, sitx—SID's proprietary format, etc.), segmenting and rejoining archives, and encoding/decoding (binhex and MacBinary files).

In case you're still thinking that Archive Utility is all you need, SID's additional advantages include integration with Mac OS X Leopard technologies (Quick Look, Spotlight, AppleScript, Automater, MobileMe, etc.), automatic scanning of archive files for malware using third-party antivirus software installed on your computer, support for Growl notification alerts, and more. In sum, SID's extensive feature set makes it the ultimate toolbox for managing archive files.

SID delivers its extensive features through a suite of seven apps (StuffIt Expander, DropStuff, StuffIt Setup Assistant, StuffIt 2009 Uninstaller, StuffIt SEA Maker, MagicMenu, and StuffIt Archive Manager; see Figure 1), a Quick Look plug-in (StuffIt.qlgenerator), and a contextual menu plug-in (StuffItCM.plugin). Let's take a brief tour through these components.

Figure 1. SID 2009 has spiffy new icons for its seven component apps, user guide (pdf), and zip file (right), which is distinctive from Mac OS X's.

First up is StuffIt Expander (SE). This app decompresses archive files; in other words, it converts an archive's contents to their original, disk-space-hogging condition. SE is available as a freebie, stand-alone download (*my. smithmicro.com/mac/stuffit/expander.html*) and also comes bundled with DropStuff—which compresses (shrinks) files and folders into archives—in a shareware package called StuffIt Standard ($49.99 MSRP for new users;

$14.99 for upgraders; *my.smithmicro.com/mac/stuffit/index.html*).

SE is a piece of cake to use. To decompress a selected archive file in the Finder, you can use any of the following five methods: 1) drag and drop it on SE's Dock icon, 2) drag and drop it on SE's program window (see Figure 2, left), 3) double-click it after configuring SE as the default Open With program in SE's File Mapping preferences (see Figure 2, right), 4) choose the Expand command from MagicMenu in the Finder's menu bar (more on MagicMenu in a moment), or 5) choose the Expand command from SID's contextual menu in the Finder.
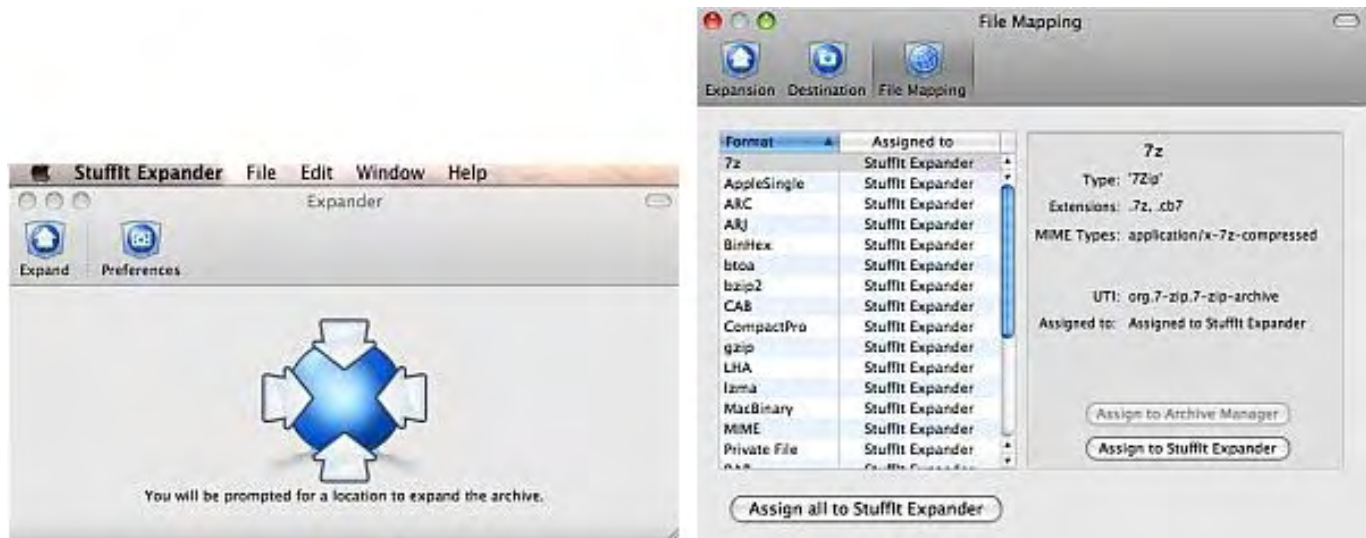

Figure 2. SE's interface (left) is a resizable target for dragging and dropping archives to be decompressed per user-configured options (right).

DropStuff is SE's functional inverse—it compresses (shrinks) disk-space-hogging files into an archive file. My favorite three of DropStuff's numerous features are archive encryption (the defaults are 512-bit RC4 encryption for sitx files, 256-bit AES for zip files), DropTargets (which are profiles within DropStuff that the user configures to execute chosen compression parameters and save to a chosen destination each time the profile is used; see Figure 3, left), and Droplets (which are handy mini-apps in the Finder that execute a sequence of user-specified commands; for example, you can build a Droplet that creates an encrypted SID archive and burns it to CD/DVD; or one that creates a Windows-centric zip archive and uploads it to an FTP site; see Figure 3, right).
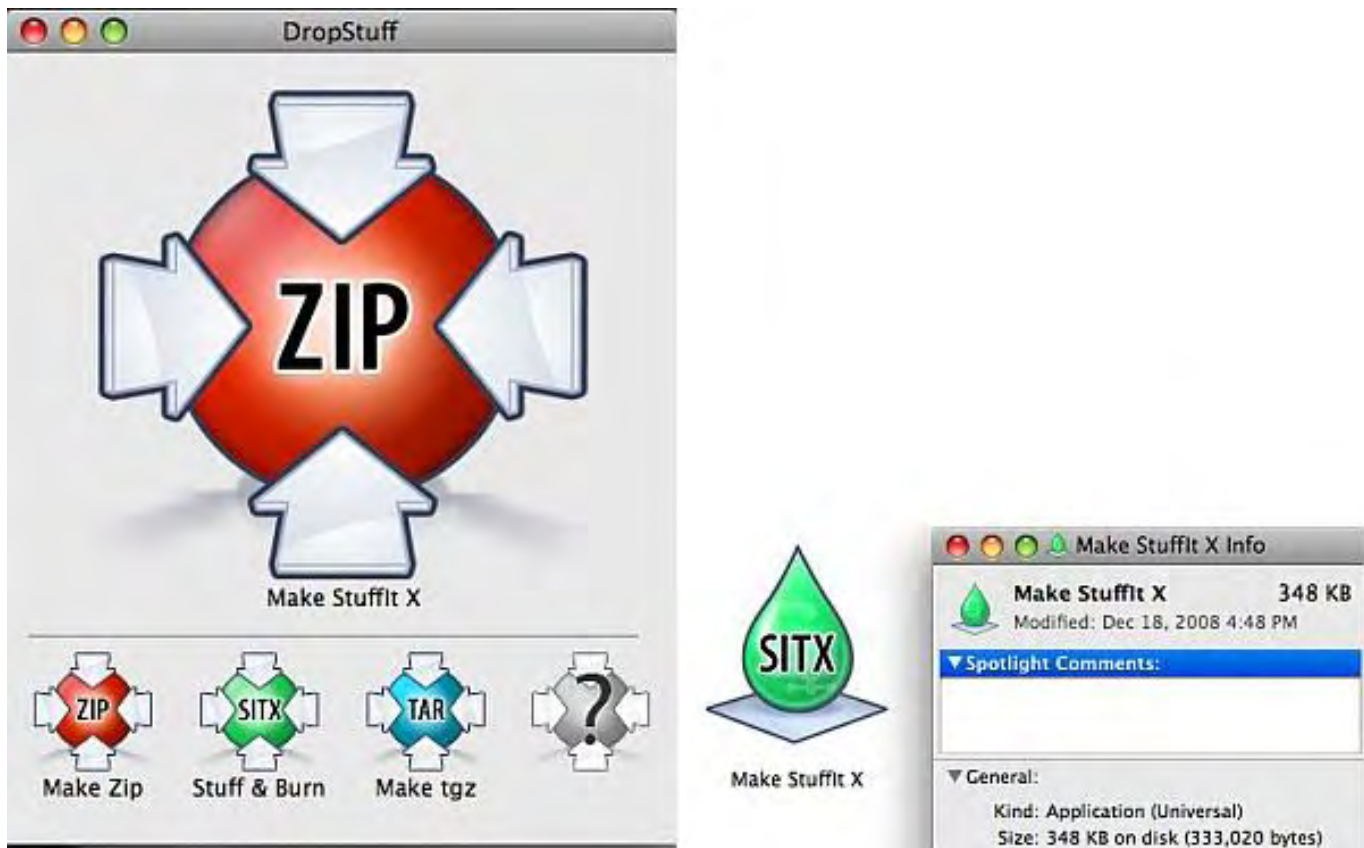
Figure 3. DropStuff's interface (left) houses DropTargets for dragging and dropping items to be compressed per user-configured options, or you can build a Droplet (right) which is a stand-alone, custom-configured compression mini-app.
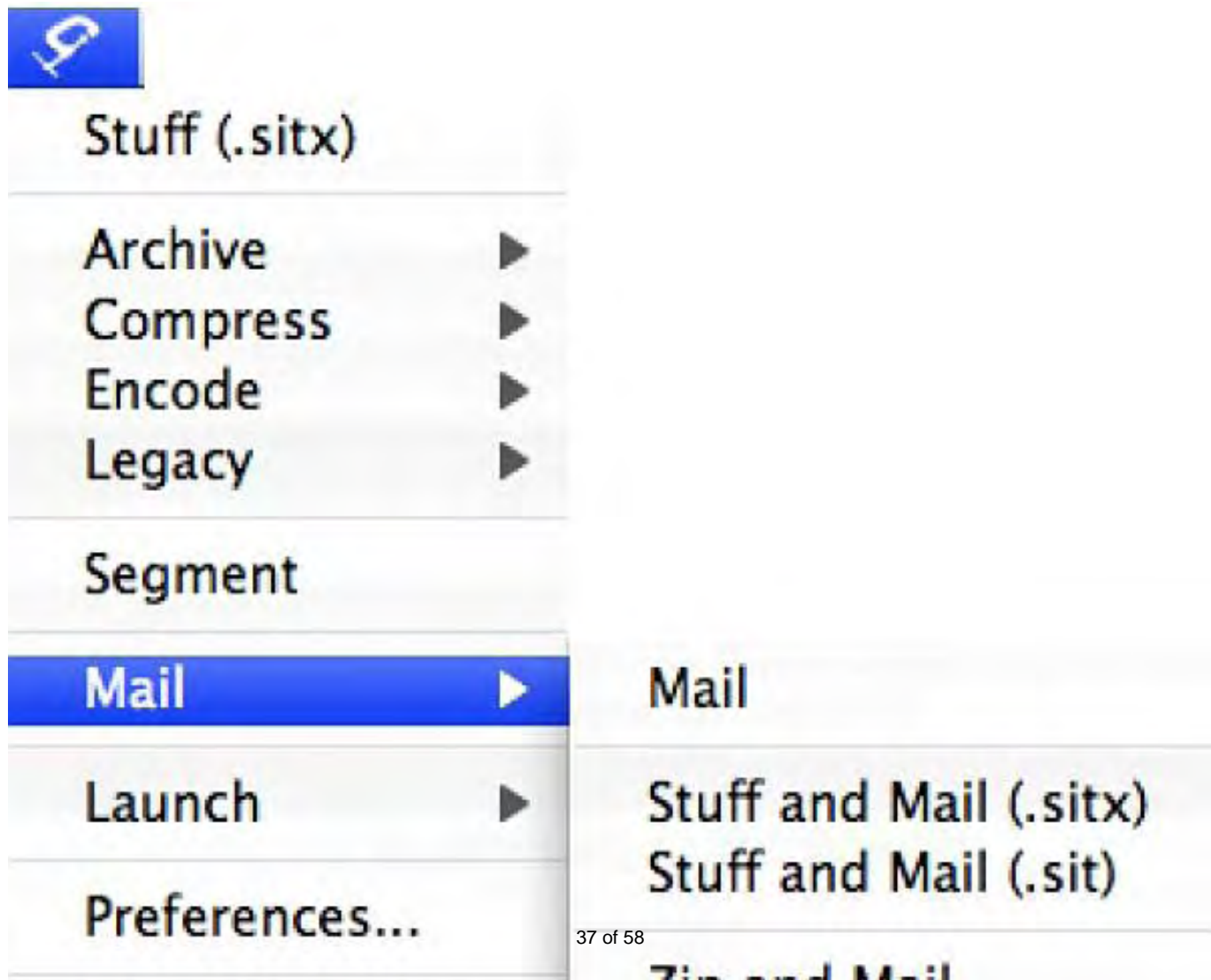
Moving along in our tour of SID's components, StuffIt Setup Assistant and StuffIt 2009 Uninstaller probably are one-time deals for most users. The former executes during installation and does what its name implies, while the latter removes SID's components from the hard drive. Uninstaller worked properly in my testing except that it left behind SID's three preference files in the user account Library folder and two in the root-level Library folder.

Suppose you want to share a sitx archive file with someone who doesn't have SID. No worries—StuffIt SEA Maker (SSM) comes to the rescue. This program converts any sitx file into a self-extracting archive file which, after you double-click its icon, auto-decompresses independently of SID. SSM can configure sea files to display or hide a splash screen, automatically decompress into a specific folder, and more. However, a serious drawback is that the sea file's size can be considerably larger than the sitx file or original one (see Figure 4). This happens because SSM appends a chunk of Universal code (for compatibility with PowerPC- and Intel-based Macs) to the sitx file.

test.webarchive   test.sitx   test.sea.app

test.webarchive Info   test.sitx Info   test.sea.app Info

| test.webarchive | 180 KB | test.sitx | 80 KB | test.sea.app | 14.9 MB |
| Modified: Feb 9, 2009 5:41 PM | | Modified: Today at 10:30 AM | | Modified: Dec 18, 2008 4:50 PM | |

▼ Spotlight Comments: ▼ Spotlight Comments: ▼ Spotlight Comments:

▼ General: ▼ General: ▼ General:

Kind: Web archive   Kind: StuffIt X Archive   Kind: Application (Universal)
Size: 180 KB on disk (180,372 bytes)   Size: 80 KB on disk (80,003 bytes)   Size: 14.9 MB on disk (15,413,843

Figure 4. SSM creates self-extracting archive files which automatically decompress in the absence of SID or SE, but such files can be quite large compared to the original file and/or sitx file.

The MagicMenu application included in SID is essentially identical to SID's contextual menu that displays when you right- or control-click an item in the Finder (more on this in a moment), except the menu is located in Mac OS X's menu bar (see Figure 5). What I like most about this app is that it can be launched or quit on demand without having to restart the system, which likely would be necessary if MagicMenu had been developed as a System Preference. Another convenience is MagicMenu's Mail item, which creates a new message in your default e-mail program and attaches the file(s) or folder(s) you've selected in the Finder after performing the compression option you've chosen.

Stuff (.sitx)

Archive   ▶
Compress   ▶
Encode   ▶
Legacy   ▶

Segment

Mail   ▶   Mail

Launch   ▶   Stuff and Mail (.sitx)
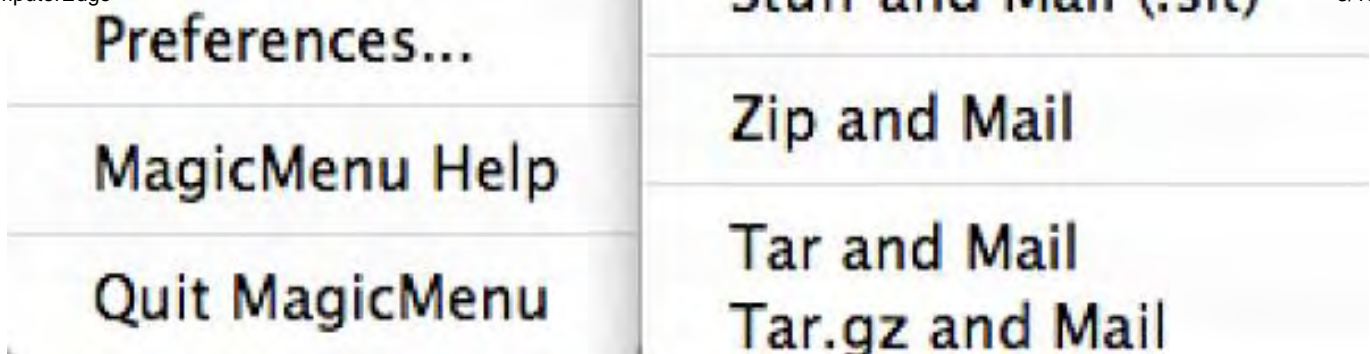   Stuff and Mail (.sit)
Preferences...

Figure 5. SID's MagicMenu app inserts an icon in the menu bar from which a menu of handy archive-related commands displays, including ones to automatically compress file(s) or folder(s) you've chosen in the Finder, then attaches the resulting archive file to a new message in your default email program.

Imagine a program similar to iTunes, except it's for archives rather than music files—that program is StuffIt Archive Manager (SAM). SAM lists all archive files on your system, organizing them by file type (sitx vs. tar vs. zip, etc.). However, whereas iTunes displays playlists and their contents, SAM displays collections of custom Spotlight searches for just about any type of file (including pdf, doc, etc.), and these searches' findings; after you single-click a search icon in SAM's left-hand pane, it lists the relevant found files in the right-hand pane (see Figure 6; left). If you click a found archive, SAM displays thumbnail previews or a listing of its contents in a pane at the bottom (see Figure 6; right) from which you can select individual files to decompress. A weakness, though, is that SAM can get hung up in wait cursor mode (spinning colored beachball) while building previews. I look forward to the future addition of a preference option for turning off this feature.
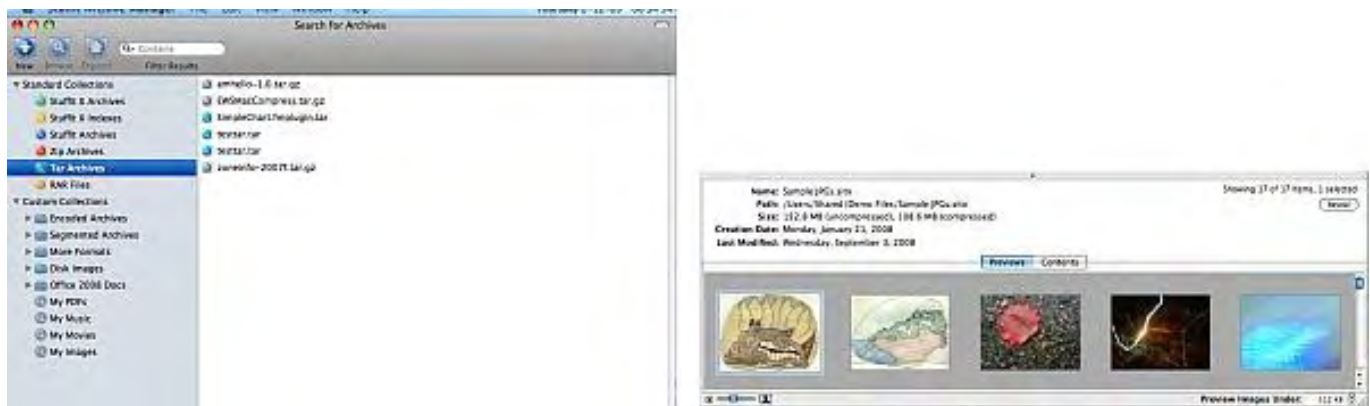

Figure 6. SAM's user interface resembles iTunes' except it displays the results of custom Spotlight searches for archive files (left) and their contents (right).

Instead of using SAM to browse and/or decompress archives, you can do this directly in the Finder thanks to Mac OS X Leopard's Quick Look feature and SID's new plug-in. Single-click an archive file in the Finder, press the space bar or type Command-Y, and the archive's contents will display in a preview window (see Figure 7). If you click a file within the Quick Look window, the archive will automagically launch and open in SE then decompress, or it will launch SAM and display its contents (this is contingent upon which app is configured as the default Open With). Thus, Quick Look is a huge timesaver and convenience.

Figure 7. SID's Quick Look plug-in for Mac OS X Leopard displays archive files' contents in the Finder.

The last component of SID in our brief tour is its Finder contextual menu. This component is similar to MagicMenu, except that you display it by control- or right-clicking an archive file in the Finder. Efficiency is one of the biggest advantages of SID's contextual menu—it spares the user from launching SE or DropStuff to decompress or compress archives.

SID's performance is illustrated in the following table of sample benchmark tests, compared with Mac OS X's Archive Utility.

Compression conditions	test file size	sitx file size	time to stuff	zip file size	time to zip
SID—better compression	90.5MB	53.5MB	50 sec	63.9MB	24 sec
SID—faster compression	90.5MB	64.8MB	18 sec	63.9MB	22 sec
Archive Utility	90.5MB	n/a	n/a	63.8MB	17 sec

Table 1. Benchmarks.

Benchmarks (Table 1)—tests were performed on a 2.2GHz MacBook Pro with 4GB RAM, 500GB 5400 rpm internal hard drive, running Mac OS X Leopard 10.5.6. SID tests were performed by right-clicking the test file and selecting the appropriate item from SID's contextual menu. Archive Utility test was performed under the exact

same conditions as SID tests, except for selecting the "Compress 'test file'" contextual menu item. The test file was created in Photoshop Elements 3. Your mileage may vary.

In addition to providing handy access to SE's and DropStuff's functionalities, SID's contextual menu also has some unique ones. Want to share a sitx file with a Windows user? Select Legacy/Make Self-Extracting/Windows from SID's contextual menu (see Figure 8).

Figure 8. SID's contextual menu in the Finder (left) contains various commands, including one what converts sitx archives into compact, Windows-compatible self-extracting files (right; Figure 4).

The contextual menu also includes my favorite feature in SID. If you used SID during the era of Mac OS 9, you might recall True Finder Integration (*www.lowendmac.com/ibasics/01/1004pf.html*) (TFI). TFI has been missing from SID versions for Mac OS X, but now is partially restored thanks to the new contextual menu item Mount Archive (see Figure 9; requires installation of Google Code's MacFUSE kernel extension in Mac OS X Leopard). Mount Archive approximates TFI and goes a step beyond Quick Look by displaying a Finder window that contains the selected archive's contents as if the archive were a hard drive (Figure 9). Using this feature, you can selectively navigate through and/or drag items out of the archive rather than having to expand the whole sheebang. Cool! The downside is that this feature can be slooow, depending upon the archive's size; my 255MB archive file containing 112 items took almost 1.5 minutes to mount and display completely.

Figure 9. SID's contextual menu in the Finder includes a Mount Archive command that displays the selected archive file's contents in a window as if the archive were a hard drive.

What are SID's downsides? Its primary weakness is circumstantial rather than inherent—external hard drives are so cost-effective that you could purchase a 500GB or 1TB unit for only about $20 more than SID (*my.smithmicro. com/mac/stuffit/index.html*) ($79.99 MSRP for new users; $29.99 for upgraders) and spare yourself from compressing and decompressing.

Additional quibbles with SID include the following.

• SAM and the Quick Look window for a sitx file list the selected archive file's contents in Unix/Linux sort order rather than alphabetically or by modification/creation date (see Figure 7), and they lack support for changing the

sort order.

• SAM and SSM do not "remember" user-configured size and position of archive files' windows from one session to the next.

• SAM's window for any given archive file includes seven columns that can be used for sorting the archive's contents; however, if you want to hide any of these columns, you're out of luck.

• SID does not support TFI's feature whereby you could simply type .sit or .sea at the end of any file's or folder's name in the Finder and it transparently would create an archive or self-extracting archive file, respectively.

• SID is not AppleScript recordable.

• SID's installer automatically inserts an icon for each of its components in the Dock and inserts MagicMenu's icon in the menu bar rather than presenting these as user-configurable options during the installation process.

• Mounted archive files are not modifiable; if you drag a file to the mounted file's window, an error alert displays.

reviewed by Barry Fass-Holmes

In addition to being an editor and columnist for *ComputorEdge* and *ComputerScene* Magazines, where he has written hundreds of feature articles and cover stories over the past decade, Charles Carr has also penned well over 1,000 non-tech newspaper and magazine articles and columns for various publications, including two widely-read columns each week for San Diego's *North County Times* newspaper.

Carr has covered such diverse topics as pesticide use in area schools, invasive background checks for county volunteers, asthma awareness, the debate over standards-based grading, potential vulnerabilities in electronic voting machines, and Southern California's devastating 2003 and 2007 wildfires. He has also written many humorous pieces.

Carr has also edited dozens of stories and articles written by others which have appeared in major publications and web sites across the country.

He has been a contributor and technical advisor to *L.A. and San Diego Parent* magazines and receives dozens of requests a year to appear on Southern California television and radio stations to talk about important events in the tech world.

Carr has judged many writing competitions including San Diego Press Club and Time-Warner Communications contests and was sole judge for the national NAPPA Tech Toys awards for five years (which his kids really appreciated). He was recently a judge for the national "Poetry Out Loud" competition.

He has won many writing accolades, including Press Club awards for Best Column Writing, Consumer Writing and Best Arts and Entertainment, and has repeatedly taken top honors in San Diego Songwriter's Guild competitions for his original musical compositions.

Carr will soon publish his first book, *What a World*, a collection of his best writings.

Learn more at *www.charlescarr.com*.

ComputorQuick Reviews

"What's New in Windows 7, by Annie Blevins" by ComputorEdge Staff

A peek at just some of the features you'll be seeing in Windows 7—and there's a lot more to come!

Save Time with Improved Performance and Reliability

Nobody likes to wait. That's why Microsoft focused on fundamentals with the latest incarnation of Windows—especially with speed matters. Windows 7 is ready and responsive. It starts, shuts down and resumes from standby faster. You'll have fewer interruptions and can recover more quickly from problems when they do occur because Windows 7 will help you fix them when you want. In short, Windows 7 delivers performance, reliability and security features—and it's compatible with the same hardware, programs and drivers as Windows Vista.

**Extend Battery Life with Power-Saving Features**

Windows 7 extends battery life for your laptop with power-saving features such as adaptive display brightness, which automatically dims the display when you haven't used your computer for a while, much like many cell phones do today.

Power saver: Adaptive display brightness extends battery life.

Take Control of Problems with Action Center

In Windows 7, you'll see fewer notifications popping up because Action Center consolidates alerts from 10 Windows features, including Security Center and Windows Defender. When Windows 7 needs your attention, you'll see a new icon in the notification area and can find out more by clicking it. You can choose to respond to the notification or go to Action Center for more details. If you don't have time to address the issue immediately, Action Center will keep the information waiting for you to address later.
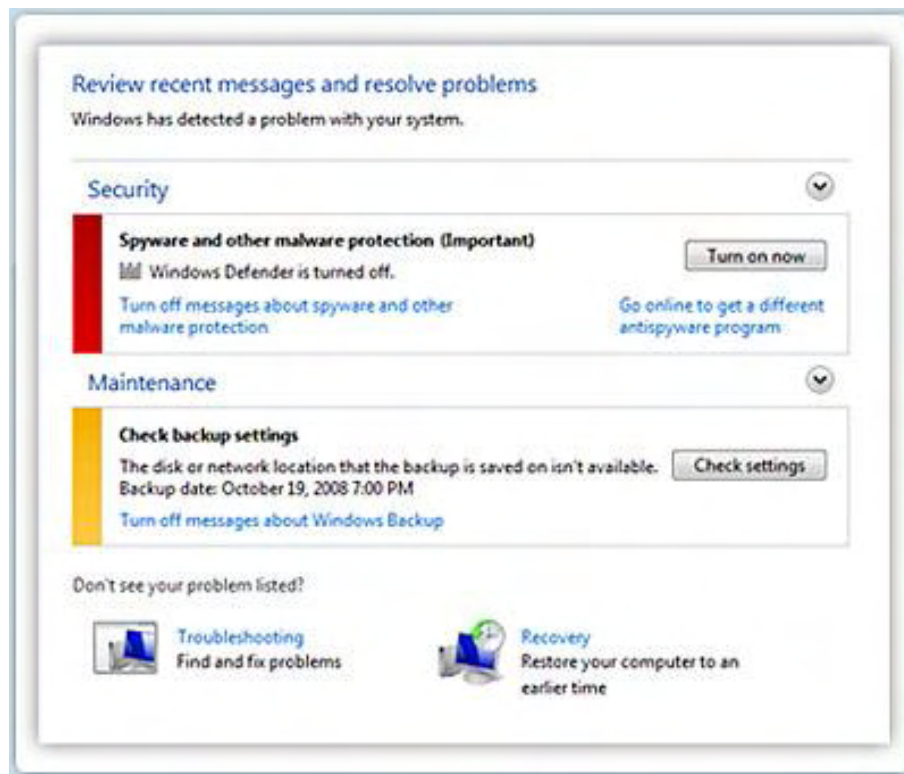
Bringing it together: Action Center consolidates notifications.

Everyday Tasks Are Faster and Easier

Simplified navigation

Improved taskbar and full-screen previews

The taskbar in Windows 7 is larger, and taskbar icons are easier to see and select. Full-screen previews from the taskbar help you keep track of the files and programs you're using by showing each open window as a thumbnail. Hover over a file's taskbar icon, and you'll see what the file looks like when it's open.
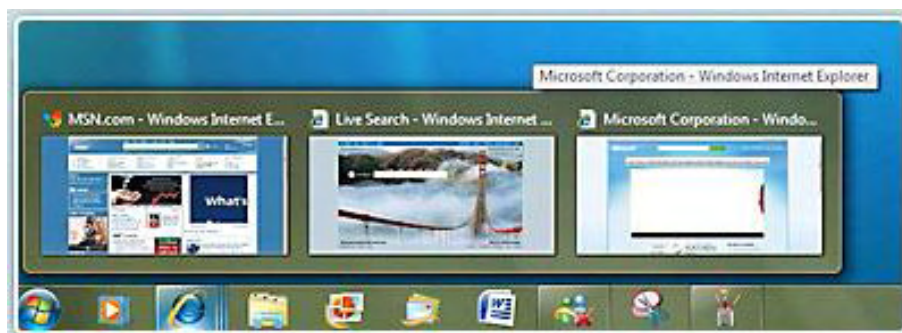
Get the picture: See what's open with full-screen previews from the taskbar.

Jump Lists

Sometimes you need to do the same things again and again. Jump Lists help you easily find and open the files and programs you use often. You can use Jump Lists on the taskbar and the Start menu to open your most frequently visited Web sites, recently opened files and favorite programs with just one click. Put the programs and files you use the most on the taskbar and Start menu so you can open them from the same spot every time.

A leap in efficiency: Jump Lists provide quick access to common tasks.

New Ways to Work with Windows

Windows 7 is smart about how you work with windows. Dragging a window to the top of your computer screen maximizes it automatically. Dragging a window to the side of the screen resizes it for easy side-by-side comparisons to other windows. And dragging the mouse to the lower-right corner of the screen makes all of your open windows transparent.
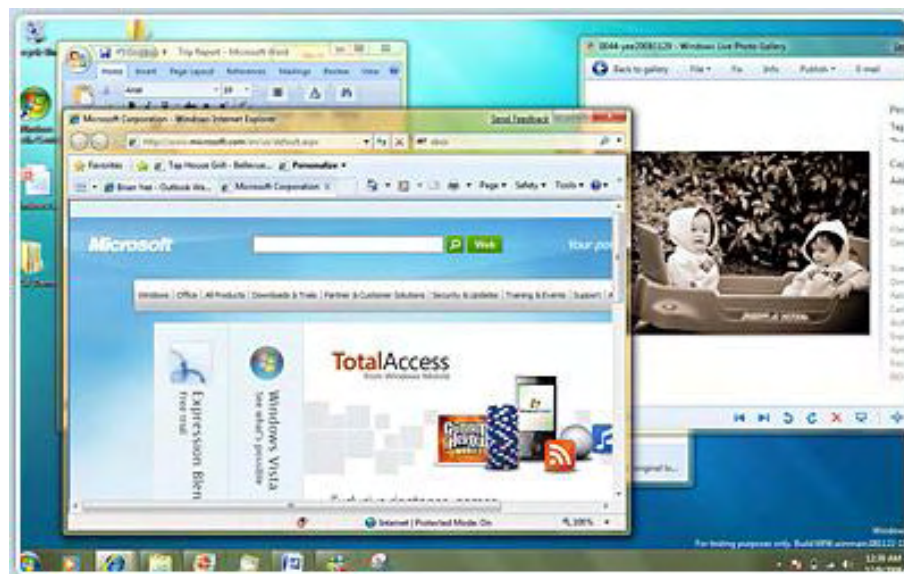
Invisible windows: Seeing through to the desktop.

Easier Home Networking

Windows HomeGroup

Windows HomeGroup makes it easy to connect to other computers running Windows 7 and devices on an existing wireless home network, so you can share files, photos, music and printers throughout your home. Use Network and Sharing Center to choose what you share with other members of your homegroup. Set one default printer for your homegroup and another for your network at work. When you join a homegroup, you'll immediately see other computers in the group, just like the items on your hard drive.
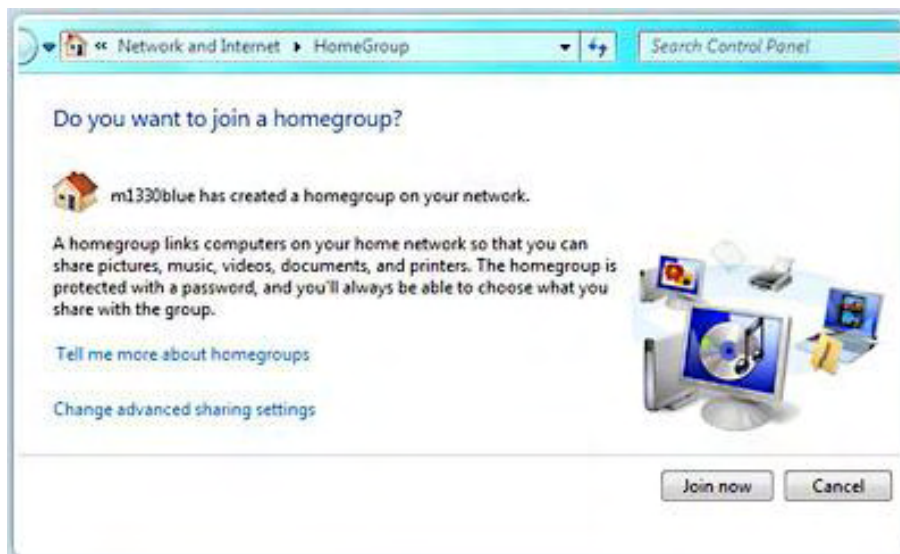
Better Device Management

Device Stage

Device Stage lets you see your device status and run common tasks from a single window customized for each device connected to your computer. When you connect a portable device, you'll see an image of that device on the taskbar. You'll easily be able to find and use all the features for each device you have connected, so you can synchronize contacts, capture photos, or create ringtones for your cell phone.

Devices and Printers

Rather than having to use several windows to manage devices, Devices and Printers is the single place to access all of your connected and wireless devices. From here, you can interact with your devices, browse files, or manage settings. When you connect devices to your PC, you'll be up and running in just a few clicks.

Gathering place: Devices and Printers collects device details in a single location.

Enhanced Online Experience

Internet Explorer 8

Improvements to the address bar, search, tabs and the Favorites bar help you efficiently surf the Web and make it easier to find the sites you're looking for. Find it fast: Address bar suggestions help you get to sites quickly. Using Web Slices in Internet Explorer 8, you can instantly see changes on a Web site without going to it.

Always up to date: Get Web Slice information from the Favorites bar.

View Available Networks

With one click you'll be able to see available networks, whether they're Wi-Fi, mobile broadband, dial-up, or your corporate VPN.

Making connections: See available networks from your desktop.

Windows Live

Windows 7 and Windows Live are made to work together. Windows Live is a set of free services that you can use to access your contacts, e-mail accounts, profiles, photos, files and calendars from any computer or Web-enabled phone. Some features that were in previous versions of Windows, such as Windows Mail, Windows Photo Gallery and Windows Movie Maker, are now available for free through Windows Live. Turning these features into Live services for Windows 7 expands what you can do and makes sure you always have the latest capabilities. Together, these services help you keep your life in sync and extend the reach of your Windows 7 computer.

## Make Windows a Better Reflection of You

A Clean Start

Your first look at the Windows 7 desktop is uncluttered and full of possibilities. You get to design how it looks.

Your place: The Windows 7 desktop.

Theme Packages

Windows 7 provides the themes, and you choose the colors and format. New theme packages include rich backgrounds, 16 glass colors, sound schemes and screensavers. You can download new themes and create your own to share with friends and family. Some theme packages are customized for regions of the world.
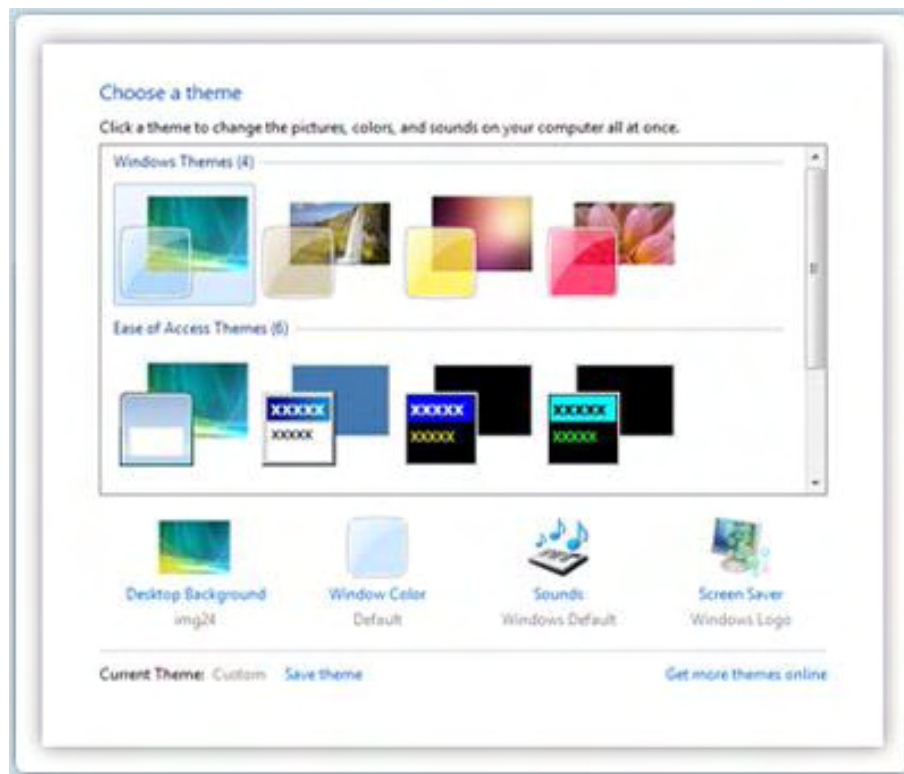
By design: Themes give your desktop a personal touch.

New Ways To Interact with Your PC—It's Not Just Typing Anymore

Windows Touch and Multitouch

Windows 7 lets you work with your hands. With Windows 7 and a touch-sensitive screen, you can touch the screen —rather than use the mouse—for a more direct and natural way to work. Use your fingers to scroll, resize windows, play media, and pan and zoom. Large touch areas on the Start menu and the taskbar make it easy to use.

Handwriting Recognition—New Additions

Handwriting recognition takes a big step in Windows 7. Beginning with greater accuracy and speed, Windows 7 improves pen input in several ways. You can write math expressions, create personalized custom dictionaries for handwriting recognition, and use the new languages supported in Windows 7. Of course, you can also use the pen to just make a quick list or a quick calculation.
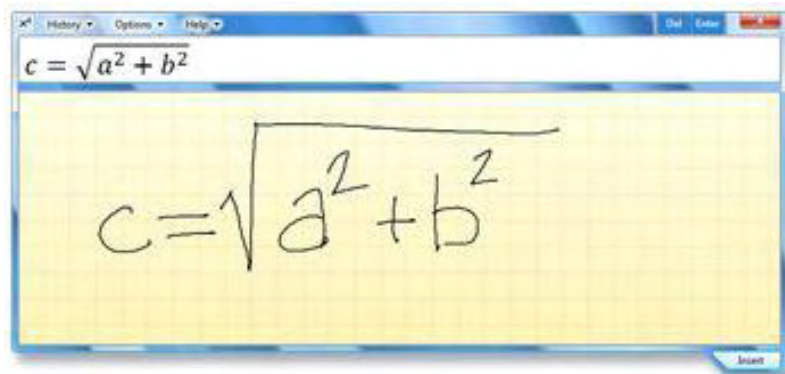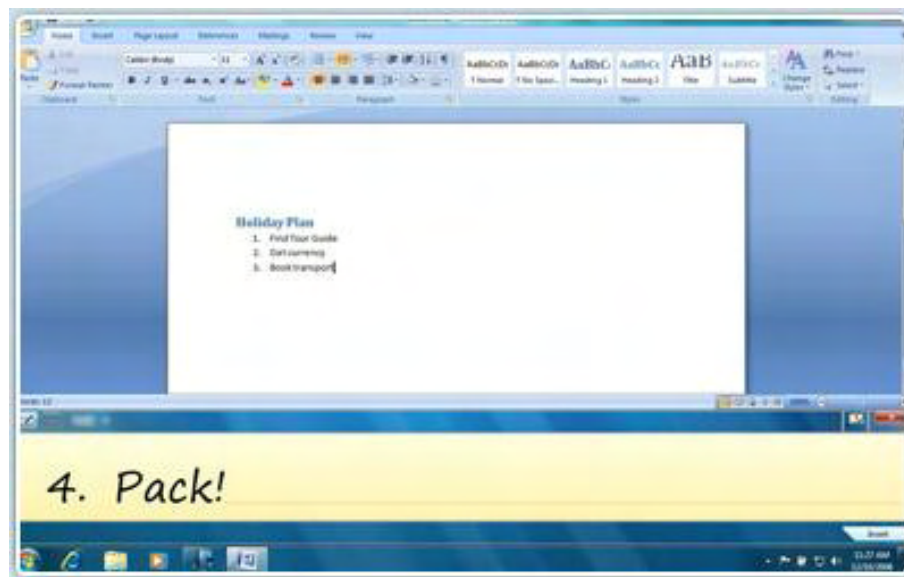
Doing the math: Windows 7 can recognize math expressions.

Media Sharing—Listen to Music and Watch Videos Anywhere

When you set up a homegroup or stream media from within Windows Media Player, your music, pictures and videos are immediately available on the other computers and devices in your homegroup. That's all you need to do to begin accessing media throughout your home. As you add new computers and playback devices to your homegroup, you'll be able to share media with them.
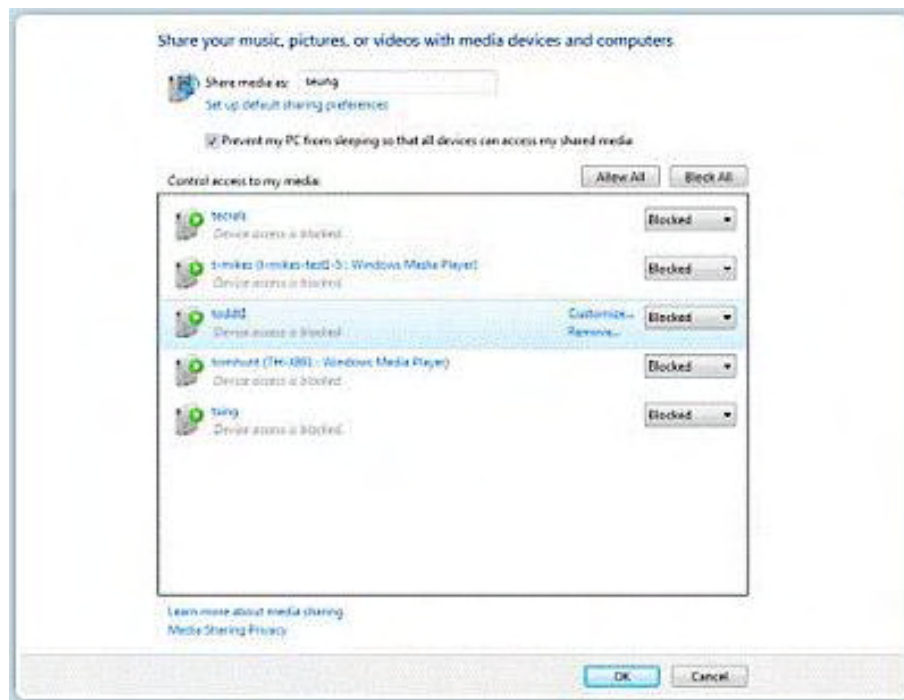
Windows Anytime Upgrade—Easily Add Features to Windows

Using Windows Anytime Upgrade, you can upgrade from one edition of Windows 7 to another edition of Windows 7 and add features to Windows, such as Windows Media Center or networking capabilities. All it takes is about 10 minutes. There's no Windows installation disc, either. Get the upgrade online or at a computer retail store, and unlock your new features using just an upgrade key—with no changes to your current files and settings.

In Summary

So that's a peek at just some of the features you'll be seeing in Windows 7. There's a lot more to come, so get ready to see even more of what you asked for as Microsoft continues working on Windows 7.

This review of Windows 7 was submitted by Annie Blevins, Systems Consultant
Annie can be reached at ibannieb.com (*ibannieb.com/*).

ComputorEdge always wants to hear from you, our readers. If you have specific comments about one of our articles, please click the "Tell us what you think about this article!" link at the top or bottom of the article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

If you want to submit a short "ComputorQuick Review", or yell at us, please e-mail us at *ceeditor@computoredge. com*.

EdgeWord: A Note from the Publisher

"Waiting for Windows 7" by Jack Dunning

With computer users seeming ready to forgive Microsoft for Vista, Windows 7 could be the shot in the arm the computer market needs.

It's interesting to see the anticipation building for Windows 7. It seems that the masses are ready to forgive Microsoft for the Vista experience if Windows 7 turns out to be as good as the early reviews indicate. There will always be some naysayers who continue to condemn Microsoft no matter what the software maker does, but I just don't see the hostility toward Windows 7 that Vista brought on. Maybe it's the lower tone that Microsoft has taken this time around. It's as if the company actually wants to get it right this time.

This week, Annie Blevins gives us a more in-depth look at what's new in Windows 7. With plenty of screen shots, her review gives us a clue about what we will be seeing. It seems that all the testing of Windows 7 is going better than expected. It's rumored that the code may be ready by sometime this summer. Rather than being released before it's ready—the normal Microsoft approach to marketing—it may be on the market by the end of this year, although it is slated for an early 2010 debut.

Another rumor going around is that any Vista machine purchased after June 28 will qualify for a free Windows 7 upgrade. In the meantime, to stop sales from dying completely, a number of computer retailers are offering their own guaranteed Windows 7 upgrade to fill the gap. Unless they can work a deal with Microsoft, the dealers will have to eat the extra cost, but that's better than no sales at all.

It seems that Windows 7 would be a shot in the arm for computer sales. There is pent-up demand among the XP users who have previously shunned Vista while their computer hardware has slowly deteriorated. They regard Vista as a mistake in the same league with Windows Me. Yet, they are quietly anticipating Windows 7 and its sleeker, faster performance. Windows 7 could be the shot in the arm the computer market needs. It may be a worthwhile reason to upgrade. In this economy, Windows 7's release can come none too soon.

Windows Vista Service Pack 2 (SP2) is due out soon. Most of the changes will not be noticeable, although the search capability is supposed to be improved. SP2 does not include all past updates, so you will need SP1 installed before adding SP2. I read that the upgrade takes about half an hour. The update will probably be meted out over a period of weeks (or months). There doesn't seem to be any reason to rush; plus, it's best to let the other victims install it first. That way you will learn from their experiences.

*   *   *

Since I talked about Windows Explorer for Windows Vista this week, I took the time to look into Windows Explorer for Windows 7. It has a similar look (see Figure 1), but it has added Libraries. A Library is a way to group together various folders for easy access.

Figure 1. Windows Explorer in Windows 7.

Libraries appear to be a group of shortcuts that point to selected folders that may reside almost anywhere, including in the cloud (over the Internet). This is another feature that may cause confusion and take people a while to accept. The major caution—as with any shortcut—will be not to make the mistake of thinking that the library is a separate set of copies of your files and folders. If you delete the files in the library, you are probably deleting the originals.

Jack is the publisher of *ComputorEdge* Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called *The Byte Buyer*. His Web site is *www.computoredge.com*. He can be reached at *ceeditor@computoredge.com*

Editor's Letters

"Readers write in with letters to the editor." by ComputorEdge Staff

"Questions About VoIP," "Internet Problem Fixed," "Is 4GB of RAM Enough?," "Firefox Fix," "The Collapse of the U.S. Financial System," "Adventures in Malware"

Questions About VoIP

[This letter is in regard to Michael J. Ross' January 2 article, "VoIP: Talking Over the Internet."]

I would like some basic information on VoIP that I can't seem to find.

1. Does the sender's computer have to be on to call someone?
2. Does the receiver's computer have to be on to receive a call?
3. Do the receivers have to install any special equipment on their computers?

I don't like the idea of my computer being on all the time when I might make only one or two calls a day.

-Steph, Denver, CO

Internet Problem Fixed

[This letter is in regard to Digital Dave's February 20 column.]

I'm the one who posed the question about having a limited Internet connection. I appreciate the responses from Digital Dave and readers Larry and David. Turns out the problem was self-induced.

I had purchased an ARCHOS 605 Wi-Fi media player/recorder and was trying to get it to work with a wireless router that my son recommended. I was trying various locations for the router—including up in the attic and on a shelf in a closet far from the cable modem and my computer. In the remote locations it was connected to the hub and used as a stand-alone transmitter/receiver. Also, power to the router was being turned off and back on for minutes or hours at a time.

What I finally realized was that, with two computers and the router plugged into my hub, the first two devices powered up were able to get to the Internet; the last one was denied access. This comes from trying to connect three devices to the modem, but having only two IP addresses from the cable company. The correct solution was to connect the router to the cable modem, and hard-wire the two computers to ports on the router. The router communicates with the cable modem and assigns its own IP addresses to the two computers. Now I have several long cables running to and from the router in the closet, but all three devices work perfectly. Also, I was able to cancel the second IP address and save $5 a month.

Thanks again for all the help.

-Don Hicke, San Diego, Calif.

Is 4GB of RAM Enough?

[This letter is in regard to Digital Dave's February 13 column, where Carroll wondered if Office 2007 could

"utilize 4GB of RAM."]

In Carroll's question about running Office 2007 on a machine with 4GB of RAM, you mention limits on how much of that RAM is available, and say that only 2GB will really be available once video and the OS are taken care of. Carroll made the point that his machine would have 64-Bit Vista, which should eliminate the 3GB ceiling for RAM. That laptop should be able to address everything just fine.

Second, I think the question may have been whether or not Office 2007 will make use of that much RAM.

Finally, your last comment is one that is purely subjective. While 4GB-plus of RAM is ideal, I believe 2GB is sufficient for most people.

-Mike, Santee

Firefox Fix

[This letter is in response to the letter entitled "Switching to Firefox" in the February 27 Editor's Letters column.]

There is a rather nifty add-on for Firefox that should help you deal with your problem. The add-on is called IE Tab. You install it and restart Firefox. Then when you need to switch to IE, you just click an icon in the bottom of the browser. It reloads as if it were Internet Explorer, while it is still only one program. It should render the sites that Firefox has difficulty with well enough to use.

Here is the URL for the IE Tab add-on (*addons.mozilla.org/en-US/firefox/addon/1419*).

-Donja Carroll

The Collapse of the U.S. Financial System

[The following two letters are in response to Jack Dunning's February 27 Edgeword, where Jack discussed the current financial crisis.]

Excellent compendium of the articles involved. Thanks also for the links.

-Rio Guzman, San Diego

Fine article on the deregulation cause of the collapse of the U.S. financial system. Will forward [this article] to the Retired Employees of San Diego County benefits committee. Note: The San Diego County Pension Fund is now caught in the latest blowup with "fund managers" under indictment.

-Francis McGuire, San Diego, Calif.

Adventures in Malware

[This letter is in regard to Dawn Clement's January 30 column, "Adventures in Malware."]

I'm not sure how I missed this column a few weeks back, but I wound up living through a large chunk of it last week when my wife's computer suddenly turned up with the same problem. I think the particular scamware was called "Spyware 2009," but the symptoms were identical—pop-ups, browser hijacking, and weird processes running and respawning the problem no matter what measures I took.

I downloaded several tools from my PC—Malware Bytes, Ad-Aware, Spybot S&D, and AMG's antivirus product (I tried the freeware scan, and wound up buying a five-seat, two-year license). The only one that would install and

run turned out to be Ad-Aware, but the malware was able to replicate itself after a reboot. We wound up going one step further than Dawn, and after pulling media files, financial spreadsheets, and other data files onto an external hard drive (and scanning them!), we reformatted the hard drive and rebuilt my wife's PC from scratch—it was due, actually, since it's the oldest functional PC in our collection.

As near as we could tell, my wife accidentally clicked on an ad space on a Web site that we both visit frequently. That's all it took—and we'll be chatting with that Web site to ask them about how their advertising provider managed to put malware code where a simple click could activate it.

Thanks for the article—it validates my decision to go for a bare-metal rebuild instead of spending more time on advanced remediation techniques!

-Fred Loucks-Schultz, Denver, CO

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