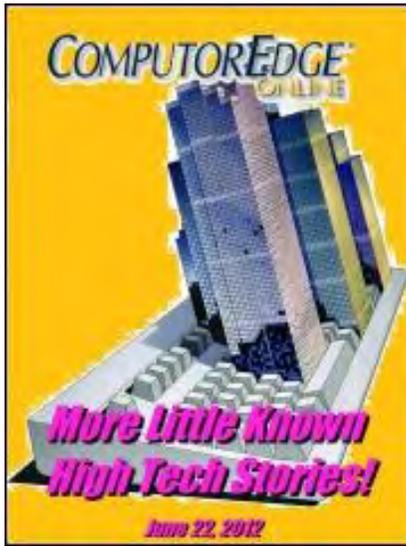# *ComputorEdge™ Online — 06/22/12*

This issue: More Little Known High Tech Stories!

The latest obscure computer and Internet items, plus Wally takes a look at the coming Microsoft Surface Tablet.

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Staff

Computer and Internet tips, plus comments on the articles and columns.

"IKEA Cartoon," "Backing Up"

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Digital Dave

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

Dropbox Problem; Is Microsoft Crazy?; Old Memory.

Dear Digital Dave,

*I have Windows XP on my laptop and installed Dropbox (*www.dropbox.com*) which works great with my 4S iPhone. I bought another laptop with Win 7. I installed dropbox on my Win 7, but can't get it to work with my iPhone. I would like to get it to work with both laptops, but if not at least with my Win 7 laptop. Can this be done? If not, how do I get to work with just my Win 7?*

Thank you,

Jim
Spokane, WA

Dear Jim,

I didn't respond earlier because I had to make time to download and review Dropbox. You may have resolved your problem by now, but I will make a couple of suggestions—just in case.

First, Dropbox is a Cloud (Internet) storage system designed to sync across multiple platforms including mobile devices, PCs, Macs and Linux computers. This is similar to what Apple, Microsoft, Google and others are offering in online storage. When you sign up, you can get two gigabytes of storage free. (There is a monthly fee for more.)

Dropbox works by loading software on your computer which creates a special folder for those items that you want to make available across all your Dropbox connected devices. The Internet Cloud storage is the master folder for all the other connected folders. To add to the Dropbox merely copy (or drag) the files or folders that you want to share to the special Dropbox folder on your computer or device. These items are automatically copied to the Cloud folder first, then to each connected device. Each device requires the Dropbox software be installed on it.

Technically, your Windows XP computer is not working with your iPhone 4S. The XP works with the Dropbox Internet service, then Dropbox relays to the iPhone—and vice versa. Each device actually operates independently of every other device, only interacting over the Internet directly with Dropbox servers. Therefore if one of your devices is not getting the files, then the problem exists either at the intermediate stop (Dropbox) or with the installed software.

It is important that you only create one account when you first download Dropbox on your first device. Subsequently, add each additional device to that account. I did this with a Windows Vista computer, a Windows 7 computer and an iPad. I loaded a few photos onto the Vista machine and they soon appeared on all three devices (via the Dropbox Internet server).

Other than not using the same account for each of your devices, it is difficult for me to say what's causing your problems. I did see that Dropbox was having issues with some of its apps, but they seem to be working to resolve those. You might try

reinstalling the software, but do ensure that you are using the same account for each device.

Services such as Dropbox provide an important way to share too-large-to-e-mail files. I noticed that Dropbox has a feature that allows you to create a link to any specific folder in your account. Add your too-large-to-e-mail file to a special folder, create a link, then e-mail the link rather than the file.

Digital Dave

Dear Digital Dave,

I was wondering why Microsoft is eliminating the Start Menu in the new Windows 8. I use the search box in Windows Vista and Windows 7 all the time. This seems like a mistake.

Andy J

Dear Andy,

Only the release of Windows 8 and time will tell us if replacing the Start Menu on the Windows Desktop with the Metro interface is a mistake. While the move does seem a little arbitrary, it is not without reason.

There are multiple ways to do almost everything in Windows. Most people don't realize how many ways things can be accomplished because they personally use the same routines over and over again. Even before the introduction of the Metro interface in Windows 8, the traditional Start Menu in Windows was merely an additional way to do the same things that could be found in the Desktop, Taskbar and Windows Explorer. The problem is that many people prefer to do those activities with the soon-to-be-defunct Start Menu.

After the search field was added to the Start Menu in Windows Vista (continued in Windows 7), it became one of my favorites. Typing in that field is often the easiest way to locate programs and files—especially if you don't use them regularly. The excised Start Menu means I need another way to do a search in Windows 8.

Fortunately, the Metro Start screen makes searches easy. There is a key combination (⊞+Q) which will open the search screen. (⊞+Q is especially useful if you're at the traditional Windows Desktop.) But even easier, when in the Metro Start screen, is striking any symbol key on the keyboard. Just start typing and the Metro screen will immediately jump to the search application (see Figure 1).
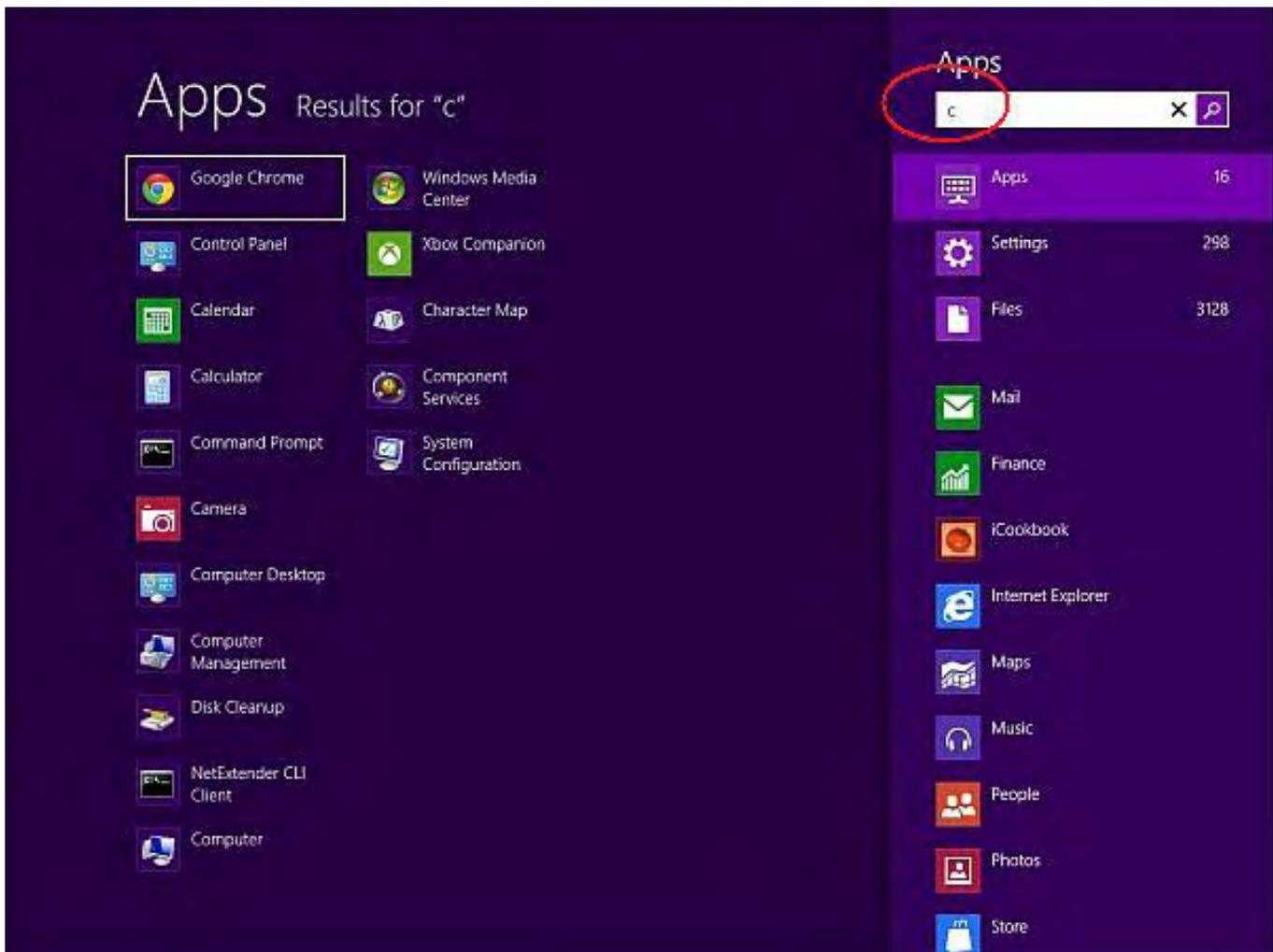
Figure 1. Typing one letter in the Metro screen will open the Windows 8 search feature.

In this case, the letter "c" brought up all applications (whether Desktop program or Metro app) with "c" as the initial of a word included in the name. If you want to search other areas such as Settings or Files, select the appropriate item.

It is a change from using the old Start Menu, but I don't think there is a huge learning curve.

Digital Dave

Dear Digital Dave,

As I have been cleaning my office, I have found many "sticks" of old memory. Some are obviously long out dated, but others look somewhat recent. Most don't seem to have the size or type on them (or on a label). How would be the best way to determine what size and type they are? I would like to know if they are still useful or not. Most are in static bags so I am sure they are "good," just maybe no longer of any use.

Thanks,

Mike Walker
Westminster, CO

Dear Mike,

I know that I have old memory sticks lying around. Often when adding more memory it was cheaper (and more functional) to

replace all of the memory than just add more. This leaves perfectly good memory sitting around in a box or drawer. I even have memory chips from the days when each chip (with caterpillar legs) was plugged directly into the motherboard.

I did find a Dutch site called Chipmunk (*www.chipmunk.nl/DRAM/ChipManufacturers.htm*) which appears to have a system for identifying memory. This may be of help. Another approach is to do a search on "RAM memory modules" in the image search mode. You may be able to narrow it down by finding the correct configuration and connector type.

If the chips have any use it will be in older machines which are still in operation. Each generation of memory is incompatible with the last. For example DDR3 SDRAM (Double Data Rate type three Synchronous Dynamic Random Access Memory) has replaced the older DDR2 in most new computers today. DDR4 memory (faster and more power efficient than DDR3) is expected to appear in new computers next year. DDR4 memory cannot be used in a DDR3 machine and vice versa. It's not likely that your memory will be of much value unless you happen upon someone who coincidentally needs it for their computer.

If you can identify the memory then eBay may be the best place to determine if people are still using it. There is a lot of old memory up for sale—much of it is getting no bids. The older the memory, the less it is worth, unless it fits into a computer which is now a collectible. (Yes, there are collectible computers. Number one is the original Apple.)

If you decide to dispose of the memory, make sure you properly recycle it since it contains hazardous materials. There are companies that recycle memory (electronic parts) to recover precious metals. They even claim to pay for some of it. However, many of these companies are less than reputable. Don't get your hopes too high. (If anyone knows a reliable recycler, please leave a comment.)

Digital Dave
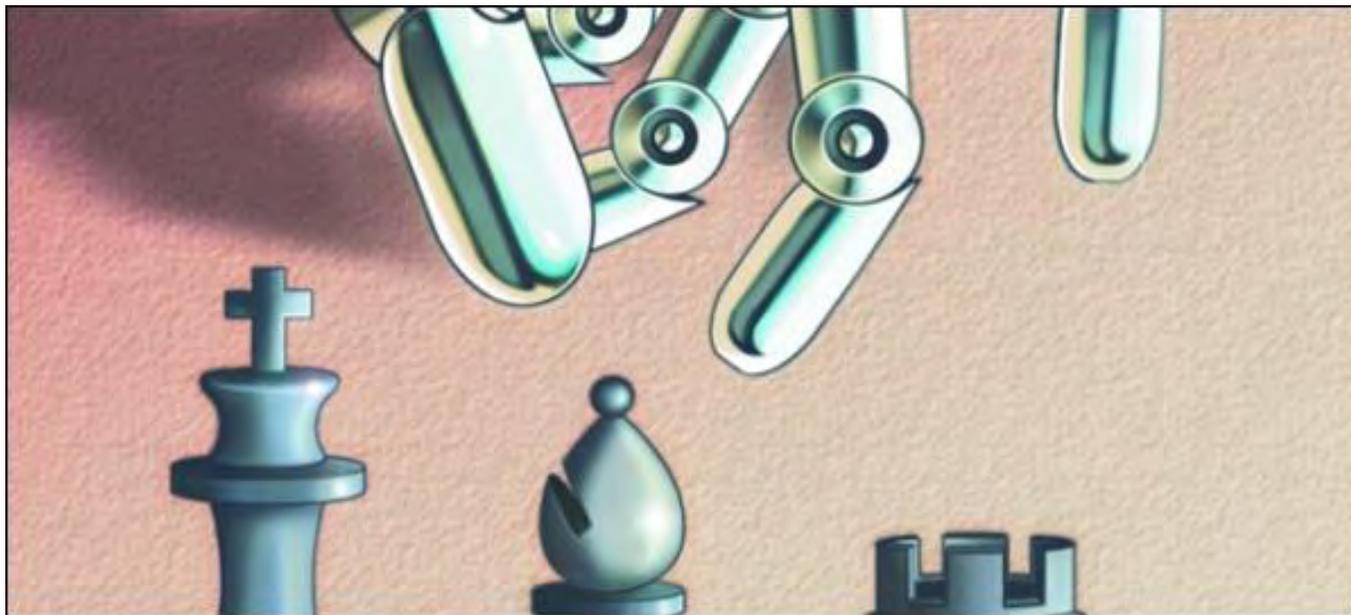
More Little Known High Tech Stories
"Thermostat Wars, All-View Cameras and Pinpointing Shots Fired" by Marilyn K. Martin

Thermostat Wars; Advertising Persuasion; Light Field Camera; 3D Printing App; Third World Tech; Smart-Pens; LinkedIn App; Verizon to Sell Prime Airwaves; Smartphones and Work; Police Tech; Kitchen Tech; Cyber-Crime; New and Notable Start-Ups; Biomedical Break-Throughs; Digital Relationships; Entrepreneur-Tech University

Solutions to Thermostat Wars?

I've lived through many an office war over the thermostat, which is why so many bottom drawers in office desks have a sweater tucked away. But now comes word that peace may finally reign, with the invention of a temperature regulating office chair (*gizmodo.com/ office-chairs/*). Invented by Temptronics (*www. tempronics.com/products.html*), the chair is more comfortable than separate cooling or heating pads, and individual controls let each employee adjust the chair's temperature to their exact liking. The chairs cost about $1,100, but bulk orders can bring the price down to about $800 each. Powered by a 75 watt battery, the chairs could be cheaper in the long-run than energy bills from the constant up-down adjustments of an office thermostat.

Launched in October 2011, the Nest Learning Thermostat (*www.nest.com/#*) was developed by a couple ex-Apple engineers (*www.popularmechanics. com/technology/gadgets/reviews/nest-thermostat-long-term-gadget-test*), to bring home HVAC controls into the computerized/connected present. The advertising boasts that it has the "purported ability to learn your home heating and cooling needs and program itself according. Installed and reviewed by Popular Mechanics, the reviewer found the device expensive ($250) but elegant—if a bit overly-intuitive to his temperature needs.

Using Google AdWords for Better Advertising Persuasion

Advertising today (*www.technologyreview.com/blog/arxiv/27802/?p1=blogs*) in our "instant" Digital Age, needs to grab peoples' attention fast with a short but powerful message. Advertisers try to test their ads first, but surveys and focus groups are expensive and time consuming. Then Marco Guerini of the Italian research organization Trento-Rise (*www. trentorise.eu/*) came up with an interesting way to test ads—by using Google's AdWords service (*adwords.google.com/ at/Proposal?hl=en_US&sourceid=awo&subid=us-en-ha-aw-bkhp:14467565045&utm_source=en-ha-na- us-bkhp&utm_medium=ha&utm_term=%2Bgoogle+% 2Badwords&utm_campaign=en&visitid=3JtJmjcBAAA.sqi3AWqhnbDp_dLbM-x8Ug. S2XkCK_i4aw4urqs94QFKQ*). "The idea here is to use Google AdWords to place many variations of a single message to see which generates the highest click-through rate." Although initial testing produced extremely successful ads, more testing is needed to "provide insight into the nature of persuasive messaging."

New Light Field Camera, and 3D Printing App

According to the *Wall Street Journal*, consumer point-and-shoot cameras have been totally reinvented (*online.wsj.com/article/ SB10001424052970203753704577253382656074346.html*). Start-up Lytro (*www.lytro.com/*) has developed a new pocket camera that lets users refocus their photos on a computer *after* the photos are taken. In the coming months, Lytro says users will also have other computerized features available, like snapping everything into focus regardless of depth, and even change the perspective from which the photo was taken. These "living pictures" will even be able to be switched back and forth between 2D and 3D. This light-field camera costs $399 and uses a "modified sensor, plus proprietary software, to capture and process more and different information about the light hitting its lens than other cameras do."

Autodesk (*usa.autodesk.com/*), is a 3D printing company that has a new app for iPad that will make 3D printing easier (*www.popsci.com/gadgets/article/2012-05/new-ipad-app-123d-catch-turns-pictures-printable-3-d- renders*), with their new 123D app (*www.123dapp.com/*). All the user does is snap photos of an object from different angles, and the app creates a 3D rendering automatically.

Third World Science and Technology

The Riken Nishina Centre for Accelerator-Based Science in Saitama, Japan, is putting rice in a particle accelerator (*nextbigfuture.com/2012/05/japan-uses-nuclear-accelerator-to.html#more*) and bombarding germinating seeds with heavy ions. This process produces up to one hundred times the mutations using traditional methods, which is helpful for the search for strains of mutated rice that are more salt water tolerant. "Having fully salt tolerant rice would increase the world yield of rice by about 16%."

Video conferences have, until now, been confined to office buildings. Now a new technology developed by Polycom (*www. polycom.com*) and other video conference vendors, lets employees use smartphones and tablets to join video conferences (*www.contracostatimes.com/business/ci_20705733/videoconferencing-steps-out-office-polycom-video- smartphone-tablet*) from anywhere. It's been a game changer for people like Chris Plutte and his nonprofit Global Nomads Group (*gng.org/*), which "uses video conferencing to connect students from countries around the world with students in American schools, to help them better understand each other and the countries they call home." Plutte reports that "It's all about access for us. In the past, students and schools had to have an Internet connection, a computer and electricity...Now we can reach more rural schools in developing countries."

Professional Technology: Smart-Pens and New LinkedIn App

Despite computer keyboards and virtual keyboards on smartphones and tablets, sometimes only pen and paper will do, especially for students in lectures and reporters doing interviews. Now there is a smartpen (*www.statesman.com/life/livescribe-*

digital-pen-a-smart-idea-for-writers-1709003.html) that debuted in Oakland, California in 2008, that is a combination pen and audio-visual gadget. Called the Livescribe Pen (*www.livescribe.com/en-us/*), it records audio while you write on specially coded Dot Paper. "You can transfer everything you write to software that allows you to see your words on-screen, and to hear audio that is synced up." Tap on a part of your notes, and "the exact point in the audio that matches up with it plays." The audio can also play back from the pen itself, since it has a tiny screen and speaker. Cost ranges from $99 to $250, based on gigabytes. [Available at Amazon.com (*www.amazon.com/gp/product/ B003RAPAKK/ref=as_li_ss_tl?ie=UTF8&tag=comput0b9-20*)]

In late April 2012, LinkedIn launched a new app (*www.siliconvalley.com/personal-technology/ci_20487768/ linkedin-launches-ipad-app*) for iPads. The app is free through Apple's iTunes store, and is designed for "increasingly mobile professionals who aren't always tethered to a desktop." The new app is aimed at professionals who use their iPad to prepare meetings in the mornings, and then use while sitting on the couch in the evenings. With the new app, users can use their iPad to see their profile, see updates or add meetings to their calendar.

Verizon to Sell Prime Airwaves If It Lands Cable Spectrum

Verizon Wireless is set to sell billions of dollars worth of prime airwaves, if regulators approve Verizon's planned purchases (*www.siliconvalley.com/mobile/ci_20427442/verizon-sell-prime-airwaves-if-it-lands-cable*) of new spectrum chunks from large cable companies. Verizon outbid Google in 2008, paying about $4.7 billion in a government auction of airwaves in the high-quality 700 megahertz band. The FCC and the DoJ are reviewing Verizon's new spectrum purchases, since Verizon and AT&T have allegedly dominated spectrum sell-offs, squashing competition.

Smartphones and Work: Issues with Security and Stress

I wrote previously about how companies are deciding whether to let employees bring their personal gadgets to work. IBM adopted a "bring your own device" policy in 2010. While IBM still gives BlackBerrys to about 40,000 employees, "80,000 other employees still reach internal IBM networks using other smartphones and tablets (*www.technologyreview.com/ business/40324/?p1=BI*), including ones they purchased for themselves." But then IBM realized that employee-owned devices weren't saving IBM any money, and that employees' devices were full of software that IBM didn't control—including mobile device apps that could be security risks.

So now IBM has issued guidelines and a list of which apps IBM employees can and can't use at work. In addition, "before an employee's own device can be used to access IBM networks, the IT department configures it so that its memory can be erased remotely if it is lost or stolen." Their IT also disables public file-transfer programs like Apple's iCloud, as well as Siri. Surveys reveal that more than half of large companies are letting their employees use their own smartphones at work, which is fueling a booming market for mobile-device management tools.

Do you feel chained to your office smartphone? A recent survey found that 25% of executives (*www.technologyreview. com/business/40325/?p1=BI*) admitted to having slept with their company smartphone. So the Boston Consulting Group (BCG) developed a "predictable time off experiment" with the Harvard Business School, after 2005 studies found that BCG consultants "felt burnout not only because of long hours, but because they could never predict or control when they might have a break from work."

BCG employees felt pressured to respond to e-mails from a boss or client immediately, which could set off a chain reaction of e-mails lasting until bedtime. Today, BCG teams in the once-weekly "predictable time off program" meet regularly to work out schedules so that "every member can take an official break from e-mails one night each week, not including weekends." Statistics show that BCG consultants who had time off from smartphone bondage felt happier, were better at their jobs, and more efficient.

Police Tech Update

According to an article in late May 2012, Milwaukee is just one of 70 U.S. cities whose police departments are now using a gunshot-detection system (*www.nytimes.com/2012/05/29/us/shots-heard-pinpointed-and-argued-over.html*). Called ShotSpotter (*www.shotspotter.com/*), the system "triangulates sound picked up by acoustic sensors placed on buildings, utility poles and other structures," and can pinpoint the exact location of "shots fired" within seconds. Police can be on the scene within four minutes, which beats waiting for 911 calls reporting shots from an unknown location, plus the quick response can save gunshot victims' lives. Costing $40,000 to $60,000 a year for a ShotSpotter subscription, police insist it has increased response time and community confidence, as well as helped deter gun crimes.

Kitchen Tech: Molecular Cuisine to Slippery Ketchup Bottle Linings

Whether cook or scientist, everyone is curious about molecular gastronomy (*www.cnet.com/8301-13553_1-20029690-32.html*). Just how does one turn food into squishy little balls, foam or gel? ThinkGeek's Molecular Cuisine Starter Kit (*www.thinkgeek.com/homeoffice/kitchen/e71f/*) is the answer, with kits that sell for $15-$117, and can create up to 50 different dishes with just one kit. And an instructional DVD is included.

Sometimes technology comes along with solutions for the simplest of frustrating problems: like pounding the bottom of a ketchup bottle (*www.fastcoexist.com/1679878/mits-freaky-non-stick-coating-keeps-ketchup-flowing*) to get out those last glops. Massachusetts Institute of Technology (MIT) graduate student Dave Smith, and a team of mechanical engineers and nano-technologists at Varanasi Research Group, have finally solved the sticky-ketchup conundrum. LiquiGlide (*www.liqui-glide.com/*) is a non-toxic slippery coating for the insides of bottles, that lets sticky or gloppy ingredients like ketchup all slide out of the bottle. Every last drop. Although condiment-tech may seem beneath MIT's time and energy, it's pointed out that an estimated one million tons of food can be saved from being thrown out every year using the coating.

Cyber-Crime: Cellphones, and The New Flame Virus

Cyber-crimes are increasing, as more cyber-criminals target cellphones (*seattletimes.nwsource.com/html/businesstechnology/2018296204_btcybercrime28.html*). Cyber-crime was up 3.4% in 2011 over 2010, according to the Internet Crime Complaint Center (IC3). While Internet crimes (like ID theft, or job/romance scams) are "grossly under reported nationally," the newest target for Internet scams are smartphones. The FBI suggests that people never give out any personal or financial information over the phone or Internet, and always verify the source of the online offers or requests for personal account information.

Even as President Obama was taking credit for the Stuxnet computer worm that attacked Iran's nuclear program in 2010, online security company Kaspersky Lab reported in late May 2012 that a new and highly sophisticated computer virus called Flame (*www.nytimes.com/reuters/2012/05/28/technology/28reuters-cyberwar-flame.html?smid=tw-share*) is already infecting computers in Iran and other Mid East countries. The Flame virus may have been deployed up to five years ago "to engage in state-sponsored cyber espionage," and was probably designed by the same team that did the Stuxnet worm. Flame is a data-wiping cyber weapon, and Iran has already reported massive data losses on Iranian computer systems.

New and Notable Start-Ups

According to MIT's Technology Review, a new start-up features real human voices reading Web content (*www.technologyreview.com/blog/helloworld/27875/?p1=blogs*) aloud. SpokenLayer (*spokenlayer.com/*) was born out of its founder's (Will Mayo's) struggle with dyslexia, and is a real boon for people who read massive amounts of material for school, career or just pleasure. Now people can exercise or cook while listening to material being read aloud, and give their eyes a rest. The start-up has thus far partnered with half a dozen Web content companies from *Associated Press* to *The Atlantic*.

Despite Facebook's recent rocky IPO, the legendary social site has helped numerous start-ups (*www.thestreet.com/ story/11541015/1/successful-facebook-startups-that-go-beyond-the-game-app.html*) build their business. "If you have a business that has a social component baked in on day one, then Facebook is an incredible platform to tap into," says Rick Marini, CEO and founder of BranchOut, Facebook's version of LinkedIn. Facebook also links to its start-ups (*www. facebook.com/SuccessfulStartups*).

Biomedical Break-Throughs

Since it's usually quicker and easier to sequence a genome than to analyze the mountain of resulting data, a new start-up thinks it has the solution (*www.technologyreview.com/biomedicine/40372/*). Now a California start-up called Bina Technologies (*www.binatechnologies.com/*), "gives customers a data-crunching machine to turn the massive amounts of raw sequence into easily shared genetic profiles." The profiles can then be quickly uploaded to BT's cloud-hosted site for "data management, sharing and aggregation."

According to MIT's Technology Review, a new start-up program for kids called Zamzee (*www.zamzee.com/*) "blends activity-tracking with online incentives (*www.technologyreview.com/biomedicine/40415/*)" to motivate kids to exercise more. Participants wear a small waist activity-tracker, which can later be plugged into a computer's USB port, and upload data from the device's accelerometers. Similar adult activity-trackers (like FitBit) focus on steps taken and calories burned. But for kids, their Zamzee device gives them points for movements made. These points can be "spent" in the virtual world of Zamzee.com, where kids can create avatars and then buy clothing and accessories for their avatar. Zamzee hopes to tackle childhood obesity by combining game-tech with social media's virtual worlds. It is currently in pilot programs in various schools and community centers in four cities, including Atlanta, which ranks second in the nation for childhood obesity.

Digital Relationships

Video chat is no longer strictly for the chatty young or those looking-for-love. Even professional family men now want to connect (*seattletimes.nwsource.com/html/businesstechnology/2018206767_ptmacc12.html*) with global friends and family to keep those relationships alive. Glenn Fleishman in the *Seattle Times* suggests one "have a few (video chat) options up your sleeve, because no service works reliably all the time, or in every circumstance." He recommends Apple's iChat and Microsoft's Skype for people you regularly communicate with. Apple's FaceTime has fewer options, but works with electronic devices built with front-facing video cameras, including iPhone and iPad. In a pinch, Google offers some wonky but free services like Google Chat and Google Hangouts.

According to MIT's Technology Review, a new start-up in India (*www.technologyreview.com/web/40456/? p1=MstRcnt*) analyzes your social-network contacts, and recommends the best "people path" to someone new. Called Hachi (*www.gohachi.com/*), it helps you connect with someone you haven't met but want to, especially for business purposes. You can always ask a mutual acquaintance to introduce you, but "some introductions are better than others... because of the relationship between the people making them." Hachi is considered to be "sort of a social networking GPS," sorting through your connected networks to find a number of possible people paths, and rating how well each person in the chain knows the people they're connected to along the chain.

Uniquely New York: Start-Ups and a New Entrepreneur-Tech University

According to the *New York Times* in late May 2012, The City is becoming more attractive to tech start-ups (*www. nytimes.com/2012/05/28/technology/for-tech-startups-new-york-has-increasing-allure.html*). For some who moved from NYC to Silicon Valley to get started, bringing their company back to New York closed the business circle to be close to their primary client base. For others, New York City is the only place to build "truly global, technology-based franchises." The number of venture capital deals in NYC has risen 32% since 2007, and several major venture capital firms have recently opened offices in NYC.

Another article in late May 2012 discusses how New York City is hoping for another "Erie Canal Moment" with a high-tech research complex (*articles.boston.com/2012-05-28/business/31878721_1_roosevelt-island-tech-center-*

medical-technology) to be built on an island in the East River. "The idea is to create an applied-sciences university where engineers are also trained as entrepreneurs from day one." Supporters say that New York, home to global companies and exploding with start-ups, "could shift this sector into top gear if the latest findings went straight into new businesses." The $2 billion, ten-acre campus of CornellNYC Tech is planned for Roosevelt Island, and is expected to generate $2 billion or more in just tax revenue over several decades.

Marilyn is a freelance writer and humorist, with a special interest (besides computers and technology) in Science Fiction. A SF Horror story appeared in July 2011 in Deadman's Tome (*www.demonictome.com/*). And in January 2012 she had a SF Police Procedural appearing in *Cosmic Crime* magazine, and a SF Dystopian Romance appearing in the *Strange Valentines* anthology. She also has almost seventy articles on Helium.com (*www.helium.com/users/573405/ show_articles*), and is writing a humorous Young Adult SF series, *Chronicles of Mathias (*www.amazon.com/ Chronicles-Mathias-One-Reptilian-Rebirth/dp/1598249002*).* Volumes One and Two have received a "Gold Star for Excellence" from TeensReadToo.com (*www.teensreadtoo.com/ReptilianRebirth.html*), and are available from most on-line bookstores.

ComputorEdge E-Books has converted many of Marilyn's computer humor columns into four e-books.

* *Computer Confusion in Paradise: Lo! And in the Beginning There Was Total Befuddlement!*, in both EPUB format (*www.computoredgebooks.com/Computer-Confusion-in-Paradise-humor-EPUB-iPad-NOOK-COMPHUMOR0001-1.htm?sourceCode=writer*) for iPad, NOOK, etc., and MOBI format (*www. computoredgebooks.com/Computer-Confusion-in-Paradise-humor-MOBI-for-Kindle-COMPHUMOR0001-2.htm?sourceCode=writer*) for Amazon Kindle.

* *Computer Hardware: "Parts Is Parts"*, in both EPUB format (*www.computoredgebooks.com/Computer-Hardware-Parts-Is-Parts-humor-EPUB-iPad-NOOK-COMPHUMOR0002-1.htm?sourceCode=writer*) for iPad, NOOK, etc., and MOBI format (*www.computoredgebooks.com/Computer-Hardware-Parts-Is-Parts-humor-MOBI-for-Kindle-COMPHUMOR0002-2.htm?sourceCode=writer*) for Amazon Kindle.

* *Computerholics Anonymous: PC Users, Abusers and Confusioners*, in both EPUB format (*www. computoredgebooks.com/Computerholics-Anonymous-humor-EPUB-iPad-NOOK-COMPHUMOR0003-1.htm?sourceCode=writer*) for iPad, NOOK, etc., and MOBI format (*www.computoredgebooks.com/ Computerholics-Anonymous-humor-MOBI-for-Kindle-COMPHUMOR0003-2.htm?sourceCode=writer*) for Amazon Kindle.

* *My Computer, My Nemesis: Bravely into the Smiley-Face Virtual Void!*, in both EPUB format (*www. computoredgebooks.com/My-Computer-My-Nemesis-humor-EPUB-iPad-NOOK-COMPHUMOR0004-1. htm?sourceCode=writer*) for iPad, NOOK, etc., and MOBI format (*www.computoredgebooks.com/My-Computer-My-Nemesis-humor-MOBI-for-Kindle-COMPHUMOR0004-2.htm?sourceCode=writer*) for Amazon Kindle.

* All four e-books can be found at our E-Book Store (*www.computoredgebooks.com/Humor-Computer-and-Internet-Anecdotes-and-Jokes_c16.htm?sourceCode=writer*).

Wally Wang's Apple Farm
"The Strategy for Failure" by Wally Wang

The Strategy for Failure; Where's the iMac?; What Programming Language to Learn Next; The Stubbornness of Steve Jobs; Faking 3-D Images; Tracking Time and Money; The Microsoft Surface Tablet; Customize Icons.

After Hewlett-Packard announced layoffs (*www.nytimes.com/2012/05/24/technology/hp-earnings-drop-27000-layoffs-set.html*) due to falling behind in the smartphone and tablet markets, Nokia announced that they're laying off 10,000 workers following declining revenue. Part of the problem was that Nokia watched Android and the iPhone gobble up the smartphone market. After realizing that their Symbian operating system had no future, Nokia decided to bet everything on the fate of Windows Phone 7, helped along with a bailout from Microsoft.

Windows Phone 7 isn't necessarily bad, but it is late and its live tile interface (the same one that will appear in Windows 8) is interesting but not a dramatic improvement over existing options in the same way that Android and the iPhone changed people's expectations for what a smartphone could do, which made Nokia's Symbian smartphones suddenly look tired and behind the times.

To succeed, Nokia must overcome the obstacle of being late and having a smartphone platform that's not getting much attention from the public or the phone carriers. To compound their problems, Nokia is making the classic mistake of wasting money on useless advertising and focusing on cutting prices as a strategy to gain market share.

The purpose of advertising is to make a sale. The faster your ads can make a sale, the more effective your advertising. Yet Nokia chose to waste money on a pointless ad (*www.youtube.com/watch?v=_elqLDSt36k&feature=player_embedded*) that does little to improve sales. The premise behind this ad is that all existing smartphones have been so poorly made and now Nokia's Lumia running Windows Phone 7 will fix those problems that have plagued people for so long.

Of course, most people with Android phones or iPhones don't see their phones as being plagued with problems and Nokia's ad doesn't pinpoint exactly what problem their Lumia phone solves. Instead, you get to watch a bunch of people cheering wildly when they hear that the smartphone beta test is over, or see people get angry that their current smartphone treated them as a beta tester, which few people actually feel in real life.

Imagine selling your car by declaring that all other cars are worthless but that you have a car that will solve all the problems people have been experiencing with their current cars (while never explaining what those problems might be). Think people would rush to get rid of their current cars just to buy your car based on unstated promises?

To learn the proper way to advertise, study direct marketing. In the old days, direct marketers sold by mail-order, but today they sell over the Internet. Direct marketers know that they can't waste money on pointless advertising like Nokia's useless "Smartphone Beta Test" ads. Instead, direct marketers know that any type of advertising they buy must pay for itself

immediately. If an ad can't measurably increase sales, then the ad is worthless. If a company can't measure if an ad even influences sales, that ad (and the company that created that ad) is equally worthless.

One of the best direct marketing books is Robert Collier's *How To Make Money At Home In Spare Time By Mail: In Seven Lessons (*www.amazon.com/gp/product/0981643205/ref=as_li_qf_sp_asin_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0981643205*).* Despite being written way back in the 1947, this book provides the foundation for success in both mail-order or Internet marketing. Robert Collier says there are several parts of a successful ad:

1. Identifies a need and fills it
2. Creates a distinctive offer
3. Targets specific prospects
4. Moves prospects into action

Nokia's "Smartphone Beta Test" ad fails on all levels. Does it identify a need and fill it? No, it creates a fictional problem (people are tired of being beta testers for smartphones) that few people can relate to. Is its offer distinctive? Nope. All the ad shows you is the Lumia phone, which looks nice, but seems no better or worse than other smartphones on the market. Is this ad targeted to the most likely prospects who will want this product? Nope, because the ad targets people who are disgusted with being beta testers for their current smartphone, which is a problem that doesn't even exist. Nokia might as well target their advertising towards mermaids or people who own unicorns.

Does this ad move anyone to action, which will cause people to rush out and buy it? Nope. Watch infomercials for diet and weight loss programs. Those ads move you to pick up the phone and call because you can see before and after pictures of satisfied customers. If these other people can lose so much weight, it's easy to imagine that you can too if you only had the advertised product. Thus the infomercial compels you to take action and order now, which is something Nokia's pointless "Smartphone Beta Tester" ad fails to do.

Besides wasting money on ads that don't increase sales, Nokia is making a second classic mistake in business by getting into a price war (*www.zdnet.com/blog/norse-code/nokias-elop-lumia-price-cuts-will-help-us-take-on-android-in-retail-war/133?tag=main;carousel*) with Android handset makers. Nobody wins in a price war. Each time you cut your prices, you attract bargain hunters who will abandon you the second a lower priced alternative appears. Besides attracting a fickle customer base, low prices also mean lower profits, so you wind up working harder to make less money with the burden of servicing more customers.

By wasting money on pointless advertising and cutting prices that will lower profits, Nokia is setting themselves up for failure all because they didn't recognize the threat of the iPhone back in 2007. Like Research in Motion, Nokia ignored the iPhone and now they think useless advertising and low prices will magically save the company when the opposite is more likely to occur.

To avoid the fate of Nokia, the answer is simple. First, be paranoid and expect everything you know can be upended overnight, so keep looking for ways to adapt to inevitable changes that could wipe out your business tomorrow. It's better to be paranoid and prepared than complacent and suddenly under pressure with time running out and no solution in sight.

Second, learn direct marketing techniques that can help you spend money correctly to market your products or services. Third, never compete with lower prices. If lower prices are your only competitive advantage, you've already lost. Just ask all those PC makers how well cutting prices has worked for their bottom line as they work harder to make less money while trying to support the cheapest customers who typically cause the most problems.

Where's the iMac?

At their Worldwide Developer's Conference, Apple introduced updated MacBook air and MacBook Pro models, along with introducing the MacBook Pro with the Retina display, which is the future of the MacBook laptop family. Eventually all of Apple's

laptops will sport a Retina display in a thin case that lacks an optical drive.

However, people interested in a desktop Macintosh might be disappointed. Apple introduced a feeble upgrade to their Mac Pro desktop computer but showed no signs of an updated iMac. While some analysts wrung their hands in worry, the answer to the overdue iMac is probably simple.

In July (rumored to be on the 19th), Apple plans to release their new Mountain Lion OS X 10.8, so it's likely that they'll also introduce the iMac running Mountain Lion at the same time. If you buy any new Macintosh today, you can upgrade for free to Mountain Lion when it arrives. At the same time that they announce a new iMac, Apple may also introduce a new Mac mini.

While it's easy to see that updated Mac mini and iMac models will soon appear, the big question left answered is where is the latest version of iWork? Apple keeps emphasizing iCloud as a way to seamlessly transfer documents between a Macintosh, an iPhone and an iPad, so perhaps by the end of this year we'll finally get an updated version of iWork. Until then, you'll have to be content using the iWork '09 suite if you want to take full advantage of iCloud.

What Programming Language to Learn Next

Programming languages come and go in popularity. Way back during the days of MS-DOS, people were learning Turbo Pascal. Nowadays, most people are using a variant of the C programming language such as C++. For Windows, many programmers use C# while for the Macintosh, most people use Objective-C.

However, one language to learn is JavaScript, which is an interpreted language used to develop interactive Web pages. With people abandoning Flash due to Flash's inability to run properly on mobile devices, many people are turning to HTML5 and JavaScript. At the simplest level, you can just use any text editor to write HTML and JavaScript commands, then load your file in a browser to test them out.

Since this can be clumsy and tedious, a better alternative is to use a special JavaScript IDE (Integrated Development Environment) such as Aptana Studio (*aptana.com/*), which is free and runs on Windows, Mac OS X and Linux. With Aptana Studio, you can load and edit separate HTML and JavaScript files in tabs. Now just click the tab for the file you want to edit.
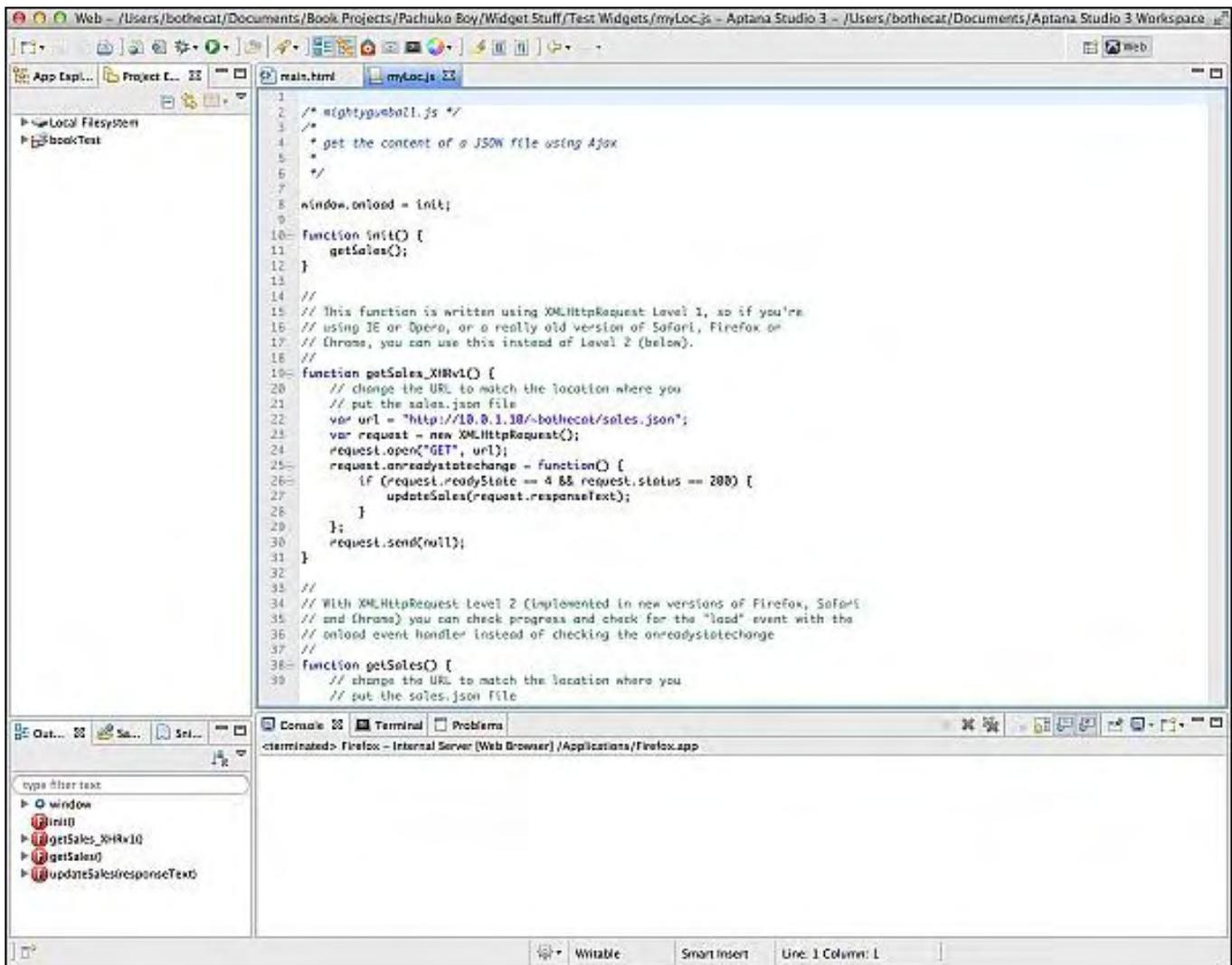
Figure 1. Aptana Studio makes it easy to edit and run your JavaScript programs.

When you're ready to test your JavaScript code, just click a Run button to automatically load your HTML file and your JavaScript files so you can see how they work in an actual browser. Since it's rare that anyone writes a program that works perfectly the first time, Aptana Studio lets you create breakpoints, which lets you stop your program and step through your code line by line to make sure each command works as intended.

Besides support for HTML and JavaScript, Aptana Studio also supports PHP, CoffeeScript and XML among other languages. If you need to write programs to create interactive Web pages, Aptana Studio can make your task much easier.

Just keep in mind that HTML and JavaScript are standards, so you can also use your HTML/JavaScript skills to create Windows 8 Metro apps or iBooks Author widgets for iBooks. Since Aptana Studio is free, you have nothing to lose by trying it, just as long as you have a need for writing JavaScript programs in the first place. To help you learn JavaScript, take a peek at the *Head First HTML5 Programming: Building Web Apps with JavaScript (*www.amazon.com/gp/ product/1449390544/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1449390544*).* Unlike too many computer books that overwhelm you with dry, technical information, the "Head First" series uses odd graphics and pictures to help you understand the information so learning can feel more like fun, which is how school should have felt like all along.

The Stubbornness of Steve Jobs

While many people believe Steve Jobs could do no wrong, he actually rejected many ideas that other people at Apple had to push through. Steve hated the iMac name, but when no one could come up with a better name, he let it go through and the

whole "i" moniker has now become associated with Apple.

Perhaps the oddest example of Steve Jobs' stubbornness has been his insistence on getting rid of cursor keys. On the original Macintosh keyboard, there were no cursor keys. If you wanted to move the cursor, Steve expected you to use the mouse, which was clumsier and slower. Only after Steve Jobs left to form NeXT did Apple finally put cursor keys on their keyboards since so many people demanded them.

When the iPad came out, Steve Jobs' stubbornness came through again so the virtual keyboard lacked cursor keys. If you wanted to move the cursor, you had to point and drag your finger, which is clumsy and slow, just like moving the cursor with the mouse on the original Macintosh.

In case you're one of many people who find that editing text on the iPad suffers because of this lack of cursor keys, then you might want to try an iPad app like 1A EasyWriter (*click.linksynergy.com/fs-bin/stat? id=15PJQz44Qcc&offerid=146261&type=3&subid=0&tmpid=1826&RD_PARM1=http%253A%252F% 252Fitunes.apple.com%252Fus%252Fapp%252F1a-easy-writer%252Fid495631561%253Fmt% 253D8%2526uo%253D4%2526partnerId%253D30*). This simple word processor lets you create and edit text easily because it adds an extra row of editing keys above the iPad's normal virtual keyboard.
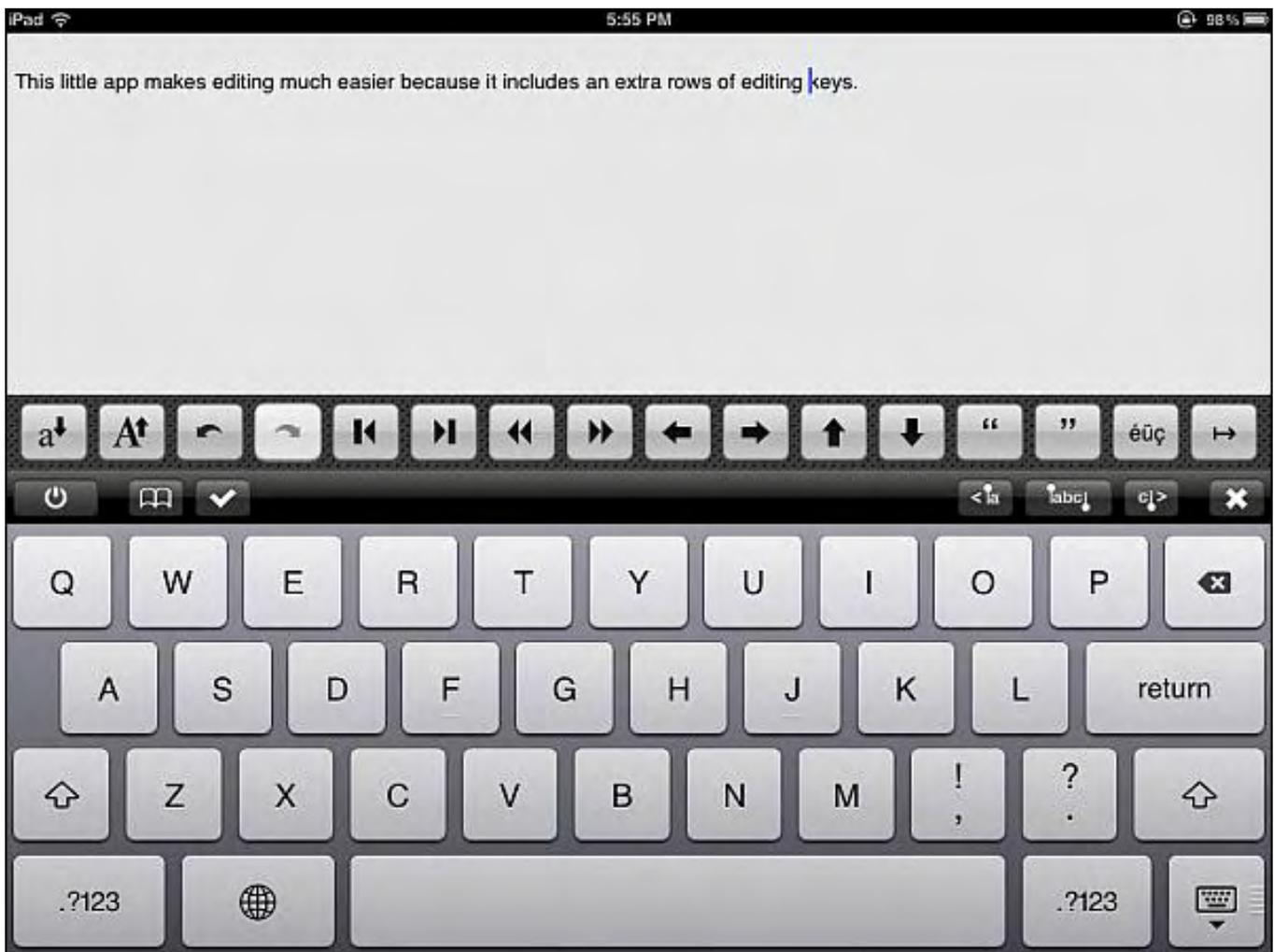

Figure 2. 1A Easy Writer adds missing cursor control keys to the virtual keyboard.

Besides letting you move the cursor up/down or right/left, 1A Easy Writer also includes keys to jump the cursor to the next or previous word. When you get done writing and editing text in 1A Easy Writer, you can send it to DropBox or iCloud, or send it as an e-mail attachment. You could also copy the text and paste it into Pages or any other iPad word processor if you want.

Another app called Text Writer (*click.linksynergy.com/fs-bin/stat? id=15PJQz44Qcc&offerid=146261&type=3&subid=0&tmpid=1826&RD_PARM1=http%253A%252F% 252Fitunes.apple.com%252Fus%252Fapp%252Ftext-writer%252Fid417629724%253Fmt%253D8% 2526uo%253D4%2526partnerId%253D30*) offers both left/right and up/down cursor keys along with dedicated Home, End, Copy and Paste keys. These additional keys help make writing and editing with Text Writer simple and easy.
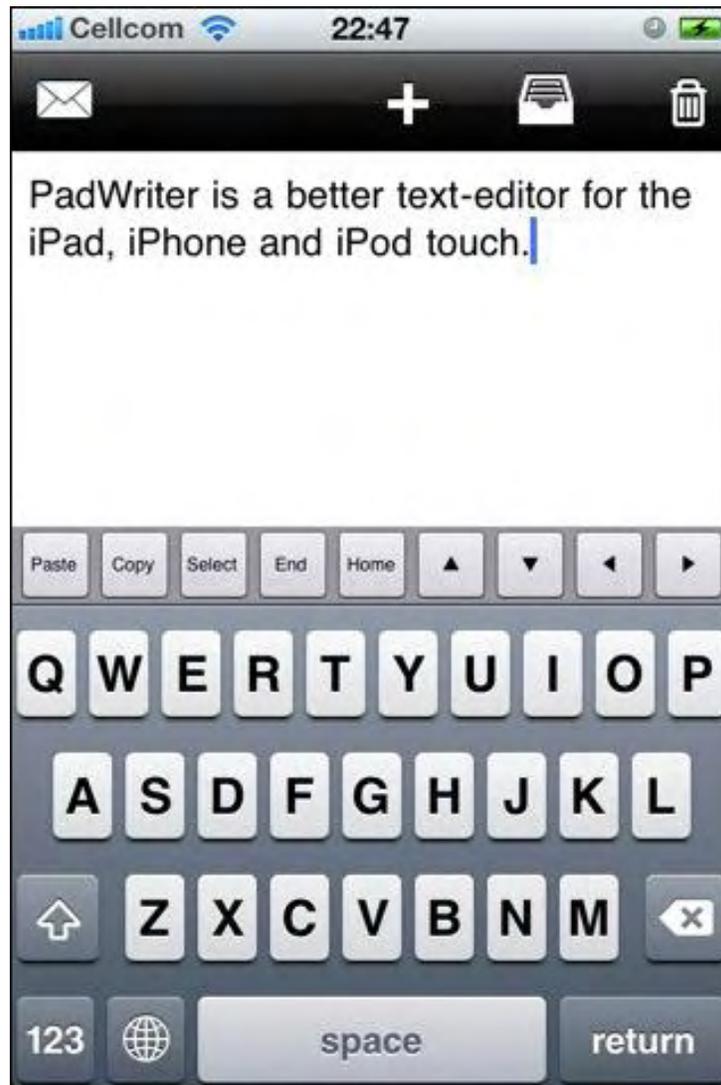

Figure 3. Text Writer contains additional cursor keys to make editing text easier on the iPhone or iPad.

By using 1A Easy Writer's or Text Writer's additional cursor keys, editing text on the iPad is now much simpler. Until Apple finally adds cursor keys to the virtual keyboard so every iPad app can use them, you may have to rely on other apps like 1A Easy Writer or Text Writer instead.

Faking 3-D Images

Apple's sharper Retina displays are pushing monitors to offer sharper resolutions until it becomes the norm. Then the next breakthrough in monitor technology will likely be 3-D images without the need for wearing clumsy glasses.

Until 3-D monitors appear, you can create the illusion of 3-D using an interesting program called Object2VR (*gardengnomesoftware.com/object2vr.php*) from Garden Gnome Software. This program (approximately USD $60, depending on currency exchange rates) lets you capture multiple pictures of the same image, taken from different angles. Then it outputs those multiple images as either a QuickTime VR, Flash, or HTML5 file that you can post on a Web site. Now people can visit your site and manipulate that image in three-dimensions. To view an example, visit Garden Gnome Software's

link (*gardengnomesoftware.com/object2vr_example.php?demo=showcase*) that demonstrates a car that you can flip around to view from multiple angles.
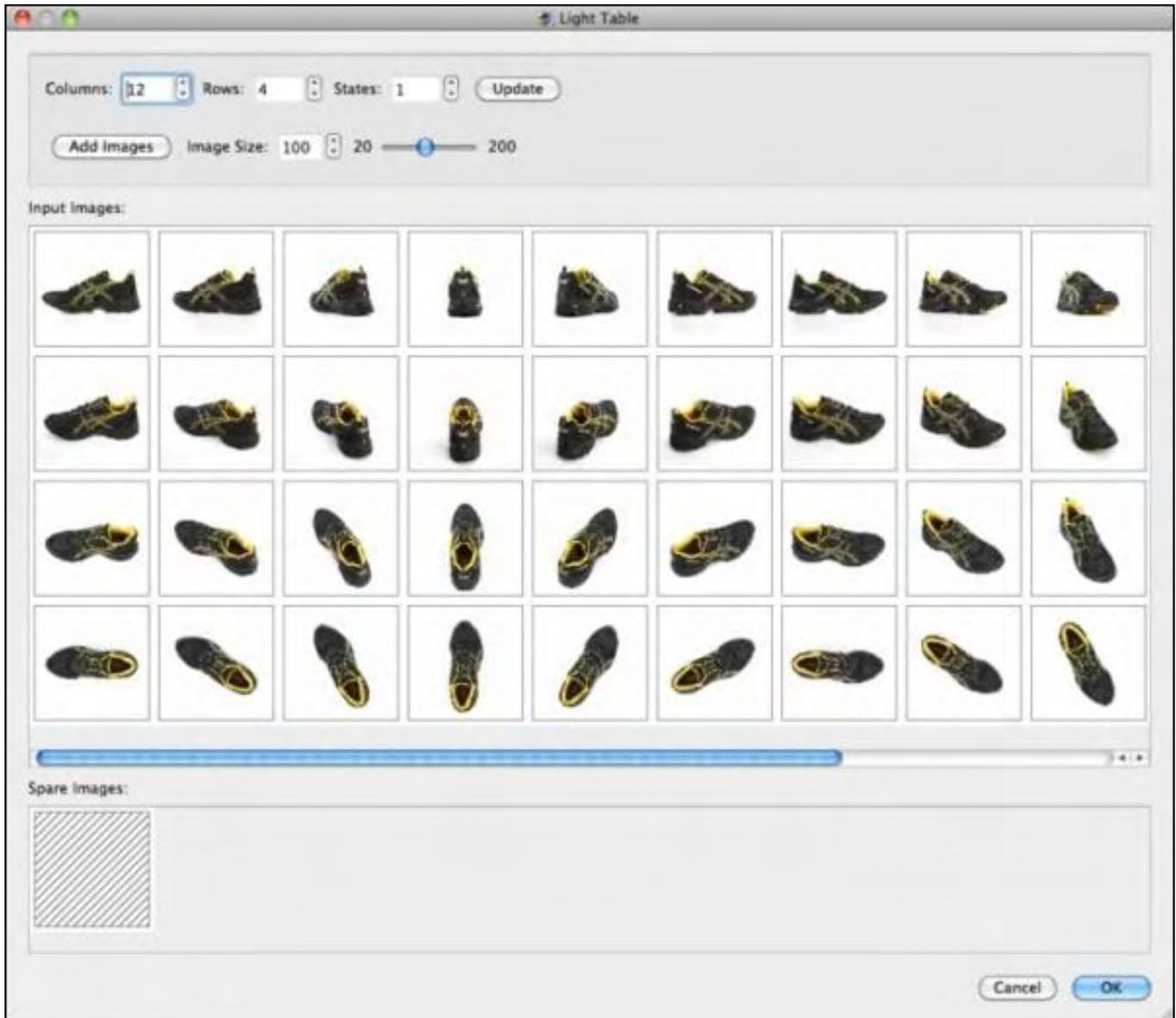

Figure 4. Object2VR lets you import and arrange multiple images of an object.

Not only does this example let you see how someone could flip pictures around, but this example also demonstrates the ability to provide different "skins." In this car example, you can view the same car in different colors or under night or day time conditions. If you were a car dealer, you could display a boring, static picture of a car on your Web site, or you could display an image that lets people view it from multiple angles, change colors, and switch between night and daytime viewing conditions. Guess which type of picture will engage potential customers more and likely increase sales?

Object2VR Examples

Object2VR Examples

Figure 5. Object2VR lets viewers change the colors and background of an image.

To create even greater interactivity, Object2VR lets you define hotspots on your image, such as a car door or tire. Now if

viewers click on this hotspot, the image can display additional information. The combination of skins and hotspots gives your images greater interactivity than any static picture could ever offer.
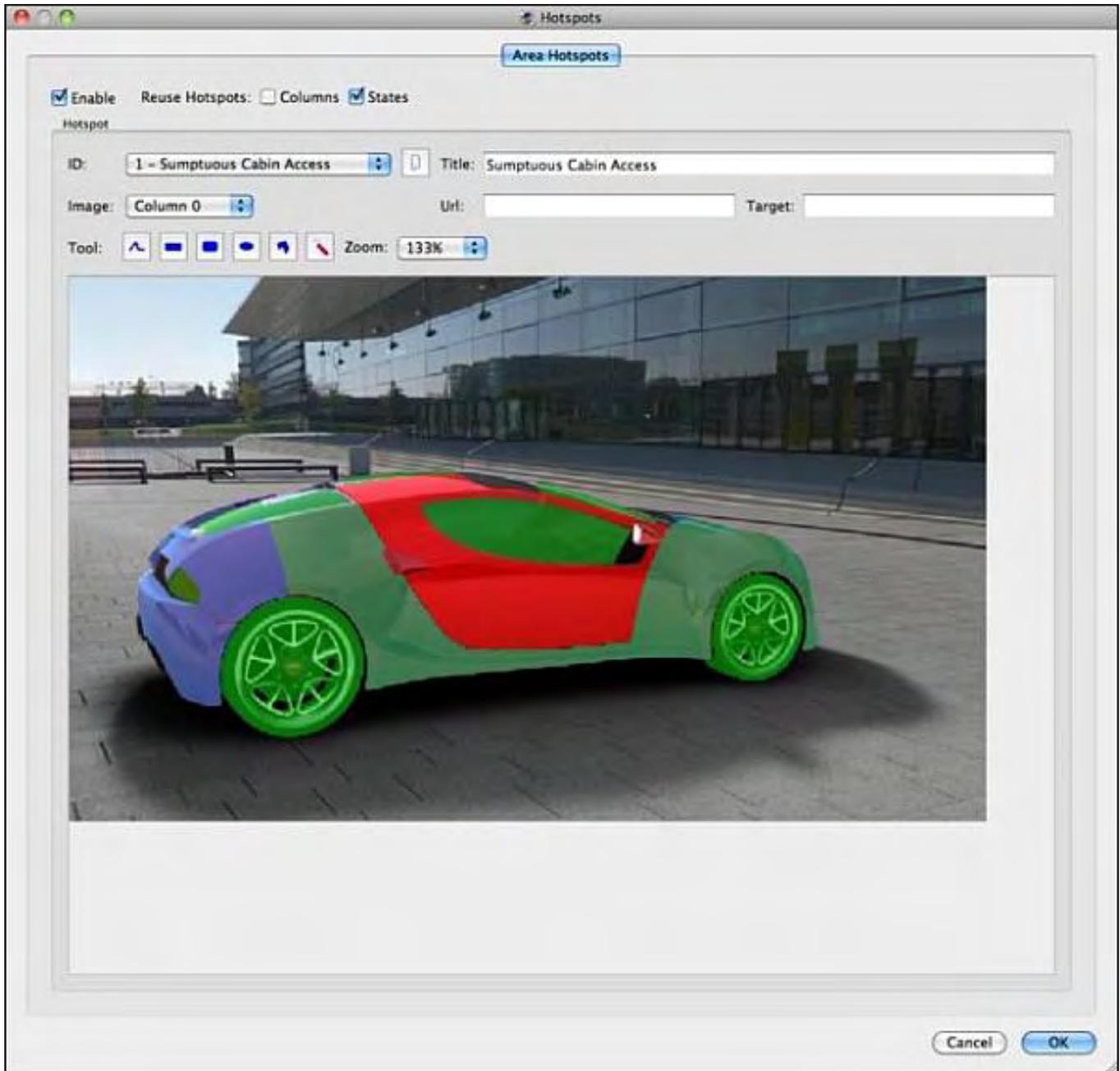

Figure 6. Hotspots provide interactivity with your images.

For greater security, Object2VR can even lock your images to a particular domain. That way rivals can't copy (steal) your interactive images and place them on their own Web sites.
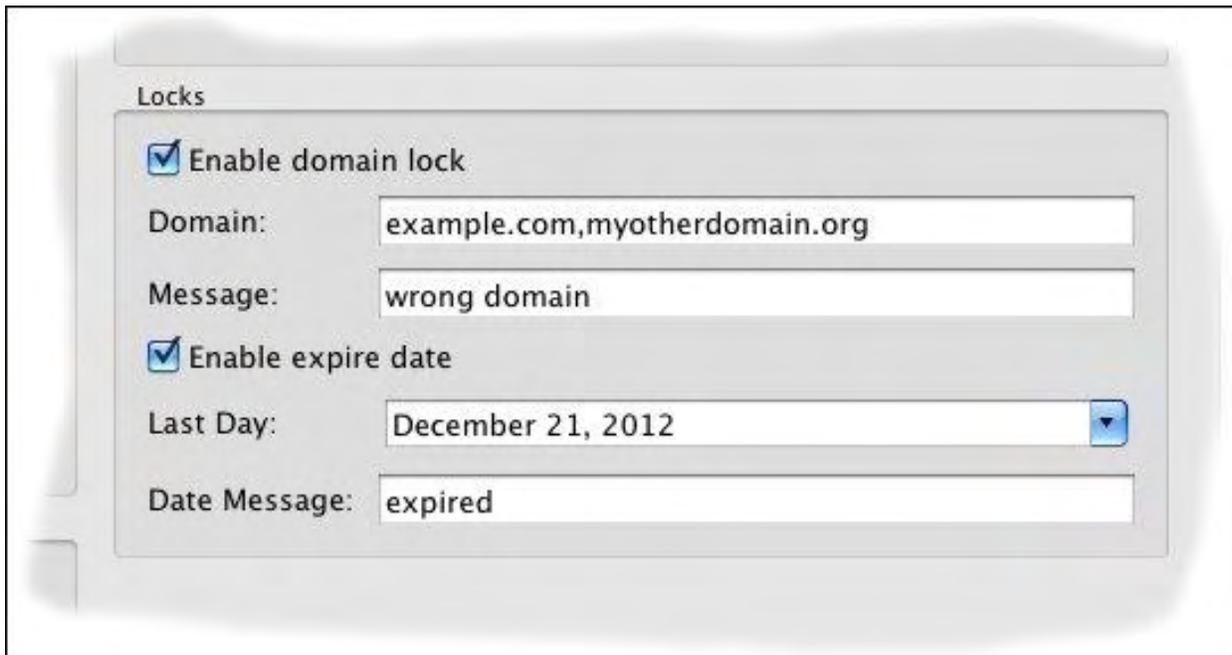
Figure 7. Object2VR can lock images to a specific domain.

In exchange for a low cost and a moderate learning curve, Object2VR offers the ability to create pseudo-3-D images that you can post on a Web site to make your site more engaging and informative than plain static pictures. Even better, you can also convert your Object2VR images into iBooks Author widgets so you can place interactive images in any iBooks Author e-book you create.

If you want to visually spice up your Web site and need to let people view an object from multiple angles, Object2VR is definitely the program for you. Once you start creating images that viewers can flip around, change by choosing a different skin, or interact with through clicking on hotspots, you'll suddenly find static pictures on a Web page can look as antiquated as handwritten books on parchment. With the low cost and learning curve of Object2VR (the company provides plenty of video training tutorials on their site), you can easily experiment with creating 3-D images of any item that you can photograph or draw from different angles.

Browse through the different examples on Garden Gnome Software's site (*gardengnomesoftware.com/ object2vr_example.php*) and let your imagination run wild. Since Object2VR runs on Windows, Mac OS X and Linux, you can choose your favorite platform. You may soon find Object2VR will become your next favorite Web page designing tool right after an HTML editor and a graphics editor like Photoshop.

Tracking Time and Money

Many people such as contractors, lawyers and freelance graphic artists need to bill clients for the time they spent on a particular project. You can't just slap a bill on someone's desk and expect them to pay it in full. Instead, you have to create a detailed invoice that lists exactly what you did and how much it cost. Creating such invoices by hand can be troublesome so that's why there's a program like iBiz (*click.linksynergy.com/fs-bin/stat? id=15PJQz44Qcc&offerid=146261&type=3&subid=0&tmpid=1826&RD_PARM1=http%253A%252F% 252Fitunes.apple.com%252Fus%252Fapp%252Fibiz%252Fid414814190%253Fmt%253D12%2526uo %253D4%2526partnerId%253D30*) that you can buy for $39.99.

With iBiz, you can store the names of multiple clients and at a glance, see what work needs to be done for each client and drill down to view details such as starting and ending times and what type of work might have been done. Since iBiz can sync with iCal and Address Book, you can check your calendars for your scheduled appointments. If you take advantage of iCloud, you can view your schedule on your Macintosh, iPhone, or iPad.
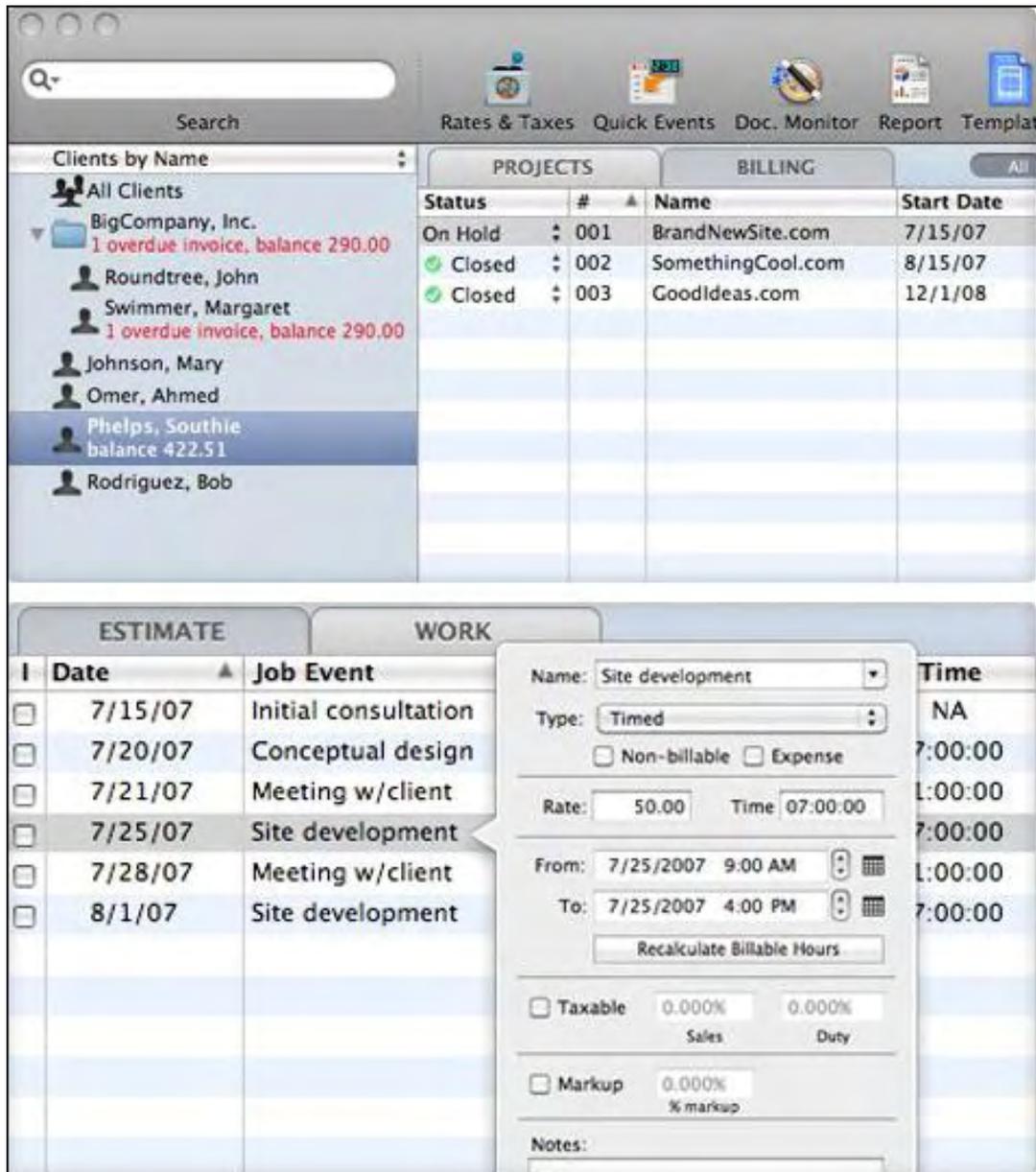
Figure 8. iBiz can help you track your clients and the work promised.

To bill clients, iBiz can help you create an invoice that you can send. After a fixed amount of time, the program can pop up a reminder to alert you to any overdue accounts. Now you can make sure you get all the money that's owed to you.

Figure 9. iBiz can create and print billing invoices and late notices.

In business, the more you know about your financial affairs, the better you can decide what you may need to do to improve your cash flow. Although iBiz can store numeric data such as the amounts people have paid you and when they paid, this information can be relatively meaningless if you don't use it somehow. To help you turn raw numbers into useful information, iBiz can create charts. Now you can see if certain months of the year bring in less money than other months. Knowing this, you can plan on special promotions to boost your business or just plan on slow downs during certain parts of the year.

If you just have a job where you show up and get paid, you won't need iBiz. However, if you're a freelance worker who gets paid by actually completing work, you'll probably need to track your clients and cash flow with a program like iBiz. You could duplicate much of iBiz's features with a spreadsheet, but few people want to waste time customizing a spreadsheet when it's easier to use a program like iBiz instead. For just $39.99, iBiz might be what you need to help run your business with a Macintosh.

The Microsoft Surface Tablet

On June 18, Microsoft announced their new Microsoft Surface tablets that includes a built-in kickstand and magnetic covers that double as a keyboard. Microsoft Surface immediately kills the chaotic, fragmented nature of Android on tablets, but also

kills the chances of Dell, Hewlett-Packard, Acer and other companies who were planning to market Windows 8 tablets. Unless these other companies can match Microsoft's technical specifications and build similar tablets, there's no reason to get any other Windows 8 tablets except from Microsoft.

Microsoft Surface actually looks interesting, which goes to show you that when Microsoft lets their engineers run a project instead of their sales team, Microsoft can create something that people might want. For all those people who feel the need to rely on a physical keyboard, Microsoft's Type Cover will prove irresistible. Just prop up the Microsoft Surface tablet with its built-in kick-stand, flip out the Type Cover, and you essentially have the features of a laptop without the bulk.

Figure 10. The Microsoft Surface tablet gives you a laptop in the shape of a tablet.

What Microsoft failed to mention was the price of their Microsoft Surface tablets and their availability. For casual users, you can get the Microsoft Surface tablet running Windows RT on an ARM processor, which will likely give you lighter weight and longer battery life, but at the expense of not having many dedicated tablet apps to choose from initially, although it will include a tablet version of Microsoft Office.

For those who demand complete compatibility, you'll have to pay more for an Intel Windows 8 tablet that will be heavier with lower battery life, but with the advantage of running all existing Windows programs. In addition, the Intel version of Microsoft Surface will also offer pen input so you can scribble notes directly on a document with the included stylus.

Microsoft hopes the Surface tablet will keep people from buying an iPad while providing a credible alternative that Android tablets could never do. The big X factor is how well will people take to the Windows 8 Metro interface.

The Metro interface is better suited for touch than a keyboard, but Microsoft Surface users will likely be relying on their Type Covers to use the tablet. That means either switching between touching the screen to navigate through the Metro interface or using it with the Type Cover keyboard. In either case, you'll have to deal with the Metro interface so if you decide to stick with Windows, you might as well get used to it.

Will the Microsoft Surface be a success? It all hinges on the price. Most likely the Microsoft Surface will partially steal away some iPad sales but kill any hopes that Android tablets will ever mount a credible challenge in the tablet market. The tablet market is now shaping up as a two-horse race between the iPad and Microsoft Surface. All Android tablets and any Windows 8 tablets by other manufacturers will simply be left to pick up the crumbs that the iPad and Microsoft Surface leave behind.

<center>*   *   *</center>

In most programs you can customize the toolbar icons. Not surprisingly, you can also customize the icons that appear at the top of each Finder window. Just click on the Finder icon on the Dock and when a Finder window opens, right-click on the title bar (the gray area at the top of the window). A pop-up menu appears.
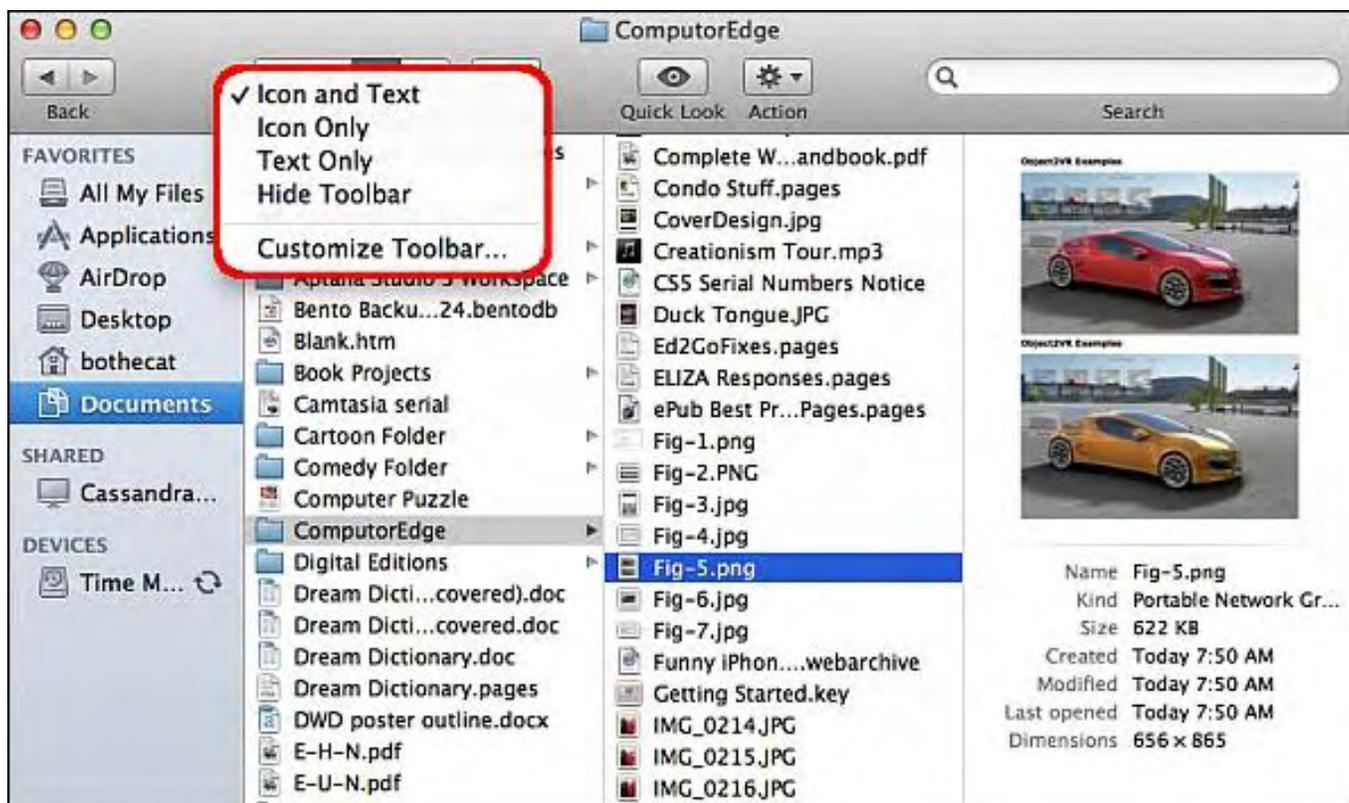

Figure 11. Right-clicking on the Finder title bar displays a pop-up menu.

Choose Customize Toolbar. Now a palette of icons appears so you can drag them on the Finder window or drag existing icons off to remove them from sight.
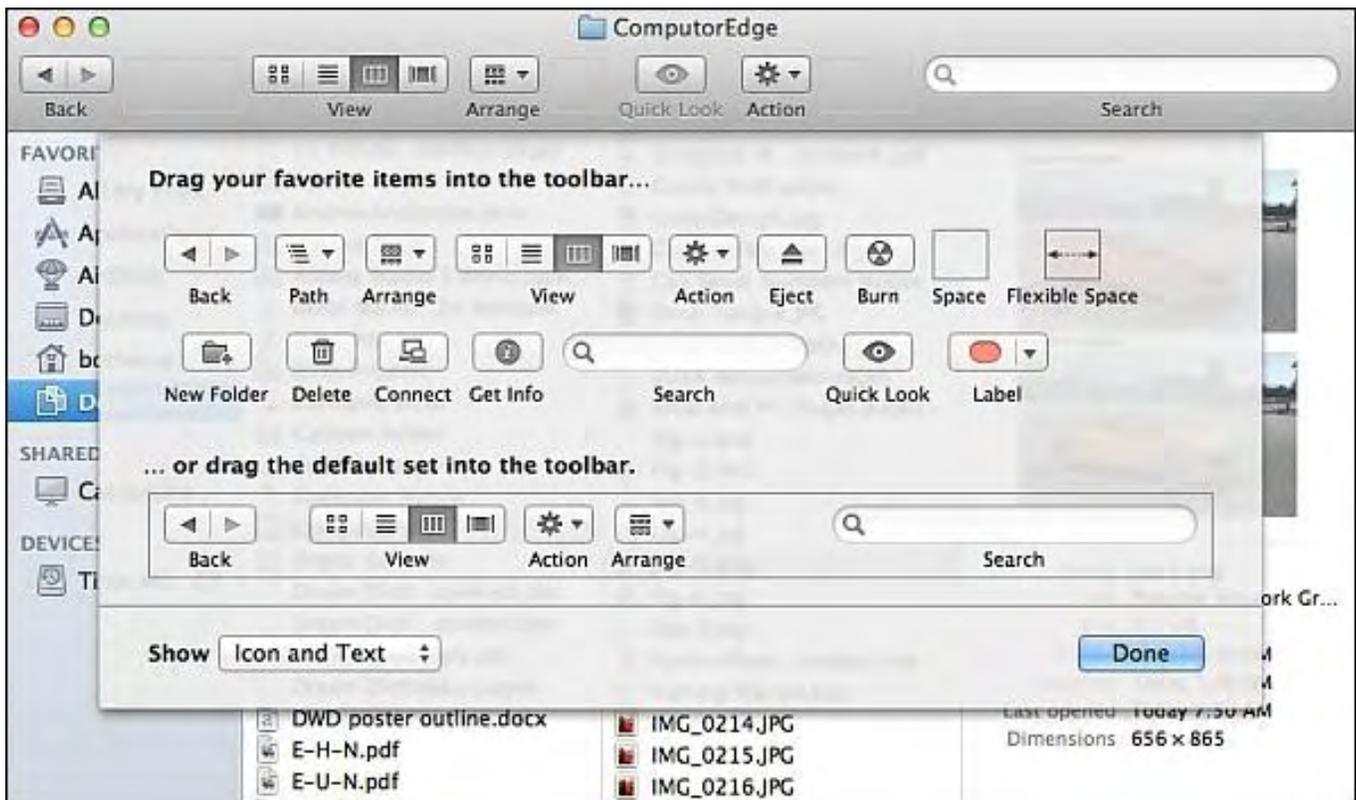
Figure 12. Drag the icons you want to appear on the Finder window.

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 the following books:

*My New Mac, Lion Edition (*www.amazon.com/gp/product/1593273908/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=1593273908*)*
*My New iPad 2 (*www.amazon.com/gp/product/159327386X/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=159327386X*)*
*Steal This Computer Book (*www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050*)*
*Microsoft Office 2010 For Dummies (*www.amazon.com/gp/product/0470489987?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470489987*)*
*Beginning Programming for Dummies (*www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702*)*
*Beginning Programming All-in-One Reference for Dummies (*www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541*)*
*Breaking Into Acting for Dummies with Larry Garrison (*www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468*)*
*Strategic Entrepreneurism with Jon and Gerald Fisher (*www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=159079189*)*
*How to Live with a Cat (When You Really Don't Want To) (*www.amazon.com/gp/product/B006DJYL70/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DJYL70*)*
*The Secrets of the Wall Street Stock Traders (*www.amazon.com/gp/product/B006DGCH4M/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=217145&creative=399373&creativeASIN=B006DGCH4M*)*

*Mac Programming For Absolute Beginners (*www.amazon.com/gp/product/1430233362?
ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362*)*
*99% Fairy Tales (Children's Stories the 1% Tell About the Rest of Us) (*www.amazon.com/gp/product/
B006QSKM3A/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-
20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006QSKM3A*)*
*The Zen of Effortless Selling with Moe Abdou (*www.amazon.com/gp/product/B006PUFPGI/ref=as_li_tf_tl?
ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B006PUFPGI*)*
*The 15-Minute Movie Method (*www.amazon.com/gp/product/B004TMD9K8/ref=as_li_tf_tl?
ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B004TMD9K8*)*
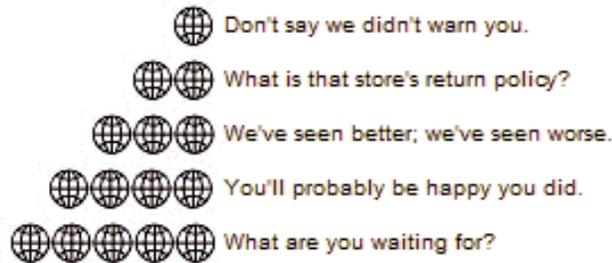
In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method.
(*www.15minutemoviemethod.com/*)" Wally can be reached at *wally@computoredge.com*.

Worldwide News & Product Reviews

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

MIT 3D Technology May Usher in New Generation of Microchips; Eleven Ways to Save on Smartphone Plans; 180,000 Words for Your Android or iPhone; Where is Your Sweet Spot?

Don't say we didn't warn you.

What is that store's return policy?

We've seen better; we've seen worse.

You'll probably be happy you did.

What are you waiting for?

MIT 3D Technology May Usher in New Generation of Microchips

David Chandler, from the MIT News Office writes in this week:

Researchers at MIT have found a new way of making complex three-dimensional structures using self-assembling polymer materials that form tiny wires and junctions. The work has the potential to usher in a new generation of microchips and other devices made up of submicroscopic features.

Although similar self-assembling structures with very fine wires have been produced before, this is the first time the structures have been extended into three dimensions with different, independent configurations on different layers, the researchers say. The research is published this week in the journal Science.

Caroline Ross, the Toyota Professor of Materials Science and Engineering at MIT, says there has been "a lot of interest" among semiconductor researchers in finding ways to produce chip features that are much narrower than the wavelength of light—and hence narrower than what can be achieved using present light-based fabrication systems. Self-assembly based on polymers has been an active area of research, Ross says, but "what we did in this paper was push it into the third dimension."

She and her colleagues began by creating an array of tiny posts on a substrate of silicon; they then coated the surface with materials called block copolymers, which have a natural tendency to assemble into long cylindrical structures. By carefully controlling the initial spacing of the posts, Ross explains, the researchers were able to set the spacing, angles, bends and junctions of the cylinders that form on the surface. What's more, she says, "each of the two layers of cylinders can be independently controlled using these posts," making it possible to create complex 3-D configurations.

Amir Tavakkoli, a visiting graduate student from the National University of Singapore and lead author of the Science paper, says many researchers have tried to produce complex arrangements of nanoscale wires through self-assembly. But earlier attempts used complex processes with many steps, and had failed to control the resulting configurations well. The new system is simpler, Tavakkoli says, and "not only controlled the alignment of the wires, but showed we can even have sharp bends and junctions" at precisely determined locations.

"It wasn't expected to be possible," says MIT graduate student Kevin Gotrik. "It was a surprising result. We stumbled upon it, and then had to figure out how it works."

There were a number of barriers to overcome in making the system practical, Gotrik says. For example, the posts fabricated on the surface are the key to controlling the whole self-assembly process, but they need to be quite a bit taller than they are wide, which could lead some to topple over; the MIT team ultimately found materials and shapes that would be stable. "We explored a wide range of conditions," Gotrik says.

Graduate student Adam Hannon says the team used computer simulations of the structures in order to explore the effects of

different post configurations on the double-layer 3-D structure. These simulations were compared with the most promising structures observed in the laboratory to get greater insight into how to control the resulting structures that formed.

So far, the MIT team has only produced two-layer configurations, but Alfredo Alexander-Katz, an assistant professor of materials science and engineering, says, "I think it would be feasible to go to three layers" while still maintaining full control over the arrangement of structures on each layer.

A key enabling technology was the MIT lab's capability, using electron-beam lithography, to make 10-nanometer-wide cylindrical posts with precisely controlled positioning. These posts, in turn, guide the positioning of the self-assembling cylinders. Karl Berggren, an associate professor of electrical engineering, says it's as if the lithography puts down an array of pillars, and these pillars then control the complex, multilevel routing of crisscrossing highways.

In earlier work, the MIT researchers had demonstrated that this self-assembly method could be used to create wires that are much finer than those that can be made by existing photolithography techniques for producing microchips—and thus help lead the way to next-generation devices that pack even more wires and transistors into a given area of silicon chip material. "In principle, this is scalable to quite small dimensions," Ross says, far smaller than the 15-nanometer width of the cylinders produced so far—which is already less than half the width of the finest wires in existing microchips.

The basic technologies involved are compatible with existing manufacturing equipment in the semiconductor industry, the researchers say. But this is basic research that is probably still far from actual chip production, they caution. Within the next year the team hopes to use this methodology to produce a simple electronic device.

The technique is not limited to producing wires on a silicon chip, Ross and her colleagues say. The same method could be used to create 3-D arrays of other kinds of materials—such as proteins or DNA molecules, for example—in order to create biological detectors or drug-delivery systems.

Eleven Ways to Save on Smartphone Plans

Nationally-recognized consumer and money-saving expert Andrea Woroch (*www.andreaworoch. com*) helps consumers live on less without radically changing their lifestyles. If you find yourself in the category of seeing increased monthly costs, consider Woroch's 11 ways to cut down on your mobile bill without cutting communication with friends and family:

Verizon Wireless debuted the details of its new Share Everything Plan this week, and users are already speculating on the cost advantages and disadvantages of this much-anticipated plan. Casual voice, text and data users will likely see an uptick in their monthly costs while families with shared plans may finally see some relief.

1. Try Pay-As-You-Go Plans

Get this: 1GB of data and unlimited talk and text costs $90 per month with the Share Everything Plan, but Verizon's prepaid smartphone plan is $80 for the same service on select devices. Save yourself $10 per month and avoid the hassle of a contract if this plan works for you. Otherwise, check out providers like Boost Mobile, NET10 and Virgin that offer prepaid plans for as low as $45 per month.

2. Text for Free

In addition to apps like Textfree with Voice (iPhone) and chompSMPS (Android), you can sign up for a Google Voice number to text for free. This requires that your friends and family avoid texting to your regular phone number, but will ultimately save you a minimum $10 per month, depending on your plan and carrier.

3. Buy Used Devices

AT&T, Sprint and Verizon frequently offer promotions on the latest smartphone in order to stick you with the real money-maker: the plan. However, you can still end up spending over $200 for the latest gadget, so consider purchasing an unlocked device from an electronics retailer. Be sure to search Freeshipping.org for online offers from Tiger Direct and other providers to save even more.

4. Ask About Eligible Discounts

Does your employer have a corporate plan? If so, you may be eligible for a discount as an employee. Most carriers require you provide your corporate e-mail address, but you can also check with the person who manages your company's cell phone plan. Students from select schools may also have access to exclusive discounts, so ask before signing the agreement

5. Buddy Up to Family Plan

This one requires trust and communication, but consider signing up for a family plan with close friends and neighbors. Carriers don't require that family plan holders be related, so see if you can cut costs by pitching in on a collective monthly bill. Just be sure everyone's on the same page about when the bill is due and what should happen when overages occur.

6. Visit Mobile Web Sites

Mobile versions of Web sites are not only easier to navigate, they require less data to browse. Ditch the "www" URL prefix and opt for "m" instead. Not all Web sites are optimized for mobile browsing, so avoid the ones that aren't as you mindlessly browse the Internet at the doctor's office.

7. Read the Fine Print

Automatic bill pay is a convenient method for paying your bill on time, but it also ensures you don't catch erroneous charges. Last year, Verizon was dinged with a class-action lawsuit for "mystery data fees" charged to non-data using customers, resulting in a $52.8 million fine. Obviously, it pays to review your statement on a monthly basis.

8. Track Your Usage

The fees associated with overages on texts, minutes and data usage are enough to scare you into a higher plan. However, you might be paying more than necessary, so tracking your usage is paramount in finding the optimal plan. The Onavo Count app tracks usage for Android users, and iPhone users can check out this video tutorial from Business Insider to check their usage.

9. Stream on Wi-Fi

Streaming music and movies on wireless broadband will instantly eat up your data, so save these diversions for when you have access to Wi-Fi networks.

10. Download Apps at Home

While it's convenient to download apps and music on-the-go, you can save as much as 10 percent in data usage by holding out for home. Download apps and music from your home computer and save your precious data for more important things, like e-mail and the last episode of "The Bachelorette."

11. Opt for Manual E-mail

Though it's nice to receive e-mail the moment it's sent, your phone is constantly searching for new mail resulting in a data drain. To reduce data usage, manually update your inbox when you're ready to read your e-mails. You may find this function to be both time and cost-effective.

180,000 Words for Your Android or iPhone
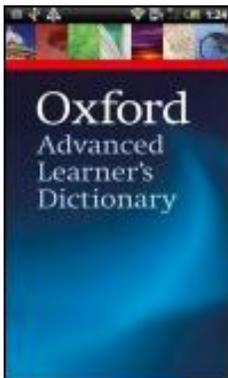
Paragon Software Group and Oxford University Press, the publisher of what many consider to be the world's best dictionaries, have teamed up to bring the big boy, the Oxford Advanced Learner's Dictionary (*play.google.com/store/apps/details?id=com.slovoed.oald*), 8th edition, to Android smartphones and tablets ($28.99).

NOTE: There's also an iPhone version (*itunes.apple.com/us/app/oxford-advanced-learners-dictionary/id442911228?mt=8*) of the Oxford Advanced Learner's Dictionary, also for $28.99, which looks quite similar in features, but I tested the program on a Samsung Galaxy Tab tablet.

It's pretty amazing to have this much power in the palm of your hand: full-sentence pronunciations, over a thousand full-color graphics, customizable interface, and over 3,000 keywords—words marked by Oxford language experts to show they should be given special emphasis in language study. The newly-updated resource includes definitions for new words like blogosphere, cloud computing, incentivize, malware, staycation, tweet, umami (a basic taste along with sweet, sour, bitter and salty) and countless more.

Key features (from Oxford):

• 184,500 words, phrases and meanings explained clearly.

• 116,000 spoken example sentences—in both British English and American English accents and recorded by native speakers.

• 1,300 individual and group images.
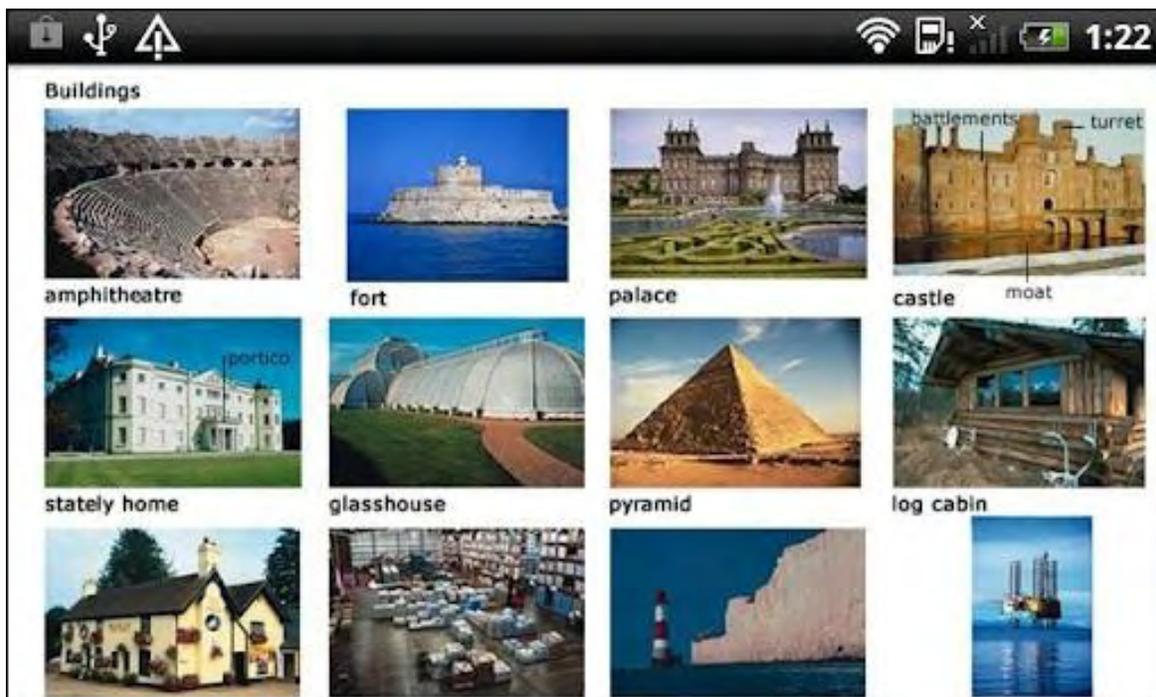
• Integrated thesaurus provides thousands of synonyms and lists of collocations (words that go together) to build vocabulary.

• Use My View to choose how much information appears on your screen—hide IPA, example sentences, pictures, synonyms, etc.—tap to show the full entry again. Define your customized view in Settings.

• Change the app appearance: customizable background color, font size, search results highlighting etc.

• Multitasking features for uninterrupted dictionary use: run the dictionary in the background so you can translate from Web pages, e-mails and applications, or compose e-mail messages in English.

• "Did you mean…?" function and wildcard search allow you to find a word even if you don't know the spelling.

• Full dictionary search allows users to find the word in idioms and phrasal verbs.

• Find additional information about many words—including verb forms, culture, example bank, synonyms, collocations, etc.—using the menu.

• No on-going Internet connection required (for headword audio only): simply download the dictionary once and use it on your device without any additional Wi-Fi expense or availability issues. (Full sound databases can be downloaded from the Settings screen, which require an Internet connection).

• Tap on any unknown word in an entry to look it up immediately.

• Search history can be viewed or deleted.

• Create your own list of favorite words.

• Detailed help file (available directly from the app)

More info here (*blog.penreader.com/uncategorized/oxford-advanced-learner%E2%80%99s-dictionary-%E2%80%93-now-on-android-devices-quality-content-you-can-trust-to-communicate-in-english-with-confidence/*).

No, it's not the 99 cent app of the day but, if you're serious about word usage, this will pay for itself before you know it.

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Review contributed by Alan Greelier

Where is Your Sweet Spot?

What type of product do the names "Sweet Spot" and "Bodydock" bring to mind? Yes, that's absolutely correct...a magnetized protective case for iPhones.

GID Development Corp. (*www.bodydock.com/about-us/*) introduced the BodydockTM Cellphone Armor Magnetic Docking System for iPhones in early 2012. This product's distinguishing feature is that you use it to wear an iPhone 4 or 4S on garments and/or mount your iPhone on a steering wheel, dashboard, kitchen wall, or on other objects rather than stashing the iPhone in a pocket, purse, or shelf. This feature's magic is accomplished by exceptionally powerful magnets (neodymium (*en.wikipedia.org/wiki/Neodymium_magnet*)) that we'll discuss momentarily.

Bodydock consists of the following components which are available individually (*www.bodydock.com/store/*) (the buyer can pick and choose them to assemble a custom system; Figure 1) and in two defined packages called Silver Edition System and Bronze Edition System, respectively—the latter is the subject of this review. *[Available at Amazon.com (*www.amazon.com/mn/search/?_encoding=UTF8&tag=comput0b9-20&linkCode=ur2&camp=1789&creative=390957&field-keywords=bodydock*)]*

Figure 1. Bodydock's components are available individually (for a build-to-order, custom system) and as two defined packages—the Bronze and Silver Edition Systems—that come in black, white, or pink.

• Rhino Shield Armor protective case (Figure 2)

Bodydock's protective case weighs about 2 oz.; its shape and dimensions are compatible with iPhone 4 and 4S, not previous models. Materials include a black rubber-like substance, plastic (available in black, white, or pink), and a mirror-faced metal plate that is exposed by a 1.25 X 2.9" opening on the case's back side. The plastic and rubber portions are less than 0.2" thick. They have hexagonal, oval and linear ridges on all sides that effectively facilitate a firm grip (when the case is used separately from the magnetic docking system).

Rhino Shield Armor's features include a "kickstand"—a hinged 1.75" plastic piece—on the back side that supports the iPhone in portrait or landscape orientation. Handy! The back side also contains a removable plastic piece that accommodates the iPhone's main camera and LED flash. The case's left side has an opening for the ring/silent switch and, instead of additional openings for the iPhone's volume buttons, has dimples labeled with plus and minus symbols that align with the corresponding buttons on the iPhone. I found the dimples difficult to manipulate during testing. Siri or Voice Control might be a more effective alternative.
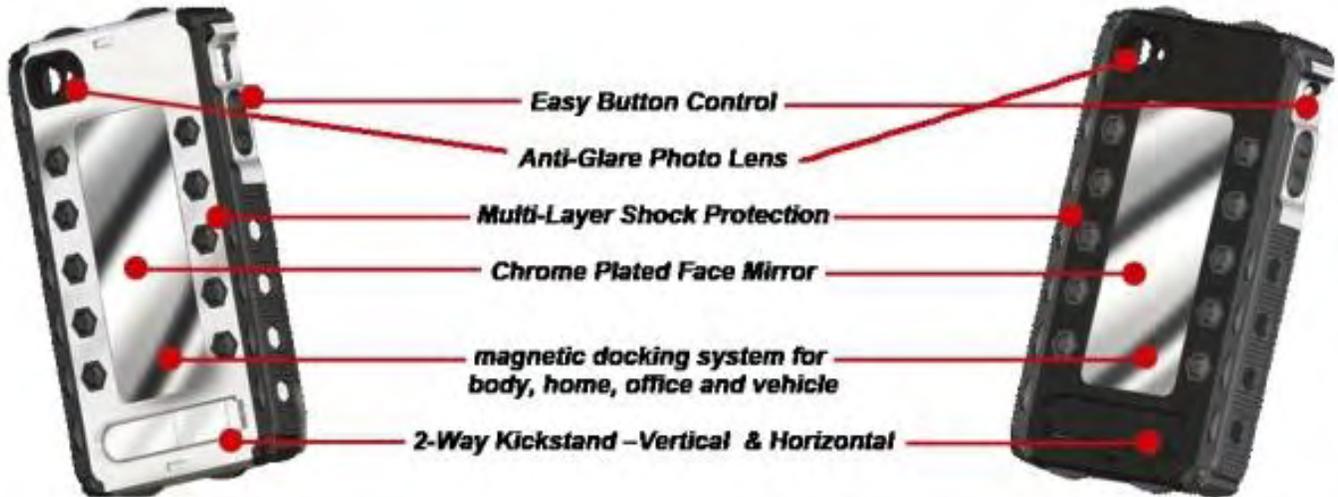
Figure 2. Bodydock's Rhino Shield Armor protective case is made of a rubber-like material, plastic, and a mirror-faced metal plate. It protects an iPhone's back and sides, leaving the top and bottom completely exposed. The case's features described in this review are shown in this figure.

This protective case protects only the iPhone's back and sides; it is completely open on the top and bottom. The absence of top and bottom protection is compensated by unhindered access to the iPhone's sleep-wake button, headset jack, top microphone, bottom microphone, dock connector and speaker.

• Protective applique (Figure 3)

Bodydock's screen protector weighs less than 0.125 oz. and is made of a plastic-like material (available in black, white, or pink) with a sticky side that adheres to the iPhone's screen. It covers only the iPhone's bezel. The touchscreen, home button, receiver, and front camera are left exposed.

Figure 3. Bodydock's Bronze Edition System consists of the Rhino Shield Armor (in black, white, or pink), protective applique (in black, white, or pink), Fabric Sweet Spot magnets, one All-Around Sweet Spot magnet, and screen cleaning kit.

• Fabric Sweet Spot™ magnets (Figure 3)

Bodydock's Fabric Sweet Spot consists of two black plastic rectangles, each of which houses two disk-shaped neodymium magnets that are used for wearing an iPhone on a garment. Each rectangle measures about 3.8 X 0.125 X 1.25" and together they weigh about 1.25 oz.

Note that these magnets (and the ones described below) are extraordinary. They are so powerful that, when handled improperly (*www.bodydock.com/docking-tips/*), they made a pronounced slapping noise and the impact is sufficiently forceful that the magnets can be physically damaged or the user's finger(s) could be pinched. Additionally, the potential exists for them to affect (but not necessarily erase) magnetic media such as computer hard drives (they should not affect the

iPhone's storage medium, which is flash RAM rather than magnetic platters). This product therefore should be used by properly informed adults and not by children.

Bodydock's neodymium magnets should not affect phone calls (but could affect the iPhone's compass feature), according to the FAQ Web page (*www.bodydock.com/support/faqs/*). My iPhone is an unlocked model without a service contract, therefore I did not test this.

• All-Around Sweet Spot™ magnet (Figure 3)

Bodydock's All-Around Sweet Spot is a single rectangle-shaped neodymium magnet that is used for mounting an iPhone on an object's surface. It measures about 2.75 X 0.25 X 1.38" and weighs about 1.75 oz.

• Security Tethers Sweet Spot™ magnet (Figure 3)

Bodydock's tethers (*www.bodydock.com/store/*) are used for hanging an iPhone on the user's neck or pants' belt loop. They were not included in this review.

The $79.95 Silver Edition System includes all of the above components plus an extra All-Around Sweet Spot 3-pack, a cloth, and two alcohol swabs for cleaning the iPhone's screen prior to adhering the protective applique. The $59.95 Bronze Edition System excludes the tethers and includes a single (rather than two 3-packs of the) All-Around Sweet Spot magnet (Figure 3); it comes in a heavily illustrated cardboard box (7.25 X 1.75 X 4.38") with a heavily illustrated flap and a cardboard insert that holds the product (the cardboard's illustrations are shown in the product manual (*www.bodydock.com/ BODYDOCK_PRODUCT_MANUAL.pdf*)).

The Bronze Edition System (Figure 3) is used as follows:

1. Clean the iPhone's screen with the alcohol swabs and cloth.

2. Remove the screen applique from its backing and adhere it to the iPhone's screen.

3. Install the iPhone in the Rhino Shield Armor.

4. Clean the surface of the object on which you want to mount the iPhone (e.g., vehicle's steering wheel or dashboard, kitchen wall, etc.).

5. Remove the pink covering from the All-Around Sweet Spot's back side.

6. Adhere the All-Around Sweet Spot's back side to the object's surface, and put the Rhino Shield Armor on the Sweet Spot's front side (aligning the magnet with the case's exposed metal plate).

7. Separate the Fabric Sweet Spot's two parts; align the part with the warning label on the Rhino Shield Armor's exposed metal plate, position the part with the Bodydock logo inside your garment, and align the iPhone on the outside of the garment with the first part.

During testing for this review, the first three steps above were problematic. My OCD-like preference is to use a screen film to avoid littering my iPhone's screen with fingerprints that then need to be cleaned. The Rhino Shield Armor's form is incompatible with the film that I use, the applique is intended to substitute for screen films, and (as detailed above) it completely exposes the touchscreen. Your preference and experience could be different.

An additional challenge occurred during installation of the iPhone in the protective case—it was troublesome. The instruction brochure (*www.bodydock.com/BODYDOCK%20PRODUCT%20INSTRUCTION%20.pdf*) indicates to insert the iPhone button side first. In my experience, however, two pairs of hands were necessary to hold the phone and spread the case's rubber sides in order to insert the iPhone completely.

Instruction step 7 above also was challenging at first, and users who proceed without reading the manual might similarly get tripped up on step 7. The reason is that the Fabric Sweet Spot superficially looks like a single piece rather than two, and its magnets are so strong that they cannot readily be pulled apart. Instead, the two pieces are separated by sliding them apart, which is not intuitively obvious without reading the manual.

After proper installation, Bodydock's magnets are sufficiently powerful to support the iPhone and case's combined weight without falling off (i.e., the risk of losing your valuable cell phone is relatively low), yet they readily can be separated (hint: slide rather than pull) as desired to remove the iPhone. The product's documentation and docking tips (*www.bodydock.com/ docking-tips/*) Web page advise to use Bodydock with thin, tight garments and warns against using it with loose, thick ones. I followed this advice during testing rather than risk losing and/or dropping my valuable iPhone.

What I like most about this reasonably and affordably priced product is that "docking" your iPhone on your clothing, wall, dashboard, steering wheel, or other object's surface is elegantly convenient. The docked iPhone is readily accessible without needing to dig it out of a pocket, purse, backpack, or other less convenient location. Bodydock in combination with Siri and/or Voice Control could be a big-time safety advantage for motorists who insist on texting and/or phoning while driving.

Bodydock's packaging and documentation are the weakest aspect of this product, in my opinion. My preference is for simple packaging with clear, straightforward instructions included in the box. To my eyes, the Bronze Edition System's box, the manual, and the company's Web site are all sensory overkill; their graphics and typefaces are loud, complex and dense. I felt that they slowed me down rather than facilitated my getting up and running.

The product's Web page on precautions (*www.bodydock.com/magnetic-precaution/*) in using the Sweet Spot magnets could be more instructive. One example is the warning to keep Bodydock's magnets away from credit cards with magnetic strips and from storage devices (including a computer's internal hard drive)—it does not indicate what is a safe distance away (probably to avoid potential liabilities).

The user guide could benefit from spell- and grammar-checking; in some places, it reads as if it were written by non-native English speaker(s).

For instance:

1. Install by inserting buttonside [sic] of iPhone first.
2. Clean with mild soap and water. Air dry.
3. Use supplied cleaning cloth to clearn [sic] mirror and iPhone glass.
4. It is not advisable to carry magnets docked in the Armorto [sic] avoid inadvertently settingdown [sic] on top of magnetic media such as your laptop, hard drive, etc.
4. Do not over extend [sic] kickstand when opening.

In conclusion, Bodydock is an innovative and low-cost implementation of magnets as an instrument for conveniently carrying and mounting one's iPhone 4 or 4S. This product even has the potential to enhance user safety while driving. It is not for everyone, however, such as children (and possibly some teens and adults) who might not recognize the potential damage or injury that could happen when the magnets are used improperly.

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Review contributed 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*.

Editor's Letters: Tips and Thoughts from Readers

"Computer and Internet tips, plus comments on the articles and columns." by ComputorEdge Staff

"IKEA Cartoon," "Backing Up"

IKEA Cartoon

[Regarding Marilyn K. Martin's June 8 article, "More Little Known High Tech Stories":]

Your cartoon about "assembling an IKEA TV" recalled the early days of television, when very competent techies would build their own TVs from scratch. Well not exactly from "scratch," they had to buy the components, especially the tubes! Kits were available. Techies of that day were usually called "hobbyists."

Later, the RCA-CBS competition to persuade the FCC to adopt one of their competing color technologies (RCA won, I'm glad to say). The CBS system used a monochrome CRT with a color wheel in front of it, synchronizing the wheel with appropriate images for each color. It worked well enough with the small CRTs of the day, and it gave the techies a lot of fun adding their own wheels to their TVs.

The better techies could actually synchronize their wheels, but lesser guys would have to keep adjusting a variable resistor to keep the colors right. Imagine what a mess we would have today if all our TVs had to have spinning color wheels in front of them! For once, the government got it right!

-Bob Di Giorgio

Backing Up

[Regarding the June 8 Digital Dave column:]

According to Microsoft, "A system image is an exact copy of a drive. By default, a system image includes the drives required for Windows to run. It also includes Windows and your system settings, programs and files. You can use a system image to restore the contents of your computer if your hard disk or computer ever stops working. When you restore your computer from a system image, it's a complete restoration—you can't choose individual items to restore, and all of your current programs, system settings, and files are replaced with the contents of the system image." Therefore, it is not really necessary (although I do) to perform independent backups of often modified files and folders if one does a new system image at frequent intervals.

-Jerome Jarvis, Oceanside, CA

Jerome, I'm forced to disagree with you here. The fact that a system image is an exact copy of everything is why you do need the other individual folder/file backup. If you restore a system image because one file needs to be restored, it will wipe out all the changes and updates to any other data files made since the last system image was created. Backup and Restore lets you pick and choose and will only affect the needed folder/file.

-Dave

Regarding my comment and your true answer on this subject: I believe in the "belt and suspender" concept. I make a new

system image every week plus discrete file and folder backups to a different medium whenever I feel necessary...which is at least twice a week or whenever something important is changed. Plus, I clone the entire C: drive twice a month. Overkill??

Thanks for your always helpful advice.

Jerry

Hi Dave!

On the subject of backup (re Lynn in Texas), here are a few usually-forgotten considerations (though Lynn didn't really ask about this area):

1) You can XCOPY to a thumb drive, they're pretty cheap. There are a bunch of parameters, I think*bckslsh* /S /E /H /R /Y /V /C are the right ones. You can also use Zip, which uses less target space, but it's harder to find a specific file you want to restore. If you put this in a "batch" file you can precede it with a DIR *bckslsh** /S >*bckslsh*DIRLIST.TXT so a full file tree is included in the backup. That way you can make sure any zero-length files are restored (process DIRLIST with Perl/Python/Rexx or manually).

2) You need to keep a reasonably current backup off-site because theft and fire will both leave you without your original files *and without your backup* if the backup is with the computer. These days "the cloud" is an option, but it's a sizable annual expense; I suppose you could create a ZIP backup, then split it into two GB pieces and put the pieces in "the cloud" at several different cloud vendors (the first two GB is often free). Easier is to make a *full* backup to a thumb drive while you're at lunch (password protected if you need encryption; ZIP has a -e encrypt option) and put this full backup in your car.

3) Include a copy of the restoration software in the backup. It's really hard to restore your files if your backup & restoration program isn't available. If you use ZIP, then include UNZIP in the backup.

The purpose of backup is *not* to make a copy of your files. The purpose is to be able to recreate the files on a new drive or computer. If you just backed up MD5s of each file and the MD5s were also accessible elsewhere, that would be sufficient—you haven't copied any files, but you can restore them.

-Peter, Los Angeles

With today's gigantic external HDs, why not simply copy the folders you want to back up "as is"? That way you don't have to worry about restore procedures that could end up not working; all you have to do is re-copy the files back to your restored internal HD. If you need different versions of the same file, just Save As them as "A-files" (xxx-A.doc, xxx-B.doc, etc.). Works for me.

-Werner Maurer, Vancouver, Canada

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 specific article/column at ComputorEdge.com (*webserver.computoredge.com/online.mvc?src=ebook*). 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*. If you would like to review our recent e-books, please visit ComputorEdge E-Books (*www.computoredgebooks.com/*).