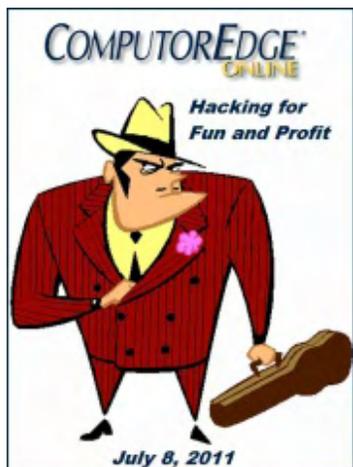


ComputerEdge™ Online — 07/08/11



This issue: Hacking for Fun and Profit

Hacking is no longer just for nerds looking to amuse themselves. It's now big business.

Table of Contents:

[Digital Dave](#) by *Digital Dave*

Digital Dave answers your tech questions.
30% Speed Upgrade; Finding Large Files in Windows; Recover Data from Partially Formatted External Hard Drive.

[Hackers Gone Wild! Gangs, Espionage, Blackmail and Corporate Theft](#) by Marilyn K.

Martin

Innovative and Dangerous Hacking
The world of computer hacking has changed from kids in the basement hacking for fun to criminals with deadly intentions and new levels of sophistication. Marilyn discusses how hacking has changed and the various anti-hacking laws.

[Wally Wang's Apple Farm](#) by Wally Wang

Appealing to the Consumer
Appealing to the consumer; more uses for the iPad; watch out for Windows 8; Mac OS X 10.7 Lion; looking backwards; designing iPhone and iPad games on a PC; the world of mobile browsing; clean up your index database of e-mail messages.

[Linux Lessons: Tips and Tricks from Users](#) by Tony J. Podrasky

The sudo Utility
The utility, sudo, allows a user to execute a command as another user.

(Click Banner)

(Click Banner)

(Click Banner)

(Click Banner)

[Worldwide News & Product Reviews](#) by Charles Carr

The latest in tech news and hot product reviews.

Adobe Dreamweaver CS5.5 (Windows/Mac): To Buy or Not To Buy?; You Only Thought You Played Crysis 2; Atom
Zombie Smasher for PC; Blue Snowball Microphone.

DEPARTMENTS:

[Editor's Letters: Tips and Thoughts from Readers](#) by ComputerEdge Staff

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

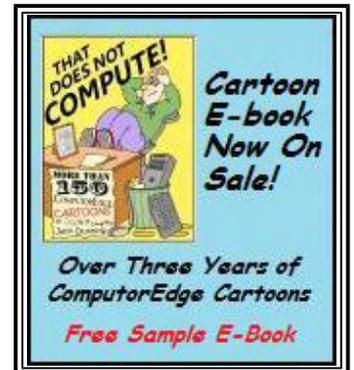
"Windows 8! Why Another Operating System?" "Linux Tips, Love 'em!" "OS X Lion Upgrade," "Overwhelmed or Apple
Sales Pitch?"



(Click Banner)



(Click Banner)



(Click Banner)

Send mail to ceeditor@computoredge.com with questions about editorial content.
Send mail to cwebmaster@computoredge.com with questions or comments about this Web site.

Copyright © 1997-2011 The Byte Buyer, Inc.

ComputerEdge Magazine, P.O. Box 83086, San Diego, CA 92138. (858) 573-0315

[Return to Table of Contents](#)



Digital Dave

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

30% Speed Upgrade; Finding Large Files in Windows; Recover Data from Partially Formatted External Hard Drive.

[Follow up on Victor's letter dated May 13.]

Dear Digital Dave,

I asked my friend about the copy of Windows 7 Ultimate. He laughed at my doubts. He bought a copy with several licenses planing on making an Internet cafe. He decided to postpone the project and had no use for all the licenses. At the end he just gave it to me. He even installed and activated it.

I did all the upgrades to make it current and it worked a lot smoother than before. Then I added 4GB of memory for a total of 6GB.

Then I bought advance computer system, which optimizes many things automatically, and I saw a difference. Then I downloaded software from Nvidia and did some overclocking. Everything works perfect and fast, but the rendering of video. So far I've just spent \$60, so I ordered a new video card. The one I have (Nvidia 7500LE) has 250MB of DDR2. The new one will be a GT 200 1GB DDR3.

Here comes a question: Can I have both installed? And doing so, will it perform better?

*Victor Rodriguez, keeping it simple
Seeley, CA*

Dear Victor,

Yes, you can install both video cards, but unless you have a second monitor, I'm not sure I understand the purpose. Installing two video cards is often done when people want to use more than one monitor at the same time. They are usually set up to expand the surface of the desktop, although you can set the second monitor to mirror the main screen. Mirroring is usually done when using a second monitor in a training situation or with a video projector. However, most video cards these days will support more than one monitor at a time, so that wouldn't be the reason to add both cards.

It can be worthwhile to use two monitors in video editing. The larger desktop area makes it convenient to put some documents and windows in one desktop space while running the main program(s) in the other.

Dual video card setups are not uncommon for increased performance, especially in gamer setups. Sometimes it's cheaper to use two cheaper cards to get similar performance to one cutting edge card. But your motherboard needs to support it, plus the cards you choose probably need to be the same. ATI calls this Crossfire. There's a little piece of hardware to connect the cards together. It's about performance. I wouldn't bother having unlinked cards such as your two in the system together.

I'm not sure what you meant by "advance computer system." I'm assuming that it is some type of system cleaning software.

Digital Dave

Dear Digital Dave,

On a computer with many physical or logical drives, sometimes the C: drive gets low on free space, and it must be increased to a minimum. Even after cleaning up with Disk Cleanup, many times more room is still needed.

One option is to use the Control Panel's program removal feature. Unfortunately, that utility does not tell you which drive the program is located so you can select a program that is on the C: drive.

Do you know of any other utility which might provide that information and save me from having to look through C:/Program Files, then copy down file names and then go to the Change/Remove Program utility to remove them?

*Jim Hahn
Broomfield, CO*

Dear Jim,

Although you don't mention which version of Windows you are using, you can use the Windows search capability to find files over a specified size. The Windows version only matters as each version's search works slightly differently.

In both Windows 7 and Vista the term "size:" can be used to look for files over a certain size. You can add ">" or "<" for file greater than and less than respectively (i.e. "size: > 2 mb"). There are also terms you can use which will specify a particular range. In Windows 7, left-click in the search field in the upper right-hand corner when you have the C: drive selected. Pick "Size:" from the bottom to the pop-up menu. A new options menu will pop up (see Figure 1). The terms will filter the search results as shown.

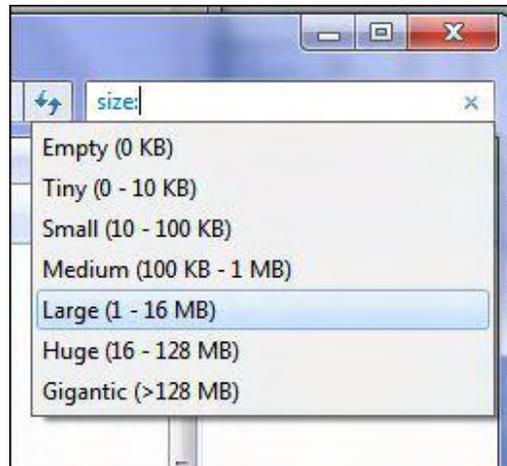


Figure 1. These Windows 7 search options will also work in Window Vista.

While these same terms will work in Windows Vista, the Advance Search windows available through the Search Pane under Search Tools will give more detailed control.

In Windows XP, select "All folders and files" in the search wizard and the "What size is it?" option will appear.

If your C: drive is always running out of space, there's one additional thing to check. With today's hard drives, unless you are doing a massive amount of video (or other large data files) work, it is unusual to run out of space on your primary hard drive. I found that one person who was encountering this out-of-disk-space problem had inadvertently set up his backup program to save to the same C: drive. Check the settings on your Backup and Restore to ensure that you are not saving to the same drive.

Digital Dave

Dear Digital Dave,

I need your help. I am looking for software to recover data. I made a mistake trying to format my WD external hard drive. I try to access the drive but I got a message "This drive needs to be formatted before use." Can you help me please?

Thanks,

*Jorge Alvarado
San Diego, CA*

Dear Jorge,

It sounds like you started the hard drive reformat process, then stopped it before it was finished—probably when you realized that it was a mistake. Unfortunately, reformatting a drive is one of the easiest ways to lose data. While it is likely that the data still resides on the drive, the probability of recovery without special help is low. Even if you find the data, it is probably no longer associated with a file name. It is quite possible that pieces of various files (especially large ones) are spread over different physical locations on the drive with no map

to find and to put them together.

Now that you can no longer access the drive, you will either need to send it to a data recovery specialist or find software that will read a drive with an incomplete format. A search for "data recovery software ([download.cnet.com/1770-20_4-0.html?](http://download.cnet.com/1770-20_4-0.html?query=data)

query=data

+recovery

+software&platformSelect=Windows&platformSelect=Windows&tag=srch&searchtype=downloads&filterName=platform%3DWindows%2CWindows&filter=platform%3DWindows%2CWindows)" on CNET's *Download.com* did yield

some results, although I have not used any of these programs.

If you're going to attempt to recover data, then you don't want to do anymore writing to the drive until you have completed the recovery. Additional writing will likely ruin more of the old files. Of course, at this point you can't even access the drive, much less write to it.

To use the drive again, you will need to complete the format process. This will not bring back the data, but it will make your hard drive usable again.

I use external hard drives primarily for automatic backup of my working drives. Therefore, if I do happen to lose data through an external hard drive crash, I have other copies of almost all data on my primary drives. If you have no other copies of your data files, then you have not been making the best use of your hard drives. Remember, eventually *all* data drives will fail. It is important to have multiples copies (at least two on different media) of any files which are important to you. This is a tough way to learn a lesson.

Digital Dave

[Return to Table of Contents](#)



Hackers Gone Wild! Gangs, Espionage, Blackmail and Corporate Theft

“Innovative and Dangerous Hacking” by Marilyn K. Martin

The world of computer hacking has changed from kids in the basement hacking for fun to criminals with deadly intentions and new levels of sophistication. Marilyn discusses how hacking has changed and the various anti-hacking laws.

It used to be that computer hackers were something of a joke. The stereotype in most people's minds, were kids/teens in their basement, hacking into "secure" Web sites and federal computers just for the thrill of breaking in. The worst hackers were tracked down, caught and imprisoned. Then hired by the government when they were released, to use their expertise to help catch other hackers.

But then came along the Stuxnet worm and WikiLeaks in 2010, and suddenly "hacktivists" were operating in international gangs or government teams on a global scale, with deadly intentions. Today hacking has reached a new level of sophistication—and danger. Symantec Security reported that hacked Web sites rose 93% in 2010, from 2009.

So now different parts of our federal government have opened (or are planning to open) multiple specialized Cyber Crime Centers. No longer just another "hacker-dude" in his bedroom, today's computer hackers have increasingly strong power and profit motives to steal data. They might work in teams which can represent spy networks of foreign governments. Or even as domestic digital-espionage units hidden within superficially legit cyber-security firms.

In a world where more and more communications rely on computers and satellites, there is a real fear that hackers could damage or compromise sensitive equipment at a crucial moment. Or that a few taps on a keyboard could shut down a satellite or reroute in air weaponry, with explosive international repercussions.

Anti-Hacking Laws

Hackers are now distinguished from "Crackers," who deliberately hack into systems with malevolent intentions. Whatever the reasons, however, anti-hacking laws revolve around the term "intentionally accessing a computer without authorization, or exceeding authorized access."

The federal government has passed a comprehensive "Computer Fraud and Abuse Act". "Computer Hacking Law & Legal Definition (definitions.uslegal.com/c/computer-hacking/)" is an excellent article.

In addition, each state has their own set of anti-hacking laws (www.ncsl.org/default.aspx?tabid=13494). Virginia, predictably, has some of the most stringent laws (leg1.state.va.us/cgi-bin/legp504.exe?101+ful+CHAP0489), and plenty of amendments. Their last amendments in 2010 covered "Spam" and "Civil relief: damages." It also covered how people injured by violation of the anti-hacking laws or "any act of computer trespass," may sue for recovery of damages.

Hacking Social Sites

A June 2011 article (www.sciencedaily.com/releases/2011/06/110602111437.htm) in Science Daily, states that a study of

more than 100 popular Web sites, used by tens of millions of people, has found that 3/4 of the sites directly leak either private information or users' unique identities to third-party tracking sites. These tracking sites can link many disparate pieces of information (from browsing histories to searches of health and travel sites) to create detailed profiles of individuals.



Esmeralda gets her Magic Spells Internet Account hacked.

a factor contributing to online security breaches." Companies like Mozilla and Google have each paid up to \$3,000 for detected software flaws, he stated, but other software vendors are reluctant to follow suit. Miller suggested that major software vendors could pay into a fund to pay for bug-finders. And the government too could encourage vendors to pay hackers who find bugs.

Small-Time Hackers Get More Innovative

An Orange County California computer repair tech was arrested in June 2011, on suspicion of installing spyware (www.ajc.com/business/police-computer-tech-installed-971695.html) on repaired Mac laptops that allowed him to photograph the female owners undressing and showering in their homes.

Trevor Harwell, a repair tech for Rezitech, Inc., installed a program that took control of the Web cam on his female clients' Mac laptops. The software sent fake error messages, such as telling the users to "try putting your laptop near hot steam for several minutes to clean the sensor." So the female victims would take their laptops into the bathroom as they showered.

Harwell used his cellphone to control a program called "Camcapture," to store the photos on a remote server and then download them to his computer. Harwell now faces 12 felony counts of computer access and fraud. Detectives are still going through the thousands of still photos and video on Harwell's computer, and are looking for more victims.

Big-Time Hackers Get More Dangerous

The list of data breaches through hacking seems to grow almost daily. In June 2011, the Boston Globe reported that "Up to 210,000 unemployed Massachusetts residents were put at risk by data theft software (articles.boston.com/2011-06-11/business/29647643_1_rsa-security-computer-breaches-hackers) that infected computers at the state's Executive Office of Labor and Workforce Development."

Earlier, Massachusetts cyber-criminals had stolen vital information from RSA Security, which was later used in a "hacker raid" on defense contractor Lockheed-Martin, an RSA client. According to this article, experts say that making computer networks truly secure is impossible.

"It's too hard. It's too expensive," says consultant Mischel Kwon, a former director of the U.S. government's Computer Emergency Readiness Team. The world's computer systems, according to Kwon, have been infiltrated by everyone "from criminal gangs to radical political activists to digital secret agents working for foreign governments."

Computer Industry Lagging in Anti-Hacking Technology

Craig Wills, professor of computer science at Worcester Polytechnic Institute, conducted the study. "Despite a number of proposals and reports put forward by researchers, government agencies and privacy advocates, the problem of privacy has worsened significantly," Wills stated. "We believe it is time to move beyond what is clearly a losing battle with third-party (data-mining) aggregators, and examine what roles first-party sites can play in (better) protecting the privacy of their users."

Hi-Tech Exterminators: Paying Hackers for Bug Detection?

IT expert Charlie Miller spoke at NATO's cyber-security conference in June 2011, and stated that "bug-less software (www.spacedaily.com/reports/Bugless_software_key_to_cyber_security_expert_tells_NATO_999.html)" was the key to global cyber security. "Software vulnerabilities enable breaches," according to Miller. "If we want to make cyber space safer, we need to find a way to force vendors to produce more secure software."

Miller went on to make a controversial statement, that the reluctance of software vendors to "pay hackers for weeding out program bugs is

In the same article, the charge was leveled that one big reason corporations can't get ahead of the hackers, is because the technology is not yet available. "The computer industry has failed to keep up with the changing methods and motives of hackers," according to Joshua Corman, research director for Enterprise Security at The 451 Group in Dover, New Hampshire. "Our approaches have been incredibly static and unchanging."

Another factor, Corman says, is that the antivirus and other commercial security software products are only adequate against the kind of amateur hackers who vandalized Web sites in the early days of the Internet. But, that this security software often fails to detect customized malware created by today's sophisticated digital crime gangs and foreign intelligence agencies.

Forget Credit Cards—Hackers Now Stealing Corporate Secrets

A third factor, according to Corman, is that computer hackers are now playing for higher stakes. Millions of stolen credit and debit card numbers have glutted the underground market for stolen card numbers. "The street level value of a stolen credit card has dropped a hundred-fold because it's so easy to steal," says Corman. "So gangsters are moving into the market for stolen corporate secrets. And law enforcement is ill-prepared for this on every level."

Even back in October 2010, there were suspicions that computer criminals who used the Zeus banking crimeware, were already angling toward corporate espionage (www.networkworld.com/news/2010/100910-zeus-hackers-could-steal-corporate.html). Gary Warner is director of research in computer forensics with the University of Alabama at Birmingham. He was closely monitoring the various criminal groups that use Zeus, which typically steals online banking credentials and then uses that information to move money out of Internet accounts.

But in the past year, Warner reported that he was beginning to see some Zeus hackers also trying to figure out what companies their victims worked for. He monitored online forums where he saw hackers speculating about how they might be able to sell access to computers associated with certain companies or government agencies. Clearly, the hackers now wanted to know where their online victims worked. "Your computer may be worth exploring more deeply," said Warner, "because it may provide a gateway to the organization (where you work)."

Foreign Hackers—Organized Gangs

In May 2011, China allegedly launched a "phishing campaign (latimesblogs.latimes.com/technology/2011/06/chinese-hackers-infiltrated-personal-gmail-accounts-google.html)" into personal Google Gmail accounts of hundreds of people in the U.S., including government officials.

Google posted on their blog that they were able to disrupt the scam, but believe that "hackers were able to monitor the accounts of Chinese political activists, officials from several Asian countries, journalists, military personnel and U.S. government officials." The hackers supposedly obtained passwords to Gmail accounts, and changed settings to allow access for other (unauthorized) users, or have e-mails forwarded to another account.

Also in May 2011, a group of hackers called "LulzSec", planted fake stories (latimesblogs.latimes.com/technology/2011/06/lulzsec-targets-sony-after-pbs-hack-attack.html) of dead rappers actually being alive and well in New Zealand on PBS' (Public Broadcasting) Web site, through its Twitter account.

LulzSec then went after Sony, which has been dealing with a myriad of security troubles going back to April. These hacks on Sony temporarily shut down its PlayStation Network and Qriocity. In June 2011, LulzSec also leaked Sony data (latimesblogs.latimes.com/technology/2011/06/lulzsec-hacker-group-leaks-personal-data-from-sony-servers-mocks-the-fbi.html) on more than 90 million user accounts, then posted the data on Web site Pastebin. As is typical today, with no one taking the responsibility for anything, LulzSec (through its Twitter account) said people should instead be angry at Sony and their alleged lax Web site security.

Espionage and Hacking the Hackers

The Intelligence Community has long been known for hacking, whether into phone lines or computer systems. An article in the Los Angeles Times in June 2011 (latimesblogs.latimes.com/technology/2011/06/al-qaeda-magazine-hack-british-spy-agency.html) revealed an especially playful "hack," on a deadly serious target. British spy agents hacked into Al Qaeda's extremist, English-language magazine, "Inspire," last summer. Once inside, the British agents "corrupted" and removed several articles. Then replaced an article on bomb-making instructions with ... recipes for cupcakes.

In February 2011, a hacked cyber-security firm, HBGary, almost got over its embarrassment about the time its internal documents and e-mails were posted on an online file-sharing service (www.mail-archive.com/infowarrior@attrition.org/msg07123.html) for all the world to see. The documents revealed that HBGary was making unethical and potentially criminal plans to build a "digital-

espionage-for-hire business."

The owner, Greg Hogle, denied any knowledge of such criminal plans, blaming his top executive, a former U.S. Navy cryptologist named Aaron Barr. Barr had linked with other security companies in a collaboration called "Team Themis." There they allegedly hatched grandiose plans for infiltrating various organizations (including WikiLeaks) to gather intelligence, and then practice blackmail and intimidation.

"There Is a New Kind of War That Can Cause a Lot of Damage."

A recent Cyber Warfare and Security Summit in Washington D.C. in June, 2011 had grave news (www.spacedaily.com/reports/NATO_plans_force_to_respond_to_cyber_attacks_999.html): "Recent cyber crime incidents have confirmed suspicions in Washington that foreign hacking into public and private sector networks in the United States and other industrial countries, is often inspired by hostile governments."

In addition, Pentagon officials cited Security Briefs that concluded "computer sabotage coming from another country can constitute an Act of War, and justify preventive or retaliatory action deploying traditional military force."

NATO now has its own "Cooperative Cyber Defence Centre of Excellence (www.ccdcoe.org/), established in 2008, and headquartered in Tallinn, Estonia. They have just held their third annual Cyber Defence Conference in June 2011. Out of that Conference came the news that NATO wants to create a special "Cyber Red Team" to detect and respond to Internet attacks. (Same article cited above.)

But first, they need to identify and resolve issues related to CRT's activities that could be construed as unauthorized access/use of computer systems, and the potential for invasion of privacy. "There is a new kind of war that can cause a lot of damage," stated Major General Jonathan Shaw, a British defence ministry official. "We need a response system and we need to learn to respond fast. In the cyber world, you have to do a lot of homework before the attack, in order to be effective."

Computer Hacking 101

I was surprised at how many sophisticated how-to-hack sites are available on the Internet. Some just blatantly advertise "Hack a Facebook Password," or "How to Hack a Yahoo Password."

But the trick to not getting shut down, I discovered, is for the hacker sites to post a clever variation of the phrase "How To Make Your Computer/Network More Secure." This seems to convey the impression that their site is really about how *not* to be hacked, by presenting detailed how-to hacking instructions to "show you how it's done."

One site even bills itself as "Ethical Hacking, Security Tips and Cracked Softwares." Another site has a long list of articles, starting out with "The Best Ways to Make Money From Your Website or Blog." But further down the list are increasingly dubious articles, like "Network Hacking." Do they rely on the idea that busy cyber-police don't read their whole Web site?

So where do we go from here? Do we have to expect a certain loss of privacy to keep crucial computer networks safe? Do we dare trust putting too much personal information on the Internet anymore? Stay tuned.

Marilyn is a freelance writer and humorist with many interests. She has sold teen anti-drug articles, as well as had numerous esoteric articles published. She has almost seventy mini-articles on Helium.com (www.helium.com/users/573405/show_articles), and is writing a humorous Young Adult Science Fiction series, *Chronicles of Mathias*. 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.

[Return to Table of Contents](#)



Wally Wang's Apple Farm

“Appealing to the Consumer” by Wally Wang

Appealing to the consumer; more uses for the iPad; watch out for Windows 8; Mac OS X 10.7 Lion; looking backwards; designing iPhone and iPad games on a PC; the world of mobile browsing; clean up your index database of e-mail messages.

Wally Wang's Apple Farm

With Apple selling millions of iPads, there's clearly a use for the iPad (blogs.forbes.com/timworstall/2011/07/02/ipad-one-of-the-most-successful-products-ever/), but there isn't such a clear use for other tablet computers. The problem is that competitors can't undercut the iPad on price and when they do, the quality suffers dramatically. When they offer rival tablets at the same price (or even higher in the case of Motorola's Xoom), nobody has a reason to buy it over an iPad.

Perhaps the biggest drawback lies with the number of available apps. The iPad currently has over 100,000 tablet optimized apps (www.pcmag.com/article2/0,2817,2387939,00.asp) while the number of tablet specific apps for webOS is 300 and the number of Android tablets apps (pogue.blogs.nytimes.com/2011/07/01/mystery-how-many-android-tablet-apps/) is estimated at less than 300. To catch up to the iPad, rival tablet manufacturers need to attract more developers, but developers are hesitant about learning yet another operating system (www.computerworld.com/s/article/9218075/Mystery_of_the_missing_Honeycomb_apps?taxonomyId=15&pageNumber=1) without the security of a large audience of potential customers.

The end result is that the iPad will likely remain the leader in the near future until somebody else can clearly establish a tablet that can actually sell in sizable quantities. In the meantime, many Android tablet manufacturers are simply abandoning the tablet market (www.tomsguide.com/us/Froyo-honeycomb-Galaxy-tab-Android-Market-Taiwanese,news-11550.html).

Hewlett-Packard recently released their TouchPad running webOS (www.crunchgear.com/2011/06/29/review-the-hp-palm-touchpad/), but while reviewers have praised its hardware, they've universally panned its software for sluggishness. CrunchGear said that on webOS, "Flash is slow. Why doesn't Apple like Flash? Because it's a resource hog, it doesn't react well to touch input, and it doesn't work."

Perhaps the best explanation for why rivals can't beat the iPad comes from an anonymous Research in Motion executive (business.financialpost.com/2011/06/30/open-letter-from-anonymous-rim-official-blasting-company-surfaces-online/) who wrote, "We often make product decisions based on strategic alignment, partner requests or even legal advice—the end user doesn't care. We simply have to admit that Apple is nailing this and it is one of the reasons they have people lining up over night at stores around the world, and products sold out for months. These people aren't hypnotized zombies, they simply love beautifully designed products that are user centric and work how they are supposed to work."

Regarding the "advantage" of running Flash on Research in Motion's Playbook tablet, this anonymous executive wrote, "25 million iPad users don't care that it doesn't have Flash or true multitasking, so why make that a focus in our campaigns? I'll answer that for you: it's because that's all that differentiates our products and it's lazy marketing. I've never seen someone buy product B because it has something product A doesn't have. People buy product B because they want and lust after product B."

If companies just made products that people wanted, they might actually sell units regardless of the competition. Rivals don't need to offer something with better specifications than the iPad. Rivals simply need to put together a product that gives people a reason to want one whether it competes against Apple or not. Despite \$2 billion dollars in the bank, Research in Motion's future still looks dim (www.detnews.com/article/20110704/BIZ04/107040324/1013/ent/Once-indispensable-for-elites—BlackBerries-may-now-be-obsolete) as so many loyal customers abandon them.

While rivals blindly copy Apple in a futile bid to become a leader, Apple continues expanding their markets around the world (www.fool.com/investing/general/2011/06/27/apples-overseas-demand-in-a-word-exploding.aspx).

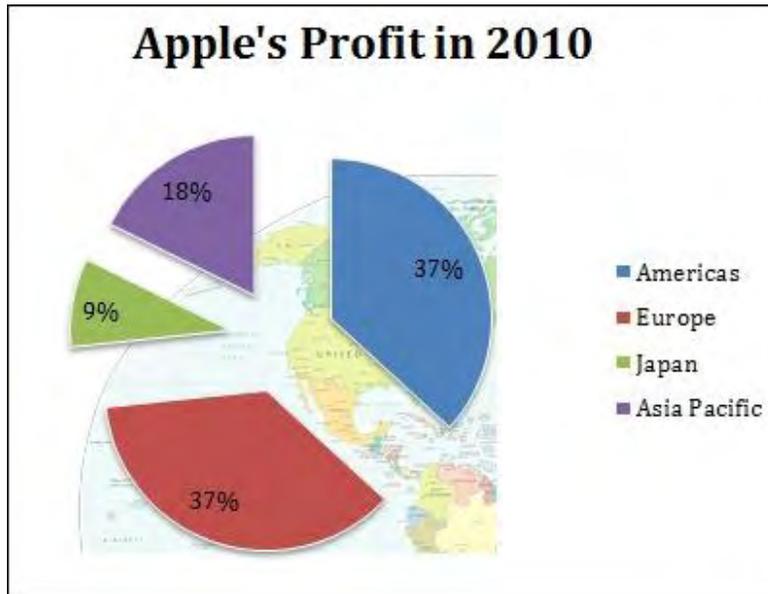


Figure 1. Apple's worldwide growth.

More surprising is Apple's rapid profit and sales growth. By appealing to consumers, Apple designs products that people want to buy. By appealing to corporations, other companies such as Microsoft, sell products that are often too complicated or overwhelming for the average consumer. Corporations need forklifts and copy machines that can collate, staple and fold 70 pages per minute in color. Most individuals do not, so it's no surprise that individuals get confused when trying to use tools designed for corporations such as Microsoft Office.

Market	Sales Growth Between 2005 and 2010	Profit Growth Between 2005 and 2010
Americas	268%	682%
Europe	508%	1,518%
Japan	331%	1,156%
Asia-Pacific	727%	2,991%

Figure 2. Apple's profit continues skyrocketing.

To sell products, offer something that people want and give them a reason to buy. Why do so many companies such as Motorola (Xoom), Dell (Streak) and Research in Motion (Playbook) continue to overlook this simple formula?

More Uses for the iPad

If you want an iPad but can't afford one, you can enlist in the Singapore Military, which is making the iPad standard equipment (www.examiner.com/technology-in-national/singapore-armed-forces-to-equip-conscripts-with-ipads) for soldiers.

Troops will use the iPad 2's built-in cameras to take photos and video clips, which can be uploaded to the an online platform called LEARNet. In addition, soldiers will be able to use chat and instant messaging to stay in touch with their commanders.

Defense chief Neo Kian Hong claims that the iPad can be useful "By exploiting the use of popular and current information

and communications technology, we are able to harness our advantage of today's technologically savvy servicemen."

Instead of joining the Singapore military, you could always join the town hall in North Carolina, which has adopted the iPad (www.huntersvilleherald.com/news/2011/06/30/cornelius-goes-paperless-buys-ipads/) to replace the need for printing paper meeting notes. "It's just a no brainer," said Town Manager Anthony Roberts. "We used to print all those agenda packets and people threw them in the recycling bin after the meeting. The beauty of this system is you have everything online. It's there forever and a day, and the general public sees everything."

Before the town made its agendas and meeting packets electronic, town officials had to spend an average of eight hours gathering agenda materials, making copies and making sure they were in the correct order. The town printed 19 agendas, averaging 210 pages each, for every meeting along with making extra copies for the media.

Saving paper can be a worthwhile goal, but saving a single person can be even more heartwarming. The Herald Sun tells a story about a girl using an iPad to overcome her vision problems (www.heraldsun.com.au/news/more-news/ipad-becomes-the-apple-of-hollys-eye/story-fn7x8me2-1226083773188). Holly Bligh, age 9, has albinism, a genetic condition that affects her eye sight. Instead of using a bulky magnifying glass to read, Holly now uses an iPad. Her mother, Fiona, says that "Holly's enthusiasm to read has grown so much, and it's definitely increased her independence."

Even the Pope can be seen using an iPad (www.youtube.com/watch?v=tC8s44MRGVA&feature=player_embedded). InfoWorld recently highlighted what makes the iPad the defining tablet on the market (www.infoworld.com/d/mobile-technology/the-ipads-victory-in-defining-the-tablet-what-it-means-431) despite numerous competitors who offer lots of potential, but fall short on delivering actual results.

Could rival tablets offer these same benefits to such a variety of users as the iPad? Maybe, but only if people found them easy to use. We'll never know as long as rivals continue focusing on a parade of technical specifications instead of focusing on the consumer.

Watch Out for Windows 8

The pro-Microsoft site, Windows 7 News & Tips (www.windows7news.com/2011/06/29/windows-move-3-year-product-cycle/) recently wrote about the coming Windows 8 operating system and made several interesting points. First, Microsoft typically updates their operating systems in three year cycles. Since Windows 8 is designed for tablets, that means Microsoft will be offering a new tablet operating system every three years while Apple and Google continually improve their tablet operating systems every year, putting Windows 8 at a potential disadvantage.

Second, Microsoft seems intent on making Windows 8 their tablet operating system with eventual plans to make it their phone operating system as well. What does that mean for Windows Phone 7, their current phone operating system? It could mean that if you spend time developing for Windows Phone 7, all your skills and knowledge will be flushed down the toilet the moment Windows 8 replaces Windows Phone 7 since the tools needed to program Windows Phone 7 are different than the tools needed to program Windows 8.

Windows 8 represents a potential minefield of problems that Microsoft will need to solve without upsetting too many people in the process. In any event, watching how the world reacts to Windows 8 should be like watching a car race and expecting something to go horribly wrong at any moment. Microsoft's CEO, Steve Ballmer, claimed that Windows 8 was Microsoft's biggest gamble. Unfortunately when most people gamble, they lose.

Mac OS X 10.7 Lion

There's a reason why so many people are still clinging to Windows XP. It's because running Windows 7 won't give you any clear and noticeable productivity advantages over Windows XP, so why bother upgrading?

While Mac OS X 10.7 Lion offers 250 new features (www.apple.com/macosex/whats-new/features.html), two major features that can make you productive right away are Auto Save and Versioning. (You'll need programs specially designed to work with Mac OS X 10.7 Lion's Auto Save and Versioning features, which will likely be Apple's own iWork suite initially.)

If you've ever worked on a document and lost everything because of a sudden power failure or computer crash, you'll immediately see the benefit of Auto Save. As you work on a document, Auto Save automatically saves everything you do. Now if your computer crashes or the power goes out, you'll be able to restart your Macintosh and go back to work without losing a thing. This ability to protect your work can save you in ways that other operating systems cannot provide.

The second major feature of Mac OS X 10.7 Lion is Versions, which lets you review and retrieve older versions of a document. Now if you create a document and suddenly decide you like an earlier version instead, you can revert to that earlier version without the nuisance of storing multiple versions of your file.

Both individuals and corporations will find that Auto Save and Versions can protect their work. If you like the assurance of never losing any data ever again, you'll find a reason to upgrade to Lion along with Lion-specific software. If you can't see how protecting your files can be useful, then feel free to continue losing your data periodically using other operating systems.

If you want a reason to upgrade to Windows 7, read these ten reasons (windows.microsoft.com/en-US/windows7/products/10-reasons-to-buy-Windows-7) given by Microsoft. Just ask yourself if any of these ten reasons will make you more productive and take note of the footnote that mentions not all ten reasons are available on all editions of Windows 7, so be sure to wade through the details of different Windows editions (32-bit vs. 64-bit and Home edition vs. Professional edition).

All Windows users can easily understand the differences between 32-bit and 64-bit Home and Professional editions, so expect your productivity to skyrocket tremendously through such must-have features like Internet Explorer 9, nag-free notifications, and touch gesture capabilities on PCs lacking the ability to accept touch gestures in the first place.

4 take up less memory and run background services only when you need them. It's designed to run your programs faster and to sleep, resume, and reconnect to wireless networks quicker. And with **64-bit support**, you can take full advantage of the latest in powerful 64-bit PCs.

5 Better wireless networking. Connecting to **wireless networks** on your laptop—formerly a bit of a hassle—now takes just a couple of clicks. Choose from the list of available networks in the taskbar, click one, and then connect. Once you've connected to a network, Windows will remember it so you can connect again later automatically.

6 Windows Touch. Use your fingers to browse the web, flip through photos, and open files and folders on a touchscreen PC—for the first time, Windows includes true **multitouch** technology. With gestures for zooming, rotating, and even right-clicking, it's a whole new way to work with your PC.

7 Plays well with devices. **Device Stage**, a new feature in Windows 7, works like a home page for things like portable music players, smartphones, and printers. When you plug a compatible device into your PC, you'll see a menu with information and popular tasks like battery life, how many photos are ready to be downloaded, and printing options.

8 Watch, listen, and stream. **Internet TV**, part of **Windows Media Center**, gathers programming from sites all over the Internet—shows, sports highlights, video podcasts, and more. Add a TV tuner, and your PC becomes a digital video recorder you can use to watch, pause, and record live TV. And with new features in **Windows Media Player 12**, you can enjoy your media library around the house—or around town.

9 Internet Explorer 9 and Windows Live. Windows 7 unleashes the full power of **Internet Explorer 9**, from its stunning hardware-accelerated graphics to the ability to launch favorite websites right from your taskbar. You'll also get the many possibilities of **Windows Live**, free: create photo albums and movies, chat in HD, and share your stuff anytime, anywhere.

10 Nag-free notifications. **Action Center**, new in Windows 7, puts you in control of maintenance and security messages. You can turn notifications on or off for things like **Windows Defender** or **User Account Control**. If Windows needs your attention, you'll see a notification on the far right of the taskbar. Click it, and you'll get suggested fixes for any problems.

Note

Not all features mentioned above are available in all editions of Windows 7. See the individual **feature pages** for details.

Figure 3. Microsoft's reasons for why you should upgrade to Windows 7.

Looking Backwards

Four years ago, Apple unveiled the iPhone. In case you don't remember what the critics said at the time, CNET has collected their criticisms (news.cnet.com/8301-27076_3-20075254-248/iphone-turns-4-early-predictions-rewound/?tag=topStories3) so you can look back and see who was right and who was wrong.

Four years ago, Nokia, Research in Motion and even Microsoft (with Windows Mobile) held the majority share of the smartphone market. Now all three companies have been watching the steady erosion of their market share as they struggle to compete.

Apple's secret to competing is not to compete at all. Instead, they change the playing field to put their competitors at a massive disadvantage while they rewrite all the rules. Any time new technology appears, ask yourself if it's just an incremental improvement over existing technology or something totally different altogether.

If it's something different, there's no guarantee it will succeed, but if it's just an incremental improvement, it's highly unlikely to ever radically change the world. Everyone can see how the printing press changed the world, but does anyone believe that the first incremental improvement to the printing press had the same impact?

One oddity about human nature is that when used to following one way of doing things, the human mind fools itself into believing that one way is the only possible logical way life should ever work. Then when something new comes along, it suddenly makes the old way of doing things suddenly seem as convoluted and confusing as it has always been, but it wasn't apparent until a new way came along.

In Mac OS X 10.7 Lion, you'll discover this through scrolling. In most computers, open a document full of text and scroll down. Notice how the text scrolls up? Now scroll up and watch the text scroll down.

This may seem logical until you switch to Mac OS X 10.7 Lion, which defaults to scrolling in the direction you actually roll the mouse wheel or slide your fingers on a trackpad. Scroll up in Lion and your text scrolls up. Scroll down and your text scrolls down.

This simple change takes a moment to get used to, but when you start using it, you realize how intuitive it can be to scroll in the direction you're moving the mouse wheel or sliding your fingers on a trackpad. Yet until you try this new way of scrolling, it's easy to believe that scrolling text in the opposite direction is the "natural" and "intuitive" way that computers "should" work.

When you upgrade to Lion, you have the option of reversing this to make your mouse or trackpad behave like the old way. It only takes a few seconds to define how Lion scrolls, but once you try the default of letting text scroll in the same direction, you'll either hate it or realize this can actually feel more intuitive. It all depends on the flexibility of your own mind.

Designing iPhone and iPad Games on a PC

The usual route to developing iOS games is to learn Objective-C and then tear your hair out learning all the various built-in routines for displaying graphics and animation. In case you want to design a game without becoming an expert programmer at the same time, download Thinking Worlds (www.thinkingworlds.com/).

The image shows the homepage of Thinking Worlds, a platform for creating 3-D simulations. The top navigation bar includes links for Home, Features, Demos, Content, Community, Support, and Contact, with a yellow 'Download' button. The main headline is 'Seriously. Create Sims & Games Rapidly'. Below the headline, four bullet points highlight the platform's features: 'Simple & Easy to Use', 'Create Games in Days', 'Completely Free', and 'Publish to iPad and iPhone'. The central part of the page is divided into three sections: 'Create' (Imagine Anything), 'Build' (Bring It To Life), and 'Publish' (Share It With Everyone). At the bottom, there is a 'Buy Now!' button with a shopping cart icon.

Figure 4. Thinking Worlds lets you create 3-D simulations for iOS.

The main idea behind Thinking Worlds is to make it easy to create 3-D simulations without creating these routines from scratch using basic Objective-C code. Just use the built-in library of graphics items, customize them, and you have a game or simulation with little or no programming. Of course, the more you dig into its technical details, the more you can customize your final result, but it's not necessary to be a programmer to use Thinking Worlds.

Although Thinking Worlds can create iOS apps, it only runs on Windows. The basic Thinking Worlds framework is free, but if you want to sell your creations or need additional features, you'll need to purchase a license.

If the idea of creating your own games and simulations sounds appealing and you have a Windows PC, then Thinking Worlds can help you turn your ideas into an iOS game without bogging you down with the details of Objective-C programming. Now you just have to figure out how to unleash your creativity within the framework of Thinking Worlds and iOS.

The World of Mobile Browsing

In the past, trying to access the Internet on so-called smart phones was an exercise in frustration. Often times the smart phone's browser proved so slow or clumsy that it made browsing useless. Then along came the iPhone and Android, so it's no surprise that both operating systems form the majority of mobile Web browsing while other operating systems have virtually no Web browsing share whatsoever.

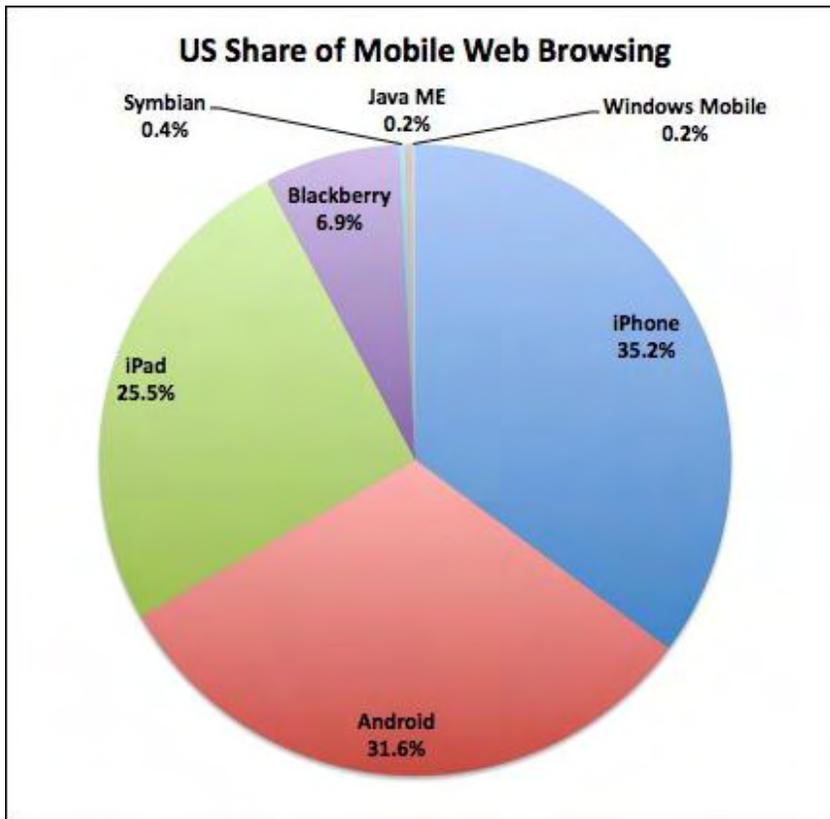


Figure 5. Android and iOS represent the largest mobile Web browsers.

As more people rely on mobile devices (smart phones and tablets), the need for regular laptops will continue dropping. Acer has cut forecasts on their PC sales (www.electronista.com/articles/11/06/27/acer.summer.notebook.shipments.drop.too/) while also cutting back on possible tablet sales (www.bgr.com/2011/06/24/acer-cuts-2011-tablet-sales-forecast-in-half-to-2-5m-units-citing-poor-sell-through-competition/).

Mobile devices may never completely replace desktop or laptop computers, but they can certainly give people an alternative to buying a new computer. Expect fewer people to upgrade their computers on a regular basis as they just rely on their mobile devices instead. For Android and iOS, the future looks bright. For everyone else, good luck.

* * *

If you use the Mail program that comes with Mac OS X, you'll find that Mail may act erratically at times by feeling sluggish or actually losing messages. The problem is that Mail stores all your messages in a database and uses an index to identify all your messages. The more you move and delete messages, the more likely this index can get messed up pointing to non-existent messages.

To fix this problem, just run the Mail program and choose Mailbox => Rebuild. This can clean up your index database of messages, but can also lose some messages, so be sure to back up everything first before you try this command.

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 (www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646),
- My New iPhone (www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956),
- My New iPad (www.amazon.com/gp/product/1593272758?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593272758),
- Steal This Computer Book 4.0 (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 Fisher and Gerald Fisher (www.amazon.com/gp/product/1590791894?

ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894),
 How to Live With a Cat (When You Really Don't Want To) (www.smashwords.com/books/view/18896).

Mac Programming For Absolute Beginners (www.amazon.com/gp/product/1430233362?

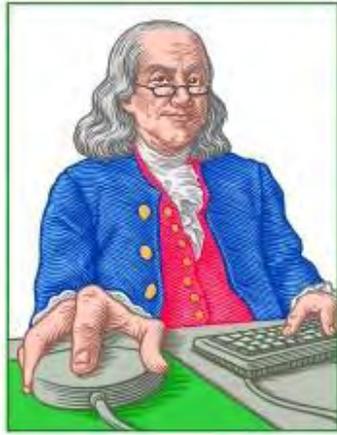
ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362)
 The 15-Minute Movie Method

(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/) along with blogging about electronic publishing and how authors can take advantage of technology at his site "The Electronic Author." (www.wallacewang.com) Wally can be reached at wally@computoredge.com.

[Return to Table of Contents](#)



LINUX LESSONS

**"AN INVESTMENT
IN LINUX KNOWLEDGE
PAYS THE BEST
INTEREST."**

Linux Lessons: Tips and Tricks from Users

"The sudo Utility" by Tony J. Podrasky

The utility, sudo, allows a user to execute a command as another user.

Filename: sudo

Use: <sudo> Allows a user to execute a command as another user. Usually used to give access to certain root commands that are not normally available to non-root users.

On a Linux (or for that matter any *NIX-based) system there are two types of human users: "root," who has super powers to do pretty much anything, and the "user community," which the sysadmins usually pronounce "lusers" (or loooosers) who are the necessary evil that make having sysadmins necessary. (Think about that—Ha!)

Even if your Linux environment consists of your own private computer with you as the sole user, it is still a good idea to have your own user ID which you use to do day-to-day tasks, using root only when you need to do system maintenance.

It is considered "wise" to only log in as root when absolutely necessary.

All sysadmins, who can log in as root, have their own private accounts from which they normally work. Even the best of us, who have been around *NIX systems for years, try to keep that commandment. That is usually because one time, when we were careless, we did something that will always tweak us when we think about it.

So, the next question is: "Why would one of the "lusers" *need* access to a privileged root command?"

Well, some servers are used for "development." The programmers could be writing code in real time, and if they have a bug in their code, they could render the server useless. To fix the problem, the server might need to be rebooted. Therefore, you give "group leaders" or other "trusted users" access to the command <shutdown> or <reboot>.

Another reason could be that one of the "groups" has their own disk or database which they want to have exclusive rights to bring online and take offline. You can give their users access to the <mount> command and set it up so that only they can mount and unmount their own database.

Here's a copy of my sudoers file:

```
root% cat sudoers
# sudoers file.
#
# This file MUST be edited with the "visudo" command as root.
#
# See the man page for the details on how to write a sudoers file.
#
Defaults:tonyp timestamp_timeout=-1
# Host alias specification
# Cmnd alias specification
Cmnd_Alias CHGRP=/bin/chgrp
Cmnd_Alias CHOWN=/bin/chown
Cmnd_Alias DATE=/bin/date
Cmnd_Alias SHUTDOWN=/sbin/shutdown
Cmnd_Alias MOUNT=/bin/mount
```

```

Cmnd_Alias UMOUNT=/bin/umount
Cmnd_Alias STORAGE=/usr/local/bin/STORAGE
# User specification
root ALL=ALL
tonyp ALL=CHGRP,CHOWN,DATE,SHUTDOWN,MOUNT,UMOUNT,STORAGE

```

For a full description of the sudo utilities, please do an <apropos sudo>. There are many, many options available.

OK, let's examine some of the entries in the file:

First, the advisory lines [#sudoers file (through) See the man page]:

I would recommend you cut and paste those lines into the top of your sudoers file when you create it. I've never used <visudo> before and when I used it for the first time while writing this column, it found an error that's been in the file for 15 years! It wasn't a show-stopper, but it taught me that <visudo> actually is the best editor for this file.

Defaults:tonyp timestamp_timeout=-1

This lists user tonyp and the timestamp stuff says that when he calls <sudo> to do something, the first time it will ask him for his password, but never again after that (until the system is rebooted).

Cmnd_Alias CHGRP=/bin/chgrp

This entry says "CHGRP" will be an alias (within this file) for the system command </bin/chgrp>. You can change the "CHGRP" to whatever you like BUT on the "ALL" lines it must be the same.

Cmnd_Alias STORAGE=/usr/local/bin/STORAGE

This one is a bit confusing because it uses the alias "STORAGE" and calls the file "STORAGE". Those of you who are regular readers know that I give all my personal command all upper-case names so they don't conflict with system commands of the same name.

tonyp ALL=CHGRP,CHOWN,DATE,SHUTDOWN,MOUNT,UMOUNT

tonyp is allowed to use all the commands listed after the word "ALL". There are only six Cmnd_Alias entries above. I trimmed out the rest because there were so many.

OK, now let's set up your sudoers file. Do the following:

```

root% cd /etc
root% visudo

```

Cut and paste my file (above) from the first line [# sudoers file.] to the end.

Replace "tonyp" with your local user name.

Close the editor (:wq).

Still, as root, copy the sudoers file to /tmp.

Sign out as root and log in with your local user name.

```
tonyp% cd /tmp [Go to the tmp directory.]
```

```
tonyp% ls -la sudoers [See if the file sudoers is there.]
```

```
-r--r--r-- 1 root root 1479 Jun 25 19:26 sudoers
```

```
tonyp% chown tonyp sudoers [Try to change ownership of the sudoers file.]
```

```
chown: changing ownership of "sudoers": Operation not permitted.
```

```
tonyp% sudo chown tonyp sudoers [Now prefix the command with <sudo> and run it again.]
```

```
passwd? [Enter your password.]
```

```
tonyp% ls -la sudoers [List the sudoers file.]
```

```
-r--r--r-- 1 tonyp root 1479 Jun 25 19:26 sudoers
```

Now tonyp owns the file.

A note about the entry [Cmnd_Alias STORAGE=/usr/local/bin/STORAGE]: here's what's in the file /usr/local/bin/STORAGE:

```
#!/bin/csh -f
mount -t ext3 /dev/sdc1 /storage
```

This allows tonyp to mount the sdc1 partition at the /storage mountpoint.

If you give a user the MOUNT and UNMOUNT entries, they will be able to mount and unmount any file system. If I remove the MOUNT and UNMOUNT commands from tonyp's "ALL" list, then he will only be able to mount the /sdc1 partition at /storage.

If you have several users who have their own personal disk, you can duplicate the /usr/local/bin/STORAGE shell script and edit it for each one's personal disk. Then, instead of giving them the MOUNT and UNMOUNT commands, you just give them the commands for their personal disk.

NOTE: I give my shell files uppercase names so that *I know* they are my shell files and not the system's binaries. For example, when I save the data (the commands between the "CUT HERE" lines, which is the actual shell file) I might call it "VI", which is *not* to be confused with the system's "vi" file—but I call it "VI" because it calls (or uses) the system's "vi editor."

Tony has been in the computer field since 1976 when he started working for Data General Corp as a field engineer. Later going on to design hardware interfaces, write patches for operating systems, and build networks. It was in 1995 while working with the military on several projects that he ran into a "spook" who showed him a laptop that ran a then-unknown O/S called "Linux." "A laptop running a form of UNIX tonyp = a marriage made in heaven!" Tony can be reached for questions at Linux Questions for Tony (hunybuny@netzero.net).

[Return to Table of Contents](#)



Worldwide News & Product Reviews

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

- 🌐 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?

Adobe Dreamweaver CS5.5 (Windows/Mac): To Buy or Not To Buy?; You Only Thought You Played Crysis 2; Atom Zombie Smasher for PC; Blue Snowball Microphone.

Adobe Dreamweaver CS5.5 (Windows/Mac): To Buy or Not To Buy?

The purpose of this column item is to give anyone mulling upgrading from Dreamweaver CS5.0 (or an earlier version) to CS5.5 a general sense of CS5.5's feature set, as well as lay out the various pricing plans for the company's flagship Web design program.

When you're done reading this, the first place you'll want to go is Adobe's own Dreamweaver Development Center (www.adobe.com/devnet/dreamweaver.html?view=home). The site is jammed with downloads, tutorials, video and several superb articles—including one by Scott Fegette titled "What's New in Dreamweaver CS5.5" and another by David Powers titled "Creating Your First Website" (Some of the below pics are from those articles).

Another excellent resource is the Dreamweaver "What's New (help.adobe.com/en_US/dreamweaver/cs/using/WSe8b0455615e2dc47-1c751e8b12f0330ea27-8000.html)" site, which lays things out nicely.

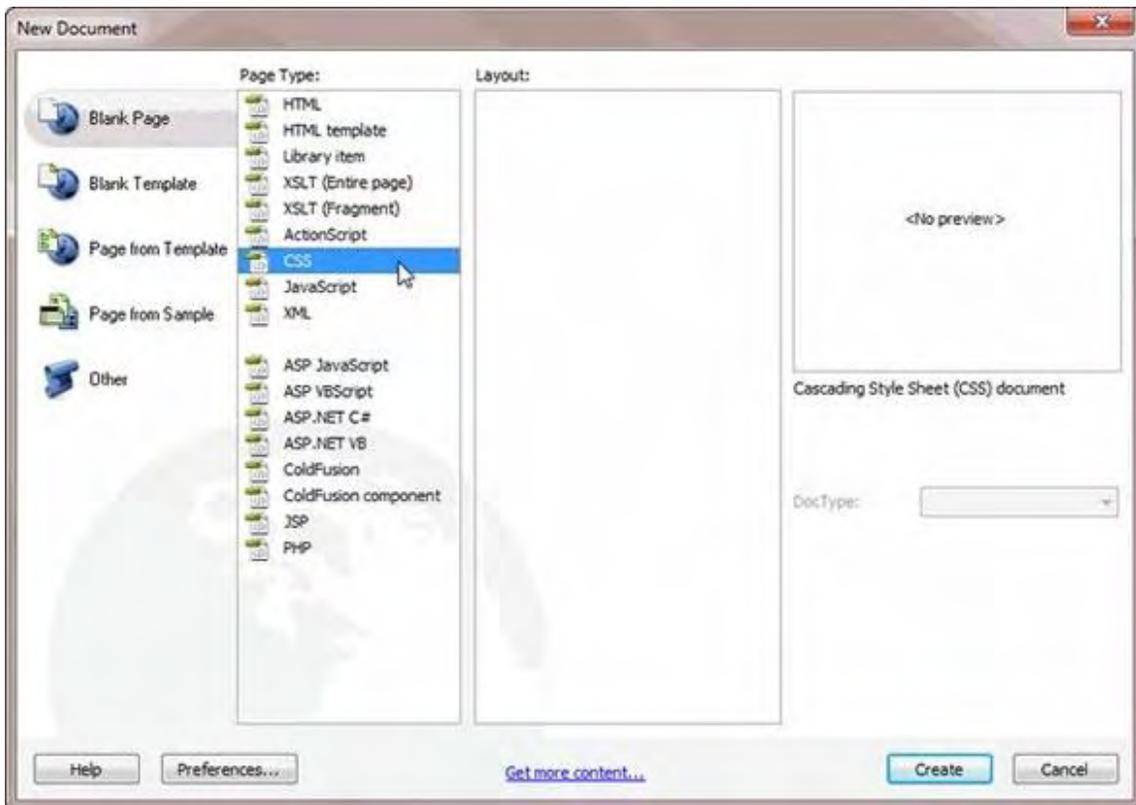


Figure 1. The New Document dialog box.

Multiscreen support, for example, allows the user to preview Web pages on a variety of formats, screen resolutions, and portrait or landscape page orientations in a single panel. Multiscreen basically addresses the new reality that the pages you create are certain to be viewed on a variety of devices including desktops, tablets and smart phones.



Figure 2. Multiscreen Preview lets users view code in different screen sizes.

Tired of Web pages looking one way in your browser of choice and completely different in Firefox, Internet Explorer, Chrome, or Safari? Adobe's BrowserLab is integrated into Dreamweaver allowing you to see what Web content will look like in various Web browsers and operating systems.

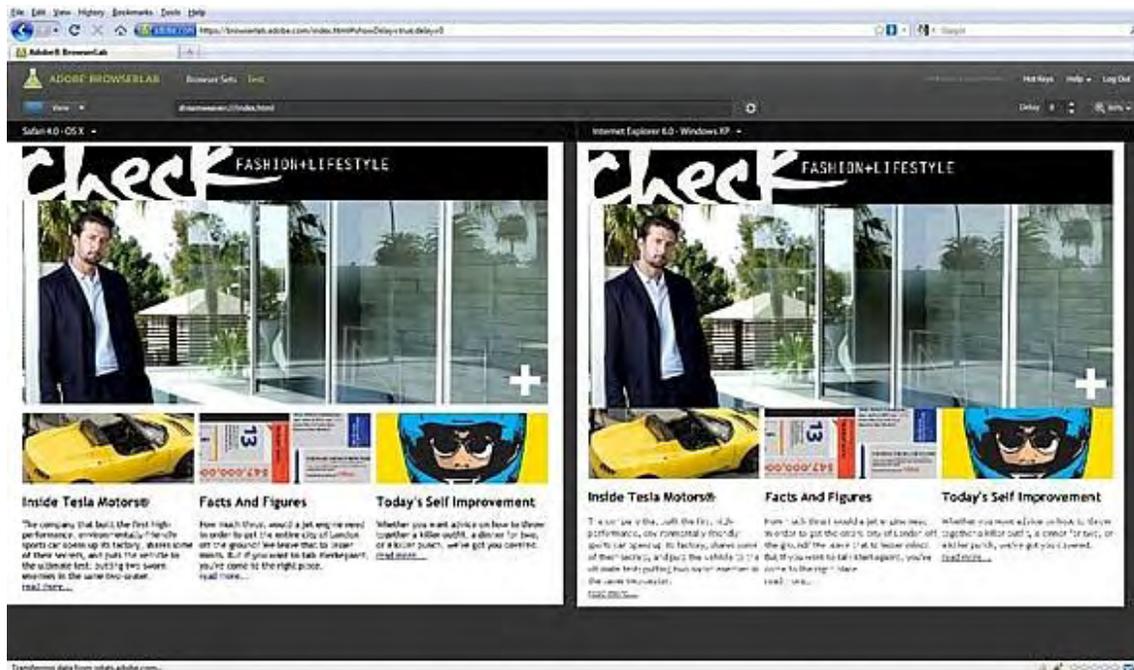


Figure 3. Check your page in different browsers using BrowserLab.

Dreamweaver's built-in PhoneGap framework will help you convert existing code to a mobile phone application within Dreamweaver.



Figure 4. Build and Emulate option lets you preview your iOS or Android app directly.

CS5.5 also addresses Web apps intended to work across mobile devices using the jQuery Mobile widget. jQuery is the industry standard JavaScript Library that simplifies HTML scripting including animating, event handling, Ajax interactions and much more.

Creating pages with embedded video? Dreamweaver will allow you to take advantage of HTML 5's ability to embed videos right in HTML pages, rather than externally adding Adobe Flash, the way most of us have done since the dawn of Web video. This particularly addresses pages created for the Apple iPad, which famously does not display Flash.

An old friend, the CSS panel, has been beefed up to support the most commonly used CSS3 rules and properties. Using Design View, you can apply different styles as you change screen dimensions.

CS5.5 supports the latest version (1.7) of the security software Subversion, which helps you store your work more securely.

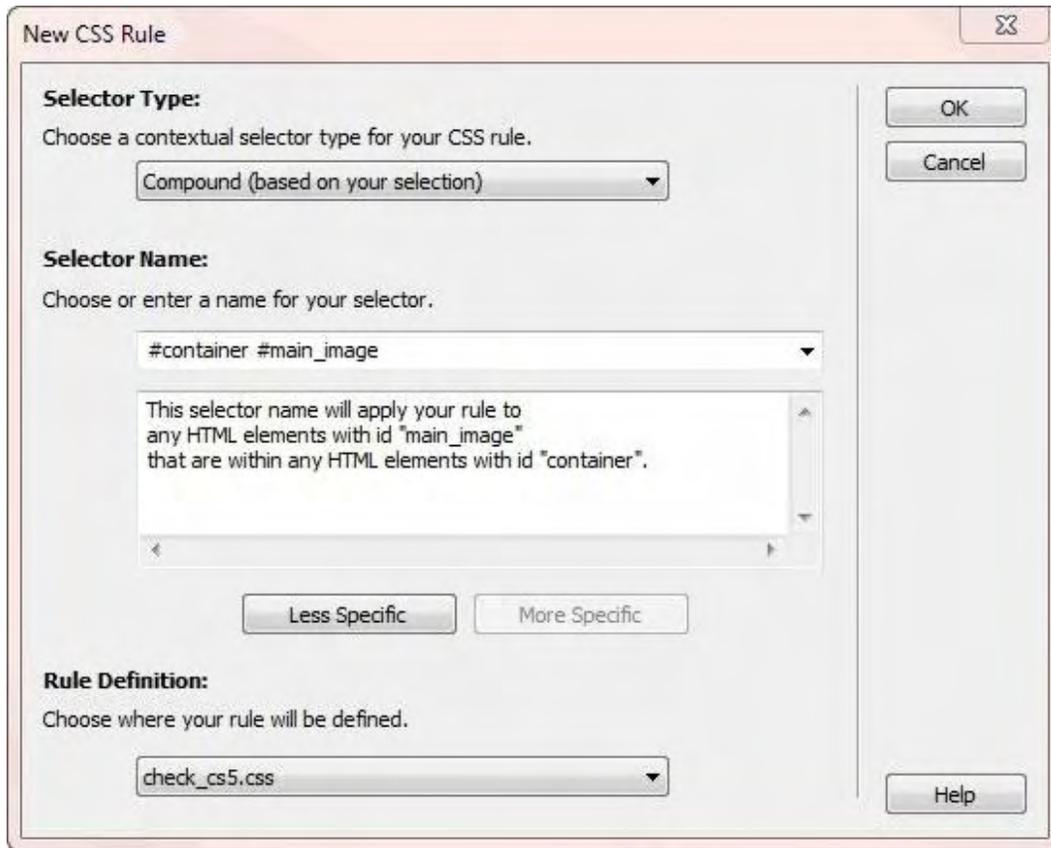


Figure 5. The New CSS Rule dialog box.

Those are just a few examples of all the goodie goodness built into CS5.5. You can find a complete breakdown of product features (www.adobe.com/products/dreamweaver/buying-guide.html?PID=2159997) for versions of Dreamweaver all the way back to CS3.

Now, for pricing. Dreamweaver is offered in several iterations: Full (\$399), upgrade (\$119), yearly (\$19 per month), and month-to-month (\$29 per month). There are also specially priced educational versions for students, teachers and institutions of learning.

Adobe breaks down the two less familiar plans: "The one-year plan offers lower monthly payments and requires a one-year commitment. This is the ideal plan for someone with an ongoing need to use Creative Suite software. The month-to-month plan allows you to stop your subscription and then restart it later without reinstalling, within six months. After six months, your account will be deactivated and you will have to purchase a new subscription. Get access to the latest version of your software as long as your subscription remains active."

Also note that Adobe Dreamweaver CS5.5 can be purchased as one of several components in the CS5.5 Design Premium, CS5.5 Web Premium, and CS5.5 Master Collection Suites. Check the available buying guide (www.adobe.com/products/dreamweaver/buying-guide.displayTab2.html) for a complete breakdown.

Still not sure? Then try it before you buy it. Download (www.adobe.com/cfusion/tdrc/index.cfm?product=dreamweaver) a fully-functional 30-day version.

You Only Thought You Played Crysis 2

Fans of CryTek's stunning, next-gen shooter, Crysis 2—at least, ones who have PCs powerful enough to run DirectX 11—will be excited to learn that the DirectX 11 update for Crysis 2 is now available for download (www.mycrysis.com). You'll also need a fast Internet connection; the patch weighs in at well over 2GB. Note that before you can install the patch you'll also need to update the game to v1.9, also available at the above site.

Crytek has also announced that PC users can download the game's map editor, also at the above site, at no charge.

All that DX11 goodness includes (from CryTek) tessellation and displacement mapping, high quality HDR motion blur, realistic shadows with variable penumbra, sprite-based depth of field, parallax occlusion mapping, particle motion blur, shadows and art updates, water rendering improvements, and improved tone mapping.

OK, I don't know what half that stuff is either, but the game looks even *more* incredible now. "Pong" just doesn't have the same appeal it did a week ago.

Atom Zombie Smasher for PC

Atom Zombie Smasher (www.blendogames.com) (\$10 or less) is a unique twist on the RTS genre. You play the role of the commander of a squad of various mercenary groups attempting to save the remaining citizens of earth from the Zed invasion.

The overall game takes place on a map representing the old strategy game Risk. You attack the Zeds territories, if you save the required amount of civilians you liberate that position. However, if you manage to destroy the Zed, you capture it.



The game is very easy to pick up. You see it top-down on a map, all the little yellow squares are civilians and all the purple ones are Zed. You place your various squads (everything from infantry to a mortar) around and try to wipe the Zed out while rescuing as may civilians with your evac chopper as possible.

Every turn, the amount of territory captured by each side is added up and the points are put into a pool. As you gain points you unlock rewards like the ability to research new technology. However, the Zed also can get rewards like bigger zombies and more outbreaks so, as the game progresses, the environment is constantly changing allowing for a different experience every time.

Atom Zombie Smasher is definitely worth a try for anybody looking for a time-killer. It's action packed and you can easily vanquish the zombies in a 15 minute game. Pick it up on Steam for about \$10.



Review contributed by Jeremy Halligan

Blue Snowball Microphone

Well, even though it's not *literally* blue, the Snowball certainly is one fantastic microphone. The Snowball microphone (www.bluemic.com/snowball) looks exactly as it sounds. It's a round orb propped up on a tripod; and it's extremely simple to use as it uses a USB interface.



The microphone magically eliminates any echo from the room you might get. It also delivers an extremely crisp sound when recording voice overs or vocals. It has a mode switch on the back, and the modes are 1, 2, 3 (or cardioid, cardioid with -10 dB, and omnidirectional; respectively). The first mode picks up voice spectacularly. There was no white noise or hiss and it delivered a surprisingly crisp playback. The second mode is the same as the first except with a wider frequency. This mode picks up more background noise and is better suited if you have a group of things to be recorded at once. The third mode picked up everything, and basically replicated all the sound that was going on in the room perfectly.

For an entry level microphone, the Snowball delivered an outstanding performance. The only problem I had with the microphone was that it was limited to USB only. It sounds so great I would like to be able to use it with other non-computer devices. Other than that, it's definitely worth it for any video enthusiasts or vocalists looking for a new microphone. The Blue Snowball Microphone is available from their site for \$100 and comes in white, black and silver.

Even though it's still six months away, I predict that, for many, it will be a "Blue" Christmas!



Review contributed by Jeremy Halligan

In addition to being an editor and columnist for *ComputerEdge* 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.

[Return to Table of Contents](#)

EDITOR'S LETTERS

Editor's Letters: Tips and Thoughts from Readers

“Computer and Internet tips, plus comments on the articles and columns.” by ComputerEdge Staff

"Windows 8! Why Another Operating System?" "Linux Tips, Love 'em!" "OS X Lion Upgrade,"
"Overwhelmed or Apple Sales Pitch?"

Windows 8! Why Another Operating System?

[Regarding Jack Dunning's June 17 article, "Ready or Not, Here Comes Windows 8!"]

I'd like to say I enjoyed reading the article, but ... why another operating system? Microsoft has already demonstrated their out dated product planning by trying to be everything to everybody at some outrageous cost. My last purchase of a laptop came with *another* e-mail program. What was wrong with Outlook Express?

My next laptop will be an Apple product and I'll remove myself from this PC update mania. With my iPad, iPod and Airport Express I have nothing but praise for their products. And I read the new operating system for Mac users will be priced at \$29.95. Apple has to be doing something right. They have exceeded Microsoft in revenue—wonder why?

-Dave Stang

Windows XP was good for most people, I think. We just don't need another OS. I had no problem with Windows 98. If they keep this nonsense up, I will go to Apple. It's just that easy.

-Howard, El Cajon, CA

Nice intro article. I wanted to know of new features. What I really like is easy click through translucent windows and video like I had on my 98, and I hear you can have translucency in Apple. I thought Aero was it, but it wasn't. Windows 7 is nice, but I miss my special 98 features and hardware usage.

-Dan, San Diego, CA

Linux Tips, Love 'em!

[Regarding the June 17 Linux Lessons: Tips and Tricks from Users column:]

I just ran across the Linux tips section, they're great!

I'll make sure to check out this section more regularly.

-Rich, San Diego, CA

OS X Lion Upgrade

[Regarding the June 17 Wally Wangs Apple Farm column:]

Here is a quote from Apple about the upgrade to Lion being free for anyone who purchased a iMac after June 6, 2011. However, it seems to be contradicting itself. It says you have to request the upgrade 30days from the date of "purchase" in one line and than says it's 30 days after Lion is released. Could you explain if possible?

The Mac OS X Lion Up-To-Date upgrade is available at no additional charge via the Mac App Store to all customers who purchased a qualifying new Mac system from Apple or an Apple Authorized Reseller on or after June 6, 2011. Users must request their Up-To-Date upgrade within 30 days of purchase of their Mac computer. Customers who purchase a qualifying Mac between June 6, 2011 and the date when Lion is available in the Mac App Store will have 30 days from Lion's official release date to make a request.

Thanks,

-Gene Consolvo, Escondido, CA

Overwhelmed or Apple Sales Pitch?

[Regarding the June 17 Wally Wangs Apple Farm column:]

After reading the article, Apple seems to have so much going for it, it makes me wonder just how long it will be before it becomes what Microsoft once was, as far as the market is concerned. Also, with the iCloud services, how secure is all this information you are "beaming" to this cloud? And Apple being so dominate in the market place, what is to become of HP, Dell and the likes? And if Apple becomes so dominate, with little competition, you will be paying through the nose for their products in the future. No competition, you pay much more. Apple's laptops already command a premium price. We need other companies to start innovating—and now!

-Jerry Hughes, San Diego, Ca.

Was this an article about Apple products or an advertisement paid for by Apple? I didn't get any useful information from this at all, except at the very end concerning the Web software.

-Rex, Minneapolis, Mn

ComputerEdge 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 ComputerEdge.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 "ComputerQuick Review", or yell at us, please e-mail us at ceeditor@computoredge.com.

Send mail to ceeditor@computoredge.com with questions about editorial content.

Send mail to cwebmaster@computoredge.com with questions or comments about this Web site.

Copyright © 1997-2011 The Byte Buyer, Inc.

ComputerEdge Magazine, P.O. Box 83086, San Diego, CA 92138. (858) 573-0315