

ComputerEdge™ Online — 12/18/09



This issue: Firefox Extensions: Which Are the Best and How to Make Your Own

Mozilla Firefox has been cutting into Internet Explorer's market for years. Some of the best features of Firefox are the extensions you can add on yourself. Here's a look at what's available and how to build your own Firefox extensions.

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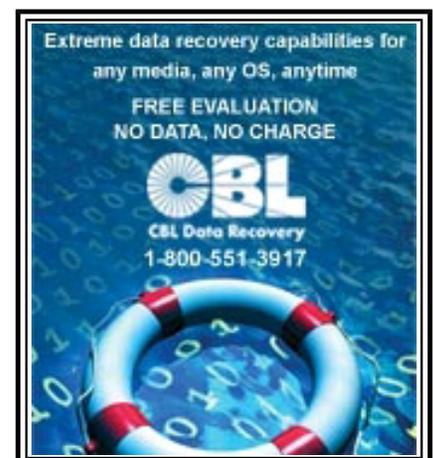
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With so many browser choices available, there's no reason to stick with a browser that you don't like. You can't go wrong with Safari, Firefox, Camino, Opera or Google Chrome. Also, Google is rumored to be readying a release of its official Android-based phone, with heavy ramifications; MacPriceTracker provides hourly updates to the latest Macintosh sales from various dealers; and Apple is offering a free Holiday Sampler through iTunes.

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Digital Dave

“Digital Dave answers your tech questions.” by *Digital Dave*

A reader wants to sanitize a partitioned hard drive before giving it to charity; can an on-screen keyboard circumvent the problem of keystroke logging?; a reader wants to permanently block a suspected spam-spewing site.

Digital Dave,

One of my several computers is an HP a500n with an 80GB HDD. A couple of years ago, a friend visiting from out of state partitioned the hard drive in the middle, and put GRUB at the front end, so that I could dual boot XP and Ubuntu. It has worked like a charm.

I now want to give the computer to charity, but I do not know what to do to "sanitize" the two partitions so that my old data will have been overwritten and scrubbed to (perhaps) military standards. I have considered reformatting and returning the whole HDD back to the original factory configuration, plus using Eraser for seven passes as an alternative, but I have not found a cookbook procedure for removing the partition, removing GRUB, etc.

Can you help me? I just hate to use my drill press on the HDD and then harvest the drives, etc., as the other alternative.

*Cicero Walker
Colorado Springs, CO*

Dear Cicero,

While formatting a hard drive does not actually remove data from your hard drive, it does make it hard to read by the average computer user. However, it's not the average user that's looking to steal your personal information. There are many tools on the market for recovering supposed erased data.

You will need to use a product such as Eraser (download.cnet.com/Eraser/3000-2092_4-10231814.html?tag=mncol) to shred, or overwrite, the data stored on the drive. The most important step is to scrub the drive with a program such as Eraser, which will overwrite every bit of the drive. It is a time-consuming process, but it is the safest way to clean a drive. Once you've done this, there are few people in the world who would bother trying to find anything on your drive, if anyone.

There's no reason why you can't reformat the drive so there's only one partition and then wipe that. The fact that the drive is partitioned merely means that you could treat each partition as a separate drive letter to be overwritten. The best way to clean a drive is to attach it to another

computer as a separate drive, because cleaning programs generally won't scrub a drive or partition with an active operating system running.

Drilling a hole in the drive does not erase the data on the untouched sectors. It can still be recovered by someone with enough determination. There are drive-shredding services that will do a good job, but, if you need to be secure to "military" standards, it's still a good idea to use Eraser or something similar before sending it in. Unless the drive is inoperable and can't be cleaned, I consider drilling holes and smashing drives a bit over the top, although it can relieve stress.

Digital Dave

Dear Digital Dave,

When using an unsecured computer where a keystroke-tracking program may be active, will an on-screen keyboard get around the problem?

Thanks,

*Ed Parrish
La Jolla, CA*

Dear Ed,

An on-screen keyboard offers no more protection against keyloggers than a regular keyboard. The on-screen keyboard merely simulates the action of the mechanical input and sends the same signals. A keylogger may also be picking up the mouse clicks, but that won't offer much safety.

There are people who advocate using random mouse clicks, cut-and-paste, and misdirected keystrokes to fool the keyloggers. This may work in many instances, but I prefer a policy of not doing anything intimate with a strange computer. You don't know what diseases an unknown computer may carry. That's why I take my computer with me when I travel.

Digital Dave

Dear Digital Dave,

Does anyone know how to permanently block this spam site? It comes in on my Outlook e-mail quite often: e-zine-service@puzz.biglist.com.

Microsoft Outlook blocker will not stop it, but will only put it in the spam folder. Clicking on the site's "remove me" link takes you to limbo and does not work.

*Richard Manteufel
Lemon Grove, CA*

Dear Richard,

Once e-mail gets into your mail box, the primary way to deal with unwanted spam is to redirect it

into another folder. This is what most spam blockers do. The reason for this is that occasionally, something that is not spam will be inadvertently diverted into the spam folder—usually because of a confusing word or two. If all e-mail that looked like spam was deleted, then there would be no way to check for errors once the Deleted Items folder was emptied.

Your best bet, short of getting a new e-mail address, is to create a message rule that will direct the specific e-mail address to "Deleted it" when it comes in. Then, unless you make a habit of reviewing your Deleted Items folder, you will never see it.

The second point is that you should never click the "remove me" link in an e-mail, unless you know that it comes from a legitimate source. By clicking on the link you are merely telling the spammer that you are a real person and looking at their spam. The spammers will take this as a sign that they should send you even more spam.

Biglist.com, which appears in the address you mentioned, is a mailing list company. If you want to call to complain, there is a phone number listed on their site—plus there is a link for reporting spam. They appear to be legitimate. It may be one of their clients who is causing you a problem.

Digital Dave

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The Best Firefox Web Browser Extensions

“Add new functionality to your browser.” by Pete Choppin

One of the advantages of using the Firefox browser is that there is a whole community of developers designing add-ons to suit your every need.



You might have noticed if you have visited Mozilla's Firefox extension site (addons.mozilla.org/en-US/firefox/) that looking for the best Firefox extensions is like searching for the proverbial needle in a haystack.

Firefox extensions are small add-on programs that add a new piece of functionality to the browser. These extensions can range from adding a new toolbar button to adding a completely new feature. The great thing about these extensions is that you can choose which extensions you want to add. This allows Firefox to stay small in size and run efficiently. One of the advantages of using the Firefox browser is that there is a whole community of developers designing add-ons to suit your every need. Faster browsing, more security features, sleek visual enhancements. You name it, and it's probably been done.

The following is my list of 15 of the best extensions for Firefox. They have been classified into three categories: those that add additional enhancements to the browser and improve a user's experience, those that add additional enhancements to certain Web sites, and those that are quite useful but only for certain segments of the population.

Browser Enhancement Extensions

Adblock Plus (addons.mozilla.org/en-US/firefox/addon/1865) (Must have)

This is the first extension I always add to Firefox whenever I install it. Adblock Plus removes unwanted content, such as ads or flash, from a Web page based on a set of user-defined filters. A companion to Adblock Plus, Adblock Filterset.G Updater (addons.mozilla.org/en-US/firefox/addon/1136), automatically downloads the latest version of a set of filters that will block most ads on the Web.

Greasemonkey (addons.mozilla.org/en-US/firefox/addon/748)

Greasemonkey is a Firefox extension that allows you to modify Web sites to improve functionality or appearance. This extension associates a bit of code with specific Web pages. This code runs every time you visit the page, dynamically changing the appearance and functionality of a page. In many ways, these scripts are just Firefox extensions in a different format.

All-in-One Sidebar (addons.mozilla.org/en-US/firefox/addon/1027)

The All-in-One Sidebar extension adds a sidebar panel to the browser, allowing you to quickly switch between windows, such as the downloads, extensions, or theme windows. Inspired by the Opera sidebar, this extension includes a toolbar that can be customized.

Download Statusbar ([/addons.mozilla.org/en-US/firefox/addon/26](https://addons.mozilla.org/en-US/firefox/addon/26))

You're probably familiar with that sometimes-pesky "Downloads" window that pops up whenever you download a file in Firefox. Download Statusbar prevents that window from popping up and instead provides you the same information in the status bar at the bottom of the browser window. (You can still manually open the "Downloads" window if you find you need it.)

SpellBound (addons.mozilla.org/en-US/firefox/addon/9207)

SpellBound provides a spell checker similar to the type used in a word processor. As a word is entered in any text box on the page, Spellbound highlights the misspelled words with a red dotted underline. The spelling can then be easily corrected by clicking on the red underlined word, and Spellbound will pop up a menu with potential corrections, providing a choice of which word to replace.

PDF Download (addons.mozilla.org/en-US/firefox/addon/636)

The PDF Download extension allows you to choose how to handle PDF (Adobe Acrobat) files. Every time a PDF link is clicked, this extension offers the choice of whether to open the PDF file inside a new tab, download it to the computer, or view it as HTML.

FoxyTunes (addons.mozilla.org/en-US/firefox/addon/219)

Foxy Tunes places controls for the media player of your choice within the Firefox toolbar. You can pause, forward/reverse, play, adjust the volume, and view what is playing. Almost all major media players are supported. You can find a number of FoxyTunes skins here (www.foxytunes.com/firefox/skins/).

Download Them All (addons.mozilla.org/en-US/firefox/addon/201)

Download Them All will download, in just one click, all the links or images contained in a Web page through a set of customizable filters.

* * *

Firefox Tip 1: Problematic Firefox Extensions

Some of the most popular Firefox extensions have memory leaks. This will slow your browser down and/or create conflicts with other programs. Some of these extensions include FasterFox, IE Tab, Session Saver and Tabbrowser Extensions.

An article, "Problematic Extensions," (kb.mozillazine.org/Problematic_extensions) at MozillaZine lists known extensions that will cause side effects in Firefox along with recommended workarounds. It is up to you to decide if the extra feature an extension provides is worth the issues caused by a particular extension.

* * *

Site Integration Extensions

Optimize Google (addons.mozilla.org/en-US/firefox/addon/52498)

Optimize Google enhances the main Google search page results by adding extra information on the page, such as quick links to Yahoo, MSN, etc., and removing unwanted information such as ads.

Gmail Manager (addons.mozilla.org/en-US/firefox/addon/1320)

Gmail Manager allows for the management of multiple Gmail accounts and receiving new mail notifications from the Firefox status bar. It displays account details including unread messages, saved drafts and space used.

Stumble Upon (addons.mozilla.org/en-US/firefox/addon/138) *(Must have)*

The StumbleUpon Firefox extension is an interface to the StumbleUpon (www.stumbleupon.com/) site, a large community of users who make reviews and recommendations of Web sites to other users. The extension allows you to rate sites as you browse them, add reviews, and view reviews submitted by other users.

* * *

Firefox Tip 2: Manage Your Firefox Extensions

Several Firefox extensions are designed to help manage rest of the Firefox extensions on your computer.

Update Notifier

The Update Notifier (www.longfocus.com/firefox/updatenotifier/) Firefox extension notifies you when updates are available for your extensions and themes by displaying several update icons in

the browser. This extension makes it easy to check for any available updates and then apply those updates.

Firefox Extension Backup

The Firefox Extension Backup Extension (addons.mozilla.org/en-US/firefox/addon/2109) (FEBE) backs up all extensions, themes, bookmarks and preferences.

A companion extension, Compact Library Extension Organizer (addons.mozilla.org/en-US/firefox/addon/2942) (CLEO) bundles everything into a single .xpi file that you can easily install into any installation of Firefox. Thus you can package up all of your extensions and easily install the .xpi into a profile or installation of Firefox, just like installing any other Firefox extension. Currently these extensions are for Windows only.

* * *

Specialty Extensions

Web Developer (addons.mozilla.org/en-US/firefox/addon/60)

The Web Developer Extension adds a toolbar to the browser containing various Web developer tools. It outlines page elements, displays the size of images, gives CSS and form information, disables certain elements on a page, and much more. Also check out Firebug (addons.mozilla.org/en-US/firefox/addon/1843), an extension for Firefox to help with debugging AJAX, DHTML and JavaScript Web applications.

ScribeFire ([/addons.mozilla.org/en-US/firefox/addon/1730](http://addons.mozilla.org/en-US/firefox/addon/1730))

ScribeFire is a full-featured blog-editing extension for blogs such as Blogger, Movable Type and WordPress. It includes draft support, del.icio.us integration, ping support and Technorati support.

MeasureIt (addons.mozilla.org/en-US/firefox/addon/539) *(Must have)*

After installing this extension, you'll have a small ruler icon in your status bar. When you click on this icon, the client area of your browser window will fade out a little, and you'll have a crosshair cursor. This will allow you to measure pixel width and height of any elements on a Web page. This is a must have for anyone trying to format a Web page.

Scrapbook (addons.mozilla.org/en-US/firefox/addon/427)

Scrapbook allows you to save Web pages to the computer, highlighting text and creating sticky notes on these pages at the same time. In addition, Scrapbook includes the ability to perform full text searches and filtering of the saved pages.

* * *

Firefox Tip 3: Easily Install Firefox Extensions or Themes

Because of security concerns, Firefox forces every extension installed to be in a list of acceptable domains. Consequently, there are two different ways you can install Firefox

extensions. One is the "official" way and one involves dragging and dropping.

The "Official" Way

1. Click the link to install the extension.
2. Click on the *Edit Options* button in the yellow bar at the top of the screen that says the extension was blocked.
3. Click on the *Allow* button to allow that domain to install the extension and then click on the *Close* button to exit the window.
4. Click the install link again and a software installation window will appear. Then, click on the *Install Now* button to install the extension.

Drag and Drop Way

1. Find the link to install the extension.
2. Drag the install link into the address field of the browser.
3. A software installation window will appear. Click on the *Install Now* button to install the extension.

Note: You will need to shut down and restart Firefox for a newly installed extension to work.

* * *

There are many more extensions available to choose from on Mozilla's Firefox extension site (addons.mozilla.org/en-US/firefox/). Hopefully this list gives you a good start on some very useful extensions.

Resources and Guides

Introduction to Mozilla Firefox (opensourcearticles.com/articles/firefox_15/english/part_01)—An overview of the features in Firefox and how to install and run Firefox for the first time.

Firefox Tutor (www.firefoxtutor.com/)—Articles and tutorials on Firefox features.

Firefox Tweak Guide (www.tweakguides.com/Firefox_1.html)—An in-depth guide on how to customize Firefox.

Pete Choppin has worked in the computer and IT industry for 13 years. He currently works as a network and systems administrator for a company called Albion based in Clearfield, Utah. His interests include cooking, sci-fi, computers and technology, and web design—a semi-professional endeavor, having designed Web sites in the dental field, e-commerce businesses, and for the Boy Scouts of America. Pete also contributes regularly to Ptolemy's Tribute (ptolemystribute.blogspot.com)—a blog which covers political and technical topics and issues. Pete has been a devout reader of *ComputerEdge* since 1990. He has contributed to articles and responded to topics on *ComputerEdge*. He can be contacted at pchoppin@comcast.net

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Firefox Extension Development

“Design your own unique Firefox functionality.” by Michael J. Ross

Even though there are so many capabilities offered by available Firefox extensions, it is possible that you have some new functionality in mind that you would like to see in Firefox, or a variation on an extension that currently exists.

Of all the Web browsers that are challenging the multiyear dominance of Microsoft's Internet Explorer (www.microsoft.com/windows/internet-explorer/default.aspx) (IE), the one that has the best chance of unseating IE from its throne is Mozilla Firefox (www.mozilla.com/firefox/). Like the other alternatives, Firefox continues to eat away at IE's market share. Firefox 3.5, the latest version, has alone been downloaded more than 214 million times (as of this writing). Back in April 2009, the browser with the foxy mascot had almost 24 percent market share—more than double all the other non-IE browsers combined.



Firefox comes to the rescue of another Internet Explorer user.

According to the Mozilla Awards page (www.mozilla.com/en-US/press/awards.html), Firefox has garnered no fewer than 38 awards. In contrast, it is difficult to imagine Internet Explorer winning any awards, aside from such hypothetical categories as: The Most Egregious Violator of Web Standards, or perhaps The Biggest Security Headache Since Outlook, or, my favorite, The Ultimate Shortener of Developer's Lives. Fortunately, the latest version, Internet Explorer 8, is apparently much better than its predecessors, and is intended to rectify most of the types of damage it has caused in the past. (If only Microsoft could return to designers and developers everywhere their countless lost hours wrestling with IE's

idiosyncrasies.)

So what is it that makes Mozilla's browser so popular? Fans can provide any number of answers to that question—ranging from ad-blocking to password management. The official feature list (www.mozilla.com/en-US/firefox/features/) is quite impressive. Yet the source for such enthusiasm cited most frequently is the way that Firefox has been designed so that its functionality can be supplemented with what are known as "extensions," which are small modules that can be plugged into it by the end user. They are a type of add-on, and make it possible for independent programmers to enhance the baseline Firefox with whatever functionality they would like to see in it, or that they suspect other users would find valuable. Because each extension is packaged as a complete and single file (ending with ".xpi"), any non-techie user can benefit from that introduced functionality, with no need for programming knowledge on their part.



Figure 1. Firefox logo.

Considering how much time people now spend on the Web, it should come as no surprise that there are now thousands of handy Firefox extensions that allow you to: block ads and Flash videos embedded in Web pages; manage multiple Gmail accounts; download and upload files; change the styling of a page; add entries to your blog without having to navigate to the site; communicate using VoIP, SMS and instant messaging; edit browser cookies; customize the Firefox menus; manage tabs; control your multimedia player without leaving the browser; instantly look up dictionary and Wikipedia entries for words; read RSS news feeds; check for viruses and spoofed sites; share BitTorrents; and even change the rendering engine to Internet Explorer (which is very useful for Web developers who do not want to start up IE, but still need to check how IE is ruining the styling of Web pages they have crafted).

Roll Your Own

Even though there are so many capabilities offered by these available extensions, it is possible that you have some new functionality in mind that you would like to see in Firefox, or a variation on an extension that currently exists. You could try to create your own. If you are knowledgeable of JavaScript and XUL (pronounced "zool"), or you are willing to put in the effort to learn them, then you certainly can write your own Firefox extension, and then share it with others. Even though the online resources for learning XUL are fewer than the plethora of such resources dedicated to JavaScript, they do exist and are freely available. You would also need to be familiar with XML and CSS, but you probably already are if you are ready to tackle JavaScript and XUL.

In addition, there are a number of resources focusing entirely on Firefox extension development: A terrific one is the Firefox Extension Development Tutorial (www.rietta.com/firefox/), which offers clear explanations and many screenshots. The information is organized into nine sections: overview, environment setup, configuration files, creating GUIs, back-end, preferences, localization, distribution and security. Note that several of the sections contain links to other valuable reference materials on the Web. This guide is clearly one of the more complete ones out there.

Another step-by-step tutorial is "Make Your Own Firefox Extensions" (www.pcmag.com/article2/0,2817,2147602,00.asp), which also contains screenshots. It teaches through demonstration, by showing how to create a simple extension that searches Wikipedia for any text that you have selected on the current page. This tutorial focuses mainly on the testing and packaging of your new extension, and as such should not be the first one you read, because it does not delve into any of the details of JavaScript and XUL programming. Sadly, as with most if not all PC Magazine articles, the content is broken up into multiple small Web pages, forcing you to wade through all their advertisement—unless you have Firefox set to block ads!

Do not miss the Lifehacker article titled "How to build a Firefox extension" (lifesacker.com/software/programming/how-to-build-a-firefox-extension-264490.php), because it contains many links to other tutorials, as well as an important warning regarding the backing up of your Firefox profile before commencing work. Perhaps the best part of the article is its advice on how to begin understanding XUL as quickly as possible.

Programmer Eric Hamiter has written a promising tutorial, "How to create Firefox extensions" (roachfiend.com/archives/2004/12/08/how-to-create-firefox-extensions/), whose material is grouped into a dozen sections, covering: an illustrative example; implementing a simple "Hello, world" extension; inside the XPI; re-configuring your extension's installation; Firefox chrome; skin files; packaging an extension using a GUI or using the command line; how to start over if you inadvertently corrupt your Firefox profile; installing your new extension on a local Web server; links to outside resources; and feedback from other readers of the tutorial.

Learn by Example

Getting your head around a new programming language, or a new programming technique, is usually best accomplished by reading the code written by others (provided that the authors of that code are knowledgeable, and have made an effort to write quality code—extensive comments are a bonus!). In that spirit, we will take a brief look at one of the many Firefox extensions already built. Even though space limitations do not permit us to step through the code, we can at least examine the components that make up the extension. That alone can make the prospect of writing your own extension far less intimidating.

The particular extension that we will use as an example is Copy URL+, which copies the current page's title and URL into your system clipboard. The version available at <https://addons.mozilla.org/en-US/firefox/addon/129> was last updated in November of 2005, and is not compatible with the latest versions of Firefox. However, it can be made to run just fine in 3.0.x, simply by disabling Firefox's add-on compatibility checking. Newer versions can be found on pages linked near the bottom of the author's dedicated page (copyurlplus.mozdev.org/).

This extension was chosen because it is simpler and involves less code than most of them. Yet to the uninitiated, the extension filename itself, "Copy URL+ v1.3.2.xpi", may appear cryptic, especially as there is typically no application in Windows associated with the file extension ".xpi". But we will see how to open up this installation file for inspection. Its file structure is the same as your everyday Zip archive file, so you only need to change the extension from ".xpi" to ".zip", to make it recognizable by your favorite archive-management program. (If you have no such favorite, check out 7-Zip (www.7-zip.org/), which is free and quite capable.)

When you open up "Copy URL+ v1.3.2.zip", you should find that it contains two installation files (install.js and install.rdf), three text files (CHANGELOG, README and TODO), and, most important of all, a directory named "chrome," which contains a single file, copyurlplus.jar. This is a Java archive file, and like its parent XPI file, also has a Zip archive structure. So rename it to copyurlplus.zip, and open it with your archive program. When you expand all of the directories, you should see a structure as seen in the screenshot below.

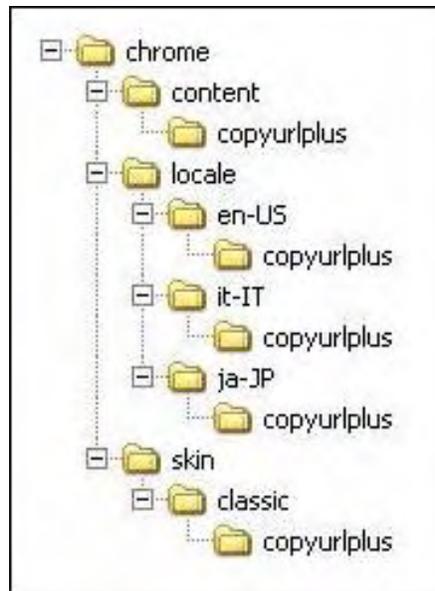


Figure 2. Copy URL+ directory structure.

The "content" directory has a "copyurlplus" subdirectory containing the primary JavaScript and XUL code that powers the extension. The "locale" directory contains three subdirectories—for English, Italian and Japanese—which contain files that allow the user interface to be language-specific. Finally, the "skin" directory contains the files for styling the appearance of the extension when it is listed in the Firefox add-ons menu (Tools/Add-ons). It does this through the use of a couple of PNG image files, a CSS stylesheet, and an RDF file.

As noted earlier, we will not be going into the details of the JavaScript and other code, but at least you can see how to explore the code on your own, and perhaps use it as a reference, while you are reading the tutorials and other learning resources mentioned above. Once you get the hang of the technologies required, you may decide to create your own Firefox extensions, and share them on the Web with other Firefox enthusiasts.

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

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Windows Tips and Tricks

Windows Tips and Tricks: DVDs and On-screen Keyboard
“Copying DVDs; The Windows 7 Version of On-screen Keyboard” by Jack Dunning

A reader is wondering about making backup copies of DVDs with Win 7; plus, the Windows On-screen keyboard in Windows 7 is different from other versions.

Jack,

I want to copy my movie DVDs so I can play them and keep the original in a safer place. Do you have a recommendation for a program that doesn't cost an arm and a leg? I'm writing you because of your column on the lack of such software in Windows 7, which I switched to because of the good results you reported. (I'm using Ultimate.)

Thanks,

Larry

That's a good question. If you're talking about commercial DVDs, the entertainment industry doesn't want you to make copies of their products. That's the primary reason that Microsoft doesn't supply anything for copying DVDs. I'm sure that there are products out there that will copy anything, but I wouldn't know what they are. In my humble opinion, Hollywood hasn't produced much that's worth copying.

If you're talking about your self-produced DVDs that you made with Windows DVD Maker (included in Windows 7) or other personal DVDs, there are a number of free tools worth owning—they're free!

The first is BurnOn CD and DVD Burning Software (download.cnet.com/BurnOn-CD-DVD-Burning-Software/3000-2646_4-10434785.html?tag=mncol). It is easy to use and pretty intuitive for copying DVDs. It works best when you have two DVD drives, although you can copy an image to your hard drive first if necessary.

For more difficult copying of possibly damaged or hard-to-get-to files, I've used IsoBuster (download.cnet.com/IsoBuster/3000-2248_4-10208087.html?tag=mncol). It's done a good job of salvaging most of some old tape movies that were on DVD.

For burning a DVD from an ISO copy of a disc, Active ISO Burner (download.cnet.com/Active-

ISO-Burner/3000-2646_4-10602452.html?tag=mncol) has worked well for me. It's a simple program for creating DVDs or boot discs from an ISO file that you may have downloaded or ripped from another DVD.

If anyone has another program that's worked well for them, let us know.

* * *

Last week in "Windows Tips and Tricks", I failed to point out that the Windows 7 version of On-screen Keyboard does not allow you to change the look of the fonts on the keyboard. This was kind of a bummer since the tip was primarily based upon that one capability. However, I don't think that Microsoft was thinking about the peripheral feature of viewing fonts when they designed the new On-screen Keyboard for Windows 7.

The Windows On-screen keyboard is considered primarily an accessibility feature for the disabled. The new Win 7 version is larger and easier to read (see Figure 1). But more importantly, the keyboard image can be dragged to an even larger size, thus increasing both the visibility and accessibility of the keys. This was not possible with the Vista On-screen Keyboard. Being able to resize the keyboard is much more important for those who *need* to use it, especially if they have a touch screen.



Figure 1. The Windows 7 On-screen Keyboard (75 percent of actual size).

Rather than a menu bar taking up space as with the Vista On-screen Keyboard, Windows 7 uses an Options key (circled above) for opening program settings (see Figure 2). Most of the features are similar to those of the Vista keyboard. The keyboard can be set to respond to a mouse click, input when a key is hovered over for a specified period of time (no mouse click required), or made one-key selectable (only one key required) as the keyboard is automatically scanned.

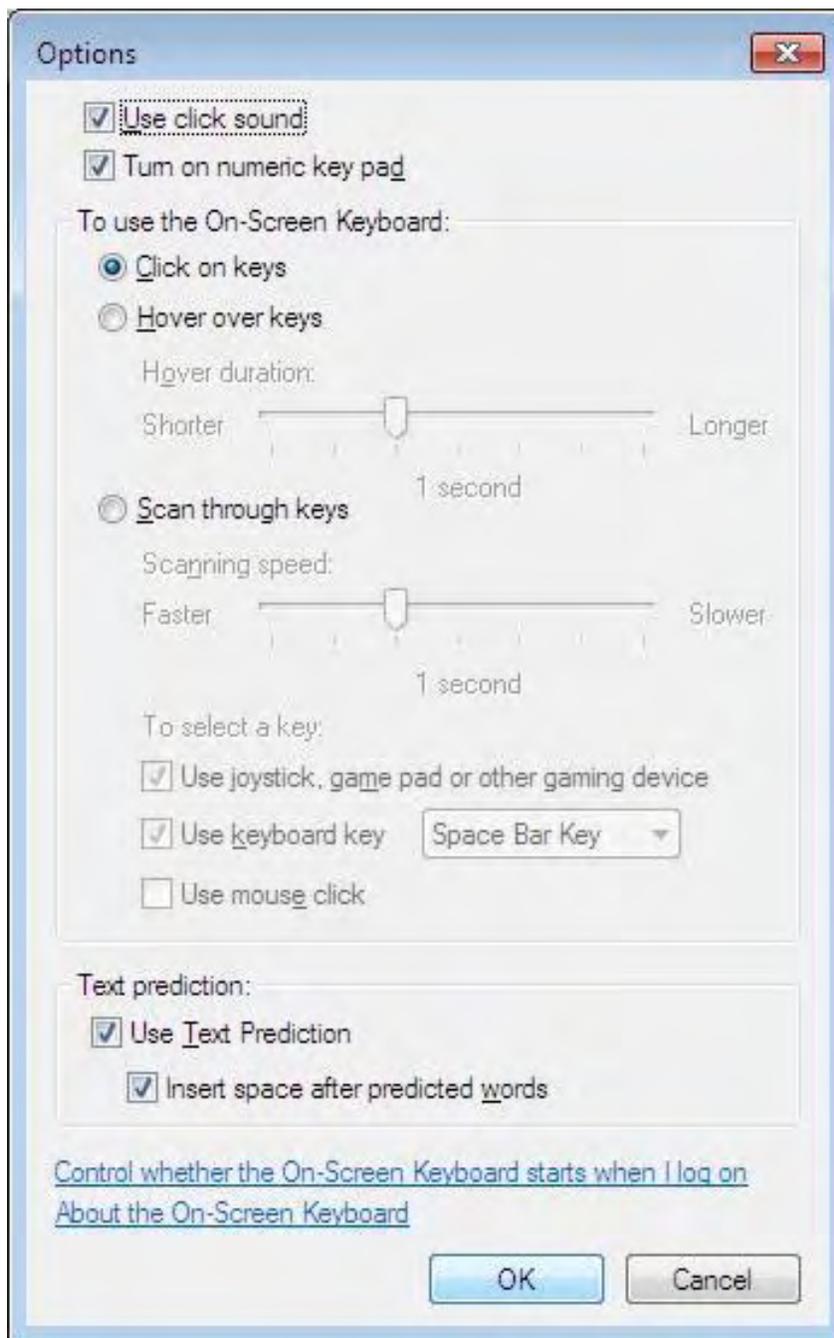


Figure 2. The Windows 7 On-screen Keyboard Option window.

In the "Scan through keys" mode, first the rows are sequentially highlighted from top to bottom. Then, after row selection by hitting a designated key (e.g. space bar) while the row is highlighted, groups of four keys in the selected row are sequentially lit. Finally, after the second key pressing with the selection of a group of four, each key in that group is sequentially highlighted until the same activating key (or device) is pressed. The activating key may be a designated keyboard key, a joystick, the mouse, or any other input device. This feature as it appears in Vista is a little more tedious because it jumps directly from row selection to highlighting individual keys sequentially. This could create a bit of a wait for the proper key at an end of row.

Maybe one of the most important features in the Windows 7 On-screen Keyboard that does not exist in the Vista version is the Text Prediction mode (word recommendations). This is commonly found in many word processing programs, but when typing on a mechanical keyboard it is often

more of an annoyance than a help. The On-screen Keyboard version of word recommendation is unobtrusive (at the top of the keyboard, see Figure 3) and offers multiple possibilities rather than just one—plus it will work with any program, even Notepad. I'm guessing that it will adapt to the words used most, although I didn't use the feature enough to find out if it would. Since the On-screen Keyboard is not good for touch typing, the Text Prediction feature is even more useful for those who need to use the special keyboard feature.



Figure 1. The Windows 7 On-screen Keyboard Text Prediction. Choose the words from the top of the keyboard.

While the Windows 7 On-screen Keyboard is different from the Vista version, I would have to say that it's an improvement for its intended purpose. If you need to find the special characters in a font, then you can use the Character Map or Preview in the Fonts folder under the Control Panel. This is another improvement in Windows 7 that will be discussed next week.

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

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Wally Wang's Apple Farm: Firefox on the Mac

“Firefox and Other Browsers” by Wally Wang

With so many browser choices available, there's no reason to stick with a browser that you don't like. You can't go wrong with Safari, Firefox, Camino, Opera or Google Chrome. Also, Google is rumored to be readying a release of its official Android-based phone, with heavy ramifications; MacPriceTracker provides hourly updates to the latest Macintosh sales from various dealers; and Apple is offering a free Holiday Sampler through iTunes.

Wally Wang's Apple Farm

At one time, Microsoft's Internet Explorer held close to 90 percent of the browser market. After stomping on rivals such as Netscape Navigator, Microsoft dragged its feet on any further innovation, effectively allowing rivals to catch up and surpass its limited features. Firefox soon appeared and eventually helped knock Microsoft's browser share to 70 percent. Although Microsoft has finally started improving its browser, it's already too late for most people who have moved on to alternatives.

Firefox (www.mozilla.com/en-US/firefox/firefox.html) places greater emphasis on security, which Internet Explorer initially lacked. Another advantage is that unlike Internet Explorer, which is only available for Windows, Firefox is truly a cross-platform browser running on Windows, Linux and Mac OS X. Firefox can look and behave identically no matter which operating system you may use.

With so many people using Firefox, companies have had to redesign their sites to make sure they are accessible through Internet Explorer and Firefox. As a result, anyone using Firefox should have little trouble visiting any site including online banking or other financial sites.

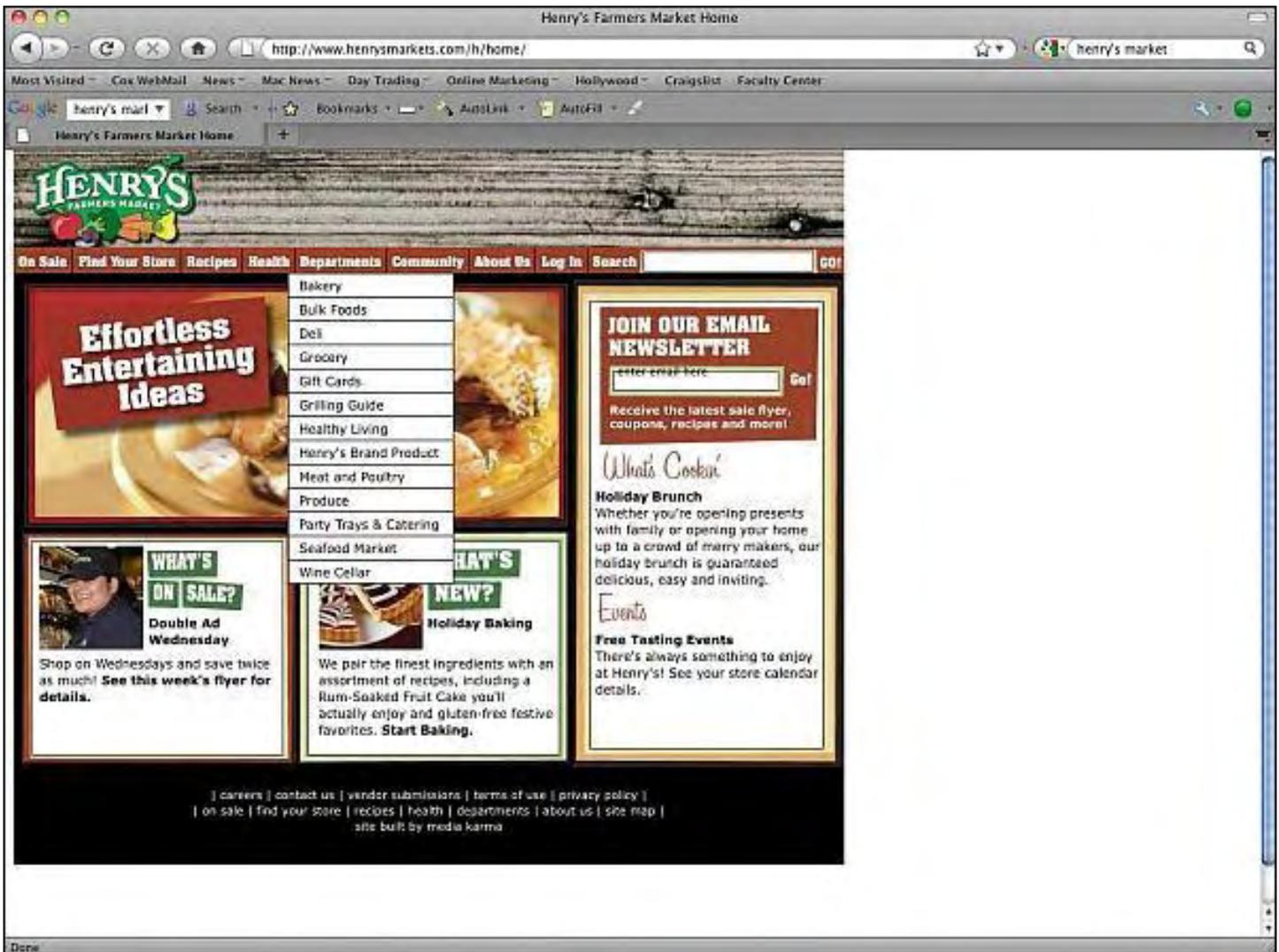


Figure 1. Firefox on the Macintosh.

On the Macintosh, Firefox has always been good, but not necessarily much better than Apple's own Safari browser (also available for Windows, but not Linux). If you're still stuck using Windows, switch to Firefox, and then if you make the migration to the Macintosh, you can use Firefox on your Macintosh.

Because Firefox is a cross-platform program, its earlier versions tended to look a little clunky on the Macintosh. While the latest version largely fixes this problem, a band of programmers decided to take the internal guts of Firefox and marry it to the smooth interface of the Macintosh and create a dedicated Macintosh version of Firefox dubbed Camino (caminobrowser.org).

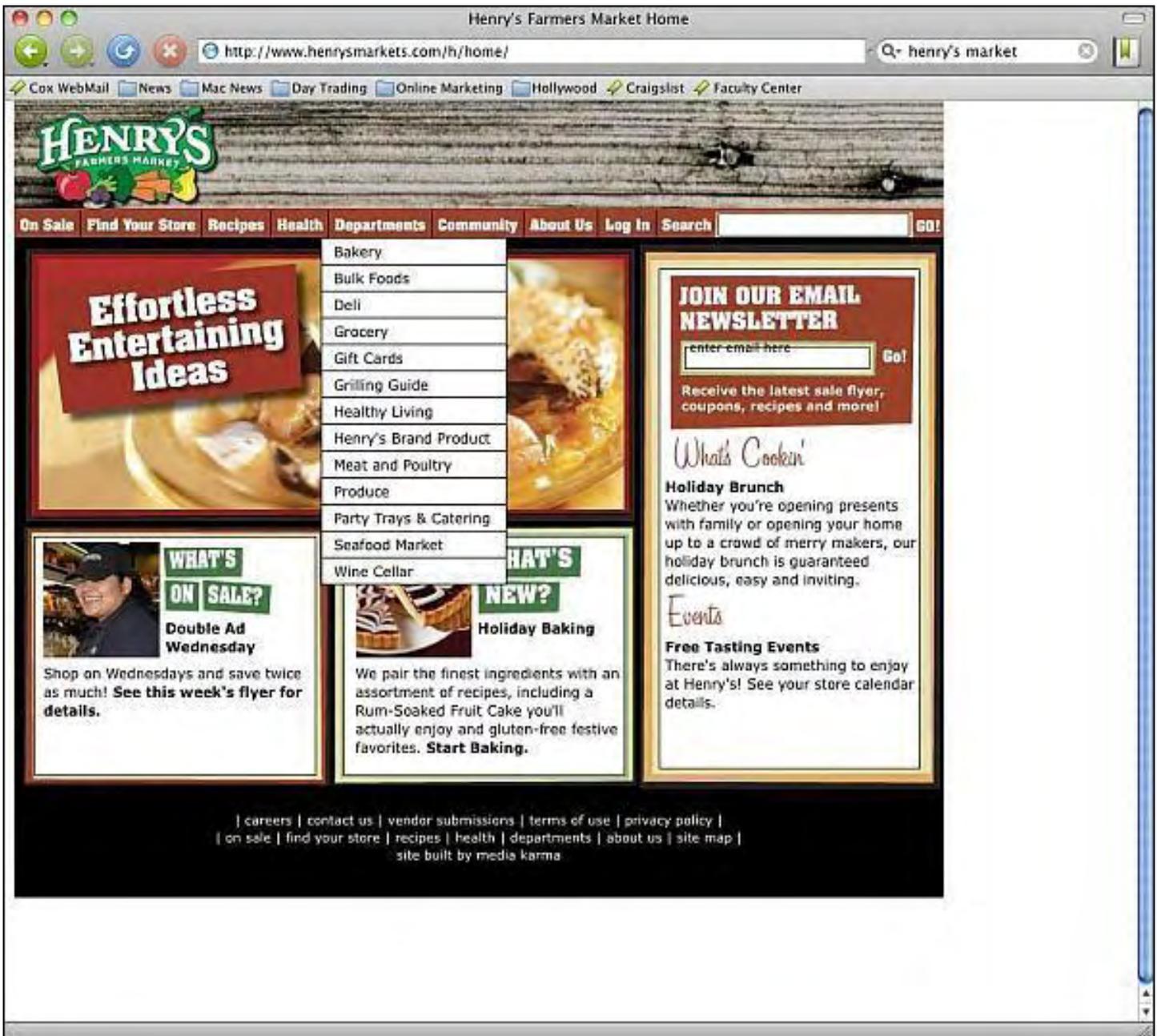


Figure 2. Camino sports a user interface optimized for the Macintosh.

Although Camino is essentially Firefox, some Web sites may only be compatible with Internet Explorer or Firefox, so these sites won't recognize Camino as Firefox. If you run into such incompatibilities, you'll have to resort back to using Firefox or Safari.

Camino is also a Macintosh-only program, so if you use other operating systems, you'll have to learn the quirks of each one if you decide to stick with Camino. Despite these minor problems, you may find Camino is a better browser than Safari or Firefox.

Since most browsers are free, you might also look at a little-known browser called Opera (www.opera.com). Like Firefox, Opera is also cross-platform (Windows, Linux and Mac OS X), but also supports Solaris and FreeBSD too.

Strangely enough, Opera also includes a built-in e-mail client so you don't need to use a

separate program like Apple's Mail or Thunderbird to access your e-mail account. More importantly, Opera tends to lead all browsers with advanced new features. If you like using tabs, Opera had them first. If you like Safari's ability to display multiple thumbnail images of your favorite Web sites, Opera did it first again.



Figure 3. Safari can display your favorite Web sites as thumbnail images so you can pick a site quickly.

The only reason I don't use Opera is that it tends to be the less compatible of all the browsers I've tried. A quick visit to Henry's Market (www.henrysmarkets.com) will show you pull-down menus that appear if you move your mouse over a menu title such as Departments or Recipes. Under Safari, Firefox and Camino, these menus appear normally, but under Opera, you have to move the mouse underneath the menu title before you can see it appear.

Such quirks will likely appear when visiting other Web sites too, so if you can put up with these annoyances and want the most advanced browser on the planet, Opera might be for you. Otherwise, you might want to play it safer and stick with Firefox or Camino.

Although Safari is perfectly fine, there's a reason not to use it—because everyone else is using it. One reason why Internet Explorer is targeted by malicious hackers is because so many people use it, making Internet Explorer the largest target to attack. When malicious hackers turn their attention to the Macintosh, they're going to start by looking at Safari's flaws. By using Camino or Opera, you can foil these hackers before they have a chance to attack your Macintosh.

For those who truly like living on the edge, download Google's Chrome browser (www.google.com/chrome), currently in beta. You probably won't want to rely on Chrome as your main browser, but using it can give you a glimpse of a future contender.

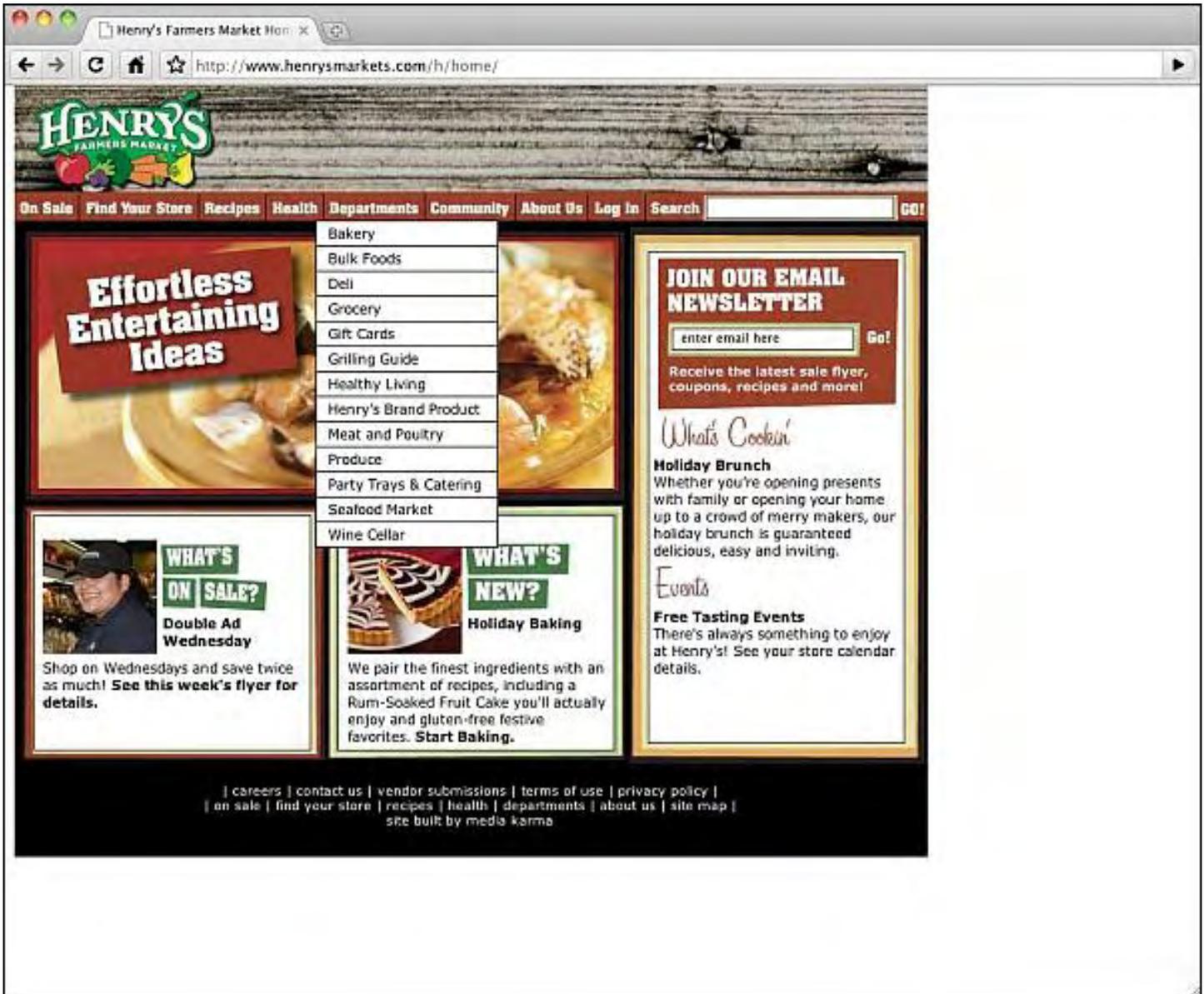


Figure 4. Google's Chrome browser.

One particularly nice feature of Google Chrome is that most browsers display a Web site address box (that contains stuff like <http://www.google.com>) and a separate search box. Chrome simply combines the address box with the search box so you only need to type in one area.

With so many browser choices available, there's no reason to stick with a browser that you don't like. You can't go wrong with Safari, Firefox, Camino, Opera or Google Chrome. Just test each

browser with your favorite Web sites and see which one seems to work best for you.

The Google Phone

Google is rumored to be readying a release of its official Android-base phone to create and define the optimum specifications for an Android phone. While this sounds nice, you have to wonder what all those other mobile phone manufacturers might think if Google starts competing against them.

One of the biggest advantages of Android is that it's free for anyone to use. That's why so many different companies have started using Android to create phones that can compete against the iPhone. However, if Google releases its own official phone, how will that affect all of their partners?

To a certain extent, this is the same quandary that Microsoft finds itself in. The old business model of selling the operating system and letting others take care of the hardware worked for decades, but Apple has shown that tight hardware and software integration can work as a more profitable business model.

While Dell, Hewlett-Packard, Sony and other PC makers scramble to sell an increasing number of lower-margin and lower-priced netbooks, they're finding their after-service costs are rising. Netbooks tend to fall apart faster, so companies like Dell make less on each sale and wind up spending more time fixing netbooks still under warranty.

To read about laptop failure rates, read this report from SquareTrade (www.squaretrade.com/html/pdf/SquareTrade_laptop_reliability_1109.pdf). SquareTrade claims that netbooks have a 20 percent higher failure rate than more expensive laptops. What you save on the initial price of a laptop could cost you time and money to repair later.

The problem boils down to everyone selling the same item. If LG Electronics and Motorola both sell an Android-based phone, they have to differentiate their products from their competitors somehow, but they're both essentially an Android phone. Likewise, if Dell and Toshiba both sell Windows laptops, the only real difference between them is price.

Once you start competing on price, it's a race to the bottom of shrinking margins. This is what's killing the PC manufacturers and what could hurt the mobile phone manufacturers. An official Google phone could be as devastating as an official Microsoft-branded PC.

Given the choice between an official Google phone or another one, people might feel safer sticking with the "official" version to the detriment of other Android-based phones. That could hurt Android's adoption and slow its growth.

Now what happens to Android developers? Will Google's own phone be the standard for testing and running apps? If so, that means other Android phones with different hardware specifications (screen sizes, resolutions and processors) may not run Android apps flawlessly. If other Android phones follow near identical hardware specifications, then there's little to differentiate competitors beyond price.

If Google releases an "official" phone, it could be interesting to watch how it affects the mobile

phone market. Judging from its effects, it could foretell the future of the PC market as well.

Price Shopping for a Macintosh

If you're interested in getting a new computer, you could walk into your favorite store, buy what you see, and walk out. Chances are good that you'll spend more money than necessary, so to help you keep costs down, visit MacPriceTracker (www.macpricetracker.com), which provides hourly updates to the latest Macintosh sales from various dealers. A similar price tracking site is Mac Prices (www.pcprices.net).

By visiting either site, you can find the lowest price for the Macintosh model you want. To save even more money, visit Apple's online store and shop in the refurbished section. You won't always find what you want, but the prices are usually lower than any new Macintosh sold anywhere else.

* * *

Periodically, Apple releases a handful of songs for free through iTunes. Just download the songs you want and they're yours forever. For the holidays, Apple is offering a special iTunes Holiday Sampler (itunes.apple.com/us/album/itunes-holiday-sampler/id344104720) of 20 Christmas songs from various artists. To get in the holiday spirit, download this free Holiday Sampler and start listening to Christmas music today.



Figure 5. Apple is offering a free Holiday Sampler through iTunes.

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.

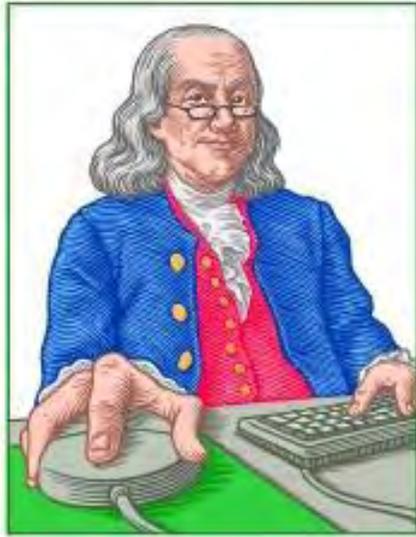
Wally is responsible for the following books:

- Microsoft Office 2007 for Dummies (www.amazon.com/gp/product/0470009233?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470009233),
- Beginning Programming for Dummies (www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702),
- 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), 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),
- 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),
- Visual Basic Express 2005: Now Playing (www.amazon.com/gp/product/1593270593?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593270593),
- 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),
- 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).

When not performing stand-up comedy or writing computer books, he likes to paper trade stocks with the video game Stock Reflex (www.plimus.com/jsp/download_trial.jsp?contractId=1722712&referrer=wwang), using the techniques he learned from a professional Wall Street day trader.

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.

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LINUX LESSONS

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

**Linux Lessons:
Introducing Fedora**
"From Red Hat to the
Fedora Project" by
Pete Choppin

In our last series of Linux Lessons we introduced one of the more popular distributions—Ubuntu. We are now going to take a look at another very well-known distribution—Fedora.



In our last series of Linux Lessons we introduced one of the more popular distributions—Ubuntu. We are now going to take a look at another very well known distribution—Fedora.

Fedora has been around now for more than six years and is currently on release 12. The goal and intent of the Fedora Project (fedoraproject.org/) is to make available a free distribution that is on the cutting edge of open-source software.

History

Prior to the creation of the Fedora Project, Red Hat (www.redhat.com/) had developed its version of free, open-source Linux. This progressed to the ninth release of that product. At that point, the Red Hat company was in the process of developing an enterprise version of its distribution. This would include a full-support contract offering, which would then be available for purchase.

To keep the Red Hat Linux open-source community viable, and frankly, to keep from losing the loyalty and support of a rich community that had been with Red Hat Linux since release 1, the Fedora Project was created and offered the free version of Red Hat Linux called Fedora Core. The name *Fedora Core* remained as such from release 1 through 6, at which point the project dropped the Core part of the name, leaving it simply *Fedora*.

We will be installing the latest release—Fedora 12. Incidentally, the Fedora Project typically releases a new version of Fedora about every six months. For information on the next release, check the Fedora Release Schedule (fedoraproject.org/wiki/Releases/Schedule)

Bleeding Edge

I would like to point out that, although Fedora has gone through multiple releases and each release follows standard testing phases, including alpha and beta releases prior to their final release, this distribution can potentially introduce problems on your system. This is because

Fedora is intended to be used in a testing environment where new and innovative packages (applications) are introduced. Fedora should not be used in production environments where systems rely on high percentages of uptime and where system failures cannot be tolerated.

That having been said, I have found very few issues with Fedora and I have been using it since its inception.

Downloading Fedora

Fedora can be downloaded from the Fedora Project download site (fedoraproject.org/get-fedora.html).

You will notice that the Fedora Live CD is the first thing you are offered on the download site. You are certainly welcome to try Fedora this way, but we will be installing the full version instead of the Live CD. Scroll down the page to see the Mirrors under Other Download Options.

Click on the "See all mirrors" link. This will take you to the Active Mirrors page, which lists more than 100 mirror sites to choose from. They are listed alphabetically by country, so the idea is to select a mirror that is geographically close to you. The list also shows the bandwidth of each mirror. You will want to select the highest bandwidth in order to get the fastest download.

Installation Prep

As with the Ubuntu installation, you will need to take the .iso image that you will download and burn this to DVD before you can begin the installation. You will also need to either have a computer available on which to install Fedora, or you can install it to a virtual machine.

Once this is ready you may begin the install. Next week we will go over beginning the installation and we will briefly discuss partitioning. Fedora partitioning is very similar to Ubuntu. If you need more details on this you can review the previous "Linux Lessons", dated November 20, where we covered partitioning in greater detail. The screens are a little different, but the concepts are the same.

As always, if you have any questions during any part of this series please submit them. We will likely post these on *ComputerEdge* for the benefit of all readers, unless you wish to stay out of the public eye, in which case we can post it anonymously.

Pete Choppin has worked in the computer and IT industry for 13 years. He currently works as a network and systems administrator for a company called Albion based in Clearfield, Utah. His interests include cooking, sci-fi, computers and technology, and web design—a semi-professional endeavor, having designed Web sites in the dental field, e-commerce businesses, and for the Boy Scouts of America. Pete also contributes regularly to Ptolemy's Tribute (ptolemystribute.blogspot.com)—a blog which covers political and technical topics and issues. Pete has been a devout reader of *ComputerEdge* since 1990. He has contributed to articles and responded to topics on *ComputerEdge*. He can be contacted at pchoppin@comcast.net

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Worldwide News & Product Reviews

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



The 12 Business Phone Tips of Christmas—Having a virtual phone service can help make the season bright; 2010 Predictions from Zscaler—Dire predictions for the world of computer/IT security; Deck the Buckyballs—One of the neatest goof-around gifts for any tech-head on your list.

The 12 Business Phone Tips of Christmas

Kevin Baker (kbaker@protus.com), my1voice product marketing manager for Protus (www.protus.com), writes in this week:

Ah, the holidays. That wonderful time of year when families gather 'round the fireplace to drink a little eggnog, trim the tree and experience the joy of being together.

For most of us, the holidays are also a very hectic time of year. Especially the 12 days leading up to Christmas. And that's true even if you don't happen to celebrate Christmas, because it still sets a very short deadline for getting business done, since most of the business world seems to come to a stop from December 25 until around January 3.

How do you reconcile the high-pressure needs of your small business with your family's desire to roast chestnuts on the open fire? Having a virtual phone service can help. Toward that end, we offer up these 12 small business phone tips 'til Christmas. Hope they help make your season a little brighter.

Tip 1: Record informational messages that answer repetitive questions. Rather than taking time to answer the same questions about what days you'll be working over the holidays or what time the business is open, pre-record a message and make it an option on your virtual receptionist. This tip is extra helpful for businesses whose hours will be varying greatly during the holidays.

Tip 2: Spur holiday sales by offering door busters. Add a burst to your ads and/or direct mail/e-mail promotions encouraging customers to call a particular extension you set up to promote the door buster of the day. You can even use different extensions for each advertising vehicle so you can track which ones get the most calls—thus telling you which are the most effective at driving customers to action.

Tip 3: Put a live Santa on an extension. Businesses can get in on the holiday spirit by letting kids call to speak to Santa directly at the North Pole. This one works particularly well if you have a toll-free phone number.

Tip 4: Post frequent status updates on hot holiday items. Each holiday season there's an item or two in low supply and high demand. When that happens, customers tend to call around to see

who has it. Rather than taking floor personnel time away from live customers to answer the phone, you can use the information message to post updates on your current inventory levels of those items. Be sure to add a date and time so customers know how current the information is.

Tip 5: Set up other FAQ messages so customers can help themselves. If you have questions that come up often, and that have simple answers with no choices, create an FAQ recording that customers can check themselves. Just remember to leave them a way to opt out and talk to someone live if they want.

Tip 6: Put a Call Me button on your Web site. These days customers often gather information on the Web, and then use other means to make the purchase. Make it easy for them to call by adding a Web call button to your Web site. Customers click the button, input the phone number they want to use to receive the call, and are connected quickly—while they're still looking at the product or service on the screen. It's doubly important if you're a retailer without a Web-purchasing capability.

Tip 7: Make a quick long-distance business call while you are out shopping with the family. Customers will see your caller ID and will likely assume you're calling from the office. With the my1voice virtual calling card you can make outgoing calls at any time and from anywhere.

Tip 8: Use the conference call feature to tie up last-minute business deals. Instead of missing out on holiday parties, you can step aside with your peppermint hot chocolate in hand and finish-up last minute business with the my1voice conference call feature.

Tip 9: Don't stay behind waiting to receive a fax in your home office while your family heads out to the in-laws for a pre-holiday feast. You can choose to have a notification sent to your e-mail address on your smartphone to let you know when your fax has arrived, or you can have the fax itself sent directly to your e-mail inbox! Treat my1voice fax delivery the same as you do with your voicemail messages. Never stand waiting for a fax again!

Tip 10: Use smart call forwarding to offer 24x7 customer support. When customers need help during the holidays, they usually want it right now—even if it's 2:00 in the morning. With a small staff you can't be in the office 24x7. But you can use smart call forwarding to forward calls to any phone you choose. Have each person on staff take a night to provide that support during the holidays—then advertise it's available.

Tip 11: Use smart call forwarding to carve out a little time for yourself. A small business owner's time is not his/her own anytime during the year. But during the holidays it's especially precious. With smart call forwarding you can sneak out to do a little extended shopping, trim the tree with the family, or have a holiday lunch without losing touch.

Tip 12: Make your holiday bright. Not really a phone tip but still good advice. Take the time to relax, enjoy and refresh yourself for 2010. Happy holidays!

2010 Predictions from Zscaler

Zscaler security research VP Michael Sutton sent us his list of 2010 predictions for the world of computer/IT security.

1.) Apple is forced to climb the security learning curve

Apple has for some time been considered to have a safer operating system in OS X as it is less often targeted by attackers. While that may be true, it is less secure overall and Apple's increasing market share will force them to finally invest in security due to increasing attacks targeted at Apple devices.

2.) App Store Party Crashers

App stores are all the rage, with every mobile vendor racing to replicate Apple's success. Generally, vendors stand guard and only let in the applications that they feel are appropriate. Consumers mistakenly believe that this ensures that only secure applications can be obtained, but that is not the case. Security testing is limited at best with app developers already having success slipping in apps with undocumented APIs. Attackers will take things one step further and slip malicious apps in under the gatekeeper's watch.

3.) Web-based worms go prime time

We've been teased with a variety of Web-based worms from Samy to StalkDaily. Most have been experiments as opposed to planned attacks with the goal of financial gain. That's about to change.

4.) The emergence of the Web platform

We've gone from Web sites to Web applications. We're now seeing the birth of the Web platform. Social networking sites such as Facebook have gone beyond delivering dynamic applications welcoming user-supplied content. They have now evolved into platforms inviting user-supplied functionality, allowing virtually anyone to develop unique applications within their ecosystem. An attacker will take advantage of this to deploy malicious applications on social networks, and the sites will struggle to identify and block them before deployment.

5.) Attackers turn to the cloud

The cloud offers unprecedented storage and processing power at an attractive price. Think that's only attractive to enterprises? Think again.

6.) The arrival of financial DDoS attacks

Cloud-based services generally charge based on actual consumption.

This provides attackers with incentive to hold enterprises hostage by artificially inflating costs. Unfortunately, cloud providers have little incentive to stop this practice.

7.) Poking holes in the cloud

My greatest hope for 2010 is that marketing departments will give the term "cloud computing" a well-deserved break. 2009 saw great interest in the development of cloud computing architectures, and one must wonder how often security was sacrificed in order to get to market quickly. Expect attackers to devote time to poking holes in the APIs of cloud providers. When they're found, thanks to multi-tenant architectures, it will have been worth the effort.

8.) Clickjacking comes out of hibernation

Clickjacking (a malicious technique of tricking Web users into revealing confidential information or taking control of their computer while clicking on seemingly innocuous Web pages. A vulnerability across a variety of browsers and platforms, a clickjacking takes the form of embedded code or script that can execute without the user's knowledge, such as clicking on a button that appears to perform another function — Wikipedia) roared onto the scene in the summer of 2008 when Jeremiah Grossman and Robert Hansen had their OWASP talk delayed at the request of Adobe. The sensational web cam/microphone hack that drew media attention has been addressed, but the overall flaw still remains.

Clickjacking can be a valuable tool in a social-engineering attack and we've just begun to see it leveraged in attacks.

9.) Browser vendors finally start to take XSS seriously

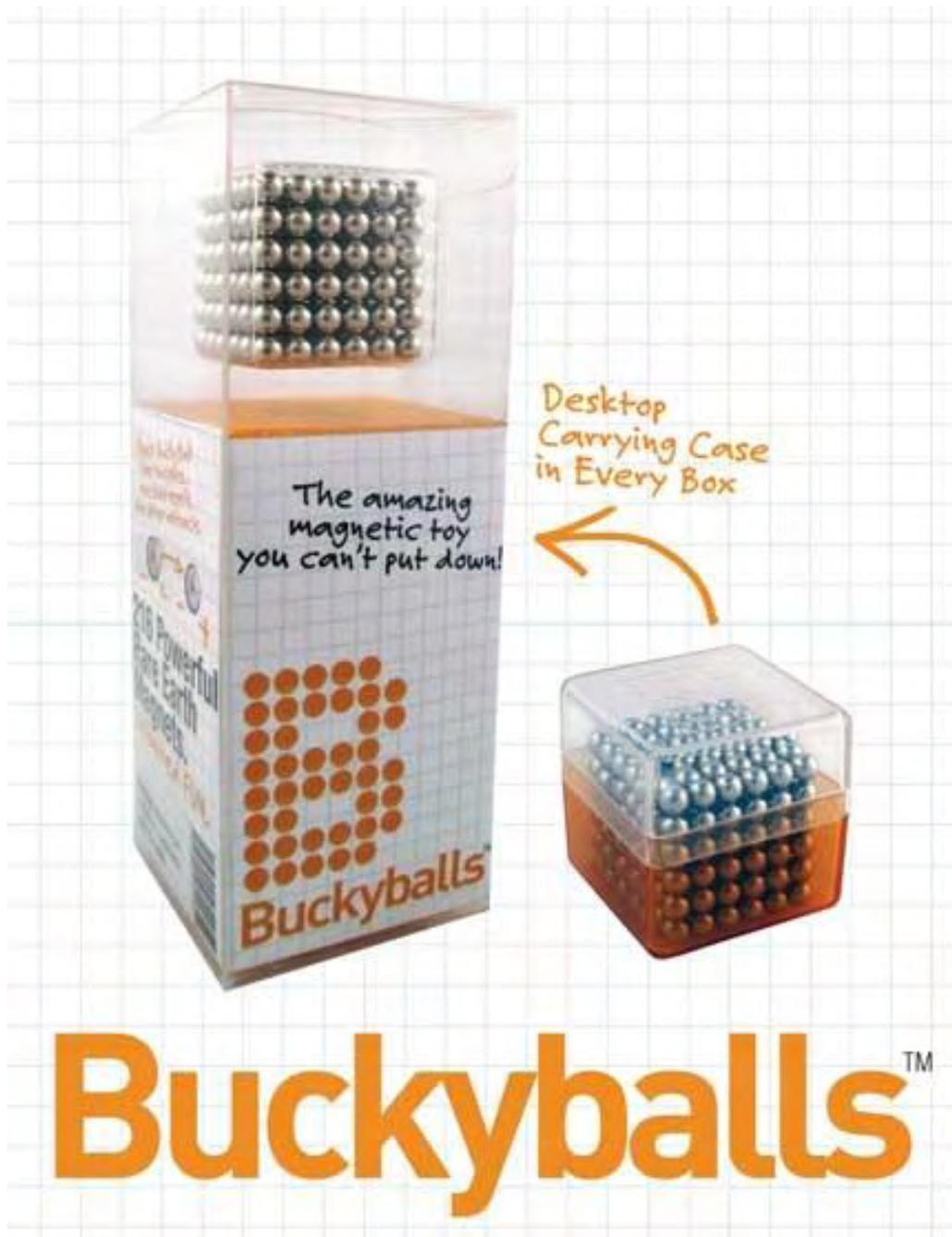
I was very encouraged when Microsoft released IE 8 this year and it included XSS protection. For all of the heat that Microsoft takes for security vulnerabilities, they continue to be a leader when it comes to adding innovative security features, and this was another example. I'm confident that other browser vendors have taken notice and will fall in line.

10.) The Card Systems Data Breach will look like child's play

This is by far the easiest prediction to make. After all, records were made to be broken. As memory becomes cheaper and power becomes more expensive, enterprises are looking to consolidate data storage and continue to build massive data centers and develop ever larger data stores thanks to cloud computing. The volume of data that can be stolen when adequate security controls are not implemented is truly staggering.

Deck the Buckyballs

With Christmas right around the corner, one of the neatest goof-around gifts for any tech-head on your list is Buckyballs (www.getbuckyballs.com) (about \$30), billed by the manufacturer as "The Amazing Magnetic Toy You Can't Put Down."



They're right. Like the best toys, Buckyballs is based on a very simple concept: 216 round, roughly 3/8-inch, incredibly powerful rare earth magnets—each one so powerful it can support the full weight of all 215 others. That's it—and it's all it needs to be.

You can do structured things with them like making sculptures, puzzles, patterns and shapes. And you can stick them all over your fridge. But mainly you'll just find yourself fooling around with them literally for hours, they're that unique and that addicting.

Buckyballs debuted earlier this year and became an instant sensation: More than 100,000 units sold online and there are a quarter million views of videos of them in action. Buckyballs has been praised by everyone from Stephen Colbert and CollegeHumor to HBO and Gizmodo.

Still not convinced? Then see them in action by checking out this video: "Zoomdoggie's Amazing

BuckyBalls in action!" (www.youtube.com/watch?v=-JpM4A4657k&/). You will be amazed. Pick up Buckyballs online at the above Web site or at Brookstone, MoMa, Target.com and 300 other retailers.

WARNING: Because they're very small and very powerful, BuckyBalls should be kept out of reach of anyone who might swallow one—that includes most children under the age 12, according to the company.



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.

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ComputerQuick Reviews

*News and
Reviews from
Readers and Staff*

ComputerQuick Reviews

“Computer
Product Opinions
from
ComputerEdge
Readers and
Staff” by
ComputerEdge Staff

A reader recommends Opera or Firefox for Web browsing for their ease of use and functionality. Also, a call for readers' visions of the computer industry in 2010.

Why Hedge Your Bets When It Comes to Browsers?

I have Firefox, Chrome, Safari and Opera on my PC, in addition to Internet Explorer. I like Opera, because it can easily identify itself as Firefox or IE to the Web site (some sites I need to use won't recognize anything but IE, which is why I haven't uninstalled it). The other browsers do too, but it's a more complicated procedure.

I also like the "mouse gestures" for going back and forth in the same page; Firefox has an add-on that does this, but for some reason it got disabled on my machine and I haven't been able to reinstall it. (It happened right after I installed Norton Internet Security and Systemworks 2009, but I haven't been able to fix it.) I haven't found any overriding reason to use Chrome or Safari.

My personal recommendation would be Opera or Firefox.

J. D. Mendez

* * *

What browser do I use?

Way back, I used Netscape 2.0, then both Netscape 3.0 and Internet Explorer 3.0. Over the years I continued to use both until I discovered Firefox at which point I used three. Then Netscape stopped updating and I slowly gave it up (although I still have it on my old laptop just in case). Now, based on *ComputerEdge's* recommendation, I tried Chrome and use that, IE6 and Firefox.

Why do I use them all? Several reasons. First, I chose never to upgrade IE past 6 because I heard that the newer versions had lots of problems and simply had much more bloat for few, if any, real benefits.

I use IE6 because there are still some Web sites out there that don't work so well on other browsers. However, those are getting harder to find as other browsers start supporting IE features and, maybe, Web-development tools have become much less IE-centric.

I use Firefox because I like the way it has tabs and very good cookie management (so I don't clog up my system with useless pieces of junk that can allow companies to track where I go and what I do). IE6 has this feature too, but I find it more difficult to use.

I started using Chrome just to see what it was like. It worked fine for a few things, but was horrible with my Yahoo mail. It would suck up my system resources and not release them unless I closed the browser. If I tried to click on an e-mail, it would sometimes take about 30 seconds to respond whereas Firefox might take five seconds on a bad day. Conversely, since I started monitoring this, I noticed that Firefox likes to hold onto a lot of memory for things like FaceBook, which causes it to eventually get very slow (and sometimes crash if I keep in on for several days), but Chrome seems to spend a lot of time cleaning itself up (which might account for the slowness). However, the recent update (early December) seems to have greatly improved its response time. Maybe they listened to the dozen or so complaints I sent them about that.

Finally, why do I keep using multiple browsers? Well, one really good reason is that I regularly monitor two different Yahoo e-mail accounts and no one browser seems to allow that, even in separate windows. So I open one e-mail in Firefox and a different e-mail in either IE or Chrome.

One more note: One of the main reasons I wandered away from IE is because sometimes it would crash. When it did, it liked to close all IE browser windows and all Windows Explorer windows and maybe a few other Windows applications with it. So at this point I consider it a backup browser at best. Firefox is still my preferred browser.

Rob S

* * *

Next Week: A Look at the Next Year in Computing.

Next week, we're looking at what will have impact in 2010. What is your vision for the next year? Is there a technology that the rest of us are missing? Your comments will appear right here in ComputerQuick Reviews. Send your thoughts to ComputerQuick Web Browsers (ceeditor@computoredge.com).

We Want Your Opinions About Hardware, Software and Web Sites

Over the years, *ComputerEdge* has had great input from our readers. In particular, people have submitted short reviews of equipment, software and Web sites that they really like. In some cases readers have offered tips (such as avoiding flakes on Craigslist). ComputerQuick Reviews is our column dedicated to highlighting those things that you most like and want to recommend to others. The problem is that if this column doesn't appear, it becomes forgotten and less likely to

receive input from you.

We have decided to include this feature in every issue as a reminder that this is your magazine—even if we don't have any new reader reviews. If you would like to see the type of reviews that we have run in the past, then check out ComputerQuick Reviews (webserver.computoredge.com/sitemap.mvc?feature=Columns&columnedcode=persrev&column=ComputerQuick%20Reviews) in the *ComputerEdge* Site Map. You will find that they are quite varied. We would like to see more. Consider this column a gentle prod saying that we would like to hear from you.

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 article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

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

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Spam of the Week

Spam of the Week

“The latest in annoying and dangerous e-mail currently making the rounds.” by ComputerEdge Staff

The "Some jerk posted your photo" scam is just simple enough to tempt the casual reader. Don't click it!

The American Express scam spam mentioned last week seemed to continue until Sunday. It will probably be back. This week, we are seeing a variation of "some jerk posted your pictures" from a few weeks ago. The "Is this your photo?" is just simple enough to tempt the casual reader. It comes with various names in the From line with a matching name in the body. If they hit a name that is similar to someone you know, you could be fooled. The type styles are varied.

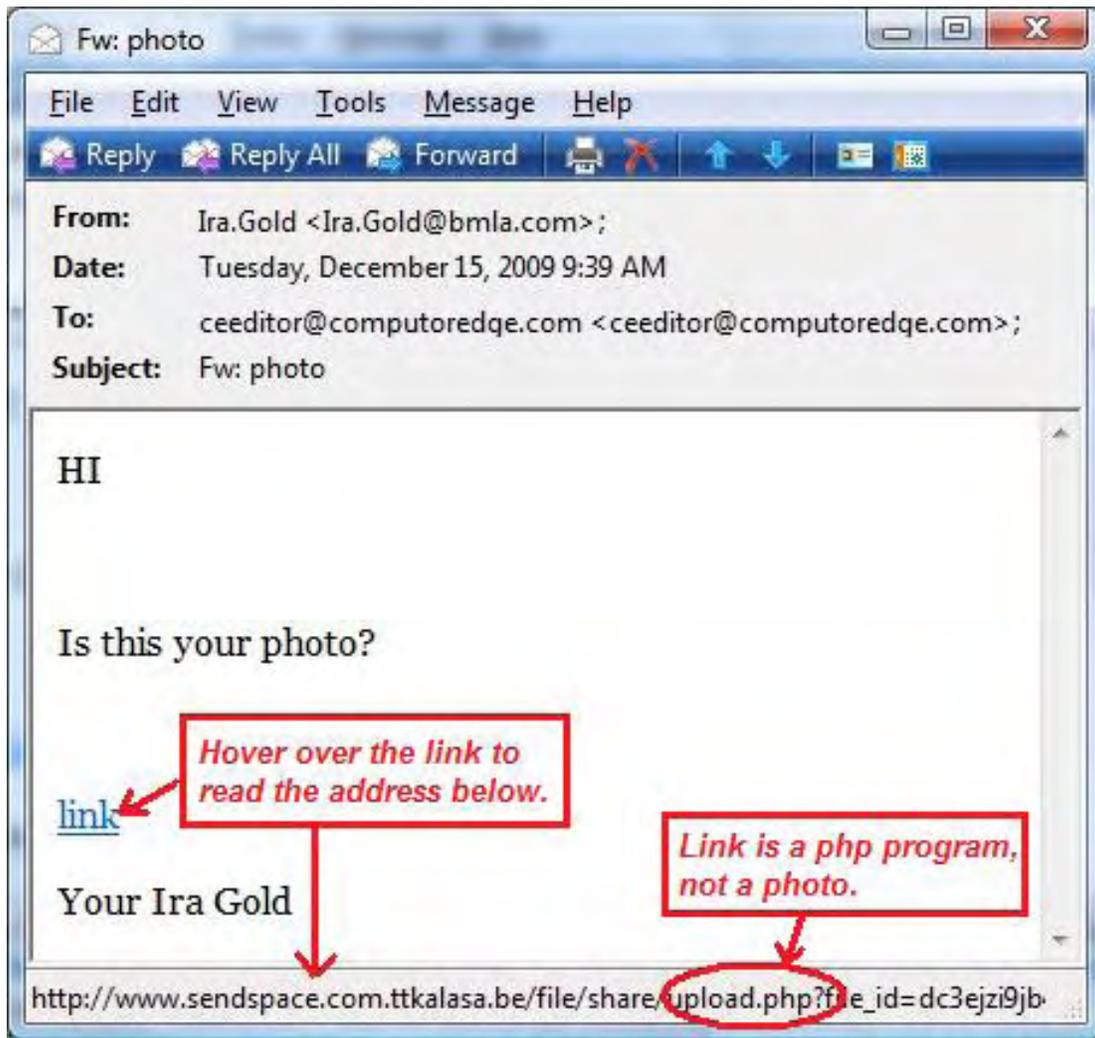


Figure 1. Curiosity makes us want to see if it's a photo of yourself.

This scam spam does not link to a photo, but a PHP program that may actually be an uploader as shown. Don't bother to click on the link. You won't see your photo, and you could be in for trouble. Just delete it.

The more you recognize, the safer you will be.

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 article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

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

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EdgeWord: A Note from the Publisher

“Installing Windows 7 on an Older Computer” by
Jack Dunning



Jack has started putting together a new Windows 7 computer from a hand-me-down system, and offers a couple of learning points for anyone installing Windows 7 on an older computer.

I've started putting together a new Windows 7 computer. Well, it's not a new computer, but one that my son has given me. It's a few years old. He and his wife are gamers, so they need the latest and greatest machines to keep up with the competition.

Every couple of years, my son builds a new computer, this time with Windows 7. (He completely skipped Vista with no regrets.) He gives his old machine to his spouse and I get her old computer—without hard drive, DVD drive, and sometimes other miscellaneous components. Then I only need to pick up the missing components and the new operating system. (I am getting the Professional version because I like to use the remote-hosting capability, which is not in the Home version, to take control of my desktops from anywhere.)

I have no doubt that Windows 7 will run fine on this system because the last computer he gave me (the previous generation hand-me-down) now runs Vista without much problem. (No Windows Aero, but who needs it?) This computer is a few years younger. While I haven't completed the process, I do have a couple of learning points for anyone installing Windows 7 on an older computer.

First, if you are building your own computer (in my book, upgrading qualifies), then you can get a less expensive OEM (Original Equipment Manufacturer) version of Windows 7 from your local independent computer dealer. This version is designed for computer businesses that build computers. Many of the independent businesses cater to people who build their own systems; therefore they will sell OEM copies to their customers. Other than being less expensive than a copy of Windows 7 at the typical retailer, the OEM copy does not come with the support or the flexibility of the regular Windows 7 or the upgrades. If you go for one of these OEM versions, you better know what you're doing.

When you get an OEM version of Windows 7 for an older computer, you will need to know whether the motherboard will accept 64-bit or if you must use 32-bit Windows. Although processors have been technically capable of both 32-bit and 64-bit for many years, the motherboard also needs to have 64-bit capability to run a 64-bit operating system. Check out your motherboard with the manufacturer's Web site to find compatibility. The OEM version of Windows 7 is either one or the other, not both. The 64-bit version will not install on a system designed for 32-bit operating systems.

Next, the OEM version of Windows 7 is a complete install, not an upgrade. It is designed to go on a clean hard drive with no need to save any old files. If you try to use it as an upgrade, you may lose anything that you didn't back up. I can't verify this because I'm installing on a new drive, but I wouldn't chance it if what I really need is an upgrade version.

Another learning point is that when purchasing a hard drive you will need to specify whether you want a SATA or an IDE drive. Your motherboard may have both types of connections, but in the long term, IDE is being phased out and replaced by SATA. (IDE uses the wide cable, while SATA is a thin cable.) I only point this out because a couple of years ago, a drive I purchased came with both types of connections, but not today. You will need to know what your motherboard will handle. If you have SATA available, then get it for your hard drive, even if the old one was IDE.

I haven't checked out the memory situation because this motherboard already has two gigs installed. I may eventually up it to four gigs, but there is not much point in going beyond that—even if the motherboard can handle it. Since I'm forced to use 32-bit Windows 7, four gigs (actually a little less) is all I'll see.

I've been told that the video board has become a little flaky, but, as I'm not a gamer, that may not have much impact on me. In the worst case, I can either use the video built into the motherboard or buy a new video card.

I'll let you know how it all goes. Eventually, I'll get a new Windows 7 computer—probably a laptop. But for now, this older computer will have to do.

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

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Editor's Letters: Tips and Thoughts from Readers

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

"Buying Computers," "Dust Buildup," "Macs and Marketing," "Spam of the Week," "Recording Audio," "Boot Camp May Not Always Work"

Buying Computers

[Regarding Pete Choppin's November 27 article, "Picking Computer Hardware":]

I found the subject article extremely helpful since I will soon be buying a new computer. One of the key questions I have is, how do I get all my stuff (programs, photos, letters, etc.) from my present computer to a new computer? What port would I use to connect to the new computer, or how do I do it? Secondly, if there is some bad stuff on the present computer, will that infect the new one? Thirdly, what are some of the local computer stores you would recommend? Will they build a new unit, or do they sell "off the shelf?"

Thanks for your article and your advice.

-Gabby DeDonato, Solana Beach

Gabby,

Thank you for your kind words and for reading my article.

Transferring data from the old computer to the new one can be a huge task. There are a couple of options, depending on how comfortable you are with computers and connections.

Probably the most efficient way to transfer your data is over a network connection. You have basically two options, depending on what equipment you have. The first option is to use a home network setup where you have a computer that is connected via a switch. A switch is a networking device that allows you to connect multiple computers together in a network. If you already have a home network with a switch, just add the new computer to the network and copy the files. Be sure you have also "shared" (www.practicallynetworked.com/sharing/xp/filesharing.htm) the drives on the network you will need to access.

The next networking option is something called peer-to-peer networking. In this case, a switch is not necessary. You would connect two computers together with a special cable called an Ethernet crossover cable. These are available for purchase at a local computer store, or they can be custom built. In order to set up peer-to-peer networking, you will need to configure your network settings in your operating system a certain way ([here \(www.ehow.com/how_5312785_set-up-peertopeer-network.html\)](http://www.ehow.com/how_5312785_set-up-peertopeer-network.html) are some instructions).

Networking may be the most efficient method, but not necessarily the easiest. Another option is

to copy your data to an external hard drive and then move that drive to the new computer and copy the data over to the new hard drive. Most external hard drives have a USB connection that should make this an easy transfer; however, USB is not the fastest, and depending on the amount of data you have, this could take time. The benefit of using the external hard drive is that you will now have a convenient backup drive for the new computer.

[Editor's note: If your old computer is a Windows Vista machine, then you can use Windows Easy File Transfer (webserver.computoredge.com/online.mvc?issue=2650&article=vista).]

To answer your question about transferring "bad stuff" to the new computer, yes, there is a risk that if you have something like viruses, spyware, malware or other undesirable problems, these can be transferred to the new computer depending on what you have and what you chose to transfer. Probably the best thing to do is have an antivirus program on the old computer scan and remove any viruses. It should then be safe to transfer your data. If you are having problems with Internet browsing, this is likely due to spyware and that can also be removed using spyware-removal software.

Some good free antivirus software is called AVG Anti-virus and can be downloaded from the Internet. Just search for "AVG Anti-virus." Spybot spyware-removal software is also free and downloadable from the Internet, as well as the AdAware adware-removal program and another very good application called Malwarebytes, which removes malware.

I do not live in the San Diego area, so I am not familiar with the local computer stores there; however there are some sponsor ads on ComputerEdge that come highly recommended. You can view them here (webserver.computoredge.com/online.mvc?article=prodindex&zone=SD).

-Pete

Dust Buildup

[Regarding the November 20 Digital Dave column:]

I recently was responsible for about 150 old laptops used by Census Bureau field representatives. They carried the laptops around to people's homes to conduct interviews, frequently in rural areas. When the laptops were returned, I didn't have time to disassemble them, but would just blow out the cooling vents with canned air. I would often get a dust cloud, and could feel that the machine ran cooler.

-Don Bishop, Lakewood, Colorado

Macs and Marketing

[Regarding Barry Fass-Holmes' November 27 article, "Marketing Mythologies about Macs and PCs":]

To Editor and Barry Fass-Holmes,

I would like to say that you must be a Mac user because your article titled was primarily focused on disproving Cupertino's and Redmond's "biased advertisements," and yet you sound very biased. It would have been nice to read a less biased view of the differences between the two

instead of from someone who has a beef with Cupertino and Redmond.

I would rather have read a nice article of the side-by-side differences, maybe the pros and cons of both, the issues one might run into when switching from one to the other, etc. Especially since this issue had to do with advice on buying computers.

Personally, I recently ran from store to store comparing the two trying to decide which one to purchase; I was actually able to find a nice, fully loaded laptop for half the price it would have cost me to switch to a comparable Mac laptop.

Honestly, I was hoping to share this issue with people who ask me how they should go about buying a computer. I thought it would be a nice way to educate them on the differences so that they could make an educated decision, but this article stopped me cold.

-Rose, Aurora, Colorado

Hi Rose,

Thank you very much for reading and commenting on the article.

Yes, I am a Mac OS X user.

The article was intended to debunk the mythology in Cupertino's and Redmond's advertisements that there are two types of computers—Macs and PCs.

The goal was to inform readers that Macs run Windows and therefore are PCs. The goal was not to present differences between Macs and PCs given that Macs are PCs.

The article's main point (that Macs are PCs) is useful information for computer customers. Instead of thinking "I can't buy a Mac because it's not compatible with Windows, it has no software, and it is too expensive," the article demonstrates that Macs are compatible with Windows, they run all the programs that Windows can run, and they are as expensive as comparable, competing brands.

There is already a ton of side-by-side comparison articles; I wanted to write about marketing mythologies instead.

PC Magazine gave the MacBook Pro its Editors' Choice award (www.pcmag.com/article2/0,2817,2279376,00.asp).

Here are links to some other articles.

www.macworld.com/article/134373/2008/07/laptop_price.html

www.tomshardware.com/reviews/apple-mac-leopard-windows-vista,1985.html

www.macworld.com/article/140038/2009/04/windowsguru_mac.html

www.macdailynews.com/index.php/weblog/comments/16785/

Congrats on your purchase. Hope it meets your needs!

Cheers,

-Barry Fass-Holmes, San Diego, CA

Spam of the Week

[Regarding the November 27 Spam of the Week: Your Photo Is on the Web column:]

I recently found this on two of my Vista machines. I was looking at the Task Manager process list for an unrelated reason and that process name and description stood out like a sore thumb. I did some Google searching and found it was complicated to get rid of, but I did finally come across a manual procedure that worked, but the author also advised using a virus scanner to make sure there were no more variants. That convinced me to download and try Microsoft's Security Essentials.

Sure enough, on one Vista machine it found a couple more variants (including the sdra64 files I left in the Recycle Bin), so I highly recommend it. Note, I did not to my knowledge ever click on an e-mail link as described in this article, so while you still need to be ever vigilant, MSE does more than the previous Defender and Malware Removal tools.

-Ron Cerrato, San Diego, CA

Recording Audio

[Regarding the November 27 Windows Tips and Tricks: Recording Played Audio column:]

Or you could just take a male-to-male cord and connect it to line out/headphones and one end to the microphone. Then record using the Windows recorder or something else.

-Kenan, Colorado Springs, Colorado

Now this is an outstanding and valuable tip. Many thanks. Perhaps it will give stronger saturation of sound compared to my weak microphone pickup. Been there, done that—with low results (in XP).

-Cicero, Colorado Springs, CO

Boot Camp May Not Always Work

[Regarding the November 27 Wally Wang's Apple Farm: Buying a Mac column:]

"...Buy a copy of Windows XP/Vista/Windows 7 and you can also run Windows on your Macintosh through Apple's free Boot Camp program..."

True only *if* Apple provides Windows drivers for their hardware. I heard a caller to the national radio show "The Tech Guy with Leo Laporte" complain that his new Mac won't work with Windows 7 via Boot Camp since Apple hasn't provided the Win 7 drivers. If you're going to run Windows apps, just buy a Windows computer. Granted, it's challenging enough to run Windows, so you don't need the added headache of making it work on a Mac, not to mention the limited OEM support from Apple helping people use Windows to control Apple hardware. Sure, Fusion will perhaps work after you spend \$80 for it and another \$200 for Windows on top of the Apple

tax you already paid.

-Ron Cerrato, San Diego, CA

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

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