ComputorEdge™ Online — 03/26/10

This issue: Caught in the Act

A screenshot is worth 1,000 words! Here's a look at software for taking snapshots of your PC's screen.

Table of Contents:

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

Capturing Screenshots on Your Macintosh

Ambrosia Software's Snapz Pro lets you choose the file format and folder to store a captured image. Also, resources for iPhone programming; the sorry saga of Palm; and a tip on making it easy to find downloaded files.

[Linux Lessons: Tips and Tricks from Users](#) by Pete Choppin

Shell Scripting Tutorial Ends

Last week, we went into some more advanced scripting. Our script now has some fairly decent intelligence. This week we will finalize our script along with a few nice tips.

[Rob, The ComputorTutor: Web Programming](#) by Rob Spahitz

JavaScript In Action: Web Forms

In the last few weeks, we explored some of the basics of JavaScript. Now let's start exploring some of its more practical uses. First up: Web forms.

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

The latest in tech news and hot product reviews.

Mobile Trends for the On-the-Go Set—A report on the rapidly changing dynamic of how people are engaging with digital media; That's (Internet) Entertainment—More and more material is becoming available for streaming every day; Unwired Mouse for Macheads—A review of the Targus $29.99 Wireless Mouse for Mac.

DEPARTMENTS:

[EdgeWord: Maybe a Disaster](#) by Jack Dunning

Oops! Recovering From a Bonehead Mistake

Some computer-related goofs can cause terror deep within as you wonder if you will ever be able to recover from it. Here's a look at Jack's most recent pickle.

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

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

"DHL Not an Option," "Permanent E-Mail Addresses," "Redirect the Parallel Data Output to a USB Port," "Streaming Video," "Win 7 Upgrade," "Strange (Home Business Server)"

Digital Dave

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

A reader's Task Manager isn't reporting CPU processes properly; a reader's browser freezes up when he tries to watch a TV episode on ABC.com; what's the point of today's megafast super-routers?

Dear Digital Dave,

I purchased a clone with an Intel 2.4GHz dual-core processor with 2GB, running Windows 7. However, the Task Manager reports hardly any CPU usage. Even when activity is shown, most processes show less than 5 percent, and only momentarily.

For example, as I'm connected to the ComputorEdge *Web site and typing this question, iexplore. exe registers only 2 to 3 percent and returns to 0 percent when I stop typing. As an added test, I also connected to a Web site and streamed audio, yet all instances of iexplore.exe showed 0 percent except for when I was typing.*

I can't believe that my computer is anywhere that efficient in CPU usage. Any ideas? Does something need to be configured in order for processes to report accurately?

Dan Jacobs
San Diego

Dear Dan,

There is nothing wrong with your computer. Although there is constant monitoring of programs and services by the processor, the fact is that the vast majority of the time the CPU sits idle between operations. Today's processor is so fast that it's difficult to catch the CPU maxed out unless you really load it down.

Rather than looking at the individual processes, select the Performance tab in Task Manager (CTRL+SHIFT+ESC to open Task Manager) and click "Resource Monitor..." You will be presented with a cumulative graph of total CPU usage as a percentage (see Figure 1).
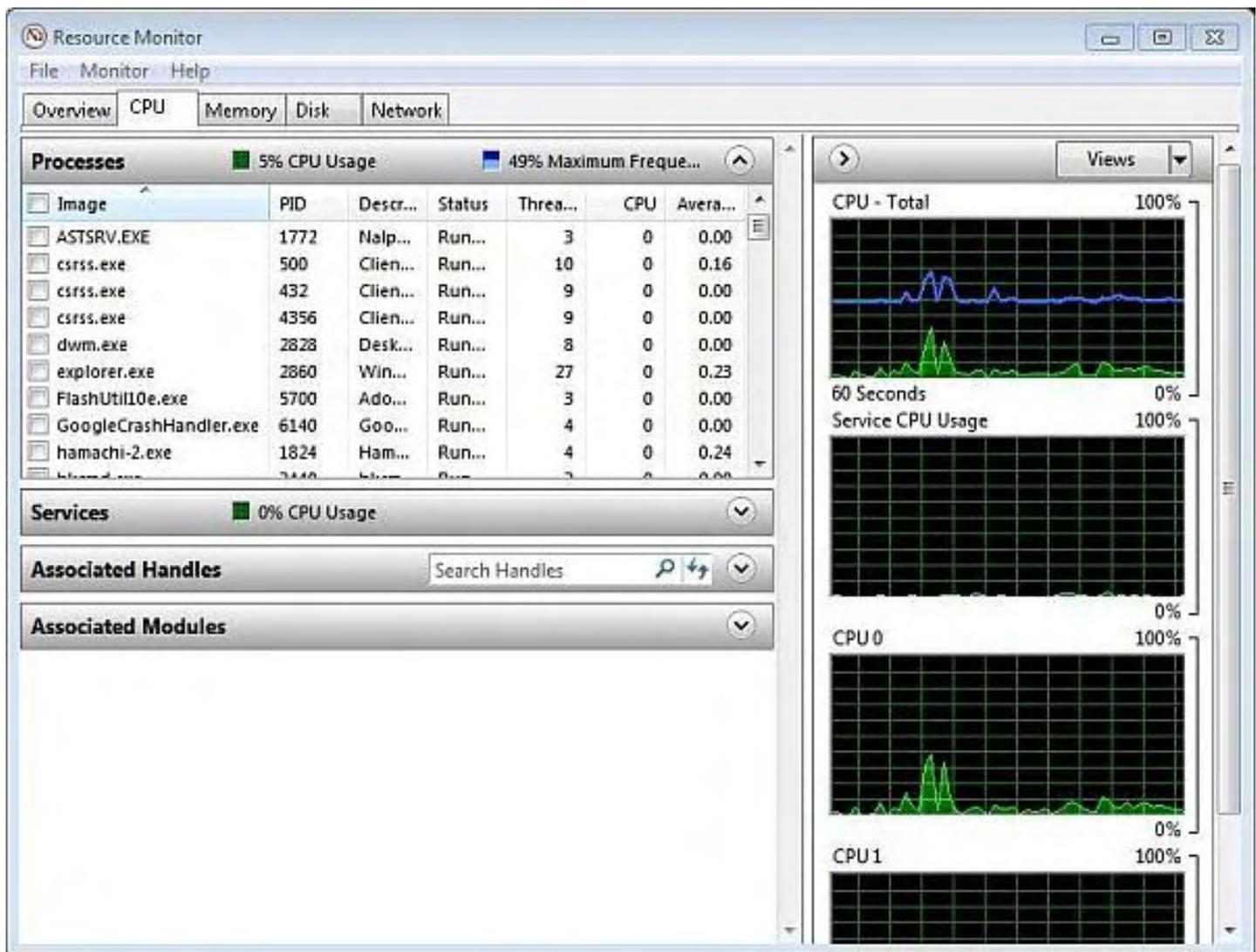
Figure 1. Windows 7 Resource Monitor showing graph of CPU usage.

This is a much better representation of how hard your CPU is working, plus there are separate graphs for each CPU core. You can still observe the individual processes and services.

It should be noted that the work of the CPU during streaming video will not necessarily show up only as the browser. Many browser functions actually work through plug-ins, which may show up as separate programs. Run a few modern games on your computer, and you should be able to see some activity. Most PCs are ridiculously overpowered for Web browsing, e-mail and even streaming video. Do some serious compiling, 3-D graphics work, gaming, or database processing and the story changes. Some of your less-efficient business applications can also cause a spike.

Digital Dave

Dear Digital Dave,

Why does my browser freeze up when I try to watch Lost *on ABC.com's full episode player?*

My computer is a Gateway quad-core AMD, with 8MB RAM, a 1-terabyte hard disk with a high-end ATI video card (1 gig of video RAM), and I am running Windows 7 64-bit.

There was a message from the site that Adobe Flash player would not run in a 64-bit browser,

so I tried Google Chrome, but the same thing happened. Help! I've missed the last two episodes of Lost *and I feel* Lost.

I am yours, hoping to be found.

Buck F.
San Diego

Dear Buck,

It's true that Adobe Flash does not yet support 64-bit browsers; however, you should be able to find two versions of Internet Explorer on your computer—one 32-bit and one 64-bit. The easiest way to find each version is to type "Internet Explorer" in the Search field of the Start Menu. The 64-bit version should be identified as such in the link. Make sure that you are not using the 64-bit version of Internet Explorer.

I'm not sure why Google Chrome didn't work for you; it did for me. This may indicate a possible problem with your computer or it could be a peculiarity of the Web site in relation to how your browser is set up. Does the freeze-up happen on other streaming Web sites?

I would also give Mozilla Firefox (*www.mozilla.com/en-US/firefox/firefox.html*) a try. I tested playing *Lost* on both 32-bit Internet Explorer and Firefox. Firefox was much smoother and more responsive. Also, certain browsers are much, much faster and more responsive than other browsers. Another reason to keep them around! Webkit browsers (Chrome and Safari) seem to be on top right now, with Firefox trailing a bit and IE in a distant, distant last. An order of magnitude last.

From time to time I will find that certain Web sites are not compatible with particular browsers. That's why I always keep plenty of alternative Web browsers on hand.

Digital Dave

Dear Digital Dave,

Most Internet connections don't go much beyond 15 megabits in bandwidth, while now the Wi-Fi N and gigabit (1,000 megabits) routers are being pushed. My understanding is that most of the bandwidth of the router will never be used by the Internet. What's the point of these routers if all you have is one computer?

John H.
Chula Vista, CA

Dear John,

You're absolutely right! If you only have one computer and no network devices, then you don't need a router at all to get on the Internet, much less an older one. Make sure your PC is protected, though. If you have only one computer and you mostly surf the Web and want a little extra protection, then an older router will work just fine—at about half the price. In these cases, the primary reason for having a router at all is the additional hardware firewall protecting your computer.

If you are buying a router, the price difference ($40-$50) between the types of routers may not be enough to justify not buying the faster model. Plus, there may come a time when you will want a faster network. The gigabit routers will not

speed up your Internet, but they will help you with your home network.

If you ever add a network drive for backup and file sharing or want to share files (music, video, etc.) with another computer in your home, the faster router can make a huge difference in transfer times and playing performance. If you think you may want to do more in the future, then the faster models will give you longer service. In another couple of years the 100-megabit and Wi-Fi G routers will be hard to find.

In order to gain that increased network performance, everything in the line must be able to handle the higher speed— router and the network cards in each computer. Many of the bargain computers come with the slower network cards built-in, so you will not get the higher speed of a faster router unless you add a faster network card ($20-$30) to the computer.

Digital Dave

Screenshot Software: A Comparison Review
"Choose your preferred image-capture tool." by Pete Choppin

Screen-capture software speeds up the process of capturing screen images by automating the process. Here's a look at six screen-capture packages.

Almost all of us need to use screen-capture software from time to time. It can be very useful, from a simple task like capturing an image of your screen to show someone an error you have on the screen, to creating tutorials with screen-by-screen shots of each step in the process. Certain types of screen shots involve captures of entire windows, images of specific drop-down menus, toolbars, individual buttons, or cropped regions that highlight key elements of an application interface.

Of course, it's possible to do almost all of this by pressing Alt+Print Screen to copy the active window to the clipboard, and then pasting it into your favorite image-editing application. However, for each screen capture this requires you to go through the same set of actions in order to crop, set the color depth, add borders or edge effects, and finally save it. If you take only the occasional screen capture, then this is fine. But it can become extremely tedious and time-consuming if you have a large number of screens to capture.
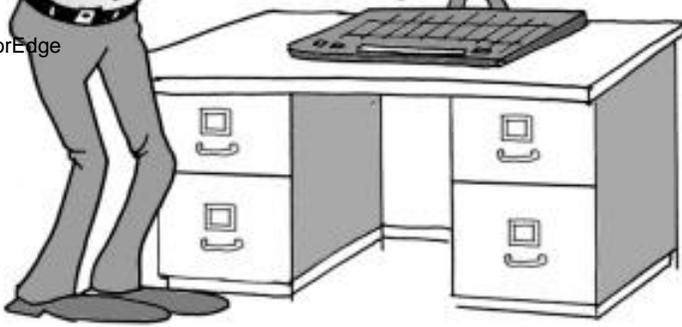
Wilber just bought the latest in
Screen Capture hardware.

This is where screen-capture tools are helpful. They are designed to speed up the process by automating the tasks that you would otherwise have to complete using your regular image-editing application.

In this article, I'll take a look at six of the leading screen-capture tools for Windows. There is a short review of each, including my view of each tool's three key strengths and weaknesses.

Snipping Tool (included within Microsoft Windows Vista and Windows 7)

The Snipping Tool is a very basic screen-capture utility that is built into the Windows Vista and Windows 7 operating systems.

When you open the Snipping Tool, it initially looks like this:
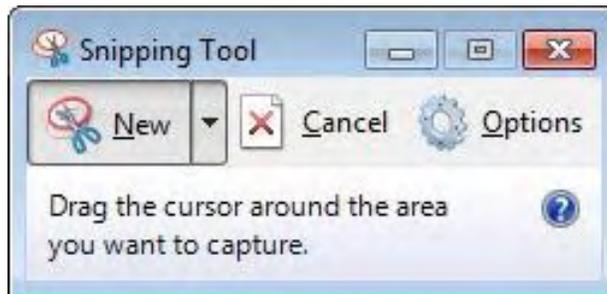
Although lacking many of the refinements boasted by other third-party products, it does enable you to capture either entire windows or regions of the screen, add simple annotations, and save to four common file formats. If you have only the occasional need to capture screens, this may well be perfectly adequate. However, serious screen capturers will be frustrated by the lack of screen magnifier and keyboard support, both of which are essential for defining rectangular screen regions with precision.

Strengths

• Already included within Windows Vista and Windows 7
• Simple interface
• Automatically copies images to clipboard

Weaknesses

• Difficult to capture screen regions precisely
• Very limited annotation tools
• Copying drop-down menus is awkward

FastStone Capture 6.5 (FastStone Soft)

FastStone Capture 6.5 (*www.faststone.org/FSCaptureDetail.htm*) provides a relatively low-budget option with an impressive range of features. Among other features, you have the option of downloading it as a portable application that can be stored on a USB drive and then used on any PC into which the drive is inserted. This could be useful if you are a freelance author who needs to capture screens from a range of different applications and computers.

Comparing it with full-featured tools such as SnagIt (*www.techsmith.com/screen-capture.asp*) and MadCap Capture (*www.madcapsoftware.com/products/capture/overview.aspx*), its main disadvantage is that it has no native file format of its own. (MadCap Capture is not reviewed in this article, since it is very similar and comparable to SnagIt.) So, although you are able to add and adjust captions and highlights within a very nice vector-based editing environment, the images are inevitably flattened when you save them to a file. This means that it is not possible to reopen previously saved captures in order to update or adjust their annotations. This could be a serious drawback for many technical authors who need to be able to revise or update their documentation easily.

The FastStone Capture 6.5 package includes two other useful little utilities: a color picker (which enables you to discover the RGB values of any color displayed on your screen) and a screen ruler (which you can use to measure the distance in pixels between any two points on your screen).

Strengths

• Ability to select rectangular capture regions with precision
• Good range of vector-based annotation tools and edge effects
• Option for portable installation

Weaknesses

• No vector-based storage format available
• Can't easily resize images to specific percentage (except 50 percent and 200 percent)
• No circular or ellipse capture

FullShot 9.5 (Inbit Inc.)

As indicated by its relatively high version number, FullShot (*www.inbit.com/fullshot.html*) is a well-established capture tool. It was introduced in 1991, and has been widely used within the documentation industry since then. Version 9.x has a more contemporary-looking user interface than earlier versions, and apparently contains a redesigned screen-capture engine

FullShot is available in three different editions: Standard, Professional and Enterprise. Since the average pricing of the other screen-capture tools reviewed in this article is matched most closely by FullShot's Standard Edition, this is the edition to which I am referring.

FullShot takes a rather different approach to the capture mechanism from the other tools reviewed in this article—when you open it, a set of special capture buttons is added to the active window of all your applications.
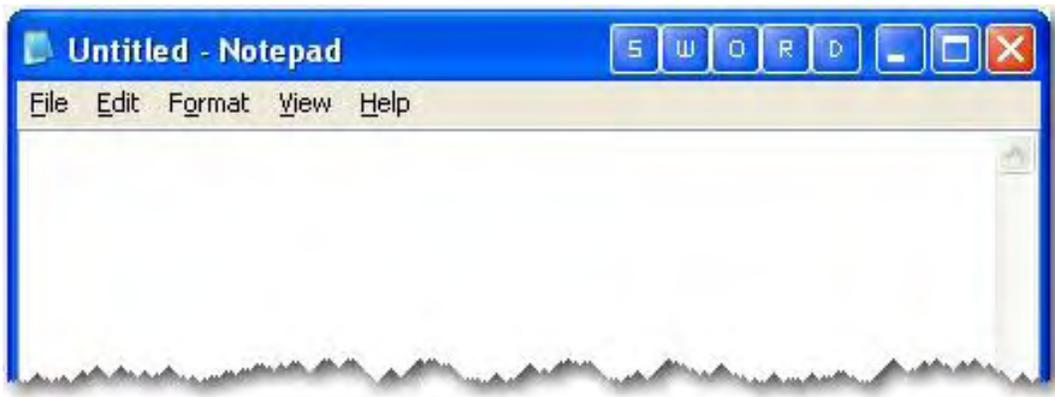
Each button represents a different type of capture: S is the entire screen, W is window, O is object, R is region, etc. These buttons persist even when FullShot is minimized as a taskbar button or hidden in the system tray.

You start a capture by clicking on the appropriate button for the required capture type, or by using the appropriate keyboard shortcut. Using the buttons means that it's impossible to capture the cursor unless you set FullShot's countdown delay option. For this reason, it's usually easier to use the keyboard shortcuts—however, since there is a different key combination for each of the different capture types, these can be quite difficult to remember.

FullShot is a popular tool with a good track record; FullShot Standard Edition automates the screen-capture process very successfully. The tool uses a different capture mechanism and workflow from most of its competitors, and it is a matter of personal preference as to whether it is any more or less easy to use than the other tools. The interface is fairly complex, and it is difficult to capture screen regions precisely.

Strengths

• Easy capture using buttons on the window title bar, even when FullShot itself is hidden
• Supports concurrent editing of multiple screen captures
• Minimizes file sizes by optimizing the color palette

Weaknesses

• Difficult to capture screen regions precisely
• Won't enable you to set the color depth of a captured image to a specific value
• No support for capturing buttons in the Standard Edition

HyperSnap 6.7 (Hyperionics Technology)

HyperSnap 6.7 (*www.hyperionics.com/?AfID=CDN*) is a mature and popular screen-capture tool. It provides a high level of control over the final image file in terms of color depth, palette and compression. A highlight of the tool is its mechanism for defining the target area of the screen for "region" captures—this seems to be rather more intuitive and offers more precise control than the methods used by some of the other tools reviewed in this article.

HyperSnap 6.7 is a fairly intuitive product—the user interface is well organized, and it has a useful and comprehensive Help system. It is a well-designed package that enables easy and very precise capture of regions, buttons and other screen elements.

Strengths

• Wide range of capture options
• Well-organized and easy-to-use interface
• Support for precise selection of capture region using arrow keys

Weaknesses

• Limited support for edge effects such as torn paper
• No built-in vector-based image editor
• Ability to save configuration settings is not as elegant and intuitive as the capture profiles used by other tools

ScreenHunter 5.1 Free (Wisdom Software)

If you're looking for a basic screen-capture utility and don't want to pay for one, then you might want to consider one of the many tools that can be downloaded for free. Of these, ScreenHunter Free (*wisdom-soft.com/products/ screenhunter_free.htm*) is one of the most popular.

ScreenHunter 5.1 Free is a stripped-down version of ScreenHunter 5 Pro. The Pro version (for which you will need to pay a license fee) has a feature set similar to that of the other tools reviewed in this article. I have chosen to review the free version because it represents an option for those users who don't want to spend any money.

ScreenHunter 5.1 Free enables you to capture rectangular areas, active windows, or the entire desktop. When you capture rectangular areas by dragging your mouse, it provides a magnified view of the area around the mouse pointer. However, it does not enable you to adjust the selected region before confirming the capture.

You can capture either to the clipboard or to a file, but only .bmp, .gif, and .jpg formats are supported. The files are saved automatically using a set of user-definable file-naming options. Although this has the advantage that no user intervention is required, the downside is that there is no option in the free version to supply a specific name for individual captures. Nor are you able to add annotations or any form of effects before saving.

I like the fact that ScreenHunter can be easily hidden to the system tray by clicking the prominent Stand By button. While in the system tray, ScreenHunter will still respond to the capture hotkey, thus providing a very simple and unobtrusive way of doing basic screen captures.

Strengths

• Zero cost
• Simplicity of interface
• Stand By mode that hides the application in the system tray

Weaknesses

• No .png output format in the Free version
• Very restricted capture options in the Free version
• No ability to adjust the capture region before confirmation of capture

SnagIt 9.1 (TechSmith Corporation)

SnagIt (*www.techsmith.com/screen-capture.asp*), screen-capture software, which I am most familiar with, is probably the most full-featured of the capture tools reviewed in this article. Though a complex product, it's also easy to use thanks to a well-designed interface and workflow.

The workflow at the heart of the tool supports the author's needs at every stage of the capture process. It enables you to select capture settings (including a wide range of standardization options and effects); capture the image; preview it; and optionally use a range of vector-based editing tools to add callouts, arrows, stamps, etc.

The capture settings over which you have control are logically organized into four groups: *Input* (screen, window, region, etc.); *Output* (file, email, catalog, etc.); *Effects* for standardizing on image resolution, adding edge effects, etc.; and *Options*. The current status of each of these settings is displayed graphically in the SnagIt window, which is a really nice touch—you can quickly check the current settings without needing to use any menu options or dialogs.

SnagIt supports almost all the capture options available in the other tools in this article. Of all the tools, it has the widest selection of options for the shape of the capture region, and its *Effects* options enable the automatic creation of a variety of edge effects, including drop shadow, fade and torn paper. Like MadCap Capture, SnagIt provides profiles that enable you to save and reuse specific combinations of capture settings.

Among its other impressive features are the following:

• Library: This storage system makes the management and retrieval of captured images easier. SnagIT stores a range of useful metadata with each captured image, including the name of the application or Web site that it was captured from; you can also apply your own keywords and flags. It is then possible to filter the list of images in the Library using any of these criteria.

• Text capture: This enables you to capture editable text from screens such as file listings, error messages and status pane information.

• Printer capture: This enables you to capture an image of what is sent to the printer, and is activated by printing to the SnagIt printer from any application that can print.

• Batch Conversion: In a single operation you can convert multiple image files to a specific file format, at the same time applying a range of optional modifications such as a reduction in color depth and new edge effects.

• Links/Hotspots feature: This feature, introduced in version 8, enables you to add interactivity to your captured images easily.

• Auto-Save: new in version 9, SnagIt automatically preserves each captured image in its Library even if you forget to save it.

To specify a capture region, you click and drag the left-hand mouse button to form the region—a magnified view of a small area of the screen surrounding the cursor is displayed for greater precision. As soon as you release the left mouse button, the capture is complete.

SnagIT zoom window.

Strengths

• Exceptionally well-designed interface and workflow
• Comprehensive options for capturing, standardizing and adding effects to images
• Bundled tools include powerful vector-based image editor and file-management utility

Weaknesses

• The ability to select capture regions with precision using the arrow keys is not documented, and is therefore not easily discoverable
• Rather lame capture sound effect
• Ribbon-based interface of SnagIt Editor may be unfamiliar to some users

All of these packages, depending on your needs, can provide very good screenshots. My preference is SnagIT. It provides the most powerful options and is a very good value for the price.

If you have to do any type of documentation, training, technical writing, or Web editing, screenshot software is invaluable. It can take a time-consuming task and make it quick and simple. In my profession, I find many uses for screenshot software every day. Hopefully this article provides the information for you to choose your preferred screenshot software.

Pete Choppin has been an IT Professional for over 15 years. He currently works as a network and systems administrator for a company called Albion based in Clearfield, Utah. He has experience in all types of hardware, software, and networking technologies. He is proficient in many operating systems including Linux, Windows and Macintosh. 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 has been a devout reader of *ComputorEdge* since 1990 and contributes regularly to featured articles as well as the Linux Lessons section of *ComputorEdge*. He can be contacted at *pchoppin@comcast.net* but prefers to have comments on *ComputorEdge* articles submitted to the editor and posted for the benefit of all readers.

SnagIt for Screen Capturing
"Freeze a moment in time on your PC's screen." by Michael J. Ross

> If you ever have a need for capturing a portion of your screen for troubleshooting, instructional or other purposes, consider SnagIt as your tool of choice.

There are countless scenarios in which the ability to save the image displayed on your computer screen—or a portion of it—would be quite valuable, or even essential to the task at hand. For instance, imagine that you are running a software application, when suddenly it malfunctions in some manner and displays an error message containing a large quantity of technical details (such as error numbers and memory addresses). The software support people ask you to send them all the information. It would be so much easier and more accurate to save everything displayed on the screen in an image file, rather than writing it down by hand. Or you might be writing a technical tutorial of some sort, and you want to let the readers see exactly what they should be seeing on their own computers, as they follow your instructions.

Such saved images are known as "screenshots," and the programs that create them are often referred to as "screen capture" applications. Taking screenshots is such a handy capability that the two leading desktop operating systems— Windows and Mac OS X—have built-in screen capture applications, and have done so for years. Anyone using Microsoft Windows can simply tap the "Print Screen" key on their keyboard, and an image of the desktop is immediately copied into the system clipboard, from whence it can be pasted into an image processing program. To take a screenshot of the current window only, hold down the Alt key while hitting Print Screen. Anyone using Apple's Mac OS X can press Command-Shift-3 to save an image of the desktop in a PNG file, saved to the desktop. Add the Control key to that combination, and the screenshot is placed in the clipboard and not on the desktop. Command-Shift-4 is the key combination to select a portion of the screen. Tapping the space bar after Command-Shift-4 allows you to limit the image to a particular window.

So if such capabilities are close at hand for most computer users, why is there any interest among users for third-party screen capture applications? As with most if not all applications built into operating systems ("applets"), these embedded programs cannot compete on the basis of capabilities or timeliness, for a number of reasons. Firstly, operating system vendors such as Microsoft and Apple must focus on their core products, and consequently cannot devote much resources to their applets, in order to make them outperform stand-alone applications created by other software companies and individual developers who can focus on that one area. Secondly, these third-party companies tend to be more nimble, and certainly far more numerous, versus the industry behemoths, enabling them to introduce new features much faster. Thirdly, many computer users, for whatever reason, do not update their operating systems as time passes—or they only install security updates—and so they would not obtain newer versions of applets even if the operating system vendor had time to create them.

In the realm of screen capturing, there are countless third-party utilities, with varying levels of functionality and price. For those Internet users who have discovered the advantages of the Firefox Web browser (*www.mozilla.com/ firefox/*), there are at least two available Firefox extensions for taking screenshots. But in this article we will focus on a desktop alternative, specifically for PCs running Windows.

Snag that Application

One of the more popular and respected screen capture applications is SnagIt (*www.techsmith.com/screen-capture.asp*), created and distributed by TechSmith Corporation of Okemos, Michigan (with a second office in Tokyo).

Figure 1. TechSmith Web site.

One way to learn more about SnagIt is to visit the product page (*www.techsmith.com/screen-capture.asp*).

Figure 2. SnagIt main page.

From the product page, you can explore the sections that describe: the new features implemented in the latest version (9.1, as of this writing), the overall capabilities of the program, supplementary utilities (referred to as "accessories"), dozens of tutorials in seven different categories, procedures for upgrading from an earlier version, and links for downloading the program and learning its system requirements. Speaking of which, SnagIt runs on all the modern editions of Windows: 2000, XP, XP x64, Vista (32-bit or 64-bit) and Windows 7 (32-bit or 64-bit). It does not require an unreasonable amount of hard disk space (60 megabytes) or system memory (512 megabytes). Some of the accessories are designed to work with other applications, such as Microsoft Office, Internet Explorer, Adobe

FrameMaker and Firefox. The program is available in English, French, German, Japanese and Korean.

The best way to find out what SnagIt can do for you, without committing to purchasing it, is to download and install a copy, at no charge, with the company's 30-day trial. To do so, click on the download button on any of the SnagIt-related pages, and save the installation file (SnagIt.exe) somewhere on your PC where you can find it easily. On the download page (*www.techsmith.com/download/SnagIttrialthx.asp*), you have an opportunity to provide your e-mail address, in order to receive a series of tips on how to use the program. (Your e-mail address is not shared with other companies.) If you have any difficulties downloading the file, first consult the download FAQ page (*www. techsmith.com/download/faqs.asp*).

To start the installation, open the file that you downloaded, and follow the on-screen instructions, working your way through the eight dialog boxes, until reaching the last one that indicates that SnagIt was successfully installed. Screenshots of the installation wizard's dialog boxes are not included here, because the process is quite straightforward, and the default values should work for most readers.

Snag that Screen

As soon as the installation is completed, and you close that last dialog box, SnagIt will automatically open up (assuming that you did not change that option's default value earlier). Each time the program is started, it will display one of several tips. They will ask whether you have used the product before, display links that allow you to register the product or sign up for the newsletter, and other possibilities. You may find these tips more annoying than useful, in which case you can click on the checkbox to disable them, or do so within Tools/Program Preferences/Notifications.

The main interface for SnagIt looks quite different from that of earlier versions, but is just as easy to navigate.

Figure 3. SnagIt main interface.

The profile section of that interface allows you to quickly specify which type of capturing you would like to do: a rectangular region, the window of an application, the entire screen, a scrolling window (this is especially handy for grabbing Web pages), a drop-down menu (with optional delay), text from a window, video of screen action, images on a Web page, the contents of a Web page including links, and a single object. Once you have selected the profile you want, then click the large red button. The controls that you see next depend upon the chosen profile. For example, if you wanted to capture a portion of your Web browser, including the top part of the TechSmith homepage, then you could choose the default profile (Region) and click the Capture button, causing SnagIt to display a hand icon for clicking and selecting the desired region, as well as a pale yellow preview panel—automatically located far away from the hand icon, so as not to interfere with the selection process.

The captured image is automatically displayed in the SnagIt Editor. Its navigation bar on top is difficult to read, at least for the first-time user—partly because of the rather small menu text, but more so because it is such an unusual layout, and takes some getting used to. Ironically, a screenshot of the Editor cannot be shown here, because any attempt to use the Windows Print Screen facility is interpreted by SnagIt as an attempt to take a screenshot of anything except the Editor.

Figure 4. Browser region.

Nonetheless, the test was successful, and the captured browser region was easily saved as a PNG file (the default format). The SnagIt Editor is loaded with features, allowing you to: draw a variety of shapes; edit an image; add effects; define clickable hotspots on the image (very handy for Web designers); add small colorful symbols ("tags"); manage multiple captured images; and output the image in an e-mail message, to the system clipboard, to a Word, Excel, or PowerPoint document, and much more.

If you have a decent firewall running that detects local applications trying to connect to the Internet, then when you capture an image to the Editor, your firewall should inform you that SnagIt is attempting to connect to *www. jingproject.com*. Do not be alarmed, because Jing (*www.jingproject.com/*) is a legitimate site owned by TechSmith. Jing is billed as "free software that adds visuals to your online conversations." Its Web site has more information, if you are interested in pursuing that product further. SnagIt crashed once during my testing, immediately after I instructed my firewall to disallow a connection attempt to *www.jingproject.com*—but it is not clear that the two events are related, because it did not happen again.

The company provides a lot of support for the product. In addition to the aforesaid tutorials, there is additional information in the SnagIt Learning Center (*www.techsmith.com/learn/SnagIt/*), and you can always contact their technical support (*techsmith.custhelp.com/cgi-bin/techsmith.cfg/php/enduser/std_alp.php*).

So if you ever have a need for capturing a portion of your screen, or any of the other capabilities outlined above, consider SnagIt as your tool of choice.

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

Windows Tips and Tricks

"Windows 7 Professional Selling Points" by Jack Dunning

There are only two reasons to get the Professional version of Windows 7 over the Home version: the remote-control feature, and utilizing the XP mode.

As far as I'm concerned, there are only two reasons to get the Professional version of Windows 7 over the Home version. The first is the ability to operate the Windows 7 computer from a distance with Windows Remote Control. With the remote-control feature, I can access the Windows 7 machine from anywhere without needing a service such as GoToMyPC. I do need a VPN (Virtual Private Network), which can be either hardware, such as an SSL-VPN router, or a service such as LogMeIn Hamachi (*secure.logmein.com/products/hamachi2/*). I have multiple machines that I use remotely, including one Windows 7, one Windows Vista and one Windows XP. This capability helps when writing this column.

The second reason for owning Windows 7 Professional version is for the Windows XP Mode (*www.microsoft.com/ windows/virtual-pc/download.aspx*). This is actually like owning a copy of Windows XP SP3, which I will run on the Windows 7 Professional or Ultimate computer. There are two pieces of software needed to run this version of XP. The first is Virtual PC, which adds the ability to run alternative operating systems on your computer—also a free download. (I understand that Virtual PC can also be used to run operating systems such as Linux, but I haven't tried it yet.) The second is XP Mode, which is essentially a copy of XP. If this works as advertised, I will be able to get rid of my XP machine.

I have loaded Windows XP Mode (see Figure 1). I have browsed a couple of Web pages and played some videos with XP Mode. It appears that it will do the job for me.

Figure 1. Windows XP Mode running on a Windows 7 computer.

One interesting note about the figure above is that I did the screen capture on the Windows 7 machine while I was more than 500 miles away, yet I saved it directly onto the local computer I was using. That explains the black background on the Windows 7 screen. Windows Remote Control does not try to download Desktop backgrounds because that would slow things down over the Internet. However, the desktop on the Windows XP shows a photo stolen from the Windows 7 backgrounds. Remote Control has no way of knowing that it was a Windows background, therefore it downloaded the entire picture. There was some slowing.

I was able to do this direct save (more than 500 miles away) through the Library feature I demonstrated last week. While in Remote Control, I used the Snipping Tool to capture the entire screen. Then, when I saved the image, the dialog box displayed the current working directory, which was a link via the library that maintained a connection to my local laptop computer (see Figure 2). Since the connection was created by including the folder from the laptop into the library, no mapping of the drive was necessary. In effect, every time a folder is included in a library, it is mapped to that computer.
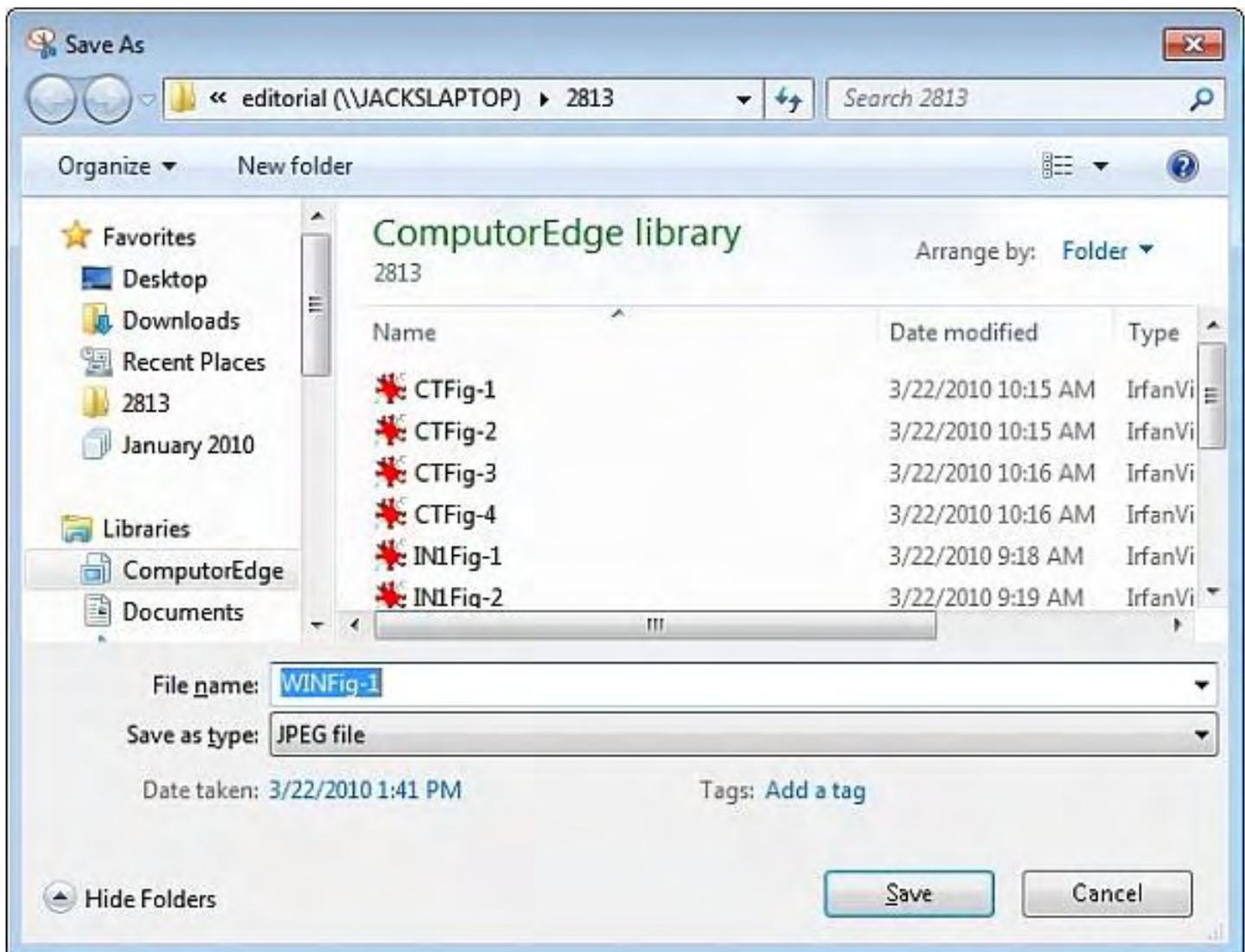
Figure 2. Saving from the Snipping Tool in Windows 7 to a remote computer via Libraries.

I did have a little bit of a problem with saving Figure 2, since it was from the Snipping Tool. I had to use ALT +PRINTSCR to capture the image, but the program I used to save it didn't support the Libraries feature. I saved the file to a folder, and then used Windows Explorer to drag the file to the Favorites link installed from the library, as shown in Figure 3. It was then copied directly to the local computer.
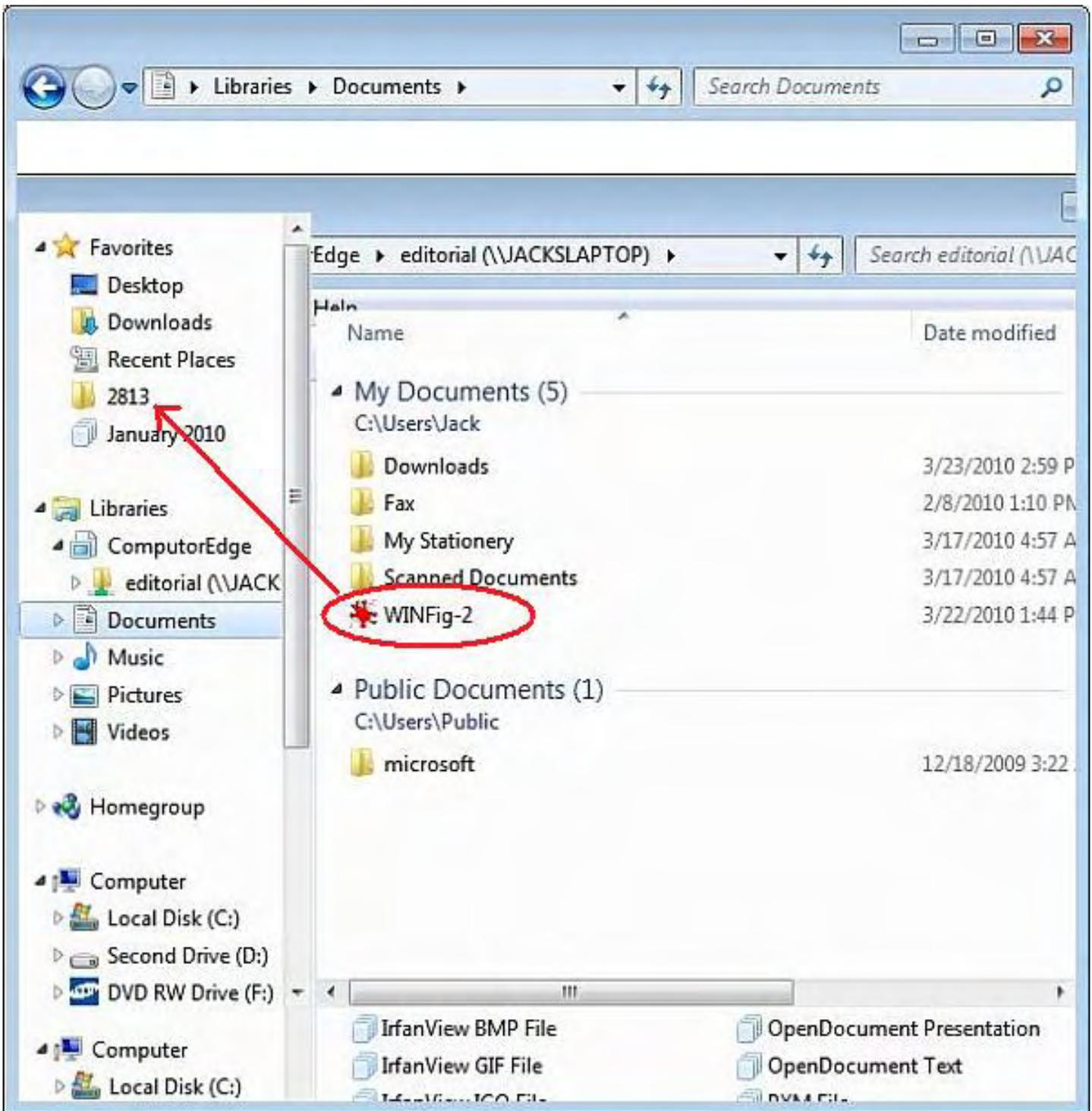
Figure 3. Copying a file to a remote computer by dragging a file to a Favorites link from a library.

There are a number of other features associated with Windows Libraries that I plan to investigate in the near future. Last week one reader commented that he found Libraries frustrating because they display all the files in a folder regardless of type. There is a very quick fix for that. By selecting Type from the Arrange menu in the upper right, a series of pseudo folders will be created—one for each file type (see Figure 4). Then it is merely a matter of double-clicking the folder to view only those files.

Figure 4. A Windows Library arranged by file type.

The new kid on the block is often misunderstood.

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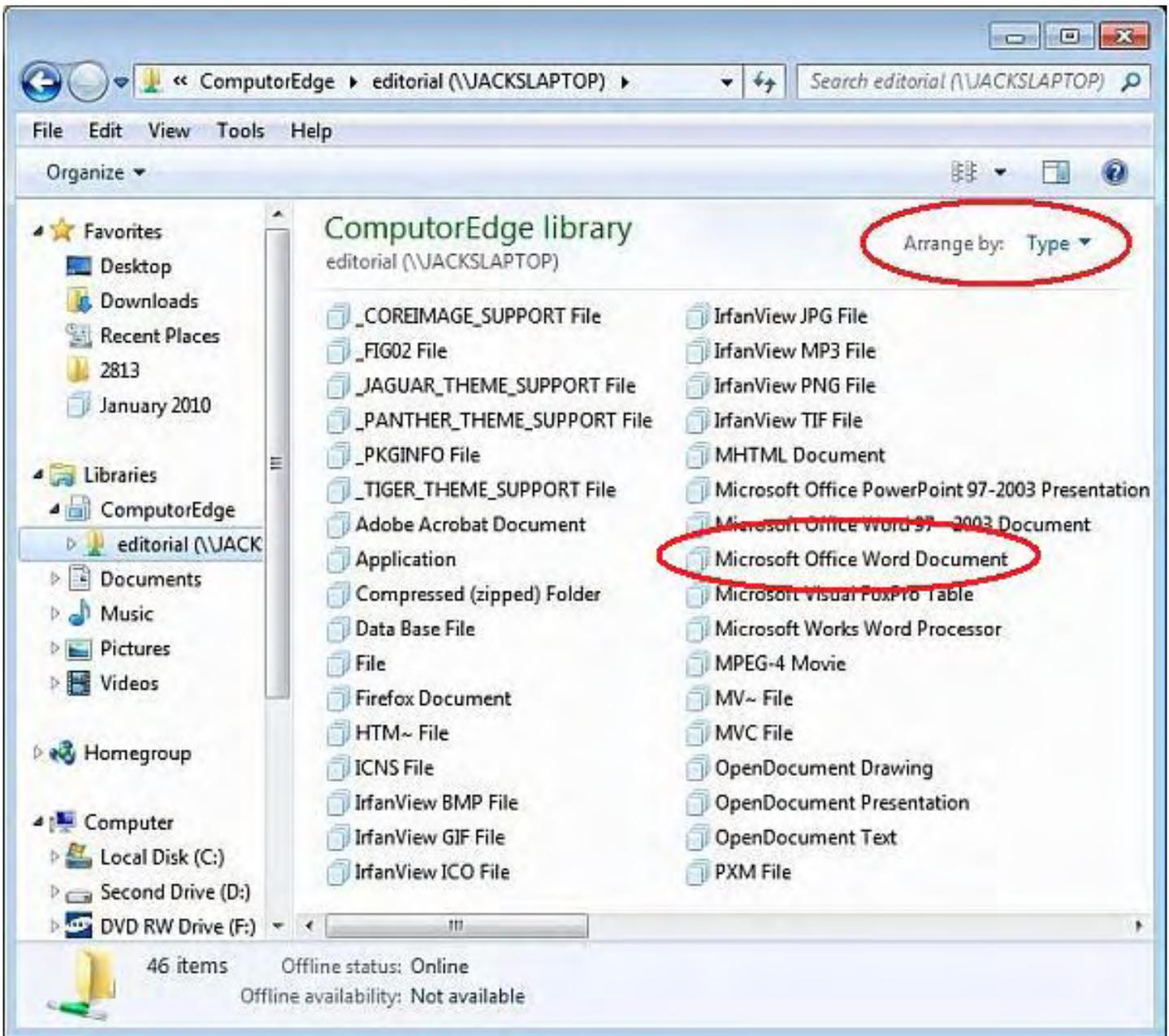
Wally Wang's Apple Farm
"Capturing Screenshots on Your Macintosh"
by Wally Wang

Ambrosia Software's Snapz Pro lets you choose the file format and folder to store a captured image. Also, resources for iPhone programming; the sorry saga of Palm; and a tip on making it easy to find downloaded files.

Sometimes you'll see something on your screen, and when you tell someone what happened, they'll scoff in disbelief and make you feel like an idiot. To prove that you're not seeing things on your computer, you may need to capture screenshots. Essentially, this lets you store the exact image of your screen in a graphics file that you can edit or share with others.

Suppose you connect to a Web site and suddenly see a frightening error message claiming that your computer is infected with viruses. To a novice, such a dire warning might cause panic. However, if you capture a screenshot of this warning and show it to an experienced Macintosh user, they'll be able to see exactly what you saw and tell you whether you should worry or not.
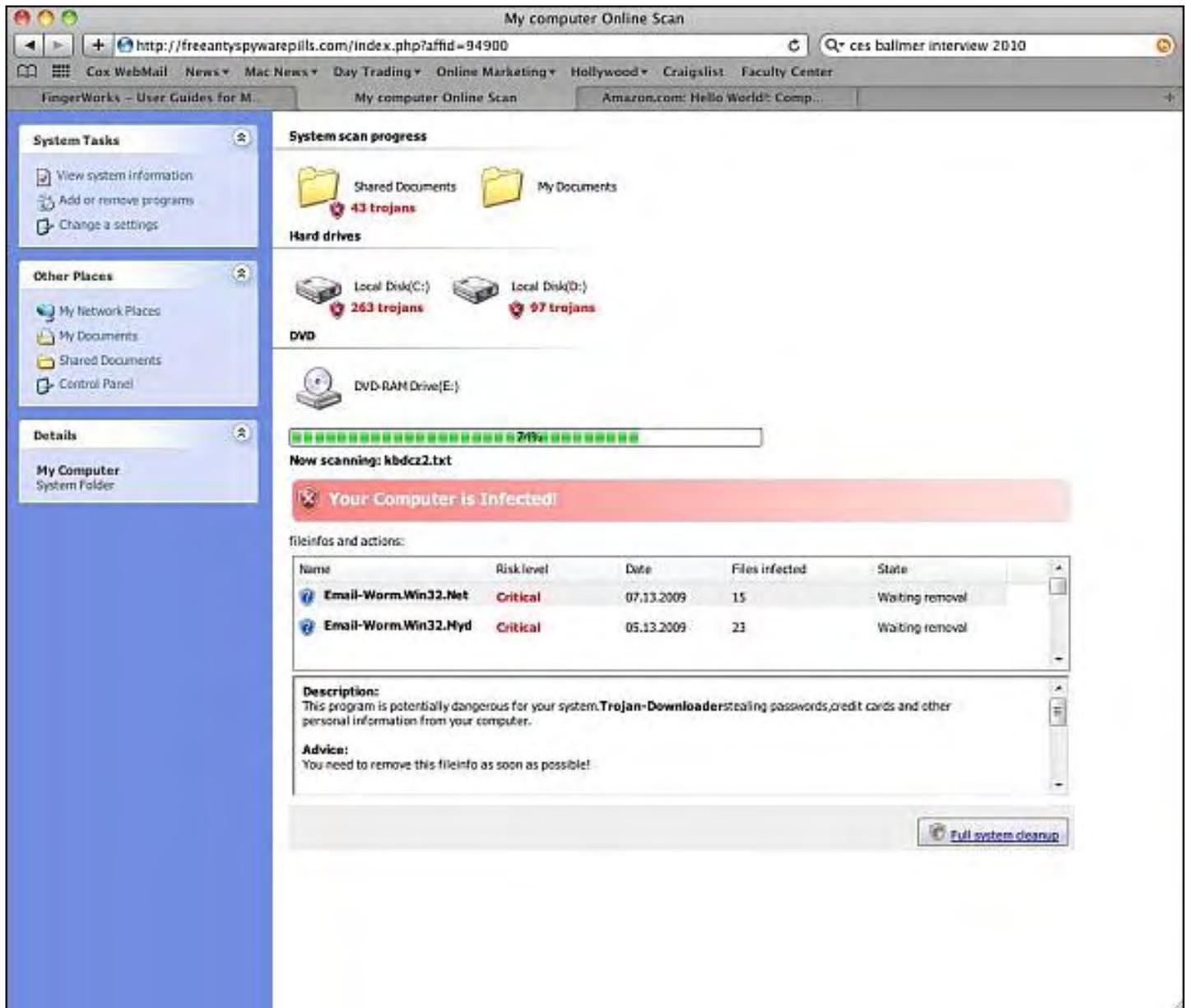
Figure 1. Capturing a warning message on a Macintosh.

By seeing this virus warning, any experienced user will be able to decide whether the warning is valid or not. (It's not.) A quick glance at this screenshot shows that this fake warning from a Web site mimics the standard Windows XP interface complete with the C: designation for the hard disk. Such phony infected messages are meant to con people into buying fake antivirus programs for "protection."

Capturing screenshots on the Macintosh is easy using the free Grab program that's buried in the Utility folder (which is buried inside the Applications folder). The Grab program can capture an entire screen, a program window, or any portion of the screen that you want to select with the mouse.

One problem with the Grab program is that you can't define the file format to store your screenshot. If you need to store screenshots in file formats such as .bmp, .png, .tif, .psd (Photoshop) or .pdf, then you might want to use Ambrosia Software's Snapz Pro (*www.ambrosiasw.com/utilities/snapzprox*). This $69 program lets you choose the file format and folder to store a captured image.

By loading Snapz Pro in memory, you can just press a hotkey to capture a screenshot immediately, unlike the Grab

program, which requires you to load the program first and then capture a screenshot through menu commands.

Snapz Pro can also capture video, which lets you create video tutorials that show someone how to accomplish a task. To see several examples of Snapz Pro video tutorials, visit Amborisa Software's tutorial page (*www.ambrosiasw. com/utilities/snapzprox/videos*).

For basic screenshot capturing, the free Grab program should work for most people. However, if you regularly need to capture screenshots for manuals or tutorials, Snapz Pro is worth the $69 price.

Programming the iPhone

If you want to write the next iPhone or iPad app that could potentially make you rich, you'll need to learn several topics simultaneously. First, you'll need to learn the Objective-C programming language. Second, you'll have to learn how to use Apple's Xcode editor and compiler. Third, you'll have to learn the nuances of the iPhone/iPad framework that provides much of the interface for your app so you can concentrate on just making your app work.

If this sounds daunting, you're right, but it's nothing that anyone can't overcome with a little persistence. Two books that I'm using include *Beginning iPhone Development (*www.amazon.com/gp/product/1430224592? ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430224592*)* and *iPhone Application Development For Dummies (*www.amazon.com/gp/product/0470568437? ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470568437*)* .

The *Beginning iPhone Development* book provides plenty of sample programs to type in and try out. Most of these programs just demonstrate different features and give you experience writing (and debugging) small programs. The drawback with this book is that it tends to bombard you with so much source code that it's easy to get lost typing code without understanding what and why you're doing any of it.

The *iPhone Application Development For Dummies* book takes a different approach. This book steps you through the process of creating two simple, but complete apps. In the beginning, the author takes great pains to explain what you're doing and why, so it's much easier to understand what you're doing, but it also tends to take half the book before you get to complete one program.

Another problem with the *iPhone Application Development For Dummies* book is that it shows you how to put together two real-world apps that the author created. However, the complete source code isn't printed in the book (you can download it from the author's Web site), and if you're interested in creating an app that's different than the apps discussed in the book, you won't know what to do next.

The *iPhone Application Development For Dummies* book is great for getting you started with iPhone programming, but when you're ready to start experimenting on your own, you'll be ready to take the next step with the *Beginning iPhone Development* book.

For complete novices, start with the *iPhone Application Development For Dummies* book. If you're already finished with that book or are ready for something more advanced, then you might find the *Beginning iPhone Development* book more to your liking with its emphasis on plenty of source code so you can use it to create your own apps.

Learning to create iPhone/iPad apps isn't necessarily hard, but you probably won't be able to learn everything you need from just one book alone. If you have any experience with other programming languages and tools (such as C++ or Java), you should have little trouble adapting to Apple's way of creating iPhone apps. Now you just need to set aside

plenty of time to experiment and practice writing your own programs.

Creating iPhone/iPad apps may take time, but if you can turn yourself into a competent iPhone/iPad programmer, you'll be that much more valuable, and that can translate into more money and opportunities for you.

The Sorry Saga of Palm

Palm Computing almost singlehandedly defined the personal digital assistant (PDA) category with its ubiquitous Palm Pilots. Business people snapped up Palm Pilots like mad and ordinary people clamored for them as well. At one time, Palm held 70 percent of the handheld computer market. Even Microsoft tried to copy Palm with its PocketPC operating systems.

After taking over the PDA market, Palm ventured into the smartphone market. Then something happened. Rather than continue to improve and innovate their products, Palm chose to do nothing for years as their competitors slowly caught up. When Palm realized its own operating system had aged too far to be of any use any more, Palm resorted to licensing Windows Mobile from Microsoft to put on its Treo smartphones. This would be like Microsoft admitting that Vista was so bad that the only solution was to license Mac OS X from Apple.

After relying on Windows Mobile, Palm finally decided to rewrite its own operating system and wound up with webOS and the Palm Pre smartphone. While the Palm Pre is actually a decent touchscreen phone, it's nothing drastically better than the iPhone or Google Android phones. Perhaps this is why Palm recently announced that it shipped 900,000 phones, but sold only less than half of them.

That's the problem with copying a leader. Even if you make a decent copy, you're still nothing more than a follower. Witness the fate of Borland's Delphi trying to follow Microsoft's Visual Basic or Microsoft's Zune trying to follow Apple's iPod.

Palm's impending demise stems from two problems. First, Palm got complacent. With the majority share of the market, Palm decided it didn't have to do anything more, so it didn't, much like Microsoft behaved when it held 90 percent of the operating system market and decided that Vista was good enough. The first lesson to remember is that you should worry the most about your future just when you think your future seems most secure.

Second, the Palm Pre just comes across as another imitation of the iPhone. Rather than blaze their own trail, most companies seem content to copy everyone else. Although copying might seem like a low-risk solution, it's actually a high-risk strategy since it never brings in the amount of revenue that a leading product does.

Rather than copy others, companies would actually be better off trying to become leaders in their own niches for a much greater reward. This second lesson shows that copying almost never reaps the same rewards as innovation and leadership, so companies should focus more on becoming a leader and actively avoid becoming a follower.

Apple understands this strategy because it could never tackle Microsoft's Windows monopoly head-on, so it chose to lead the market in other fields instead. Palm, Microsoft, and nearly the entire PC industry don't understand this principle, which explains why they keep wasting time and money on copycat products that cost nearly as much to produce as the meager profits they manage to bring in.

Dell's copycat laptop to the MacBook Air, dubbed the Adamo, is an example of how copycat products often fail in the market place. When Dell initially released the Adamo, it never released sales figures, suggesting that the Adamo wasn't selling as well as it had hoped. Then Dell took the Adamo off the market temporarily, claiming that it had really been a limited edition laptop (*www.electronista.com/articles/10/03/18/dell.argues.adamo.xps.pullout.a. supply.issue*) all this time. Dell even sold the Adamo through Best Buy, claiming this limited distribution was meant
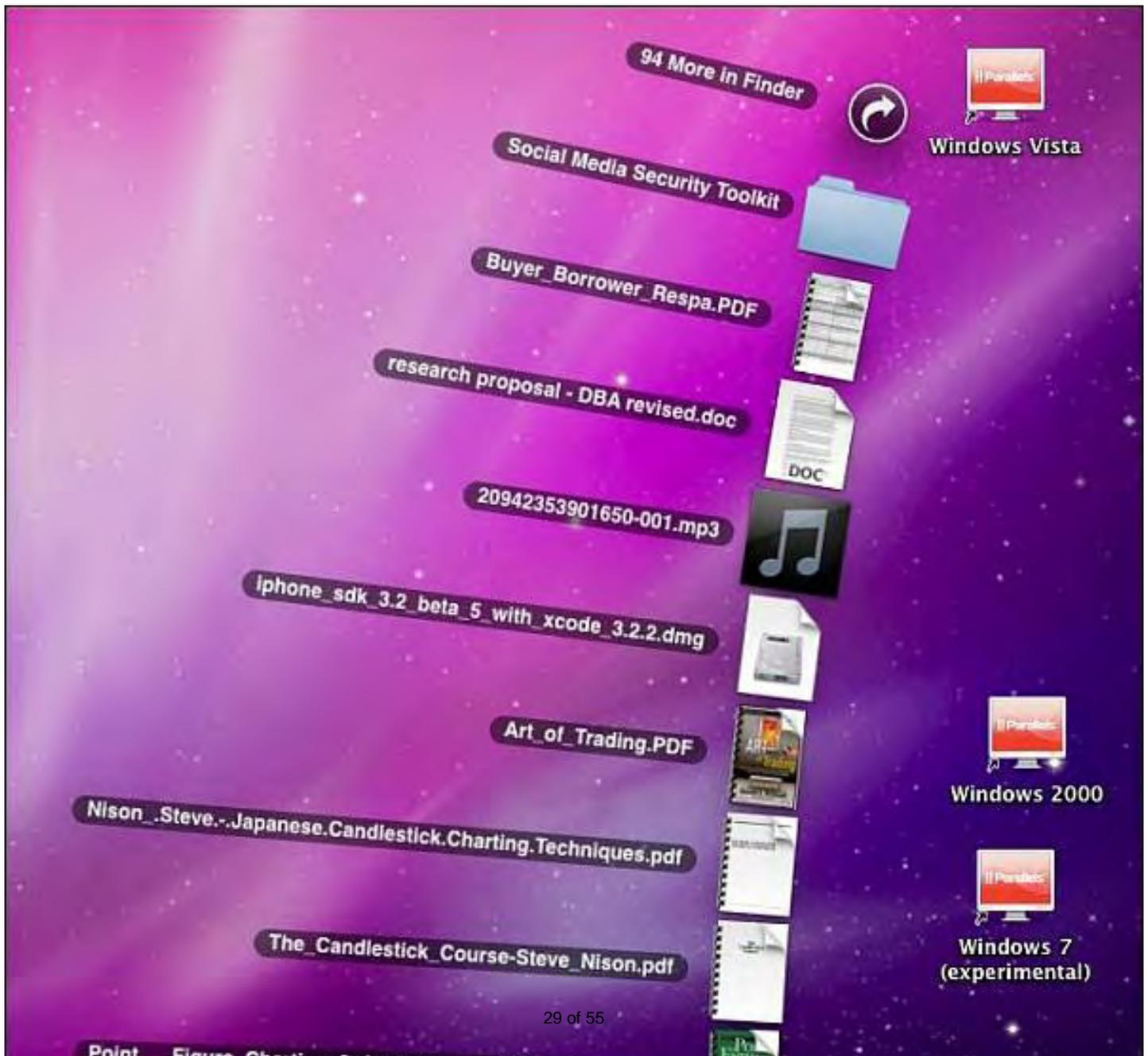
to "control demand."

If Dell's Adamo were really selling well, wouldn't Dell be happy to release sales figures and build as many as possible to sell to as many customers as possible?

As both Dell and Palm have discovered, copycat products (such as the Dell Adamo or the Palm Pre) rarely lead to success. Palm's current nosedive toward bankruptcy simply reminds us that today's leader can be tomorrow's casualty if they fail to keep up and innovate. If Palm could let its number-one position in the handheld computing market slip through its fingers, does anyone think that this same fate can't kill Microsoft, Dell, Google and even Apple one day if they ever get too complacent and rely on copying rather than innovating as their prime marketing strategy?

*   *   *

When novices download something off the Internet, they often can't find it again. To make finding downloaded files easy, the Macintosh stores files in a special folder called Downloads. If you look next to the Trash icon on the Dock, you can find the Downloads folder. Clicking this Downloads folder displays its contents, allowing you to open the file by clicking on it.

The_Candlestick_Course-Steve_Nison.pdf

Point___Figure_Charting_3rd_edition_-_Thomas_Dorsey.pdf

OReilly_-_Learning_Cocoa_with_Objective_C.pdf
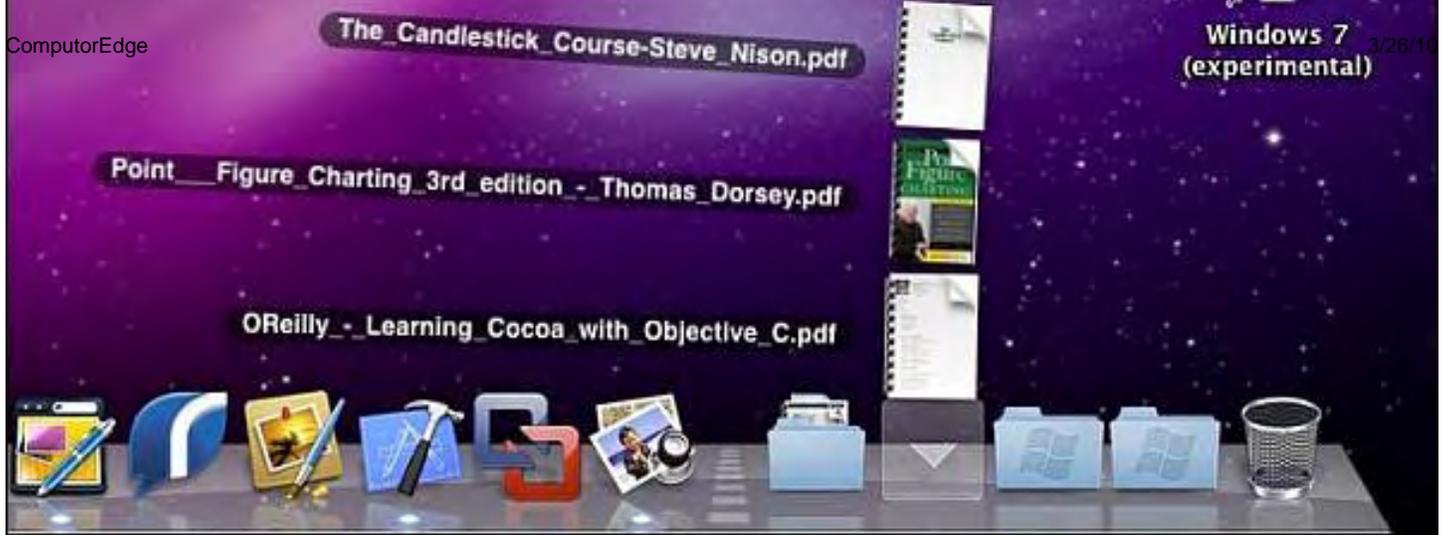
Figure 2. Clicking on the Downloads folder displays its contents.

In case you want your downloaded files to go somewhere else, you can define a new folder to hold your downloads. In Safari, click the Safari menu and choose Preferences. Click the General tab and you'll see a pop-up menu where you can define a new folder for your downloads.

General

General Appearance Bookmarks Tabs RSS AutoFill Security Advanced

Default web browser: Safari (4.0.5)

New windows open with: Home Page

New tabs open with: Top Sites

Home page: http://news.google.com/

Set to Current Page

Remove history items: After one month

Save downloaded files to: Downloads

Remove download list items: Manually

☑ Open "safe" files after downloading
"Safe" files include movies, pictures, sounds, PDF and text documents, and disk images and other archives.

Open links from applications: ◉ in a new window
○ in a new tab in the current window
This applies to links from Mail, iChat, etc.

Figure 3. Defining a new folder for storing downloaded files in Safari.

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*.
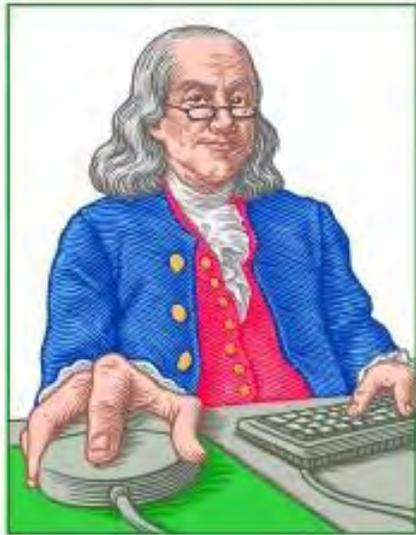
Linux Lessons: Tips and Tricks from Users
"Shell Scripting Tutorial Ends" by Pete Choppin

Last week, we went into some more advanced scripting. Our script now has some fairly decent intelligence. This week we will finalize our script along with a few nice tips.

Last week we went into some more advanced scripting. Our script now has some fairly decent intelligence. This week we will finalize our script along with a few nice tips.

Here's a potential problem: We've made it easy for someone to use this program on files that live in different directories. But we're only testing the current directory for writability. Instead, we should do this:

```
if [ ! -w `dirname $1` ]
then
    echo $0: I will not be able to delete $1 for you.
    # ...
```

The dirname command prints out what directory a file is in, judging from its path name. If you give dirname a filename that doesn't start with a directory, it will print "."—the current directory. Also notice the backquotes. Unlike all other kinds of quotation marks, they don't mean "this is really all one piece ignore spaces." Instead, backquotes—also called "grave accents"—mean "Run the command inside the backquotes before you run the whole command line. Capture all of the backquoted command's output, and pretend that was what appeared on the larger command line instead of the junk in backquotes." In other words, we are substituting a command's output into another command line.

So here is the final version of our shell script:

```
#!/bin/bash
while [ ! -z "$1" ]
do
    if [ ! -r $1 ]
    then
        echo $0: I see no $1 file here.
        shift
        continue
    fi
    if [ ! -w `dirname $1` ]
```

```
    then
        echo $0: I will not be able to delete $1 for you.
        shift
        continue
    fi
    lpr $1
    Mail boss < $1
    cp $1 /floppy/`basename $1`
    rm $1
    shift
done
exit 0
```

Extra Tips

There are a couple other techniques you need to know to meet the vast majority of your scripting needs. First, suppose you really do need to count, or rather keep track of a specific number of times you do something in your script. Here's the traditional Bourne shell way using a "while do" construct:

```
i=0
upperlim=10
while [ $i -lt $upperlim ]
do
    # mess with $i
    i=`expr $i + 1`
done
```

Here we initialize a variable i to 0, then we enter and remain in the loop as long as the value in i is less than 10.

Another type of repeating construct, or loop, is a "for" loop. A "for" loop allows you to wade through a list of items, assigning a variable to each element of the list in turn. Here's an example:

```
for a in Larry Moe Curly
do
    echo $a
done
```

which would print:

```
Larry
Moe
Curly
```

We can use this to handle the case where we want to do something for each word in a variable:

```
mylist="apple banana cheese rutabaga"
for w in $mylist
do
    # mess with $w
done
```

or for each file matched by a shell wildcard pattern:

```
for f in /docs/reports/*.txt
do
    pr -h $f $f | lpr
done
```

or for each word in the output of a command:

```
for a in `cat people.txt`
do
    banner $a
done
```

This concludes our shell script tutorial. Hopefully we have been able to go beyond the traditional "echo hello" script that seems to be shared all over the Internet. This script introduces the basics, provides a useful foundation for most any scripting, and also introduces some of the power of advanced shell scripting.

Please submit any questions and I'll be happy to answer them.

Shell Script Tutorial

Step 1—"Shell Scripting—A Short Form of Programming"

Step 2—"A Practical Example

Step 3—"More Efficient Scripts"

Pete Choppin has been an IT Professional for over 15 years. He currently works as a network and systems administrator for a company called Albion based in Clearfield, Utah. He has experience in all types of hardware, software, and networking technologies. He is proficient in many operating systems including Linux, Windows and Macintosh. 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 has been a devout reader of *ComputorEdge* since 1990 and contributes regularly to featured articles as well as the Linux Lessons section of *ComputorEdge*. He can be contacted at *pchoppin@comcast.net* but prefers to have comments on *ComputorEdge* articles submitted to the editor and posted for the benefit of all readers.

Rob, The ComputorTutor: Web Programming

"JavaScript In Action: Web Forms" by Rob Spahitz

In the last few weeks, we explored some of the basics of JavaScript. Now let's start exploring some of its more practical uses. First up: Web forms.

In the last few weeks, we explored some of the basics of JavaScript. Now let's start exploring some of its more practical uses.

Web Forms

When creating HTML forms, sometimes you want to check the data that is entered before submitting it. So let's explore forms in HTML, and then we'll examine how to use JavaScript to better manage the parts.

A typical Web form might request things such as a user's name, address, e-mail, Web site and a message. It might also include things like a category for the message and an entry to ask if the user would like a response. It might look something like this:

Name: _____

Street: _____

City: _____

State: __

Zip Code: _____

E-Mail: _____

Web Site: _____

Message Category: _____

Message:

_____

_____

Would you like a response? ( ) Yes ( ) No

To turn this into a Web page, you need to understand a bit more about pages. You previously learned about things like anchors (hyperlinks), images and tables. Forms are similar to tables in that they contain several parts. However, to make a form interesting, you'll need to learn several components that Web browsers must interpret in their own way.

For example, a box used to allow a viewer to enter text will appear differently in a Windows, Unix or Macintosh environment because those systems look different with respect to text boxes in other applications, so the browsers want to appear consistent with the other applications around them. Since I typically work in Windows, that's the version I will show.

As with many other HTML tags, the form tag has a start and an end like this:

```
<form>
</form>
```

Between these you put any text and tags that represent the various textboxes and other "input controls" used to help the user enter information.

For example, since the above pseudo-form has some double-spaced text, the paragraph tag will work well for each of these within the form, such as this:

```
<form>
<p>Name: </p>
<p>Street: </p>
<p>City: </p>
<p>State: </p>
<p>Zip Code: </p>
<p>E-Mail: </p>
<p>Website: </p>
<p>Message Category: </p>
<p>Message: </p>
<p>Would you like a response? </p>
</form>
```

By itself, this will appear as simple non-interactive text. To add interaction, you'll want to add one of several controls to allow the user to enter information. We previously looked at buttons. We will add some of these to the form so that the user can submit the information, although that could be done by any interactive control with some JavaScript. However, I'll use a traditional Submit button since it handles it automatically. You can add that anywhere within the form tags, but it's usually at the very end and looks like this:

```
<input type="submit" value="Submit" />
```

By specifying this as type "submit" it automatically becomes a Submit button. However, you have control over the text that will appear on the button by changing the value attribute.

Traditionally, you also add a Clear button so that users can clear all of the data on the form:

```
<input type="reset" value="Clear" />
```

As with the Submit button, if the type is "reset" it will restore all control fields back to their original settings. And the text on the button is defined in the value attribute. Here I used the word "Clear".

Putting it together, you get something like this (the HTML and an image in Figure 1):

```
<form>
<p>Name: </p>
...
<p>Would you like a response? </p>
<p>
<input type="submit" value="Submit" />
<input type="reset" value="Clear" />
</p>
</form>
```

Figure 1. Form with Submit and Clear buttons.

A few things to note. One is that the Submit button will not do much of anything. The "submit" will send the information to a specified location found in the form tag. Right now there is nothing there, so the information is submitted to nothing and goes nowhere. Next, there are no fields with data to submit or clear. We'll get back to these later.

Let's quickly review the common controls. For simple text entry, you add a Text Box. For passwords, you can enter a Password control. To let a user pick from a list, you use a list box, a drop-down list, or a collection of radio buttons. To allow the user to select or deselect something, the check box or radio button is common. Finally, to enter large amounts of text, you use the Textarea control. Let's try a few of these.

What type should we use for each of our items above? Well, with Name you could try a drop-down list, but that would be quite a challenge unless you are creating this from a database with only a limited set of valid user names. You probably just want a Text Box. Change the name line as follows:

```
<p>Name: <input type="text" name="PersonName" size="25" /></p>
```

This input tag will define a control of type text, a text box, give it an arbitrary name (so that when the information is submitted, the receiving program knows where it came from), and a size you'd like for the box. I decided that the name should allow for 25 characters to be displayed. However, more can be entered unless you use the maxlength attribute. I chose to leave that out. Also, if you would like a default value inside the text box, add a value tag like this: value="add your name here"

Moving on, you probably want to do pretty much the same with Street, City (unless you want to limit the set of cities that can be entered), Zip Code, E-Mail and Web site, each with various sizes. Just use the same as the Name text box, but make sure to give unique names to each. So far I have this:

```
<form>
<p>Name: <input type="text" name="PersonName" size="25" /></p>
<p>Street: <input type="text" name="Street" size="50" /></p>
<p>City: <input type="text" name="City" size="25" /></p>
<p>State: </p>
<p>Zip Code: <input type="text" name="ZipCode" size="10" /></p>
<p>E-Mail: <input type="text" name="EMail size="50" /></p>
<p>Website: <input type="text" name="Website" size="50" /></p>
<p>Message Category: </p>
<p>Message: </p>
<p>Would you like a response? </p>
<p>
<input type="submit" value="Submit" />
<input type="reset" value="Clear" />
</p>
</form>
```

View it in the browser and it looks like Figure 2.

Figure 2. Form with Some Text Boxes.

When you look at the above, you'll notice that the text and boxes do not line up very well. Although you can try adding extra spaces between the text and the box, the browser may not show it; by design, HTML definition suggests stripping out extra spaces. For this reason, most people will create a TABLE and put the labels in the first column and the controls in the second column. By the way, now the Clear button will work if you add some text to the boxes. Let's go add the rest.

For the State box, although you can simply add a size-2 text box, this is a good candidate for a drop-down list to let the users select it from a predefined set of choices. To handle that, we use a slightly different control called a SELECT. It consists of two parts. The first is what I'll call the master tag and the second is a collection of item tags. The master tag identifies a name assigned to the selection like this:

```
<select name="State">
</select>
```

By itself, this will create a drop-down list on the Web page. However, there will be nothing in it. To populate it with items, you use the OPTION tag, one for each item you'd like in the list, like this:

```
<select name="State">
    <option value="CA">California</option>
    <option value="CO">Colorado</option>
    <option value="NM">New Mexico</option>
</select>
```

When you add this to the State section, the Web page looks something like Figure 3.

Figure 3. Drop-down List.

Note that the values in the OPTION tags are the values that get submitted with the form, not the text between the start and end tags of the option, and they are submitted with the name State from the select tag.

Applying the same to the Message Category, you might get something like this:

```
<select name="Message_Category">
    <option value="0">Select an option</option>
    <option value="1">1-Comment</option>
    <option value="2">2-Request</option>
    <option value="3">3-Order Inquiry</option>
    <option value="99">99-Other</option>
</select>
```

Notice how the first option here helps the user notice that an option should be picked. We should have probably done the same in the State field unless we wanted to use California as the default value. Also note that the values here are numbers rather than state codes since they can pretty much be any characters you want to send, including non-traditional text like stars and question marks.

On to the Message field. This is pretty easy. Just add a textarea like this:

```
<textarea name="Message" cols="20" rows="3"></textarea>
```

Obviously, you can specify the width with the cols attribute and the height with the rows attribute. And unlike the text box, if you want a default value to appear inside the box, you will need to add some text between the starting and ending tags.

Finally, to add radio buttons, use the INPUT tag like this:

```
<p>Would you like a response?
   <input name="SendResponse" type="radio" value="Y">Yes</input>
   <input name="SendResponse" type="radio" value="N">No</input>
</p>
```

Notice how the two have the same name, but different values and text between the tags. By using the same name, the browser will call the viewer of the page to only select one choice. If you misspell one of these, it will be considered a different radio button group and will send an additional value when the form is sent.

We're running out of space for this week, so let's wrap up.

To make the Submit button send something to the Web server, you will need to add an action attribute to the form tag. This will have to match an application that runs on the server that understands how to receive this information and process it. That action is beyond the scope of this week's article, so we will just add a dummy value there and handle it in a future article.

The final HTML result to add in the body tag looks like this:

```
<form action="processme.exe">
<p>Name: <input type="text" name="PersonName" size="25" /></p>
<p>Street: <input type="text" name="Street" size="50" /></p>
<p>City: <input type="text" name="City" size="25" /></p>
<p>State:
<select name="State">
   <option value="CA">California</option>
   <option value="CO">Colorado</option>
   <option value="NM">New Mexico</option>
</select>
</p>
<p>Zip Code: <input type="text" name="ZipCode" size="10" /></p>
```

```
<p>E-Mail: <input type="text" name="EMail size="50" /></p>
<p>Website: <input type="text" name="Website" size="50" /></p>
<p>Message Category:
<select name="Message_Category">
   <option value="0">Select an option</option>
   <option value="1">1-Comment</option>
   <option value="2">2-Request</option>
   <option value="3">3-Order Inquiry</option>
   <option value="99">99-Other</option>
</select>
</p>
<p>Message:
<textarea name="Message" cols="20" rows="3"></textarea>
</p>
<p>Would you like a response?
   <input name="SendResponse" type="radio" value="Y">Yes</input>
   <input name="SendResponse" type="radio" value="N">No</input>
</p>
<p>
<input type="submit" value="Submit" />
<input type="reset" value="Clear" />
</p>
</form>
```

And the final image is seen in Figure 4.

Figure 4. Final image.

Next week, explore how to use JavaScript to manage forms like the above. We'll handle things like making sure that a name was entered and that an e-mail address "looks" valid.

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

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

Worldwide News & Product Reviews

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

Mobile Trends for the On-the-Go Set—A report on the rapidly changing dynamic of how people are engaging with digital media; That's (Internet) Entertainment—More and more material is becoming available for streaming every day; Unwired Mouse for Macheads—A review of the Targus $29.99 Wireless Mouse for Mac.

Mobile Trends for the On-the-Go Set

JiWire (*www.jiwire.com*), a mobile audience media company, recently released its Q4 2009 Mobile Audience Insights Report. The report looks at device use, consumer adoption of Wi-Fi and browsing behavior of people who access the Internet in public locations such as airports, hotels and cafés. Nearly half of users make purchases online while out of the home and office, and are doing so on a broad range of devices, showing a rapidly changing dynamic of how people are engaging with digital media.

Here's the report:

Mobile Devices on the Rise

The use of Wi-Fi-enabled mobile devices in public hotspot locations continues to increase. Fifty-six percent of respondents report they connect via their smartphone or other mobile device, and for 14 percent a mobile device is the primary means to connect to public Wi-Fi.

Looking at the popularity of mobile operating systems, Google's Android jumped to second place in Q4 of 2009, with 167 percent growth in market share. Apple devices including the iPhone and iPod Touch remain the most popular; however, overall market share for the iPhone OS declined two percent in the fourth quarter. The report shows that usage of non-phone mobile devices, such as the Sony PSP, continues to grow among public Wi-Fi users. Three out of the top 10 mobile devices used on public Wi-Fi aren't phones.

"With the proliferation of mobile devices, more people are accessing the Internet outside their homes and offices, whether on a mobile phone, netbook or even a gaming device," said David Staas, senior vice president, marketing, of JiWire. "Over 890 million new Internet-enabled wireless devices are expected to ship this year alone according to Morgan Stanley, revolutionizing how people integrate media into their daily lives and the changing the nature of advertising."

Big Brands Drive Consumer Demand for Wi-Fi

Public Wi-Fi is becoming more pervasive with a 21.9 percent growth in locations in 2009. Additionally, overall Wi-Fi usage continued to grow, with an 8.2 percent increase in Q4 alone. Travelers took advantage of free Wi-Fi sponsored by Microsoft (Bing) and Google over the holidays. These campaigns contributed to an increase in usage at airports and cafés by 26 percent and 22.9 percent respectively in Q4.

Further contributing to the increase in Wi-Fi use is the general shift from data cards to Wi-Fi: According to the Pew

Internet and American Life Project, nine percent of laptop users made the switch to Wi-Fi in the second half of 2009.

With McDonald's starting to offer free Wi-Fi in 2010, JiWire projects a 15 percent increase in free Wi-Fi locations in the U.S., which will bring free Wi-Fi to 52 percent of the total number of public Wi-Fi locations this year.

Mobile Audiences Like to Shop

When surveyed, the on-the-go mobile audience revealed they are avid online shoppers and most likely to shop online for convenience:

• 90 percent make purchases online
• 49 percent make purchases online while on the go
• 47 percent use the Internet as their primary source for making a purchase. Internet stores, such as Amazon and eBay, are the most popular shopping destination with on-the-go audiences
• Electronics superstores, such as Best Buy and Radio Shack, also appeal to mobile consumers who adopt new technologies early to stay connected

In December, the most frequently visited Web site categories were news, search engines and social networking. The top 10 sites reflected the need for people to connect, with Facebook and Yahoo in the top three.

That's (Internet) Entertainment

Frequent Worldwide News and Product Reviews contributor Joe Nuvolini has this for us:

I recently gave a presentation on Internet radio to a small group. In preparation I did some online research. There are some online services such as Live365 (*www.live365.com*) and Pandora Radio (*www.pandora.com*). They seem to be slanted toward the music lover. One of my favorites is OTR Now (*www.otrnow.com*). It streams old-time radio 24/7. As a matter of fact, I am running it continuously on my server and transmitting it throughout the house via a small FM transmitter. The transmitter is powered by a 12V DC transformer and is plugged into the speaker jack on my server.

The nice thing about this site is that it has a collection of more than 9,000 shows ranging from "A date with Judy" to "Zero Hour," and you can order a CD full of MP3 files of your favorite shows. I load one on my MP3 player when I travel. And the price is right. They are only $4.99 each, shipping included. If you're an old-time radio buff, check it out.

Then there are hardware devices. You can purchase a wireless network device, but they are not cheap. For example the Grace Wireless Internet Radio (GDI-IR2000) runs about $125. Another wireless Internet radio, the Aluratek AIRMM01F, can be bought for about $90. I stumbled onto another Aluratek device, the Aluratek USB Radio Jukebox, AIRJH01F. It runs between $15 and $20 on the Internet. I purchased mine for $13.60 on Amazon and was well pleased. It is a self-contained USB device. There is no accompanying CD. Just plug it in. It loads itself and you're ready to go. It lists more than 13,000 stations around the world. While it too seems to center on music, you can search for news and other areas of interest as well.

There are stations listed on six of the seven continents. You can search by genre, region and then country, and set up your own list of favorites if you so choose. Last year I had mine plugged into my laptop listening to Christmas music from Thanksgiving through the holidays. I gave them to my grandchildren, as I thought they would be really helpful in studying foreign languages.

There is an online site that streams TV from around the world. It is set up much like the Aluratek AIRJ10F but for television. Again you can search by genre, region and country within the region. It has some 20 listed genres. Not all the stations listed stream all the time, but I found it entertaining. The URL is *viewmy.tv*.

More and more is becoming available online. I have watched episodes of CSI NY that I have missed on the CBS site (*www.cbs.com/primetime/csi_ny*). More and more material is becoming available for streaming every day. If you are interested in something specific, a Google search will usually turn it up!

Unwired Mouse for Macheads

iMac and Mac Pro owners looking to switch to a third-party pointing device should consider three key criteria in making a purchase decision: convenience, customizability and ergonomics. On these three criteria, Targus' $29.99 Wireless Mouse for Mac (*www.targus.com/us/product_details.aspx?shouldku=AMW43US*) (WMM) scores well in some respects but slips in others.

The WMM consists of two hardware units—the pointing device (Figure 1) and a USB receiver (circled in Figure 2). The former consists of two parts: a matte "lunar grey" bottom that houses the unit's brains, Touch Scroll, two programmable buttons and power switch; and a glossy color-coordinated plastic upper shell that pops up after the user assertively slides a button immediately south of the power switch. The pointing device measures 4.64 x 2.51 x 1.45 inches and tips the scale at 4.5 ounces with the two included AA alkaline batteries installed in the bottom part.

Figure 1. The Wireless Mouse for Mac is distinguished by its prominent four-way
Touch Scroll on top and two programmable buttons on the pointing device's left side.

WMM's 2.4GHz USB receiver measures about 0.75 inches tall, 0.5 inches wide, 0.25 inches thick, and weighs less than 0.125 ounces. Its 0.25-inch tall plastic grip is all that protrudes when the unit is installed in a USB port. The receiver can be stored in a slot on the shell's interior surface. Handy!

Figure 2. The USB receiver wirelessly communicates the mouse's movements and clicks to your Mac.

Initial setup is one of the areas where WMM scores well on the aforementioned convenience criterion. After unboxing the device from its handsome carton, newbie owners follow the well-illustrated and clearly written steps in the English-only printed user guide. Step 1—pop open the shell and install the batteries. Step 2—power up, plug the receiver into an available USB port, and establish pairing. Step 3—point and click. Users who want to take advantage of WMM's two programmable buttons need to perform optional Step 4—download the latest version of the requisite software installer that adds a "Targus" System Preference into Mac OS 10.4 or later.

The WMM's wirelessness is another strong point with regard to convenience. If your desktop already is sufficiently littered with cables, you'll quickly appreciate a mouse that works on almost any surface (dark or light) without contributing more clutter. In my testing, the 1200 dpi optical sensor was spot-on accurate and responsive in all of my productivity apps, although I intermittently needed to cycle the power switch to overcome the cursor's inexplicable onset of jitters.

An additional noteworthy convenience is the Touch Scroll (Figure 1). Instead of a scroll ball or wheel, the WMM has a touch sensor on top that functions like the trackpad on a MacBook (Pro). Simply glide your index finger up and down or left and right over the Touch Scroll, and the currently active window scrolls accordingly. Compared to the tiny scroll ball in Apple's Mighty Mouse, the Touch Scroll is majorly convenient because it avoids gunk accumulation and the need to perform unconventional cleaning methods (*www.hackszine.com/blog/archive/2007/05/ howto_unstick_your_mighty_mous.html*). Note, however, that the Touch Scroll does not function as an additional button; you can press the Touch Scroll, but nothing happens on-screen.

A potential inconvenience is the WMM's bias toward right-handed users. If there is a way to reverse the two main buttons' clicking functions to accommodate southpaws, I must be overlooking it; WMM's user guide has nothing about this issue. Additionally, the two programmable buttons are positioned on the bottom part's left side (Figure 1). They are convenient for a righty to press with the thumb, but awkward for a southpaw to press with the middle or ring finger. A potentially more convenient design would have included two additional buttons on the bottom part's right side.

Another inconvenience pertains to power management. The included non-rechargeable batteries' lifespan (officially rated at up to six months; your mileage will vary) potentially could be extended if the WMM had a sleep/standby mode

which activated automatically after a specific period of disuse (e.g., five minutes). Instead, if the user absentmindedly leaves the power switch on overnight, the batteries will drain needlessly.

Two additional inconveniences are pressure sensitivity and software interface design. IMHO, the WMM's two main buttons are too sensitive to pressure (I too often inadvertently pop up a contextual menu because the main right button is so sensitive to finger pressure; this never has happened to me with Apple's Mighty Mouse), and the Targus System Preference's interface needlessly requires too many steps (the user must click the WMM's picture to enable the Setup Device button which the user must click to open a secondary window where the user clicks pop-up menus to configure the programmable buttons; Figure 3).

Figure 3. The Targus System Preference has an inefficient design. To configure the WMM's two programmable buttons, the user first must click the picture of the WMM (left) to make the Setup Device button available (middle), then click that button to display the Targus Device window (right) where the user finally can configure the programmable buttons but not the Touch Scroll or the two main buttons.

The customizability criterion is a mixed bag for the WMM. On the plus side, Targus software supports assigning AppleScripts, apps, keystrokes, or specific functions to the two programmable buttons. On the minus side, however, the Touch Scroll's non-functional button cannot be customized and the WMM's main buttons cannot be custom-configured for southpaws.

The WMM would shine on ergonomics except for the aforementioned pressure-sensitivity issue (which needlessly results in additional clicking to dismiss the unintended contextual menu that displays). The pointing device's shape, mass and button location are conducive to minimizing stress on the user's fingers and wrist. Although it fits great in my relatively small hand, users with larger hands might find that the pointing device is too small and thus less ergonomic for them.

In summary, the WMM is a potentially good candidate to replace Apple's Mighty Mouse thanks to its reasonable price, wirelessness, Touch Scroll, two customizable buttons, and ergonomic shape. It could have been a great candidate if its programmable buttons were located on both sides, the Touch Scroll functioned as a customizable button, and the main buttons were customizable and a bit less sensitive to pressure.

⊕⊕⊕

Review contributed by Barry Fass-Holmes

In addition to being an editor and columnist for *ComputorEdge* and *ComputerScene* Magazines, where he has

written hundreds of feature articles and cover stories over the past decade, Charles Carr has also penned well over 1,000 non-tech newspaper and magazine articles and columns for various publications, including two widely-read columns each week for San Diego's *North County Times* newspaper.

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

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

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

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

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

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

Learn more at *www.charlescarr.com*.

EdgeWord: Maybe a Disaster
"Oops! Recovering From a Bonehead Mistake" by Jack Dunning

Some computer-related goofs can cause terror deep within as you wonder if you will ever be able to recover from it. Here's a look at Jack's most recent pickle.

Sometimes I think that it's a good idea to relate some of the mistakes I make—no matter how stupid it makes me look. Maybe I can help someone avoid the same errant road that I took. Some goofs can cause terror deep within as you wonder if you will ever be able to recover from it. For me the most recent screw-up was last week.

In the course of installing Windows XP Mode on a Windows 7 machine, I installed a number of other updates. Usually this is not a problem, as the updates normally go fine. This time, however, I started getting the Blue Screen Of Death (BSOD) shortly after the last update, which was a driver update for an installed Nvidia card. There was now some type of conflict with the video drivers. (A search of the Web told me that problems with Nvidia cards and Windows 7 are not uncommon.) I uninstalled a number of the new updates, plus I tried to restore to an earlier time. Nothing worked—the restore would not complete successfully and the BSODs continued.

I could get the system to work with the Nvidia card by using the plain vanilla VGA drivers, but I no longer had the Windows Aero effects. I don't particularly care about Aero effects for my own purposes, but since I use this computer for Windows 7 screen shots, I felt that I should have those features working.

Finally I removed the Nvidia card and ran the computer with the built-in video from the motherboard. Once I installed the proper drivers—Windows 7 is pretty good about finding the right drivers for hardware—everything was working. I navigated to the display setup to configure the screen the way I wanted it. This is where I went wrong.

If you change the settings for the resolution for your monitor, usually you will get a countdown before you either confirm the new state or it reverts to the previous resolution. This is a safety feature that saves you from setting the display to an incompatible (unreadable) resolution. If you distort the picture, in a few seconds you get the original, readable setting back. Somehow, I came across an unusual radio button setting to change the display to a high-definition resolution setting. I gave it a try—not realizing that there was no safety to revert to the original setting if a problem was encountered. A problem was encountered!

I suddenly found that all I could see on the display was a distorted signal. There was no way that I could navigate the screen. I was computer blind. While I know that there are tools for the disabled to help people navigate the computer when it is difficult to see the screen in Windows 7, I hadn't set any of them up, nor did I remember how to use them. I had that sinking feeling that I would never be able to see the computer screen again. I could reboot and login because I didn't need eyes to do that, but once logged in, I didn't have a clue what to do. I needed to uninstall the video drivers so that the display would default back to generic drivers, then reinstall the proper drivers, but I couldn't see anything. How would I find the Device Manager much less select the video card for uninstall?

I tried putting the Nvidia card back in, but while I could see again, the drivers for the onboard video that I wanted to uninstall had been replaced with the old VGA drivers. I couldn't uninstall the proper drivers in the Device Manager because they weren't there. If I took the Nvidia card out, the display went back to the unreadable resolution with the drivers that I wanted to uninstall—but couldn't see. (As I later thought about it, I may have been able to uninstall the recalcitrant drivers through Programs and Features while the Nvidia card was in place. Not sure, though, because I

didn't try it. I was in a bit of a panic.)

I thought to myself, "What would Digital Dave do?" But, rather than go out and buy another computer, I decided to persevere until I solved my dilemma. (I'm sure that there are many readers who immediately know how to solve this problem, but remember, I was in a bit of a panic. I would like to hear other possible solutions that weren't readily apparent to me.)

Then, I remembered that I could access the Windows 7 via my Vista laptop with Windows Remote Control. This was one of the reasons I had installed Windows 7 Professional rather than the Home version. I had previously activated and tested the remote-control capability. I was thrilled when I was able to get access to the computer via my laptop. I could see everything. I opened display settings to change the resolution, only to find that display resolution is one feature that cannot be changed remotely—it was grayed out. That was a little frustrating.

However, what I *was* able to do was use the Device Manager to remove (uninstall) the drivers for the video card. That gave me back the display on the Windows 7 machine, and I was able to reload the proper drivers. I determined not to mess around with the display resolution settings anymore—even though I now know a way to recover from another such bonehead mistake—at least on a computer that I can remote control.

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

Editor's Letters: Tips and Thoughts from Readers

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

"DHL Not an Option," "Permanent E-Mail Addresses," "Redirect the Parallel Data Output to a USB Port," "Streaming Video," "Win 7 Upgrade," "Strange (Home Business Server)"

DHL Not an Option

[Regarding Dawn Clement's February 26 article, "Selling Things on the Internet":]

DHL is not a shipping option. They do not deliver in many areas. Rather, they charge for delivery (like "overnight"), and your package arrives a week or so later via the post office. They may deliver in other areas, but not here. This has presented more than a few problems when sellers want to ship via DHL. Many around this area will not do business with anyone that uses DHL.

In this area UPS is also not an option for shipping out since they hang a $10 surcharge on each shipment at the local pickup point.

That leaves the postal service and FedEx as the only options.

-MB, Colorado

Your best bet is probably to use the Flat-Rate envelopes and boxes available from the USPS. They will give you the packing supplies for free (and if you send out a lot of packages, this easily adds up) and will hold a surprising amount of "stuff."

-Dawn Clement, Fresno, CA

Permanent E-Mail Addresses

[Regarding the February 26 Digital Dave column:]

Some providers allow you to keep and pay only for the e-mail address. When I left Earthlink, I opted to keep my Earthlink e-mail address. It allows me to keep my six e-mail addresses, plus four more that are "Anonymous." The cost is only $3.95/month, so minimal, and a small price to pay to not have to change.

-David Canfield, Broomfield, CO

Dave,

I'm surprised you didn't mention one of the services like "PoBox.Com." I'm sure there's others, but I've never found the need to look. I've moved several times, across states and several ISPs, but I've been able to maintain the same e-mail address since 1994 when I joined. The service is really at a nominal price (especially when you go the max and they provide a bonus year) and provides several options. I enjoy also using a couple of alternate names that bring e-mail directed to them into my main account provided by my ISP. Check it out; I'm sure you'll find it useful too.

-Rick Hale, San Diego, Calif.

Redirect the Parallel Data Output to a USB Port

[Regarding the March 5 Digital Dave column:]

I have used three programs for years for redirecting program output, and they have all worked. My favorite is DosPrint (*www.dosprint.com/*). The others are DOSPRN (*www.dosprn.com/*) and DOS2USB (*www.dos2usb.com/*). I haven't had a problem with DosPrint in the three years I've used it and have tried the other two, and they both worked.

-Ed, Modesto, CA

I believe *every* print should be executed on a "PDF" printer, a program that outputs a ".pdf" file, puts the file in a *known* location and asks or generates a useful name while 100 percent keeping you from spewing pages out of your *real* printer.

Then after you *know* how long it is, you may choose to print physically *or not*!

And you have *safe* copies of everything you've attempted to spew!!

-Michael J. Vlehman, Julian, Ca

I used an adapter made by Belkin to convert a parallel printer to a USB connection several years ago. Worked fine. Do a search on converters to find sources.

-Ray, San Diego, Ca

If you have an Ethernet network, there are print servers, such as the Netgear PS101, that plug in the printer's parallel port and connect to the network. I had a LexMark printer on which the network card died, so I used the print server for 3-plus years in a 25-person office where it was the only network printer. Worked fine.

-Jim Amos, Denver

Streaming Video

[Regarding the March 5 Digital Dave column:]

I would recommend replacing the on-board video with a separate video card. A good video card will shed a lot of load from your CPU and should help a lot. I have two older P4-era computers and both will stream video without a problem at high resolutions.

-Stirling, San Diego, CA

Win 7 Upgrade

[Regarding the February 26 Digital Dave column:]

I have an HP Pavilion ZV6000 laptop that came with XP. According to the HP support Web site, this laptop won't support Win 7, nor do they have updated Win 7 drivers for that laptop.

I did a fresh install of Win 7 on my laptop. After a few update downloads everything works except for the memory card reader. I've got sound, it plays movies, and the control keys all work.

But it's the persons call if they want to pay for Win 7 to see if it works on their laptop. It worked for me... and the laptop is much faster now.

-Garry, Kansas City, Mo

Strange (Home + Business Server)

[Regarding the March 5 Wally Wang's Apple Farm column:]

I'm not sure anyone would even think of combining an old version home OS with a business server, but I suppose it can be done. In that case, I imagine one can buy a small PC or laptop running Windows 7 Home Premium for under $999 and use the built-in Microsoft IIS server. That free option includes an FTP server, Web Management tools, WWW services, and the IIS Hostable Web Core.

-Ron Cerrato, San Diego, CA

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

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