ComputorEdge™ Online — 03/12/10

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Digital Dave

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

A reader wonders how comments are posted to Digital Dave's column so quickly; some older software won't run properly on a reader's 64-bit Windows 7 computer; a reader's Firefox toolbar has disappeared.

Dear Digital Dave,

How does it happen, that when I get my new ComputorEdge *e-mail, there are already answers and replies to your column?*

Phil Martin
Pacific Beach, CA

Dear Phil,

As I understand it, the *ComputorEdge* e-mails start going out each Friday morning just after midnight Pacific Time. That means that people could (and do) start responding very early in the morning to this column and other articles. There are many readers who are night owls (and people in earlier time zones) who add their two cents as soon as they get the e-mail.

However, since all the comments are screened, they are not posted immediately. For an early morning post, the screening requires a *ComputorEdge* editor with insomnia to do a quick review and hit the publish button. Fortunately, the postings are often cleared very early, allowing you to read the comments from others in a timely fashion.

If you want to read this column unsullied before others have had their replies posted, you should check it out very early—say 1 a.m.—on Friday morning.

Digital Dave

Dear Digital Dave,

I installed the 64-bit Home version of Windows 7. Some legacy programs wouldn't run, such as card games (Hoyle Bridge) and a really early version of 3D Home Architect. So, believing Microsoft, I bought the upgrade to Professional, but I'm still having the same problem. When I try to load, it tells me to contact the publisher for a 64-bit version of the program. Should I reinstall Windows 7 in the 32-bit version?

Thanks. Your column is always the first thing I read.

Alan Rings
San Diego, CA

Dear Alan,

Before installing the 32-bit version of Windows 7, now that you have the Professional version, you should download Windows Virtual PC (*www.microsoft.com/windows/virtual-pc/*) to run Windows XP Mode. Virtual PC is a free download and is meant to run with the XP Mode for older legacy software. It essentially sets up a Windows XP computer inside your Windows 7 computer.

However, you may still have problems with some software that won't work properly (or runs sluggishly) in the 64-bit environment. Many older programs—especially games—would directly address devices for greater speed. The 64-bit drivers may not be available. If you don't get satisfactory results at 64-bit with the Virtual PC in XP Mode, then you may want to take a shot at installing the 32-bit version of Windows 7.

Digital Dave

Dear Digital Dave,

I have lost my toolbar on Firefox and have to use Google to get to Yahoo, plus I cannot go back to the previous page when I am at other sites I have entered through Google. What am I doing to cause this to happen? How do I get it back?

Sandra Bliss
Cooperstown, NY

Dear Sandra,

This is not an uncommon problem. We accidentally turn off (or on) a feature and don't know how to reverse it. That's when it helps to know a few tricks. It sounds like your Menu Bar in Firefox has been deactivated.

One of the tricks of many Microsoft programs is that you can often temporarily restore a missing "File/Edit/View" menu by hitting the ALT key. This is also true for Firefox where you can temporarily bring the menu back with the ALT key. Of course, the menu will disappear again after you make a selection. To make the menu permanent, right-click on an empty space in the Menu Bar and check Menu Bar (or other desired bars) from the menu that pops up.

Right-clicking is the second part of the tip. When in doubt, right-click. In many cases nothing will happen, but opening menus with a right-click is so popular that most programs seem to offer some type of insight—if not a solution—when you use this investigative technique. The right-click is location sensitive, so sometimes you need to search for just the right spot to do it.

Digital Dave

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Oops! Where Did That File Go?

❝File management is rife with opportunities for self-induced errors.**❞** by Jack Dunning

With the invention of computing, the opportunities for making mistakes, such as accidentally deleting a file, have multiplied. We need to protect us from ourselves.

"We have met the enemy and he is us." —Walt Kelly, Pogo

The one area where computers have fallen short, although there has been significant progress, is in the elimination of human error. More dangerous than the hard drive crash or the phishing spam is the well-intentioned person sitting behind the keyboard. No matter how many safeguards are built into software applications and operating systems, as humans we have the ability to defeat those systems and destroy our own efforts to compute. Who hasn't uttered the occasional "Oops!" which later turned into more stern language as the full implications of our keystroke were slowly revealed. With the invention of computing, the opportunities for making mistakes, such as accidentally deleting a file, have multiplied. We need to protect us from ourselves.

The Simple Deletion

One of the most common errors is the simple deletion of a file. All it takes is the depression of the Delete key and the automatic "Yes" response to the cautionary question, "Are you sure you want to do that?" (or some variation thereof). The file is gone. In the old days, unless you had file recovery software, that was it.

Sally is searching the Web looking for a way to restore her husband to a previously saved version of himself.

Eventually, the continual lost deleted file problem spawned the Recycle Bin (trash can). This is a special folder for storing all those things that you thought you wanted to delete, but that everyone knew you would want back. It is a backup protection against our own decision making. When you delete a file, rather than actually deleting the file, the computer sends it to the Recycle Bin until you decide to delete it—again. With the size of today's hard drives, it may never occur to you to visit the Recycle Bin—which can be very much like visiting a graveyard. Fortunately for those who never accidentally delete the wrong file, in Windows we can bypass the Bin by holding down the Shift key while hitting Delete. This will skip the layover in the Bin and send the culprit directly to the underworld.

Note: Microsoft has made it a little more difficult to find the Recycle Bin in Windows 7. The icon does appear on the Desktop, but who keeps their desktop in view? I usually have 30 programs open that cover the Windows Desktop. In Windows 7, the Recycle Bin listing has been removed from Windows Explorer—maybe it's deemed unnecessary at

that location.

We also protect ourselves from the simple deletion by backing up our most important data. (We do back up our files, don't we?) There are features built into most operating systems that allow for automatic backup. This relieves us of the tedious work of doing it ourselves. (We did take the time to set up the backup software, didn't we?)

The problem with backup software is that it copies all of our mistakes. If we mess something up before the backup process then it will be accurately included in our backup copies. This only protects us when we don't make mistakes.

The Save Button

Being so concerned about losing data, we are advised to regularly save our data. Sometimes it is this save procedure that can cause the problem. Even as I type this article, I regularly hold down the CTRL key and hit the S key to save my work. If I didn't do that, then a power outage or a hard disk crash could wipe out hours of industrious creativity that could not possibly be recovered. However, if I inadvertently hit CTRL+A, Spacebar, then CTRL+S to save, I can wipe out everything without a possibility of recovery.

Note: Some programs such as OpenOffice.org will save your work in the background periodically. If you experience a crash (or are forced to reboot on a Microsoft upgrade), the program will attempt to recover all the active files, but this will not overcome saving a mistake.

The Save button can be a particular problem when working on a software program or touching up a photo. Each time you save the file, the latest version replaces the previous. This is fine if the work is an improvement over the original, but often it's just the opposite. That's why we always make a copy of the original file (with a different name—maybe a date/time stamp) before we start our creative work. (We do make a backup copy of the file before we start, don't we?) Sometimes changes in programs can become so convoluted (and confusing) that the only option is to return to an earlier version and start over.

Making Versions

One of the best ways to protect your work is to create versions of your files while you are working. If you're programming, you would do it at a point where reasonable progress worth saving has been made—a judgment call. Then a copy with some type of version number in the name should be made. Using the time and date as part of the name is one of the best methods because it will tell you when that file was the latest version.

Fortunately, many software program now include the capability to save versions of files. For example, in OpenOffice.org Writer the feature "Versions..." can be found in the File menu. This allows the user to save a copy of the current work at that fixed point, plus add comments. In addition there is the capability to "Compare" a version with the latest to see what has changed.

This is where versioning software comes into the picture. Versioning software automatically tracks changes as they are made and keeps copies of virtually everything. Realistically, it would become unwieldy to continually track every little change, so parameters need to be set up specifying what should be tracked and how often. Otherwise, hard drives would rapidly fill with the copies of old versions of files.

Versioning software goes a long way toward protecting us from ourselves, but we can always find a way around it, such as deleting all the versions while we are being fastidious and cleaning off our hard drive.

Deleting Unnecessary Files

Back in the day when hard drives had a tiny amount of storage space, cleaning off unnecessary files was considered a critical function. Now it has become a major source of computer problems. One of the most common statements heard from people with computer complaints is "it started (or stopped dead) after I deleted some files from my hard drive." Some people can't stand the idea of clutter, even if it's virtually invisible on their hard drive. The fact that they know that extra files are there drives them crazy. The problem is that the deleter may not know the function of the clutter. Rather than leave well enough alone, they start deleting—even if they need to bypass numerous built-in software protections to do it. It's a compulsion. They can't leave well enough alone.

The Errant Mouse Button

I recently discovered a button on the side of a new mouse I had purchased. In fact there were two new buttons—one on each side. They came to my attention when some editing on the Web suddenly disappeared from the screen. It was cause by the accidental click of one of the side buttons on the mouse which was configured to go back to the last page. That was mind-blowing and distressing. I quickly found a way to change the function of the almost hidden mouse button, but I'm sure I could find a way to configure it to cause other problems. I

disabled both buttons.

The major challenge facing the computer user is not learning how to use the computer, but protection from self-induced error. As new features are added to systems, there is more potential for problems. For example, this week in the Windows Tips and Trick column, I talk about Libraries in Windows 7. (Libraries are a way to collect common types of files from numerous locations into one easy-to-navigate collection.) If you delete a folder in a library, only the link to the real folder is deleted. The files remain intact. However, if you delete a file in that same library folder, it's deleted from existence regardless of its physical location. There are good reasons for this system, but for many people it is a disaster waiting to happen.

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*

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Subversion for File-Revision Management

"A way to turn back time in your file management." by Michael J. Ross

Subversion is a robust solution for tracking changes to files and directories. Here's what you need to do to get started so that you could go back to an earlier version of a file or folder if needed.

Imagine that you are the lead engineer on a large software-development project, and you are told that some of your colleagues have made numerous changes to the source code, in many files, and that those changes have broken the system—but your colleagues are unable to figure out why. Wouldn't it be terrific to be able to quickly and reliably roll back those now-unwanted changes, so the entire system is returned to its previous state, which worked perfectly? Or say that you are an author working alone on a non-fiction book, and you discover to your horror that all of the research that you recently integrated into your manuscript is questionable and needs to be ripped out, but you can't remember where you made all the changes. If a genie gave you the ability to turn back the hands of time, and return your book to its previous and superior state, you would elect to do so in an instant.

These are but two examples of versioning problems, in which some sort of digital work—whether it be software, text, or anything similar—is being changed over time, and would benefit from being saved at various stages (typically referred to as "versions"), so that you could go back to an earlier version if needed. In other words, you want to be able to take a virtual snapshot of the product as a whole, and save that snapshot for possible future reference. In general, this is known as file "revision management"; in the case of software, in particular, it is usually referred to as "source control" or "source code management" (SCM).

Given the critical importance of revision management in developing a wide range of digital products, it should be no surprise that, over the years, a number of revision applications have been created to do just that. Fortunately, many of them are open source, which basically means that the application can be used free of charge, and the source code that comprises it is freely available, in case anyone is interested in seeing how it works, or making changes to it, or confirming that it does not contain security flaws or spyware.

The types of revision applications are as varied as the needs that they fulfill, ranging from simple applications that are a breeze to install but limited in functionality, all the way up to extremely complex SCM systems that require expert installation and babysitting. An example of the latter group is IBM's Rational ClearCase, which is used by the kinds of software-development projects involving millions of lines of source code, and requiring multiple ClearCase administrators. But for those of us who want a far cheaper and understandable application, there are several free ones available. In this article, we will examine Subversion (a.k.a. SVN).

Subversion (*subversion.tigris.org/*) is one of the most respected file-revision applications on the market, with a reputation for offering several advantages over alternative products: ease of installation, greater stability and better file moving, renaming and deleting capabilities. As a result, it may be the most widely adopted versioning system around, and is in continuous use by large corporations and major software-development projects. It runs on Windows, Mac OS X and all mainstream Linux distributions.

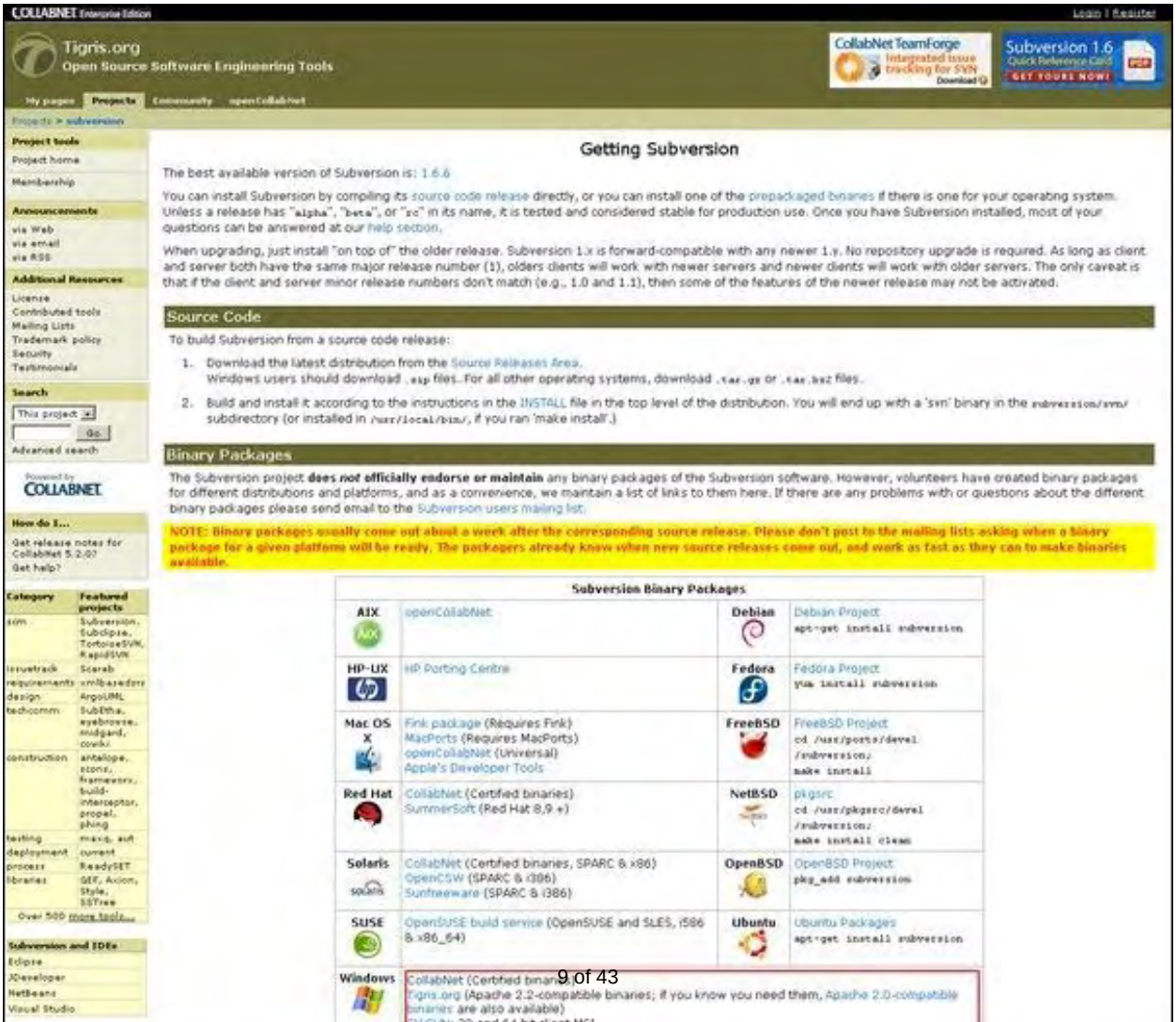
The standard Subversion package can be thought of as a versioning server, and thus needs to be used in conjunction with a client program. Several options are available for all of the major operating systems, and we will get into the details of that later. On a related note, much of the Subversion documentation mentions the Apache Web server (*httpd.apache.org/*), which can be used as its repository-side network service. For most readers interested in source-code versioning, Apache is probably already installed and in use (for viewing Web sites locally). Windows users would need to install it manually, while Mac OS X and most if not all Linux distributions come with Apache pre-installed. But Apache is not a requirement, because Subversion includes a built-in server, Svnserve, which may not offer as many capabilities as Apache, but is adequate for most users, and is simple and lightweight.

Installing Subversion

In order to install Subversion on your own computer, visit the aforementioned Web site, and click on the blue download link corresponding to your operating system. (In this article, we will be using the Windows version.) You can also download the source code, if you want to compile it yourself. But in this example we will be using the binary (i.e., the pre-compiled executable program).

Figure 1. Subversion homepage.

Clicking that link takes you to the binary packages section of the download page.



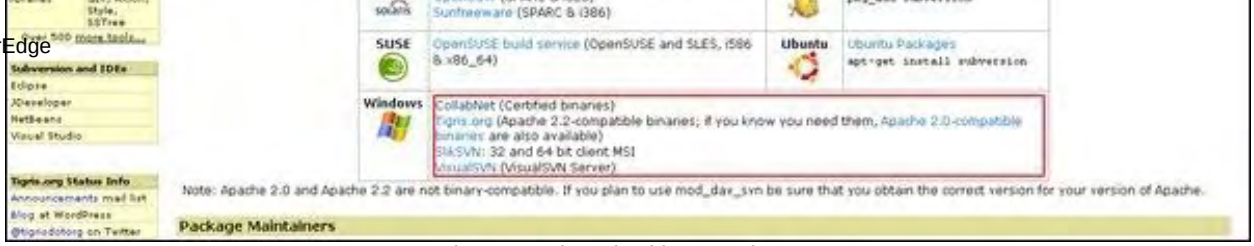


Figure 2. Subversion binary packages.

Select the second choice in the Windows section, which takes you to the "Documents & files: Windows Apache 2.2.x" page, where you can choose the latest version, which as of this writing is 1.6.6. The file name is Setup-Subversion-1.6.6.msi, whose extension indicates that it is a Microsoft Installer file. Save the file to a location on your computer where you can find it, and once the download process is complete, open the installation file. A welcome dialog box should be displayed.

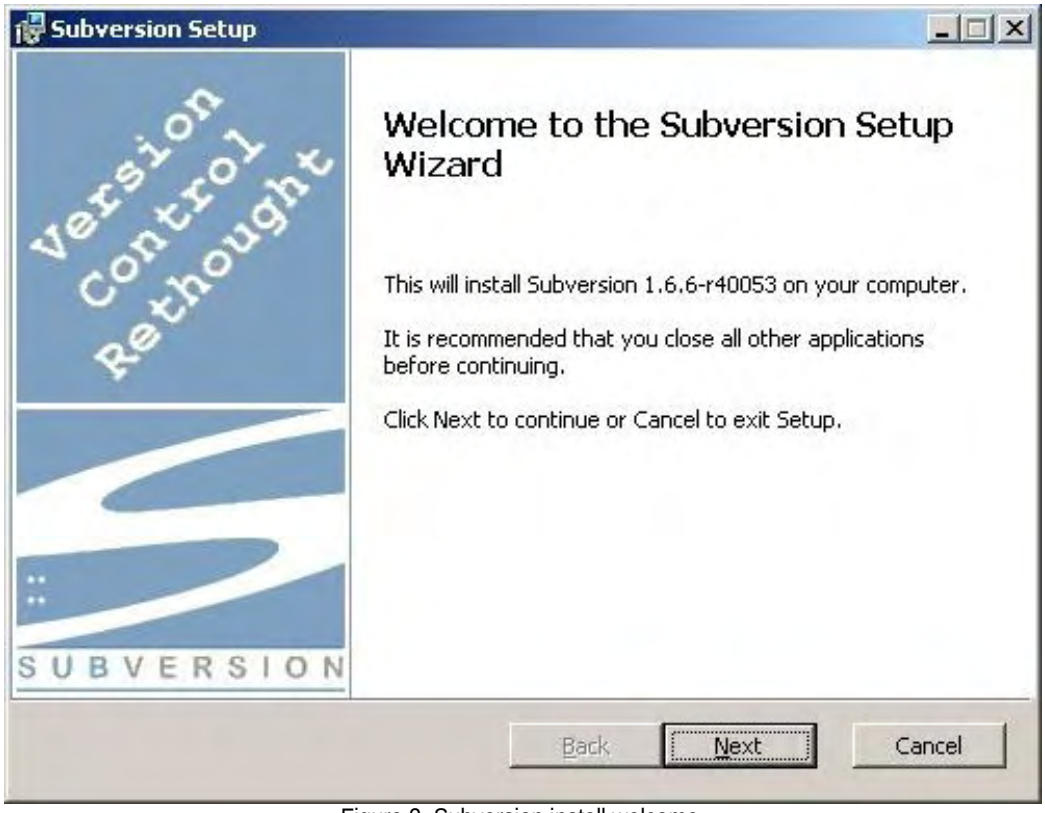


Figure 3. Subversion install welcome.

Click through the subsequent dialog box, which contains some non-critical project information.

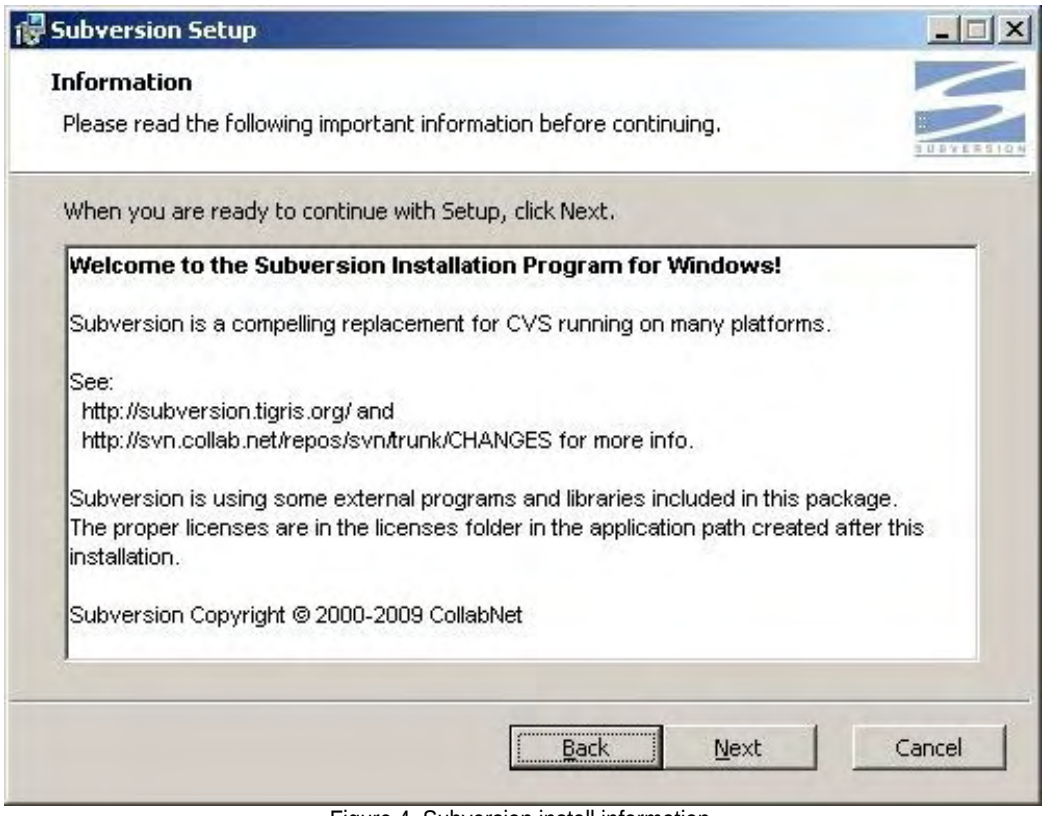


Figure 4. Subversion install information.

At the next dialog box, you can specify the destination folder, or use their default (C:\Program Files\Subversion\), which we will do.

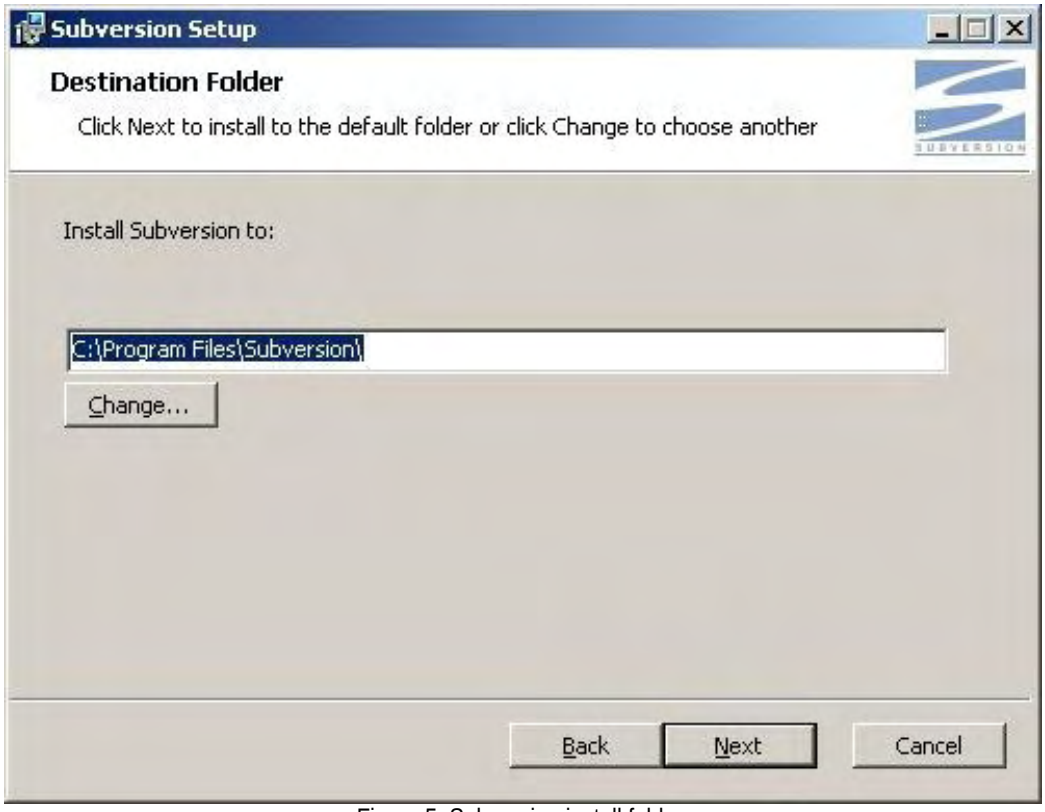


Figure 5. Subversion install folder.

At this point you are ready to install the product.

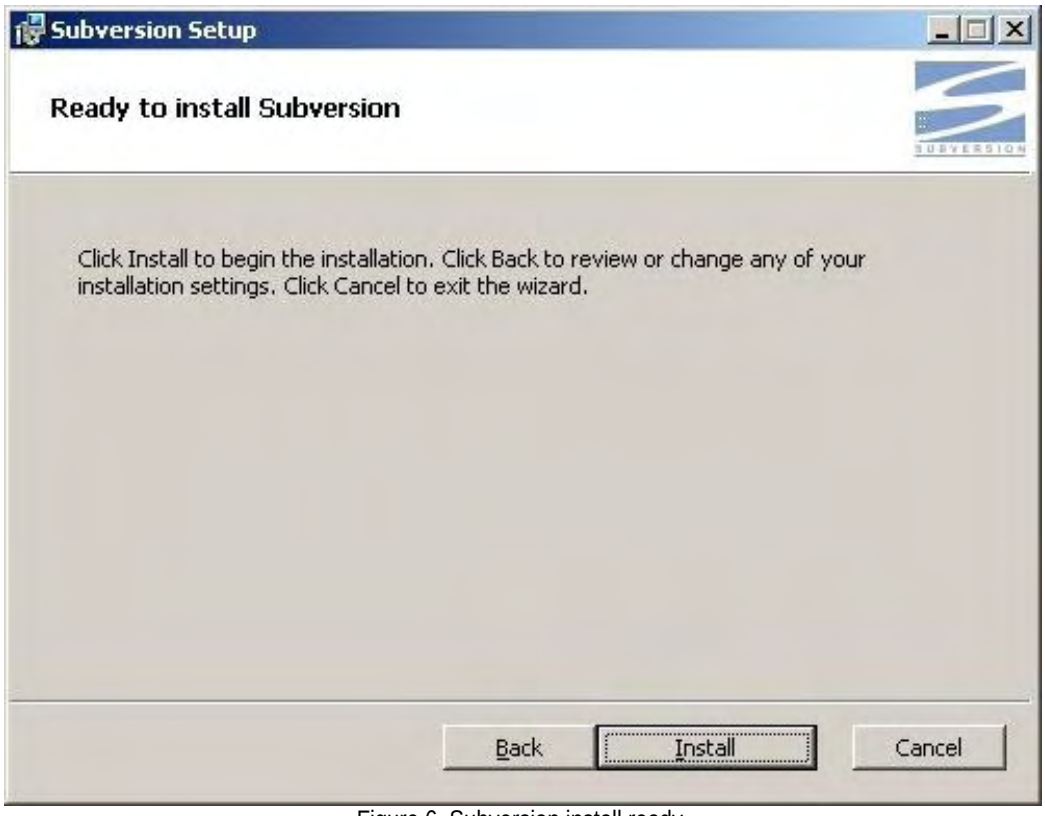


Figure 6. Subversion install ready.

The installation should only take a few seconds, and ends with a completion dialog box that contains information only of interest to any poor soul still using Windows 95, 97, or Millennium.

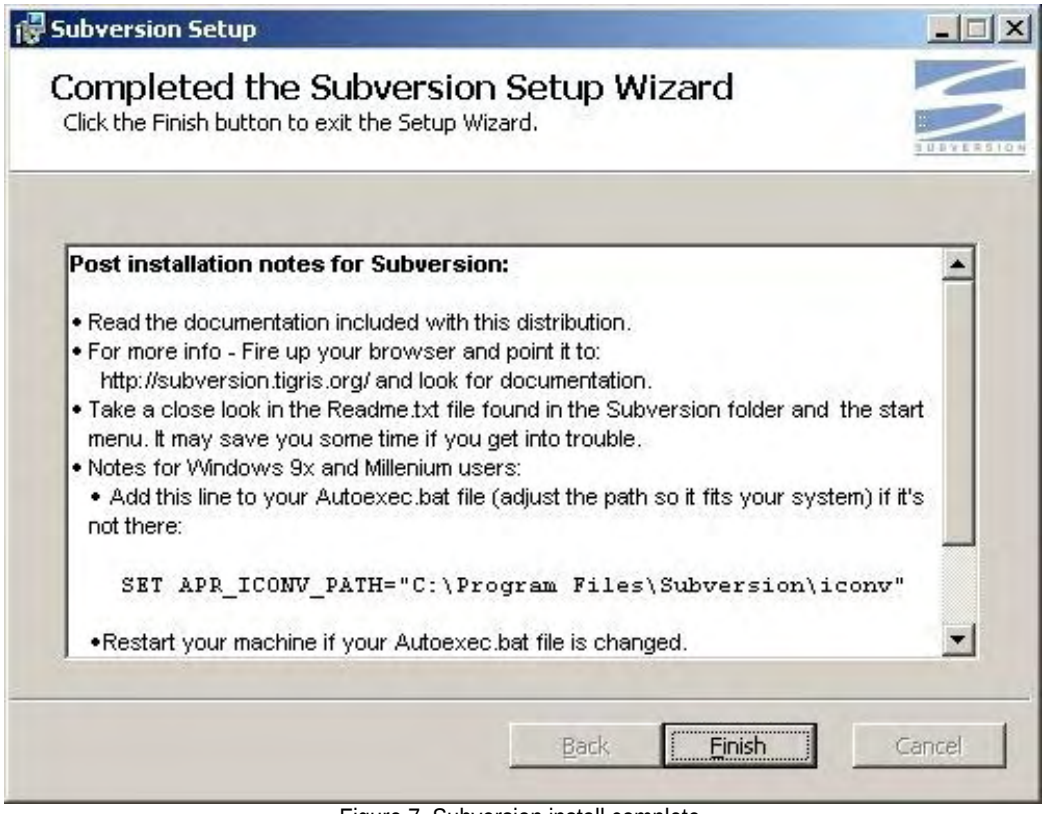


Figure 7. Subversion install complete.

The installer does not add an icon to your Windows desktop or system tray, but it does add an entry in your Start menu.

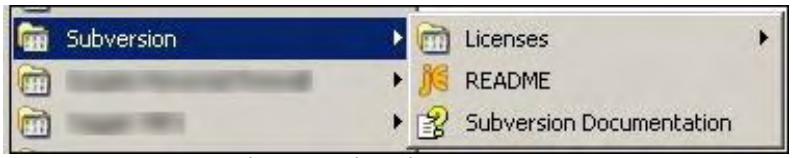


Figure 8. Subversion Start menu.

The Subversion menu does not contain an entry for running the program, as one would see for a typical Windows application. As mentioned earlier, a client program is needed to serve as the user interface. Before we install that client program, start the aforementioned Svnserve by opening a DOS prompt and running the command:

```
C:\Program Files\Subversion\bin\svnserve.exe —daemon
```

Installing TortoiseSVN

On the Subversion homepage (*subversion.tigris.org/*), there is a section for third-party clients, one of which is TortoiseSVN (*tortoisesvn.tigris.org/*). For Windows users, this is the recommended—and possibly only available—front-end for talking to the Subversion back-end.

Figure 9. TortoiseSVN homepage.

In the "Latest Version" section, click on the "download page" link.

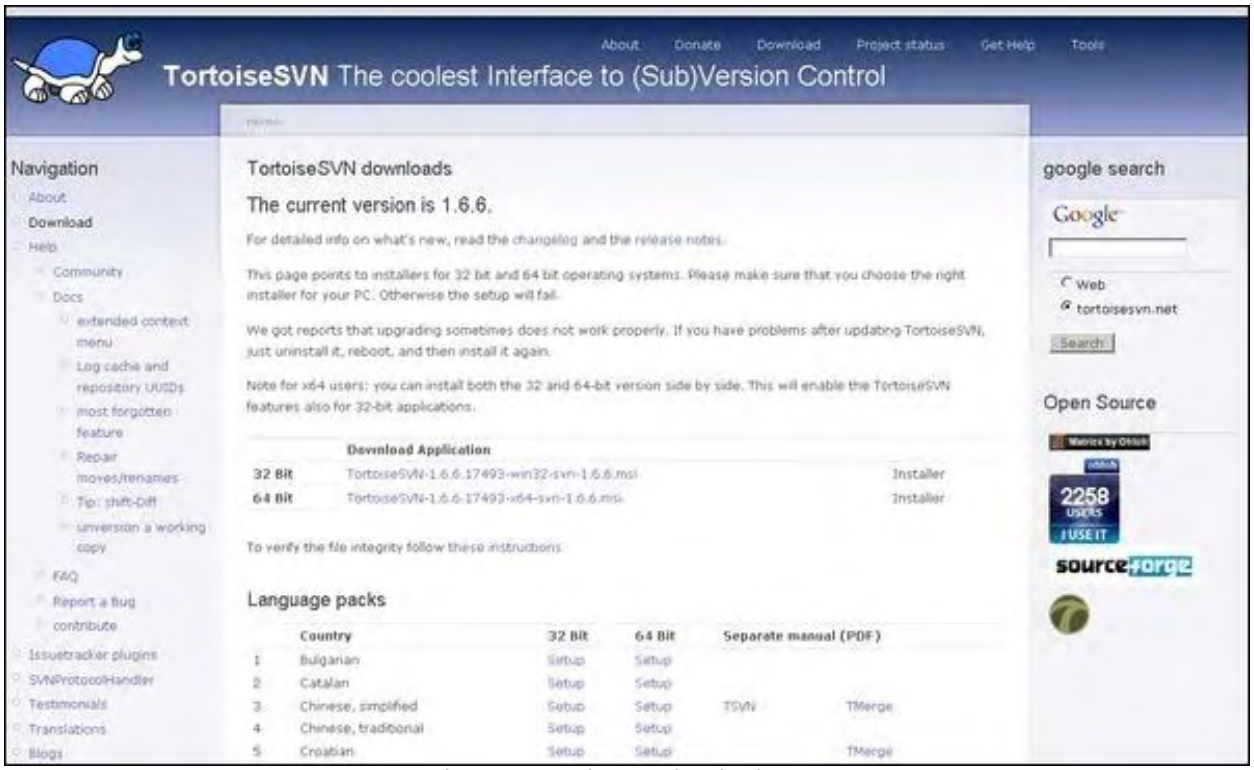


Figure 10. TortoiseSVN download page.

For version 1.6.6, choose either the 32-bit or 64-bit edition, depending upon your PC's configuration. We will be using the former. Download and then open the installer file.

The various dialog boxes that are presented to you by the installer are very much like those of Subversion itself, so they will not be included here. You can accept the default values for each dialog box. Note that there can be a delay before the installer begins unpacking the files and writing them to the installation folder, so be patient. Once the file-writing begins, it should take less than a minute to complete. At that point, after you click the "Finish" button, you will be informed that you need to restart your computer. Be sure to save all of your work in any open applications before clicking the "Yes" button, which begins rebooting your computer.

Putting That Subversive Turtle to Work

Your Windows Start menu should contain a new TortoiseSVN menu.

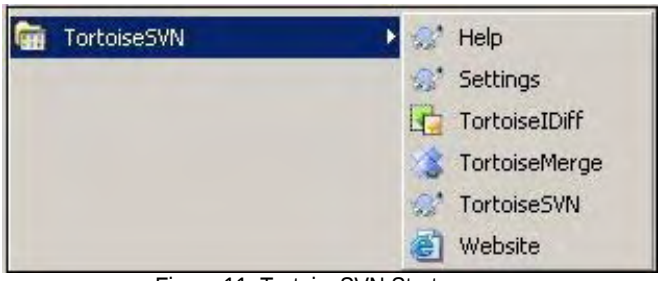


Figure 11. TortoiseSVN Start menu.

If you were to select the "TortoiseSVN" entry in the menu, the program simply displays a dialog box informing you that TortoiseSVN is not a stand-alone application, but instead works as an extension of Windows Explorer.

Figure 12. TortoiseSVN extension dialog.

Now that Subversion and TortoiseSVN are installed on your system, you can use them to begin tracking revisions to files. First, you need to create a repository, which is somewhat like a file server, but is different in that it remembers every change that you ever write to it (each one is known as a "commit"). For purposes of illustration, let's create a simple repository: First, we create a folder, in this case named C:\repository. Within Windows Explorer, select C:\repository, right-click on the folder, and in the folder's context menu, choose the menu item TortoiseSVN/Create repository here.

Figure 13. Windows Explorer folder File menu.

Four folders and two files are created in that folder.

Figure 14. Repository folder contents.

Be sure not to modify or delete those files or folders, unless you know exactly what you're doing. You can view the contents of any repository by displaying its folder's context menu, and choosing TortoiseSVN/Repo-browser.

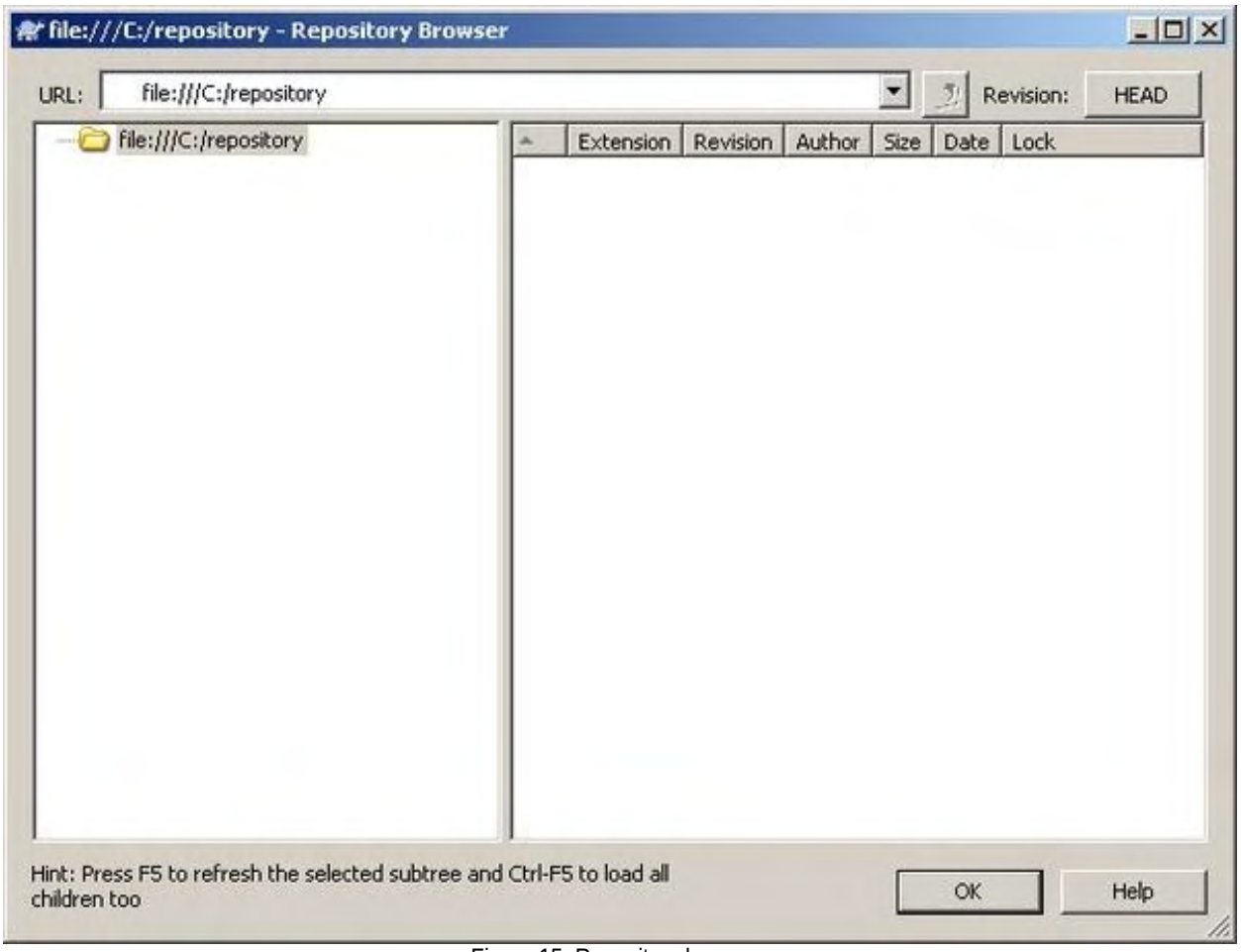


Figure 15. Repository browser.

Now we are set up to import a folder—which can contain unlimited files and subfolders—into our repository. For simplicity's sake, we will use a single text file in a folder: C:\test\sample_file.txt. From the folder's context menu, choose TortoiseSVN/Import, and click the OK button.

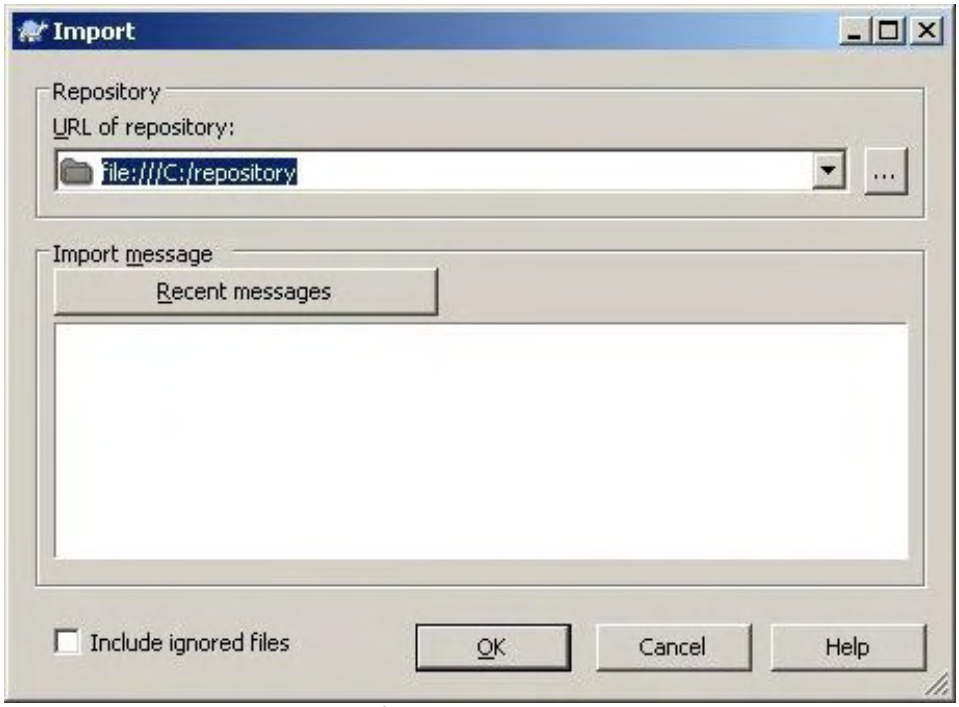


Figure 16. Import start.

TortoiseSVN shows that the sample file was correctly checked in.

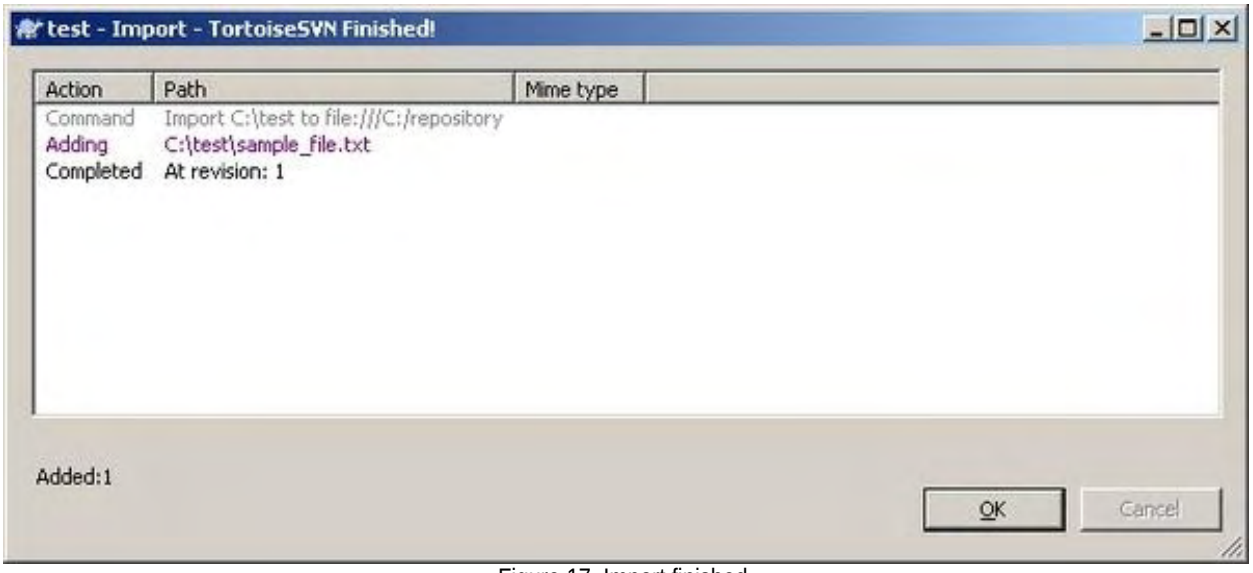


Figure 17. Import finished.

To check out the folder in order to make changes to any file contained within it, right-click on the repository folder, and choose "SVN Checkout."

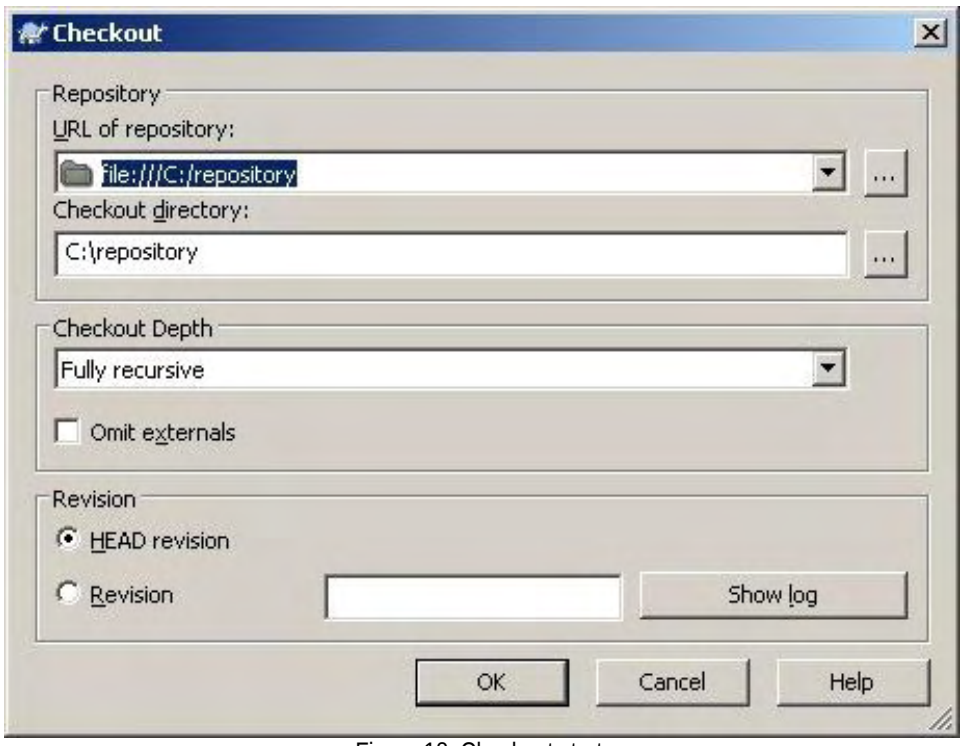


Figure 18. Checkout start.

The second field in the dialog box allows you to change the location where the checkout files will reside. Naturally, after making changes to them, you will want to check them back into the repository. You can then use the features of TortoiseSVN at any time to view the differences between any two versions.

Space limitations of this article do not allow us to go into the details of branching, tagging, folder versioning, network layers, icon overlays, and all the other powerful features available in Subversion and TortoiseSVN. If you wish to learn more about this robust solution for tracking changes to files and directories, you are encouraged to read the online help information, and see if these programs will serve your needs for revision management.

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

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Windows Tips and Tricks

Windows Tips and Tricks: Checking Out Libraries

“Libraries in Windows 7 can help you get organized.**”** by Jack Dunning

Libraries in Windows 7 are an important new file-management feature that deserves more attention.

Years ago, when I first worked with an IBM PC, it had a 10-megabyte external hard drive attached to it. At the time, it seemed like a huge amount of space. Today you can easily multiply that number by 100,000 and pay less than what that 10-meg drive cost. Storage space is rarely ever the problem anymore. The idea of deleting files to make more room seems antiquated. There are still many reasons to erase data files, but for most people running out of hard drive space is not one of them.

Today the major storage problem is keeping track of the thousands of files on the drive. The numbers of photos, the amount of music, the collection of videos grow as the size of the drives continually increases. The tree structure of folders, if well organized, is a great help, but even that is no longer adequate when you don't remember which folder holds what. The fact that many of your files are on other computers only adds to the confusion. Windows has made dealing with this situation a top priority.

In Windows Vista a comprehensive indexed search capability was introduced. The Start Search field in the Start Menu, discussed in May 2008, is one of my favorite Vista features. When I'm looking for a file or program, I can usually find it by typing part of the name into that search field. However, while this search feature did help, it didn't make me more organized.

Another feature in Windows Vista that I use regularly is the addition of Favorites to Windows Explorer, discussed in March 2009. By dragging a folder to the Favorites area in the top left-hand navigation pane of Windows Explorer, a link is created that will take me directly to my most-used folders.

While Start Search and Favorites are still included, the ability to find and work with files has been taken one step further in Windows 7 with the addition of Libraries (see Figure 1). Unlike Favorites, which merely lists links to key folders, Libraries allows you to collect all the relevant folders and files together for viewing, accessing and editing at one location, regardless of whether they are on the hard drive, a flash drive, an external drive, a network drive, or a drive on another computer. They can be grouped by folders, name or type as if they were all in the same place.

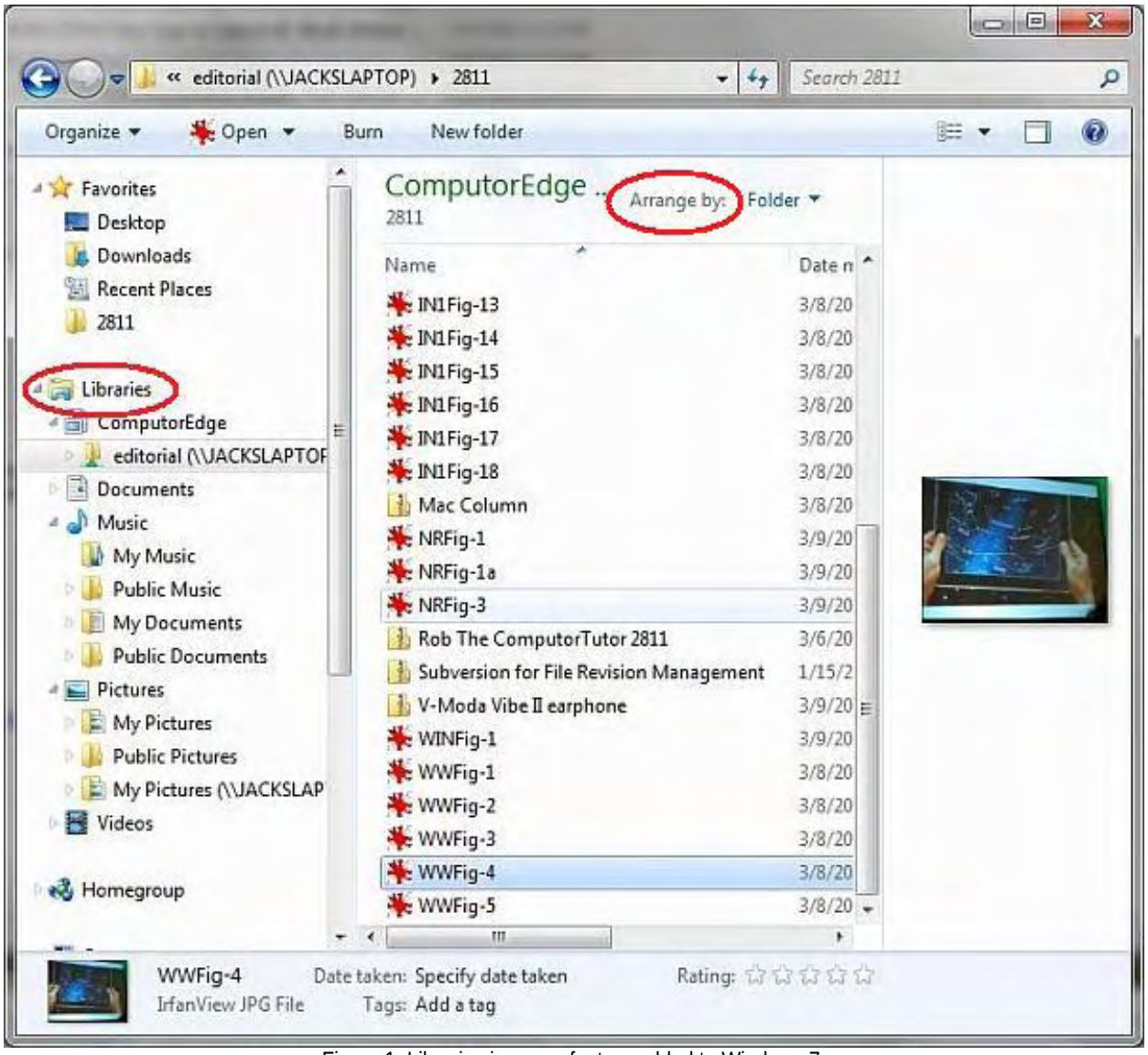

Figure 1. Libraries is a new feature added to Windows 7.

The key concept behind Libraries is pulling together the various locations where a variety of files of a similar nature or purpose may exist. The files themselves are not copied (unless Always Available Offline is activated). As folders are included in a Windows Library, a link to that location is created that looks just like the original folder. However, it is not a folder in that if you delete it, only the link is removed. Yet when you work with (or delete) a file, you are working with the original at its physical location.

One of the key features, "Arrange by," immediately solves the problem of finding duplicate files at different locations—an issue tossed around by Digital Dave and Rob the ComputorTutor. (As I understand it, for this to work, the folders included in the Library need to be included in the search indexes created by Vista or Win 7 on their host machines.) The "Arrange by:" feature at the far right across from the library name allows the options of Folder, Date modified, Tag, Type and Name. If Name is selected, all of the files regardless of location will be put into name order. Duplicate files from different locations should be located right next to each other.

The standard libraries already set up in Windows 7 are Documents, Music, Pictures and Videos. These coincide with the types of libraries that change the features depending upon the type of files that will be included. For example, the Pictures library can be arranged by month, sorting all of the photos into mini folder links that include only photos taken in that month. This creates a chronological record of all your photos by month—again, regardless of the physical location (drive, computer, or network) of the photo files.

Libraries in Windows 7 are an important new feature that deserves more attention. It's not necessary to use them. Everything can still be done in the folder tree structure. Yet, if you explore Libraries a little more, you may be surprised at their usefulness.

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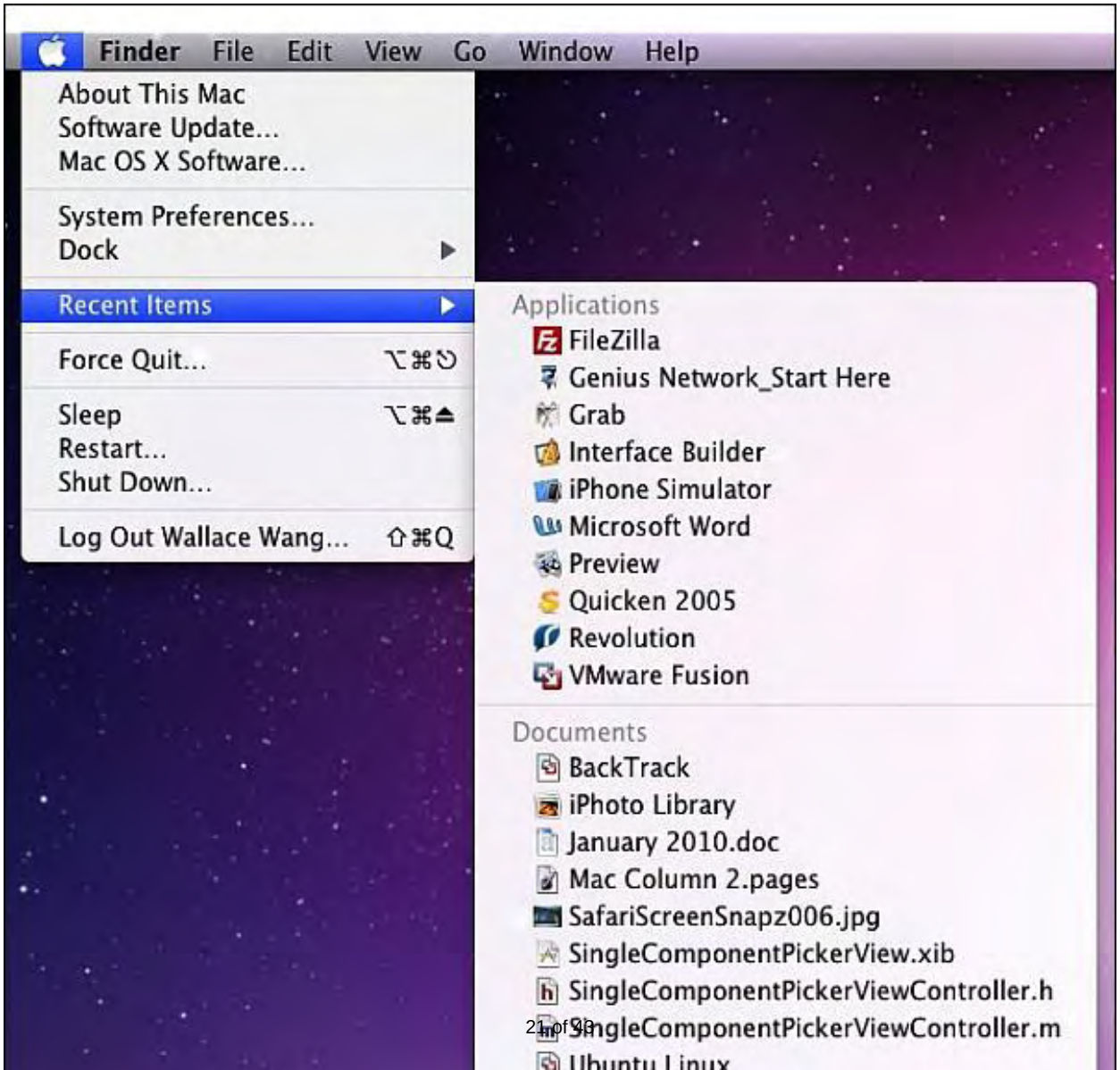
Wally Wang's Apple Farm

“Managing Programs and Files” by Wally Wang

Find those misplaced files on your Mac with the handy Finder, Spotlight tool, or nifty organizational features like color-coding. Also, Microsoft has chosen to promote two mobile phone systems that aren't compatible with each other; building an iPhone app quickly and easily with Runtime Revolution's revMobile; a Penguin Books' demonstration shows the interactive power of the iPad; the future is coming for Microsoft—in 2003; and a tip on clicking and Option-clicking on the volume-control icon on the menu bar to switch between headphones and speakers on your Mac.

The most common problem with files is storing them and not being able to find them again. Novices often don't understand the hierarchy of folders buried within folders, while more experienced users often simply lose track of files and can't remember where they stored them.

If you just used a file but can't remember where you stored it, one quick way to find it again is to click on the Apple menu and choose Recent. This displays a menu of all the recently used files and applications you've used.



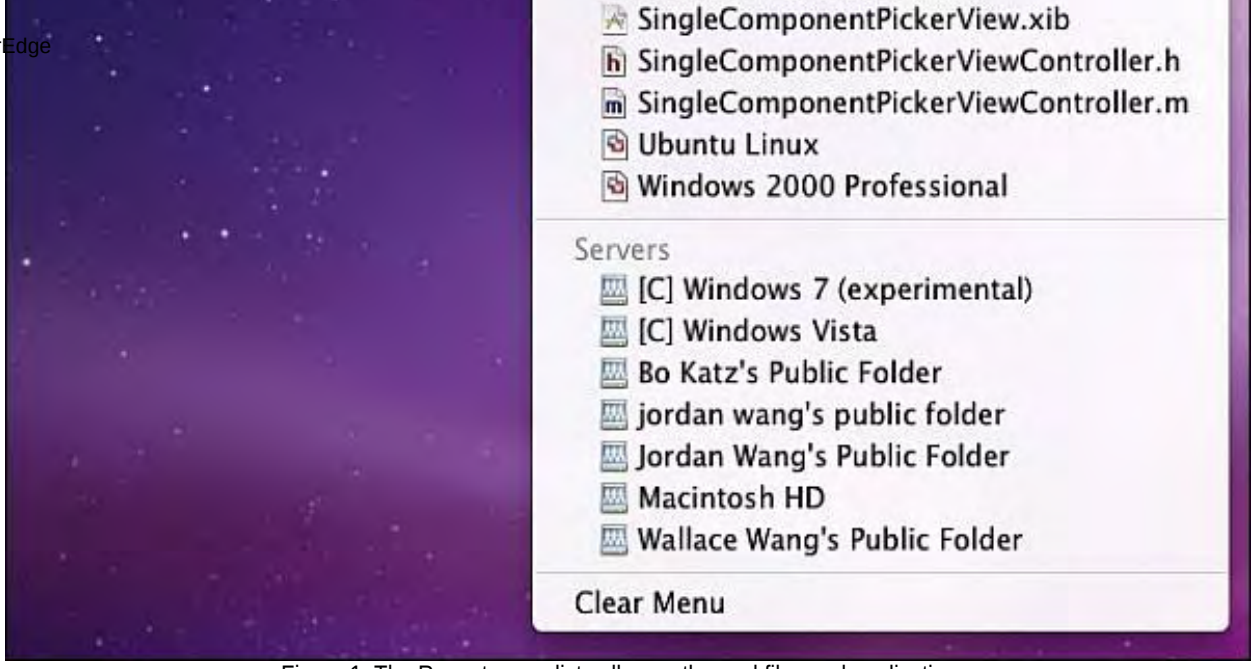


Figure 1. The Recent menu lists all recently used files and applications.

Another option is to use Spotlight, which acts like Apple's search engine for locating files on your hard disk. Just click the Finder icon on the Dock and open a Finder window. Then click in the Spotlight field in the upper right corner and type in a word. Spotlight will then display all files and file names that contain all or part of the word you typed.

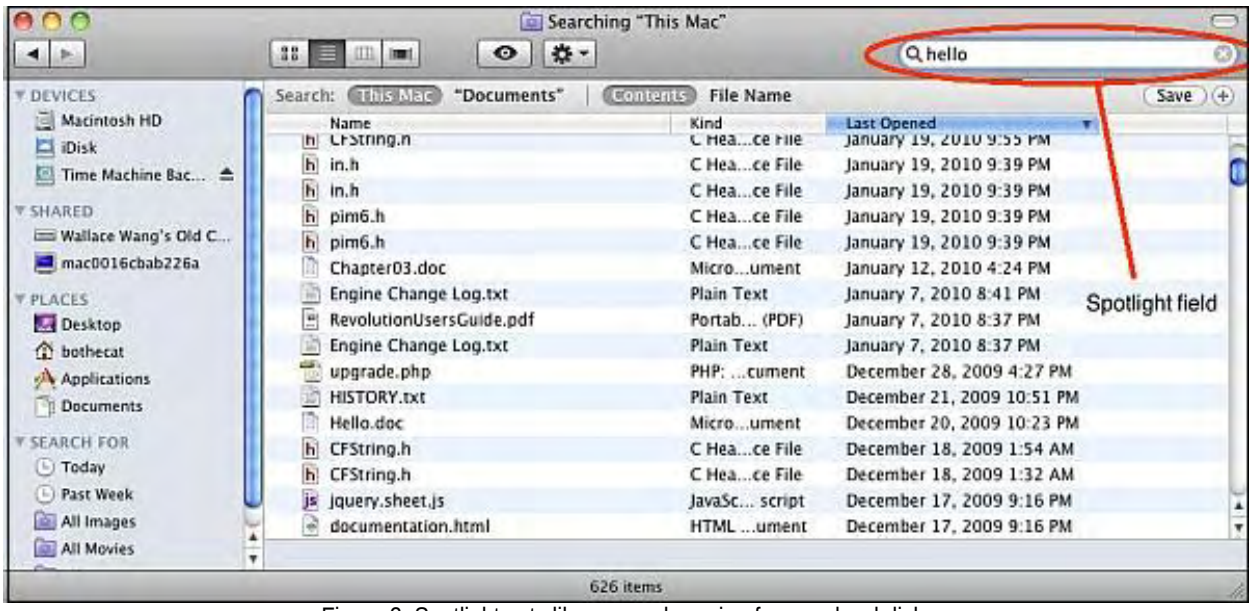


Figure 2. Spotlight acts like a search engine for your hard disk.

If you're a more visual organizer, right-click on any file in the Finder window and when a pop-up menu appears, click on a Label color such as red or green. By labeling certain files with different colors, such as red for tax documents and green for files related to your investments, you can quickly spot certain files at a glance.

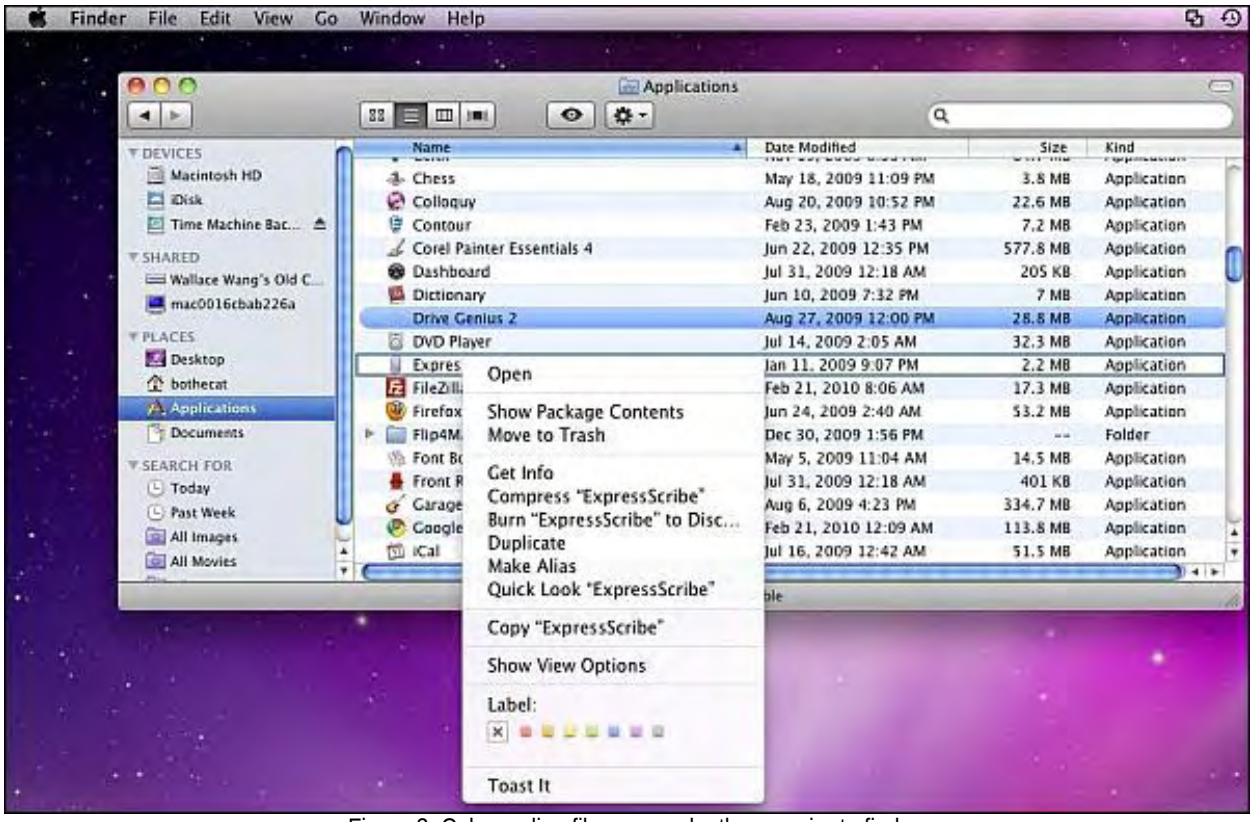


Figure 3. Color-coding files can make them easier to find.

If you want to find a file that you know you created using a specific program, such as Pages or Keynote, just open that program, click on the File menu, and choose Open Recent. Now you'll see a list of the files you've opened most recently in that particular program.

Of course, the simplest way to organize files is to create files and store them in specific folders that you designate for certain purposes, such as business reports or income tax data. Of course, there's always a chance you'll store a file in the wrong folder, so when that happens, use one of the above methods and you'll be sure to find that lost file once more.

Another Head Scratcher from Microsoft

Until recently, Microsoft promoted its Windows Mobile 6.5 operating system as a valid competitor to Apple's iPhone and Google's Android-based phones. Then Microsoft suddenly revealed that it had been working on a brand new operating system dubbed Windows Phone 7, which will be incompatible with Windows Mobile 6.5 because even Microsoft realized that Windows Mobile 6.5 couldn't compete against Apple's iPhone or Google's Android.

That means if you buy a Windows Mobile 6.5 phone today, you can never update it to Windows Phone 7. Also, if you have any Windows Mobile 6.5 apps, they won't run on Windows Phone 7 either. Since Windows Phone 7 won't be available until later this year, sales of current Windows Mobile 6.5 phones will likely plummet as people avoid buying dead-end technology.

To further compound its problems, Microsoft has also announced its Pink project, a Microsoft-branded mobile phone that (surprise!) won't be compatible with Windows Phone 7. Instead, it's derived from the Danger OS that powered the Sidekick phones that Microsoft bought out. Rather than create one strong competitor to challenge Apple's iPhone, Microsoft has chosen to promote two mobile phone systems that aren't compatible with each other.

Developers have a choice. They can support Windows Phone 7, they can support the Microsoft-branded Pink phone, or they can support both. For twice as much work supporting Microsoft's dual-phone platforms, developers can reach less than half the potential number of customers than either Apple's iPhone or Google's Android.

Microsoft is essentially competing against itself. Since neither Windows Phone 7 nor the Windows-branded Pink phone will offer a large app library to choose from, Microsoft has chosen to criticize Apple's large iPhone app library as too confusing by bombarding users with too many choices. In the meantime, Microsoft is promoting PCs as better than Macintosh computers because of the huge Windows software library and multiple PC manufacturers that offer users a wide range of choices.

Ray Ozzie of Microsoft even claimed that all the best mobile phone apps will be ported to every mobile phone platform eventually, so it doesn't matter which mobile phone operating system you get (just as long as you choose between Microsoft Windows Phone 7 or Microsoft's Pink project). In the meantime, Microsoft is promoting its Xbox game console by claiming that it runs an exclusive library of video games that developers will never port to rival game consoles because it's too hard for most developers to support multiple platforms.

So Microsoft is saying one thing, doing another thing, and changing its mind depending on what sounds good at the time. Does anyone still think Microsoft has a future in mobile phones anymore?

Build an iPhone App Quickly and Easily

The traditional way to build an iPhone app is to download Apple's free Xcode compiler, learn Objective-C, and spend the next few months developing your app. If learning the cryptic language of Objective-C sounds too intimidating, then you might be interested in Runtime Revolution's (*www.runrev.com*) forthcoming revMobile.

Currently in alpha testing, revMobile lets you create iPhone apps by using the simplified revTalk programming language, which is based on AppleScript and the HyperTalk programming language that was once used by Apple's HyperCard program.

Objective-C commands can be hard to write because they look like chicken scratchings, such as:

```
-(IBAction)buttonPressed {
        NSDate *selected = [datePicker date];
        NSString *message = [[NSString alloc]
                initWithFormat:@"The date and time you selected is: %@", selected];
                UIAlertView *alert = [[UIAlertView alloc]
                initWithTitle:@"Date and Time Selected"
                                        message:message
                                        delegate:nil
                                        cancelButtonTitle:@"Yes, I did."
                                        otherButtonTitles:nil];
        [alert show];
        [alert release];
        [message release];
}
```

In comparison, revTalk programming commands more closely resemble English commands, which makes them easier to write, such as:

```
on mouseUp
    answer "You clicked" && the name of the target
end mouseUp
```

By letting you focus less on confusing language syntax and spending more time actually designing and testing your app, revMobile makes iPhone app programming more accessible to non-programmers.

As a test, the people at Runtime Revolution challenged a non-programmer to create a simple iPhone app game in revMobile, which took slightly more than three hours to create from start to finish. (Creating the same game in Objective-C would have likely taken a non-programmer several weeks.) To see how revMobile can create an iPhone app so quickly, watch the video (*www.runrev.com/products/revmobile/overview*) that shows you how it was done.

What the iPad is Good For

Many people look at the iPad and wonder what it's good for. Then again, people at the turn of the century used to look at telephones, television sets and automobiles and wonder what they would be good for.

Apple is promoting the iPad as an e-book reader, but if your exposure to e-books has been limited to reading static text on a Kindle or

computer screen, check out Penguin Book's vision (*www.youtube.com/watch?v=jdExukJVUGI*) for what interactive books might look like in the future, running on the iPad.

This video demonstration shows how children's books can become more interactive so kids can tilt the iPad and make things move, how adult books can provide video to supplement text, and even how you could point the iPad in the sky and identify constellations.

Figure 4. By holding an iPad in the sky, an e-book can show you what constellations you're looking at.

By thinking beyond static images and text and exploiting the power of the iPad, Penguin Books is already envisioning a future of interactivity. In comparison to Penguin Books' vision, printed books look woefully antiquated and current e-books on Amazon's Kindle look laughingly obsolete.

The reason why e-books still aren't that popular is because they simply mimic the static text approach of a printed page. When e-books start incorporating audio, video and interactivity, only then will they finally be worth their cost and give people a compelling reason to choose e-books over printed copies.

After viewing this demonstration by Penguin Books, publishing will never be the same again. Even better, people's perception about the iPad might finally change from nitpicking for what it can't do to amazement at what it can do just by exercising a little bit of imagination.

The Future is Coming (in 2003)

If you watch this video demonstration (*www.youtube.com/watch?v=hJdaODYetuk*) by Microsoft, you may marvel at how wonderful the next version of Windows will look. Unfortunately, this video is promoting the next version of Windows, dubbed Longhorn, which Microsoft claimed would arrive in October 2003.

Longhorn eventually morphed into Vista, and doesn't come close to matching the level of slickness and excitement that this video demonstration provides. After looking at this Longhorn demonstration and then looking at Vista, you have to wonder, "How did Microsoft get it so wrong?"

Peter Drucker's 1967 classic, "The Effective Executive" (*www.amazon.com/gp/product/0060833459?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0060833459*) may provide one answer. In this book, Peter Drucker states: "An organization which just perpetuates today's level of vision, excellence and accomplishment has lost the capacity to adapt. And since the one and only thing certain in human affairs is change, it will not be capable of survival in a changed tomorrow."

Peter Drucker also lays out five principles for dealing with change effectively:

1. Emphasize the future instead of the past. (Think of the difference between the iPhone's touch screen that nearly every smartphone has now adapted vs. Microsoft trying to duplicate desktop computers by putting a Start button and a menu to mimic Windows on handheld devices.)

2. Focus on opportunities rather than problems. (Think of iPad supporters who see the opportunities that the iPad offers vs. iPad critics who only see problems.)

3. Choose your own direction rather than following others. (Think of Apple innovating vs. the rest of the PC industry always waiting to copy from Apple.)

4. Aim high for something that will make a difference rather than doing what's safe and easy. (Think of building the iPad vs. netbooks that are just cheap versions of laptop computers.)

On the day Apple announced that the iPad would go on sale April 3, Microsoft announced that it will be selling its own version of a tablet, dubbed the Microsoft Courier, by the end of the year (no specific date mentioned yet). If you watch this video of Microsoft's rumored Courier tablet (*www.youtube.com/watch?v=USbkrk8-pjw*), you have to wonder if Microsoft can deliver on its promises or if this will be like the Longhorn demonstration where Microsoft tortured an intriguing vision and turned it into Vista.

* * *

If you regularly switch between listening to headphones or speakers on your Macintosh, you may find it clumsy to open the System Preferences window each time you want to change your audio settings.

As an alternative, hold down the Option key and click on the volume control icon that appears on the far right of the menu bar. Normally when you click on this volume control icon, you'll see a slider that lets you adjust the volume. However, if you hold down the Option key while clicking on the volume control icon, you'll see a pull-down menu letting you choose an input or output audio device to use.

Figure 5. Clicking and Option-clicking on the volume control icon on the menu bar.

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

Wally is responsible for the following books:

• Microsoft Office 2007 for Dummies (*www.amazon.com/gp/product/0470009233?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470009233*),
• Beginning Programming for Dummies (*www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702*),
• Breaking Into Acting for Dummies with Larry Garrison (*www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468*),
Beginning Programming All-in-One Reference for Dummies (*www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541*),
• Steal This Computer Book 4.0 (*www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050*),
• Visual Basic Express 2005: Now Playing (*www.amazon.com/gp/product/1593270593?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593270593*),

• My New Mac (*www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646*),
• My New iPhone (*www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956*),
• Strategic Entrepreneurism with Jon Fisher and Gerald Fisher (*www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894*).

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

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method." (*www.15minutemoviemethod.com/*) Wally can be reached at *wally@computoredge.com*.

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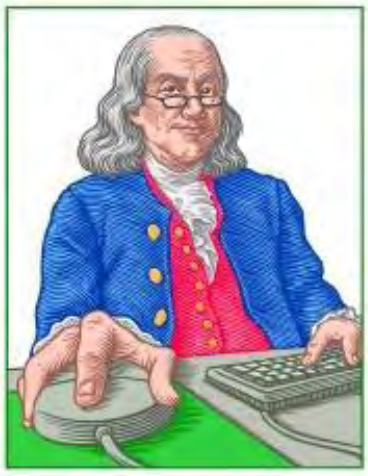

LINUX LESSONS

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

Linux Lessons: Tips and Tricks from Users

“Shell Scripting Continued” by Pete Choppin

This week, we will modify our script to create a much more efficient script that handles multiple decisions and cleanly exits if our tests fail.

I know there have been requests for some more basic Linux concepts, and I do plan to address those, but I would like to finish out our shell scripting tutorial first, so please bear with me.

Last time, we were able to put together a somewhat intelligent script that can check for a file called weekly.report. This is then sent to a printer, e-mailed to the boss, then copied to a text file. The script has the ability to exit if no weekly.report file exists. A helpful message indicating it could not locate such a file is also sent to the screen.

Here is the script we have so far:

```
#!/bin/sh
#
# This script will print a report, email it to the boss, copy it to a floppy
# and delete the file from the hard drive.
if
cat weekly.report
then
lpr weekly.report
Mail boss < weekly.report
cp weekly.report /floppy/report.txt
rm weekly.report
else
echo I see no weekly.report file here.
fi
```

You may be saying to yourself: "This cat trick is fun, but isn't there some way I can just give a true-or-false expression?" Yes, you can. (You knew that was coming, right?) There is a command whose sole job is to succeed or fail depending on whether the expression you give is true or not. This command is simply "test". Here is our program, rewritten to use test:

```
#!/bin/sh
#
# This script will test for the existence of a file "weekly.report" and if
# it does exist it will print a report, email it to the boss,
# copy it to a floppy and delete the file from the hard drive. Else it will
# print a message to the screen and exit.
if test -r weekly.report
then
   lpr weekly.report
   Mail boss < weekly.report
   cp weekly.report /floppy/report.txt
```

```
   rm weekly.report
else
   echo I see no weekly.report file here.
fi
```

The test command's -r operator means, "Does this file exist, and can I read it?"

Test also has an alternative syntax: you can use a [character instead of the word "test", so long as you have a] at the end of the line. Also, be sure to put a space between any other characters and the [and the] characters! The "if" statement now begins like this if [-r weekly.report]

Even though we're using brackets, this is still the test command.

Here is another way to look at this script:

```
#!/bin/sh
#
# This script will test for the existence of a file "weekly.report" and if
# it does NOT exist it will print a message to the screen and exit. If
# current directory is NOT writable [ ! -w . ] a message indicating deletion
# is not possible is sent to the screen and an exit occurs. Otherwise the
# script will continue handling all instructions after the if block.
if [ ! -r weekly.report ]
then
  echo I see no weekly.report file here.
  exit 1
fi
if [ ! -w . ]
then
  echo I will not be able to delete
  echo weekly.report for you, so I give up.
  exit 2
fi
# Real work begins...
```

Each test now has a ! character in it, which means "not." So the first test succeeds if the weekly.report is *not* readable, and the second succeeds if the current directory (".") is NOT writable. In each case, the script prints an error message and exits. Notice that there's a different number fed to exit each time. This is how Unix commands (including if itself!) tell whether other commands succeed: If they exit with any exit code other than 0, they didn't. What each non-zero number (up to 255) means, other than "Something bad happened," is up to you. But 0 always means success.

This is good for now. We have a much more efficient script that handles multiple decisions and cleanly exits if our tests fail. Next week, we will take a look at some more advanced scripting with arguments which will make our script much more flexible.

Please submit questions and I will help if I can.

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.

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Rob, The ComputorTutor: Web Programming

"JavaScript Objects" by Rob Spahitz

Last week, we started to look at some practical uses of JavaScript in Web pages. This week, we'll continue learning about JavaScript tools..

Last week, we started to look at some practical uses of JavaScript in Web pages. We'll continue with this.

HTML Tools

Before we get into more JavaScript, I want to discuss a bit more about Web page creation. You'll notice that I breezed through the HTML tutorial. Since there is a lot to creating Web pages, you might be wondering why I left out so much. The answer is simple: Most Web page creation is not done by hand anymore. Very few Web page developers use just a text editor for creating pages. The main reason for this is that simple text editors, while easy for entering text, are not good tools for handling the complex rules of HTML. Specifically, they don't really help you to build a Web page; they don't offer hints for what commands you can use; they don't offer a list of attributes for a given tag; they don't give a visual representation of the page within the tool. To get those features, you need another tool.

HTML has a predefined set of rules for making Web pages. This means that dedicated tools can be created to assist with the task. The biggest tool on the market for Web page (and Web site) development is Dreamweaver. This tool gives you all the bells and whistles for creating Web sites. It lets you create pages and organize them into a site. It lets you create the pages in a graphical way (like a word processing document), and it lets you examine the HTML code if you know how to manage that. It lets you create simple JavaScript elements for pages, and it lets you transfer (FTP) the document to a server on the Internet for others to see (assuming you have one). Probably the only competition it has is FrontPage, from Microsoft. Let me quickly review these tools.

I've recently had an opportunity to work with Dreamweaver (maybe version 8). Some of the features are very nice. The task I had was to create a collection of pieces that had animations. Since the pages were intended to be used on an iPhone-type device, and the iPhone does not currently support Flash (a good tool for creating interactive Web pages with animation), I had to handle everything through JavaScript.

The page had to be split into three columns, with the left and right columns sliding into place when the page loads. In addition, the middle section had a block of text that was too big to fit on the screen, so it needed a scrollbar. The problem is that the scrollbar made the page look ugly, so I had to use images (arrows) to simulate this process. Long story short, I created a collection of frames to handle the task.

Frames are a very effective way of organizing things like this and have been around in HTML for a long time. The problem is that we couldn't figure out how to get Dreamweaver to let us work with these pages, so we used Notepad. I began to notice many shortcomings in Dreamweaver as I played with it. Although it helped me with my HTML tags and elements in code view, it made table creation very difficult, and I was constantly going into the code area to fix how badly it managed it. I kept grumbling and simply started to wonder why such a "great" tool was so difficult to use. Finally, the answer hit me. This was a tool optimized on the Macintosh platform and ported over to Windows without consideration for how Windows people use their machines. Macs are designed for simplicity, and apparently Dreamweaver is designed for building a rather large, but simple, Web site. Most of my work ended up being done in Notepad.

I've also had the opportunity to work with three versions of Microsoft FrontPage (FP). I began on version 2000, which seems rather intuitive to me, and worked somewhat like Microsoft Word but with a collection of features for HTML development. It created rather streamlined code and let me tweak it as needed. Even though I spent a lot of time in the HTML section, at least I never had to go to Notepad to do any work. I had heard a lot of people complain about how bad FrontPage was and I wondered why. Then I had the chance to play with FP 97. This was a pretty horrible program. Nothing was intuitive. It forced you to open windows to get things, then close the windows to get back to your page. Then open the window again and close it. Jump to another area to look at something else, then close it to return—a really bad experience. No wonder people hated it.

I later got to try FP 2003, which was similar to FP 2000, but more bloated (typical of Microsoft) without much benefit. Even though it was a trial version, it messed up my FP 2000 installation. I really didn't want to reinstall and go backward, so I struggled along and spent most of my time in Notepad.

Along came Microsoft's replacement for FrontPage: Web Developer. "Good," I thought to myself, "they finally have an answer to their FP problems (for free too!), and have a tool to compete with Dreamweaver."

I installed the initial version (the 2005 version, I think). It was very clumsy to use. If I tried to paste formatted text from another document, it would reformat it and I'd lose my line feeds. Other things I pasted it would add all of these fancy tags to let me know that it recognized addresses and names and other things, none of which I cared about and none of which I wanted in my document. For some reason, when I added text into a table and tried to select with a double-click (the usual way) it never selected the text. When I tried to move text, it seemed like it never placed where I dropped it. I was frustrated.

Eventually the 2008 version came out and it refused to install on my system. It wanted to install a support file, which it did, then still wouldn't install claiming that it wasn't there. Eventually I installed the new 2010 version, and it's a tiny bit better, but still has most of the same problems; it's still really a sad tool.

I know I can use MS Word to create a Web page, but it adds thousands of bytes to "stylesheet" it. Normally this could be a good thing, but the way Microsoft does it simply adds bloat for no good reason.

I know there are other tools out there. I've tried a few and was never really happy. If anyone has some good tools to manage a Web site (not just a Web page), let me know and I'll consider listing a few. If not, I may just have to write my own. You, the readers, will have to send me your ideas so I can make a tool that works for all of us.

Meanwhile, back to Notepad!

JavaScript Picture-Flipping

So let's work on a relatively simple, yet powerful JavaScript task. Let's make our Web page show one picture when loaded, then another picture when the mouse goes over it.

Start by creating a basic Web page with an empty body section:

```
<html>
<head>
<title>Image Flip</title>
</head>
<body>
</body>
</html>
```

Now enter a tag inside the body section for any image that you'd like to display when the page first loads, like this:

```
<img src="http://lindavistasd.com/images/banner-dogopoly.gif"/>
```

And to make the image flip when the mouse clicks on the picture, you'll need two things. First we'll add some JavaScript, then we'll activate it. In the header section (preferably right after the title) add this:

```
<script language="JavaScript">
function flipImage()
{
        document.images[0].src = "http://lindavistasd.com/images/mjs-logo-small2.
jpg";
}
</script>
```

Remember that JavaScript is picky about capitalization and spelling. The function name, flipImage, can be set up however you want. I used

the traditional "camel case" where the first letter of each word after the first word is capitalized, making it look like a camel's back if you draw a line along the top of the letters so that the hump appears whenever you get to a capital letter. Of course, it's not so obvious when you have tall lower case letters.

In addition, make sure you include the empty parentheses after the function name and that you pluralize the images object name and use the abbreviated src object name. As for the image, you can put it inside either single or double quotes. And the semicolon at the end of the line is optional here, but highly recommended.

With that in place, the last step is to make it so that the image calls this procedure. This can be done by adding the proper event reference, onClick, somewhere inside the img tag, like this:

```
<img src="http://lindavistasd.com/images/banner-dogopoly.gif" onClick="flipImage()" /
>
```

Now if you open the page, you'll see one image. If you click on the image, it flips to another image.

Flip-Flop

Flipping an image when it's clicked is nice. However, most users won't go around clicking on your images unless you can somehow convince them to do so.

A much better strategy for something like this is to have the image flip as soon as the mouse moves across it. To make this happen, change the onClick event to the onMouseOver event and notice the difference:

```
<img src="http://lindavistasd.com/images/banner-dogopoly.gif" onMouseOver="flipImage
()" />
```

This is great, but when the mouse moves away, you probably want to restore the original image. To do that, you will need to use the onMouseOut event like this:

```
<img src="http://lindavistasd.com/images/banner-dogopoly.gif" onMouseOver="flipImage
()" onMouseOut="flopImage()" />
```

Since we added a new procedure for the mouse-out, we'll need to add that to the JavaScript section:

```
function flopImage()
{
        document.images[0].src = "http://lindavistasd.com/images/banner-dogopoly.
gif";
}
```

If you reload the page and try it, you should see the effect (although it's a bit quirky with mine since I used different-sized pictures. Mouse your mouse near the top-left corner and the effect will be much better.

With these basic concepts in place, we can start exploring more difficult concepts, like adding a link to each image as it changes, have the images auto-change after a certain amount of time, have images fade in and out, moving images around the page, and fancy things like getting an image to follow your mouse.

To see an interesting use of this, check out the colored bullet items on the left of a page (*lindavistasd.com/main.htm*) I worked on years ago. When you hover over a colored bullet item, the map on the right highlights a corresponding section. (Note that I anticipate changing this later this year, so I don't recommend archiving it for future reference.)

Loops

In any programming task, you will eventually have a repetitive job. You may have to examine each picture, sum up a group of numbers, or write a message every minute. Each of these is effectively handled through a programming concept called a loop. The idea of the loop is that you repeat the same commands over and over. Since doing the exact same thing over and over has limited value, you often perform the task with a slight variation each time. For example, if you need to rename a collection of images, you can't give them all the same name, so you might name them picture1, picture2, picture3. The loop allows for this through an "index" variable (which can either be part of the loop or an independent piece that you maintain through other parts of the code.

Typically, loops come in two variations. One variation is the counter. You start at some arbitrary value and keep adding one. For example, to count all of the States in a list, you start at State 1, probably do something related to that, proceed to State 2, do something with that, and continue until you reach State 50. In counters, you know your starting and ending points (although it's possible to break out of the loop early if you need to).

The other loop variation is the conditional loop. In this case, you don't how many times you'll repeat before you end. An example of this is when you are trying to determine the speed of an Olympic figure skater. You start the clock and begin counting. One second passes and you keep counting. Two seconds, three seconds, etc. How many seconds before you stop? Well, it depends on when the skater crosses some arbitrary line. For a great run, it will be fast; but if the skater falls along the way it will take longer. For these situations, you would "loop until" or "loop while" such as "loop until skater crosses the line" or "loop while the skater hasn't finished."

Let's explore the JavaScript "for" loop command. This counter command requires a starting position, ending position, and a way to increment (or decrement) the counter. It works like this:

```
for(variable=startvalue; ending condition; incrementer)
A typical example is this:
for(iCounter=0; iCounter<5; iCounter++)
{
        alert(iCounter);
}
```

Try the above in a JavaScript function (such as the one described earlier) and every time the function runs, you will get five messages, one at a time, showing the current value of the counter (0, 1, 2, 3, 4). We start the "for" at zero, loop through while the counter is less than 5, and at each step we increment the counter. Note that "iCounter++" is JavaScript shorthand to say "add one to the variable".

Taking the concept one step further, let's have it look through a collection of images and show the names. Some of your HTML might look like this:

```
<script language="JavaScript">
function ShowImageNames()
{
        for(iCntr = 0; iCntr < document.images.length; iCntr++)
        {
                alert(document.images[iCntr].name);
        }
}
</script>
<body>
<img src="anything.png" name="first_image" onClick="ShowImageNames()" />
<img src="another.png" name="2nd_image" />
<img src="morepic.png" name="final_image" />
</body>
```

When you click on the first image, the function will begin. Note that I am using non-existent images, but this will still work if you click on the image place-holder that the browser will probably show you (often a box with a red "x" in it). Let's examine this process in more details.

First, in the body of the page, I defined three images. Each image has a source and a name. The name is optional but helps with this

example. The first image also has an event reference, onClick, that will call a script named ShowImageNames. The parentheses have nothing between them so nothing is sent to the function.

When you click on the first image, the function starts and sees the "for" command. It performs the first part, before the semicolon (;), which sets a variable called iCntr to the value 0. It then performs the second part, which checks to see if the loop is done, by looking at the comparison check right after parentheses, "iCntr < document.images.length". This tells it to continue if the value found in the iCntr variable is less than (<) document.images.length, which is the length of the collection of images found in the current document, i.e. the number of images. Since the number of images is 3, and iCntr is zero, it starts going through each command found after the "for".

After the "for" is a block, which starts with an open brace ({). So the "for" will perform everything inside that block, until it finds the close brace (}). There's only one command in the block, so it processes by showing a message (more on this in a moment).

Since all of the commands are done, JavaScript returns to the "for" command. This time, it does not follow the instructions before the first piece; it already did that. Instead, it goes to the last piece which is "iCntr++". This will add one to the iCntr variable. Next it does the second piece again, the comparison. This time the comparison shows iCntr (value 1) is still less than the length (still 3), so it performs the block again. It then adds one to the counter and finds the 2 is less than 3 so it goes again. Finally, it adds one and sees that 3 is NOT less than 3, so the loop is done and it continues after the block. Since that ends the function, it's done and returns to the original call in the image tag, which also has no additional commands, so it's done.

Back to the alert message. In the function's "for" command, it will perform this:

```
alert(document.images[iCntr].name);
```

This will tell the browser to show a message (an alert) to the user. The contents of the message come from the calculation inside parentheses. In this case there is only one piece that follows the rules of Object-Oriented Programming mentioned in previous articles. It starts with the first piece before the period (.) and tries to figure out what it is. Since "document" refers to the current HTML page, it finds it and continues.

Next, it looks for something called "images" that is supposed to be part of the document. It finds that "images" is what is known as a collection. This is part of the DOM (Document Object Model), so it's part of the definition of an HTML page. If you're using an HTML page, it will always be part of the document, even if you have no images on the page.

Since "images" is a collection, you either ask to look at things related to the collection as a whole (like the length we saw earlier), or you look at the individual pieces. Since we want to look at one specific image, we have to specify which one. There are two ways to refer to an item in a collection. You can either reference it by name or by number. In this case, we want to GET the name, so we use the number. Either way we use square brackets to identify the element of this array (collection) that we want to examine. In this case, we don't want a specific number; we want a number found in a variable, so we get [iCntr] and iCntr is the value found as we are looping through the "for" command.

Finally, now that we are referring to a specific image, we can get one piece (property) of that image. In this case, I'm requesting the name of the specific image found in the document, and asking for it to be displayed in an alert message.

Next week, we'll continue with more things related to common JavaScript commands.

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*.

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Worldwide News & Product Reviews

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

Laptop Users: Turn Off Your Wi-Fi—Laptops are being stolen using Wi-Fi-detection techniques; New NVIDIA ION Netbooks—Products feature great battery life and superior performance; V-Moda Vibe II Earphones with Microphone—Perfect for when you want both great sound and the ability to carry on a phone conversation.

Laptop Users: Turn Off Your Wi-Fi

Credant Technologies (*www.credant.com*) has warned laptop users to "turn off their Wi-Fi signals before stowing their laptop in the boot of their car or stashing their laptop in the office cupboard or desk drawer, apparently out of sight of thieves."

"BT Openzone recently announced it had passed the million Wi-Fi access point mark in the U.K. (*bit.ly/9t3ZF4*) and cellular carriers are also boosting their Wi-Fi coverage areas to take the load off their hard-pressed 3G networks, which all adds up to something of a Wi-Fi explosion in the U.K.," said Credant's Sean Glynn.

This in turn has triggered the widespread availability of low-cost keyfob Wi-Fi detectors for about $10 and quite sophisticated directional detectors for less than $100, both of which can be used by thieves to detect the presence of an out-of-sight laptop.

Glynn's warning comes after a warning from a security analyst in Jamaica who reported that a large number of laptops are being stolen using Wi-Fi detection techniques for later criminal use (*bit.ly/aktKPv*).

And with online auction sites selling Wi-Fi-detection kits for pocket change, Glynn believes, it is only a matter of time before this type of laptop-detection technique finds its way to the U.K. and U.S.—if it isn't already happening.

Glynn believes "that the real focus of identity thieves is the company laptop, which, as well as being a saleable item in its own right, can also contain valuable company data that can potentially be sold to the highest bidder online. And as the jailing of the Darkmarket carder forum mastermind for almost five years recently illustrates, identity theft is now big business (*bit.ly/a2QZKs*)."

Glynn went on to say that, "Because the latest laptops have a set time—sometimes up to 30 minutes—before they go into sleep mode when the laptop lid is shut, it doesn't take a genius to realize that shopping malls around 6 p.m. on weekdays can be a prime source of potential notebook computers, just waiting to be stolen from cars. And whilst the office worker is busy inside the mall doing their shopping, no one is going to think twice about someone in a suit waving their 'car keys' around, ostensibly trying to find their car, when in fact s/he is looking for the strongest Wi-Fi signal.

"You may not be able to totally prevent your laptop being stolen, but only switching on your Wi-Fi when you really need it, and, of course, encrypting your data on the notebook drive, will go a long way to preventing your computer becoming just another statistic," he said.

New NVIDIA ION Netbooks: 10x Faster Graphics, Up to 10 Hours Battery Life

NVIDIA sent us a press release introducing their next-generation NVIDIA ION graphics processor, which the company claims will supercharge netbooks with up to 10 times the graphics performance of standard netbooks and provide up to 10 hours of battery life thanks to NVIDIA Optimus technology.

"The new ION graphics processing unit (GPU) vastly outperforms basic netbook graphics by delivering rich HD media in games, movies and Internet-based video. Unlike netbooks with Intel integrated graphics, ION netbooks have the power to play amazing HD video smoothly from sites like YouTube and support popular PC games like World of Warcraft. The new ION netbooks also feature NVIDIA's highly acclaimed Optimus technology, which automatically selects the best graphics processor for running any given application—seamlessly routing the workload to either an NVIDIA discrete GPU or Intel integrated graphics. The result is great battery life and superior performance when you need it."

More than 30 products featuring the new ION GPU are expected to launch by this summer, including netbooks, small form factor desktops, "barebones" systems, motherboards and discrete add-in cards. The Acer Aspire One 532G (10-inch) and ASUS 1201PN (12-inch) are

expected to be the first new ION netbooks to be introduced. New all-in-one PCs powered by next-generation ION will include the ASUS EeeTop 2010PNT and Lenovo C200. Channel partners including AOpen, AsRock, Asus, Foxconn, Giada, J&W, Jetway, Pegatron, POV, Shuttle and Zotac also plan to introduce new ION-based products soon.

Facts about Next-generation NVIDIA ION graphics:

• It's a discrete GPU (graphics processing unit) with dedicated memory that attaches to an Intel Atom Pine Trail CPU via PCI Express.

• It supports streaming HD video on sites like YouTube HD, and smooth gaming performance on titles like World of Warcraft and Spore.

• ION netbooks feature NVIDIA Optimus technology, which automatically assigns processing chores to the NVIDIA ION GPU or integrated graphics. Optimus powers down the GPU for basic tasks like Web surfing, further extending battery life. When more graphics horsepower is needed for playing 3D games, running videos, or using GPU compute applications, Optimus automatically enables the ION GPU.

• It will be available starting in April with the Acer Aspire One 532G netbook.

• It accelerates a growing list of media-rich applications including Muvee Reveal for making home movies, Badaboom for media conversion, Total Media Theater and PowerDVD 9 for watching HD video or instantly upscaling standard definition video to near-HD quality.

V-Moda Vibe II Earphones with Microphone

V-Moda Vibe II headphones (*www.v-moda.com/headphones/vibeii.aspx*) (about $100) include a high-quality microphone right on the cable and a standard 3.5 mm jack, so it's perfect for iPhone, Blackberry, or many other devices where you want both great sound and the ability to carry on a phone conversation.

Speaking of the plug, the company says it is newly fabricated and more durable than ever with a 45-degree flexible design that allows for an optimal range of motion. It's also 24-carat gold-plated, which means, if times get tough, you can always sell the phones to cashforyourgold.com for big money.

The Vibe II has a very unique look, which company describes as "a jewel-like appearance," and I agree. They're forged of a solid stainless-steel alloy and the cables are fabric-jacketed, which makes them really comfortable to the touch and tough at the same time.

Along with the Vibe II you also get multiple earfittings and a leather carrying pouch, and a one-year warranty—just be sure you have a receipt or, according to one or two user reviews I read on Amazon.com, the company might not honor it. Vibe II also has a noise-isolating feature that works quite well and a call/music control that lets you switch between listening to music and phone calls. Each phone has a

detachable sport earhook that also works well.

I should note that a few of the customer reviews I read at Amazon.com complained the earphones either stop working entirely or only worked intermittently after a few months of use. I haven't had these that long so I can't say for certain if those are typical experiences or just people who play hard with their toys, so do some checking on your own before you make a purchase—and save that receipt!

Review contributed by Jack Pelline

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*.

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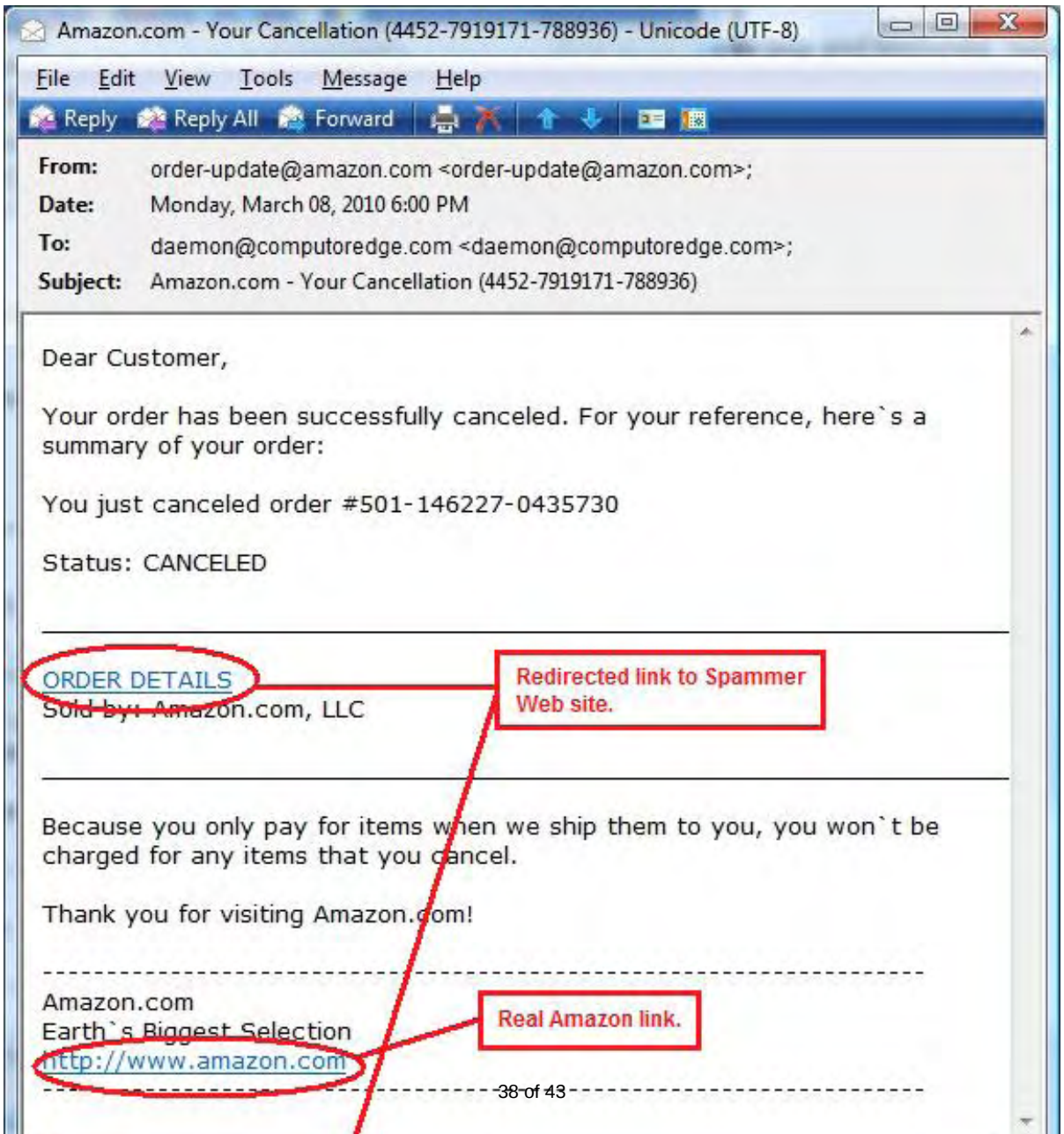
Spam of the Week

Spam of the Week: Your Amazon Order

"The latest in annoying and dangerous e-mail currently making the rounds." by ComputorEdge Staff

This week, spammers are targeting Amazon customers with fake order cancellations. Don't click that link!

Spammers are targeting Amazon customers with fake order cancellations. It's unclear whether these are phishing spams looking for personal information or redirecting to a Canadian Pharmacy. On the plus side, the Web sites don't seem to stay up too long. They often lead to broken links.



This spam attempts to appear legitimate by using the real Amazon Web address at the bottom of the e-mail. However, the "Details" link redirects to the bogus site. Never respond to this type of e-mail by clicking links. If you have an Amazon order in the works, contact Amazon directly either through your private account, or, even better, on the phone. For more information on how Amazon deals with e-mail, go to "Identifying Amazon E-mail" (*www.amazon.com/gp/help/customer/display.html?nodeId=15835501*) on its Web site.

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*.

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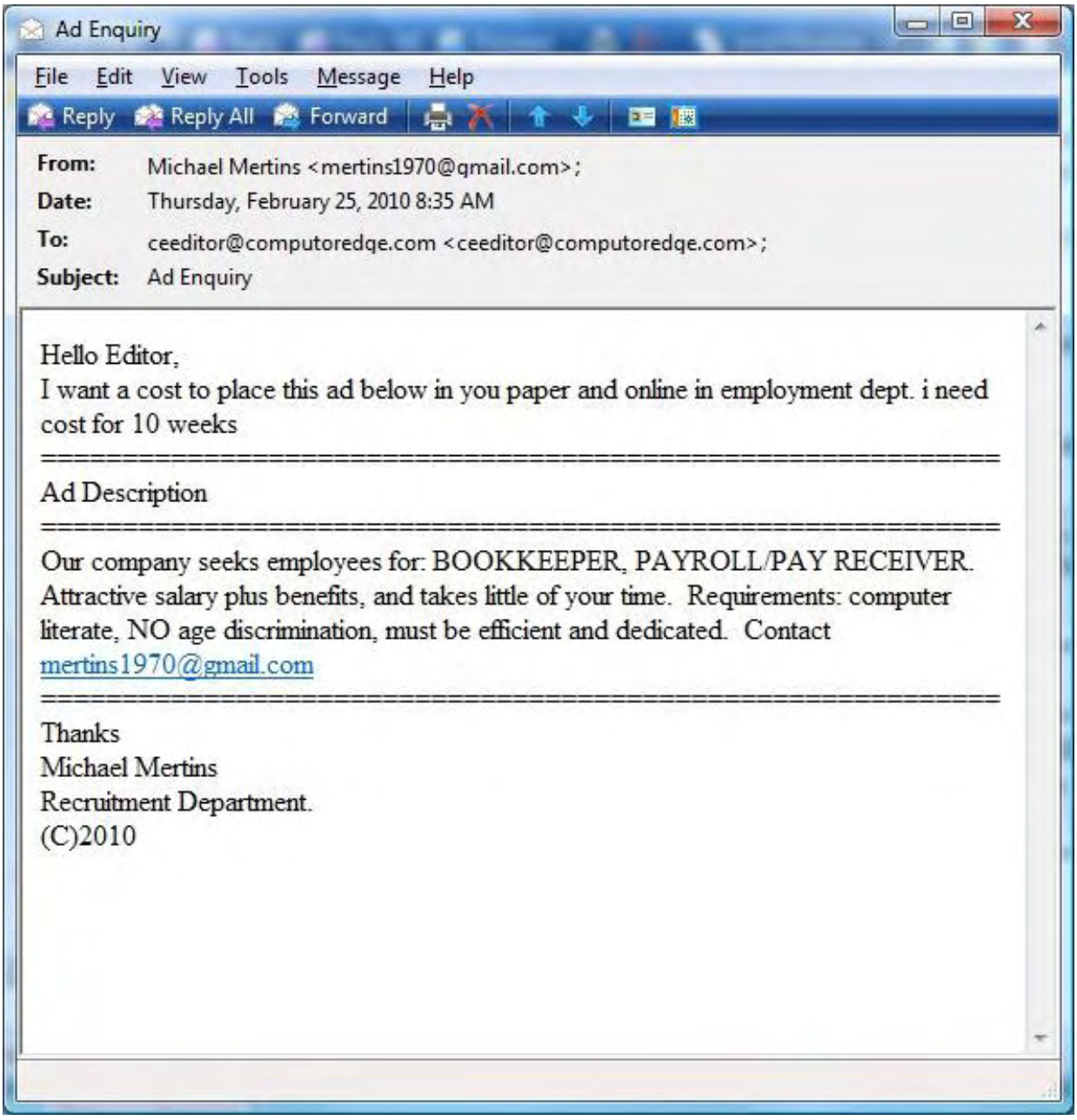
edge WORD

EdgeWord: A Caution for Bookkeepers?

"Sometimes things just don't feel right." by Jack Dunning

A suspicious e-mail and a little sleuthing raises the possibility that phishers are upping their game, going through legitimate advertising channels to snare victims.

Sometimes things just don't feel right, but I'll let you be the judge. Not long ago I received the e-mail pictured below. It looks like a normal inquiry about a commercial classified ad. I responded and gave a rate.



The response was immediate with an e-mail authorizing the placement of the ad. What surprised me was the inclusion of a credit card number in the e-mail. I didn't think much about it at the time because occasionally people have e-mailed credit cards, although I advise against it. It's much safer to take the card number over the phone. I sent the proof off, but delayed in running the card.

Within a few days I received identical requests from different e-mail addresses. By identical I mean word for word, including typos and capitalization:

"Hello Editor,
I want a cost to place this ad below in you paper and online in employment dept. i need cost for 10 weeks
==========
Ad Description
==========
Our company seeks employees for: BOOKKEEPER, PAYROLL/PAY RECEIVER. Attractive salary plus benefits, and takes little of your time. Requirements: computer literate, NO age discrimination, must be efficient and dedicated. ..."

This raised my suspicions. Why would so many people be placing the identical ad with only the e-mail address changing? I Googled the ad copy. The ad had been placed in publications all over the country and world. Nobody is looking for that many bookkeepers.

I e-mailed asking for more information about the company. The response was:

"Local name; Turbocharging-Service

6000 Alameda Blvd. NE
Albuquerque, NM 87113"

Although the address does exist, I found it doubtful that the company did. I e-mailed my concerns, but never heard anything more. I didn't run the credit card and took down the ad.

I'm wondering if the phishing schemes haven't moved to the next level, where they actually run ads in local publications, both online and in print, giving only an e-mail address. Then when they get a response to the ad, they start their real scheme.

I don't know, but the whole thing makes me feel squeamish. If anyone has run into something similar or has more information, I would like to hear it.

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*

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Editor's Letters: Tips and Thoughts from Readers

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

"Virus Removal," "Memory Stick Drives and Write Protection," "Diagnostic Tools for Solid State Drives," "Machine vs. Service"

Virus Removal

[Regarding the February 12 Digital Dave column:]

I think Byron in San Diego should give Malwarebytes (*download.cnet.com/Malwarebytes-Anti-Malware/3000-8022_4-10804572.html?tag=mncol*) one try before starting fresh. I have had numerous people with problems like he has, and Malwarebytes has fixed the all problems. It's free and worth at least a try.

-Steve, Escondido

Steve from Escondido saved me! I had been fighting a malware issue for a year that just froze my computer cold numerous times a day. One scan with the free version of Malwarebytes and it found the problem!

Thanks, Steve.

-Len Osberg, Coronado, CA

I have friends call me sometimes with their spyware/virus problems and one way to clean a system that has been infected that has worked for me is to take the OS drive out of the infected PC and scan it with another computer's up-to-date anti-virus program. This gets all those buggers that can't be cleaned because they are in memory. I understand that this may be more than the average user will want to do, but for those that feel adventurous, it is pretty effective.

-Matt, Santee

Memory Stick Drives and Write Protection

[Regarding James Hartnett's February 12 article, "How Memory Sticks Work—It's Not As Complicated As You Think":]

One thing not mentioned is there's a virus going around that will make the drives write-protected. This is not a switch setting but something actually written to the drive. I have a 4-gig one that's now read only and I have found no way to undo this.

Glad it's not a 32-gig one with maybe 4 gigs of info on it.

-Bob Breed, SD, CA

*[We did find this link (*www.troublefixers.com/remove-write-protection-on-usb-pen-drive-or-memory-card-or-ipod/*) for a possible solution for your problem, although comments indicate that it is not always successful. —Editor]*

Windows Definition

[Regarding the February 12 Windows Tips and Tricks: Changing Drive Letters column:]

At least three versions of Windows; XP, Vista and 7 are in use. They might start the article by saying, "If you are using Windows 7 Backup and Restore..." This small inclusion would inform the XP user that the carefully written instructions might or will not work with his system.

-Robert Pozner, San Diego, CA

While the Backup and Restore Center may not specifically exist in Windows XP, the features in the remainder of

the article do. Computer Management, which contains Disk Management, can be found in Administrative Tools in the Control Panel. Disk Management in XP can be used to change the drive letters.

-Jack Dunning , ComputorEdge

Diagnostic Tools for Solid State Drives

[Regarding the February 12 Wally Wang's Apple Farm column:]

I think the author of this well-written article oopsed.

You might believe that an SSD would not need defragmenting or other diagnostics, because it has a superior, modern design. But...since it replaces a mechanical hard drive, it must perform the same function. In other words, the computer cannot tell the difference. It still appears to the computer as a hard drive, and it is still vulnerable to file system problems like fragmentation. But this is good. All your experience defragmenting, partitioning, formatting and fixing file system problems is still applicable.

At least that is what I understand. It could be that I've misunderstood something.

-Joe Rosevear, San Diego, CA

@Joe: Defrag isn't used on SSDs because of their limited read/write cycles and high cost of replacement. In other words, it would do more harm than good. Also, I think that the way data must be accessed doesn't allow for as much benefit from defragging.

-Ron Cerrato, San Diego

Machine vs. Service

The reason fax machines aren't being completely replaced by fax "services" is that fax machines are often free (built into printers), whereas services cost about $1,200+ every 10 years (at today's prices). Sure, you pay for the phone line, but you can use it for outgoing voice calls as well. Notice that there are no ads for fax machines, but plenty of ads for fax "services."

-Ron Cerrato, San Diego

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*.
