ComputorEdge™ Online — 07/09/10

This issue: File Transfer Protocol (FTP) Programs

FTP programs perfect the art of moving files from one computer to another securely and conveniently.

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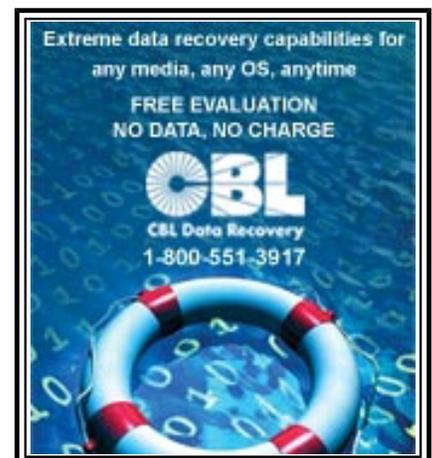
Digital Dave

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

A reader added memory, but now programs seem to take longer to boot up; how to get rid of an annoying "docking bar"; who's at fault for a reader's intermittent faulty access to a Web server?

Dear Digital Dave,

I have a Compaq desktop PC, running at 2.93MHz with 512MB (2 x 256MB) original memory. I added a 1GB 667 DDR2. Since then, if I'm connected to the Internet and then run Quicken, it takes longer to load than without the extra gigabyte.

Also, while running Quicken, when I make a change a small screen pops up and says "loading Quicken data." I've seen the same thing with other programs.

When I go into My Computer I see that the computer recognizes the new memory. So why does it seem like it takes longer with the added memory? Do the memory boards have to go into selected slots (four to choose from)?

Mike Barletta
Spring Valley, CA

Dear Mike,

Adding memory can be a little tricky. If you get a mismatch in memory, it can cause a slowdown and/or instability. I'm guessing that the original memory is slower than the new memory you added. The first limitation is that, overall, your memory will not operate at a speed faster than the slowest installed memory.

You also want to make sure that the new memory you're installing is supported by the motherboard. You should be able to check your documentation or go to the manufacturer's (computer or motherboard) Web site to find out exactly the highest level of memory supported by your computer. Then, it is best to have all of the memory of the same size and speed.

The order you put memory into slots is important. Often you will add them contiguously starting with the first slot. Sometimes, you're supposed to skip slots until you get to the end, then fill in from the beginning. Sometimes you fill every third one, leaving two empty in between until you fill it. The motherboard manual will tell you how to populate the memory slots.

My guess is that if you remove the original memory and replace it with the new memory stick in the first (zero) slot, you will get better performance than the original on its own—as long as it is

supported by the motherboard. Dump the original 256MB sticks. If you want more memory than that, get another one-gig stick to add on.

Digital Dave

Dear Digital Dave,

I bought a new HP PC with Windows 7 (which I love), but *every time I power on, this annoying "docking" bar shows up at the top of the screen. Is there some way to disable it? It has stuff that I will never use and I would certainly not begin a program from there. I suspect it has to do with HP and its partners.*

Jill Scott
Escondido, CA

Dear Jill,

I also detest the special features that computer manufacturers attempt to cram down your throat. I usually try to uninstall those things first thing. You should be able to either do that or disable the program in Startup.

To uninstall, type "add" in the "Search programs and files" field of the Start Menu, and select "Add or remove programs" from the Control Panel list that appears. Find the offending docking bar program (it should have a similar name), and select and click Uninstall from the menu bar at the top. You may need to restart your computer for it to implement the change.

If for some reason it doesn't appear in the above program list, or if you don't want to uninstall it, then you should be able to disable it at startup. Type "msconfig" in the same Search field of the Start Menu and select the Program from the list. Find the docking bar on the list in the Startup tab, uncheck it, and Apply. The docking bar should no longer load upon startup.

If someone else who has more familiarity with this particular add-on has another suggestion, it would be welcome.

Digital Dave

Dear Digital Dave,

I maintain a non-profit Web site (I was volunteered) and have intermittent access to it. When I try to access the URL, most times I get an error message to the effect that the server is not found. This happens with both Firegox and IE versions 6 and 8. Comcast tells me it is a problem with either my ISP or my system, and the ISP says everything is fine and it is Comcast.

Others in my organization, who also have Comcast, have the same access problem, so I know it is not my configuration. I tried accessing the Web site using the IP address, in case it was a DNS problem, and I still was not able to access it.

The strange thing is, I can access my e-mail on the Web site and also my cPanel, which means I can access the server—right? I have had the site operational for 18 months, and the problem began when Comcast upgraded its network to digital. Comcast refuses to look into the issue.

The Web site is www.broomfieldseniorresources.org.

Help! What can I do to further check this intermittent issue? Who do I need to dump? Comcast or my ISP?

Bob Juszynski
Broomfield Colorado

Dear Bob,

This is the typical situation where two different possible culprits are each pointing the finger at the other. It will be up to you to determine where the problem lies.

The first question is: Are there any other applications that are causing you connection problems? Do you ever have problems when you are merely browsing the Web? Or, is the only time you have Internet connection problems when you are trying to connect to the Web server for (I'm assuming) uploading new Web content?

If you are not experiencing problems with the Internet elsewhere, then most likely there in no problem with your Comcast (or your computer) connection. Based upon your comments about others having the same problem when connecting to the site, I would suspect that it isn't Comcast—unless of course they are experiencing problems with a variety of Internet connections as I previously mentioned.

One way to help nail things down is to ping the site when you're having a problem. Open the Command Prompt window and type "ping" followed by a space, then the IP address or URL of the server. If you have a connection, you should receive a reply. If not, also in the Command Prompt, use "tracert" to trace the actual route. Tracert works in the same way as ping, only it will show you where your connection is being blocked. If Comcast is the problem, you should be able to see it with tracert.

You may need to check the specific port for your access program. For example, FTP will operate over port 21 whereas Web browsers are usually port 80. Ping does not check specific ports, but there is a free Web site which will do a port check (*ping.eu/port-chk/*). If you find that the port for your Web control program is blocked, it is most likely either in your firewall setup, Comcast, or the hosting service. Tracert may help you to isolate it.

When you transfer files to a Web site, you do not use the same server as the Web server. The FTP server that uses a different port is actually a different program running on the same computer as the Web server software. Sometimes you will have connection problems that don't relate to the Internet connection. If you are using FTP to transfer files to the Web site, you might want to try a specialized FTP program such as Filezilla (*filezilla-project.org/*). It might do a better job of connecting than FTP in Firefox or Internet Explorer.

The e-mail is usually on a different server, so that connection would not be indicative of the problem, although it does indicate that Comcast is allowing you to reach your host company. The cPanel program operates on a different port, although it is most likely on the same computer.

If you want to completely rule out Comcast as the problem, get another broadband connection, such as cellular broadband or Wi-Fi, at a location you know doesn't use Comcast. If you don't experience the problem, then it is Comcast. If you do, then it's the hosting company. By the way, the fact that Comcast has gone all digital refers to cable television and not the Internet connection. The Internet has always been all digital.

Ultimately, if you can't get a consistent connection with the Web server, and you've ruled out your Internet provider and your FTP software, then you will need to move the site to a hosting company that does a better job of supporting the connections you need.

Digital Dave
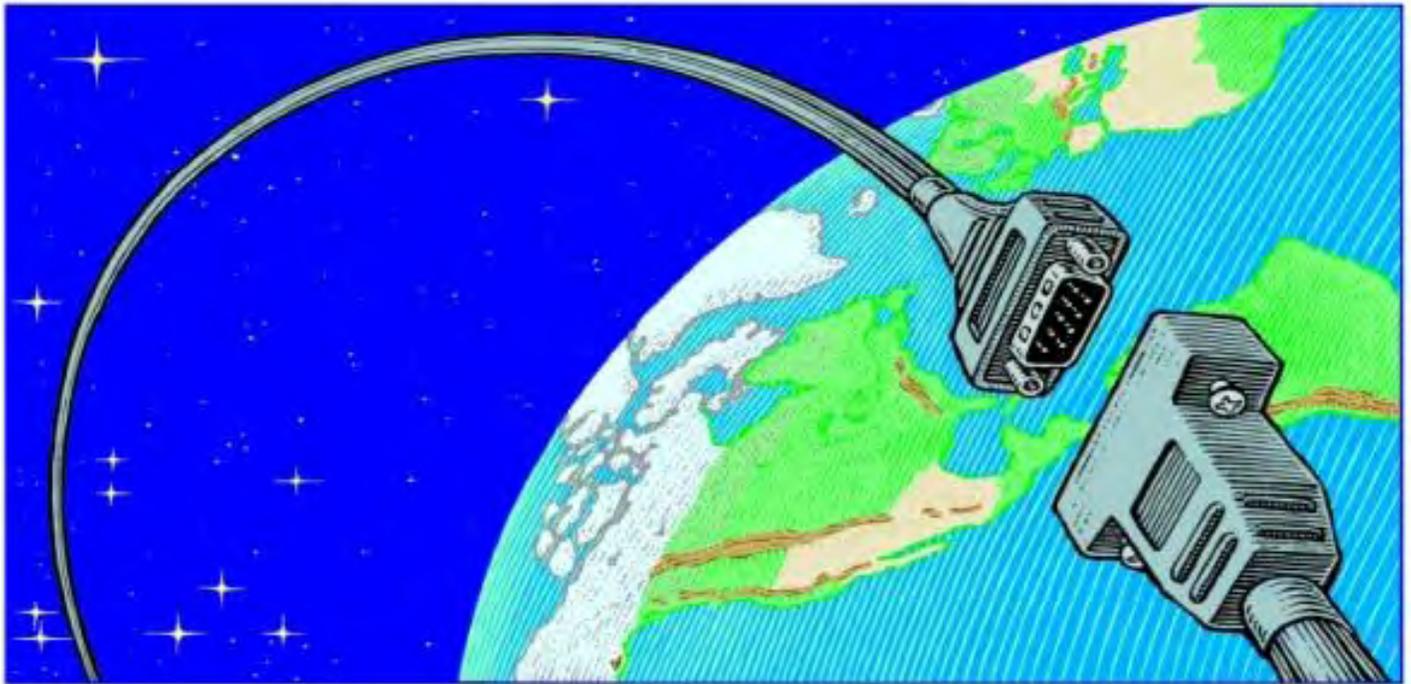
Transferring Files With FTP: Smart, Cute, and Flashy
"What to look for in FTP software." by Pete Choppin

Let's explore the ways people use handy FTP clients, how to set up the utility, and what to look for in FTP software.

"Smart, cute and flashy" — that's how Top 10 Reviews (*ftp-software-review.toptenreviews.com/*) describes its take on 2010's FTP (file transfer protocol) software.

Actually, it is a fairly decent review. My favorite client—CuteFTP is their number two pick. But rather than simply regurgitating one of dozens of software reviews on FTP clients, I thought it might be useful to explore the ways people use this handy utility, how to set it up, and what to look for in FTP software.

Why FTP?

A common use for FTP by Web developers is transferring files from their local computer to a Web server and back again. Most Web developers keep a copy of the entire Web site on their own PC. That way, they can make changes and test the new pages before going "live" on the server. When they are happy with the page they are working on, they will save their changes locally, and then transfer the new file to the Web server. FTP is ideal for this process because it allows the developer to have a direct, secure connection to the Web server for updating files from a remote location.

FTP is also a good way to back up critical files. By transferring files between computers, you can keep files in more than one location, which is a nice way to keep things safe.

Often, you will need to keep two systems synchronized. If you change either system, the other

one is modified to match.

The way this works is that files present only in the local folder are transferred to the FTP server. Similarly, unique files present on the FTP server are transferred to the local folder. This results in both folders being identical.

How It All Works

FTP uses one connection for commands and the other for sending and receiving data. FTP has a standard port number (logical connection point) on which the FTP server "listens" for connections. This port number is 21 and is used only for sending commands. Since port 21 is used exclusively for sending commands, this port is referred to as a command port. For example, to get a list of folders and files present on the FTP server, the FTP client issues a LIST command. The FTP server then sends a list of all folders and files back to the FTP client. So what about the Internet connection used to send and receive data? The port that is used for transferring data is referred to as a data port. The number of the data ports will vary depending on the "mode" of the connection (see below).

Active and Passive Modes

The FTP server may support Active or Passive connections, or both. In an Active FTP connection, the client opens a port and listens, and the server actively connects to it. In a Passive FTP connection, the server opens a port and listens (passively), and the client connects to it.

Most FTP client programs select passive connection mode by default because server administrators prefer it as a safety measure. Firewalls generally block connections that are "initiated" from the outside. Using passive mode, the FTP client is "reaching out" to the server to make the connection. The firewall will allow these outgoing connections, meaning that no special adjustments to firewall settings are required.

If you are connecting to the FTP server using the Active mode of connection, you must set your firewall to accept connections to the port that your FTP client will open. However, many Internet service providers block incoming connections to all ports above 1024. Active FTP servers generally use port 20 as their data port. It's a good idea to use Passive mode to connect to an FTP server. Most FTP servers support the Passive mode. For Passive FTP connection to succeed, the FTP server administrator must set his/her firewall to accept all connections to any ports that the FTP server may open. This is standard practice for FTP administrators.

Once the FTP client manages to open the Internet connections, one for command and one for data, it starts communicating with the FTP server. You are now ready to transfer your files and folders between the two connected computers.

What To Look For

Even though the basic function of FTP software is to transfer files, there are a few considerations when choosing an FTP client. First, some Web development software such as Dreamweaver has built-in FTP functionality already. But for people (like me) who do not like the functionality of built-in FTP mechanisms, there are other choices.

There are a multitude of freeware FTP programs available for download. Keep in mind that freeware and shareware are not the same. Freeware is free, while shareware is usually free to try with a price tag attached for those who wish to continue using the product beyond a certain timeframe. There are also packages that can be purchased outright. The key is investigating to ensure the product is the one that will work best for your needs.

Also, some FTP programs are restricted to certain operating systems. Some may be for Windows only, others for Mac, and still others for Linux operating systems. Some programs can be used across all three operating systems, which can a benefit when you see a product you like on someone else's machine (with a different operating system).

Beyond that, my preference has been ease of use and a friendly interface. I usually use something I am comfortable with and like. So as long as the software has the features I need and I am generally comfortable with it, that will usually win me over.

Setting Up the FTP Client

Most FTP clients have very similar settings and they all accomplish the same thing—transferring files between computers. I will demonstrate how to set up an FTP connection by using my preferred client: CuteFTP. These instructions will apply to most any FTP client.

When you launch the FTP client, you may find that there are already some connections established. Typically, these are connections to the company from which you purchased or downloaded the client, or from other publicly accessible FTP servers. I normally delete these connections, but if you want to explore these sites you just need to connect to them.

Many clients have some method of organizing your connections. CuteFTP uses a Site Manager, where you can see all the sites you have established a connection with, or you can create new connections or delete existing ones. To create a new connection, right-click the top of the tree labeled General FTP Sites and click New/FTP Site.
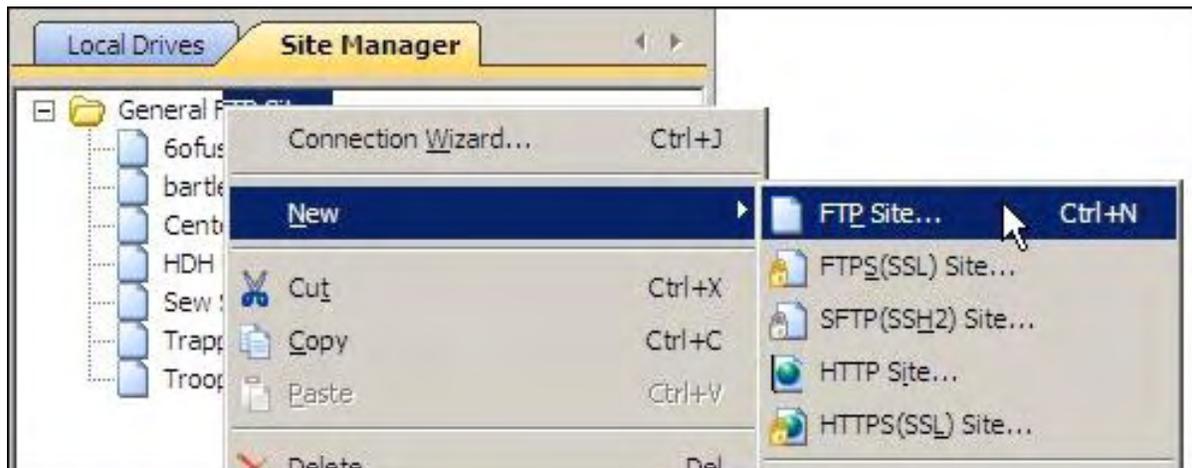

Figure 1. Create a new connection.

When you start a new FTP site, the Site Properties dialog box appears where you enter all the information for the site to which you need a connection.
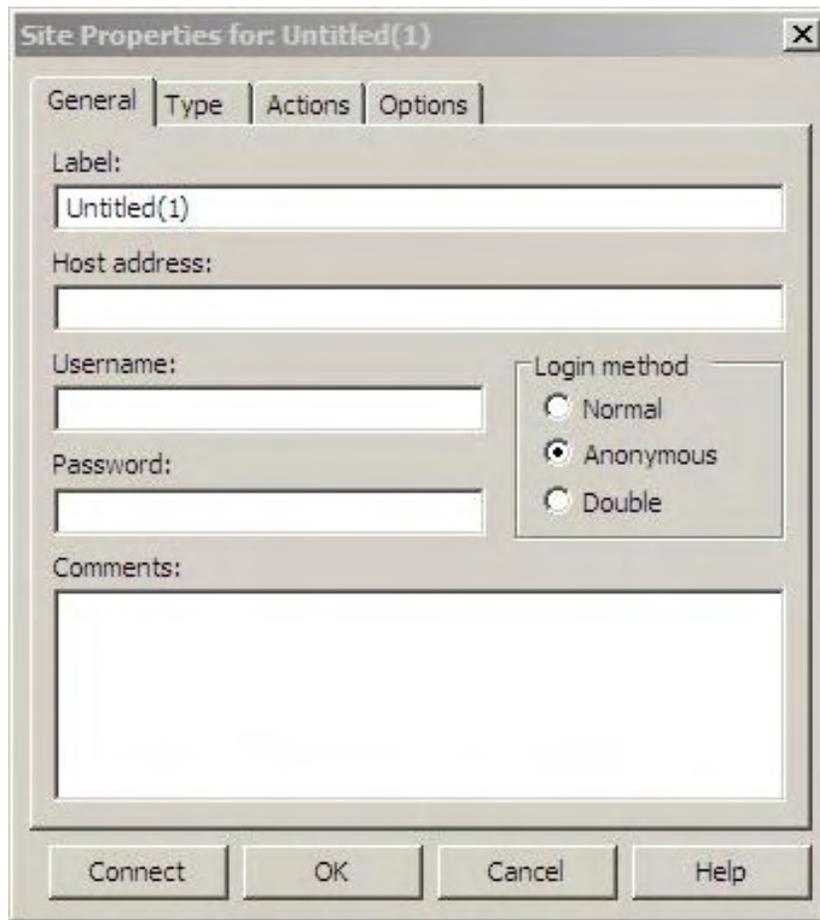
Figure 2. Site Properties dialog box.

The areas that are essential to fill out, and which are included in most FTP software, are the host address, username, password, and remote and local folders. Other areas are either optional or should already have the correct settings by default.

The username, password, address and remote folders will be provided by the administrator of the FTP server, and the local folder is the location where you want the FTP client to copy files from the server to your computer.

Once the new site is created, simply connect to it. In most cases this is done using a Connect button or menu item. The FTP software will then send the connection commands to the host you specified. If everything passes, it will then connect. You should also see a list of files on the remote server. Listing the files is normally a default command sent at the time of connection.

This is a typical status log with commands and successful connection messages:

Figure 3. Typical status log.

Similar types of log messages are displayed when files are transferred to and from the server. Any error messages are also displayed, so you can easily monitor the status of your connection and the transfer of any files at a glance by using the status screen.

Another helpful tool in most FTP clients is the Queue window. This window will show any files that have been or are in line to be transferred. It shows the percent of the file transferred during the transfer, as well, so you can watch your progress.
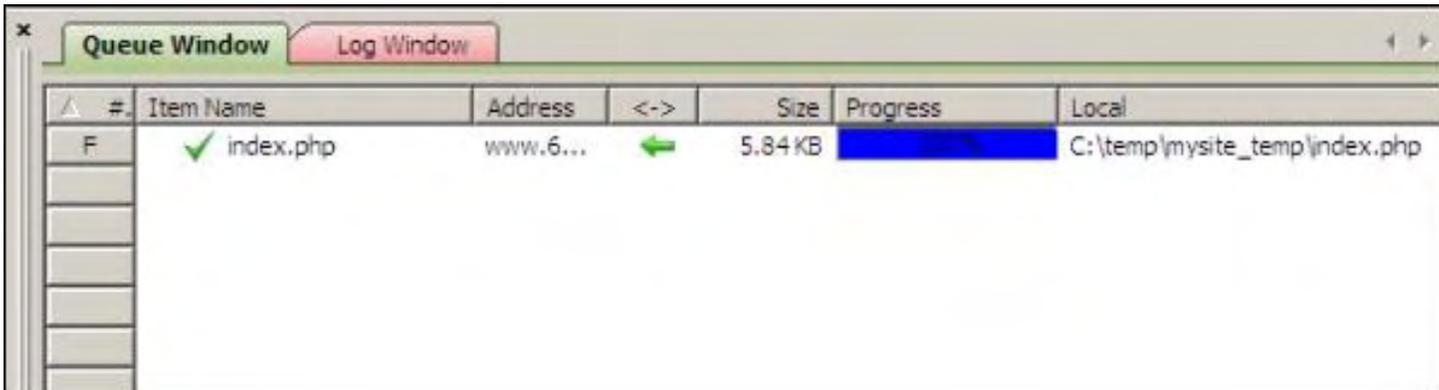
Figure 4. Queue window.

The file listing, status log and queue window are all very helpful tools which provide valuable information when you are using an FTP client.

Anytime you need to move files from one computer to another, it is always a good idea to use FTP when it is available. It is secure, allows you to connect computers no matter what OS is installed, and allows larger files to be moved than most e-mail servers will allow.

Free FTP Client Software

• FileZilla (*filezilla-project.org/*)
• CoffeeCup Free FTP (*www.coffeecup.com/free-ftp/*)
• FireFTP Firefox Addon (*fireftp.mozdev.org/*)

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.

FileZilla for Transferring Files
"An easy upload-download method." by Michael J. Ross

> A look at one of the most popular and well-regarded programs that will make it possible for you to FTP files back and forth between your local computer and a remote file server.

Non-technical Internet users may at times hear techies and industry pundits refer to a "protocol" without explaining its meaning. To put it simply, in the world of computer networking (which includes the Internet), a protocol is a set of rules that specify the format of messages exchanged between computers. One might think of it as a network "language," similar in many respects to natural languages (e.g., American English) and computer languages (e.g., PHP).

Web users witness one particular protocol in use every time they visit a Web site, whose address (known as a URL) is something like http://www.example.com/. The "http" stands for Hypertext Transfer Protocol, which is a TCP/IP client-server protocol used on the Web for transmitting resources from a Web server to a client. We won't go into the details of that, but it is sufficient to understand that HTTP is the protocol used when your Web browser receives a copy of an image file to be displayed on the current Web page. A variation of "http" in URLs is "https," which indicates that a secure HTTP connection has been established between your browser and the Web site that you are using—typically when entering sensitive information, such as a credit card number.

There are other Internet protocols, however, including one that you may have heard of but perhaps have never used: File Transfer Protocol (FTP). This one is primarily used by people building and maintaining Web sites, such as designers, developers and content administrators. The main difference is that with HTTP, you, the client, are connecting to a Web server, which is capable of a number of functions, such as running Web scripts, assembling separate files into one complete Web page, etc. With FTP, you are connecting to a file server, and thus the technology involved can focus on the uploading and downloading of the files as efficiently as possible, and thus can be done much faster versus HTTP.

FTP might, at first glance, appear to be arcane and intimidating, but that is usually just a case of unfamiliarity with the concept and with applications that make it much easier to work with than the techie lingo might imply. In this article, we will examine one of the most popular and well-regarded programs that will make it possible for you to FTP files back and forth between your local computer and a remote file server, such as one provided to you by a Web hosting company. (Note the use of FTP as a verb—just one more example of our favorite human language being made more efficient.)

The Godzilla of FTP

FileZilla (*filezilla-project.org/*) is an FTP application—often referred to as an FTP "client." It is certainly not the only one available, but is arguably one of the best—and not just based on its price (free). It is open-source software, which means that you can download and peruse the source code that makes it all possible, and see how it works.

Figure 1. FileZilla homepage.

Like most worthy open-source applications, FileZilla runs on all the major operating systems (Windows, Mac OS X, Linux and BSD). It supports FTP, FTPS (SSL/TLS), SSH File Transfer Protocol, or SFTP, and IPv6. It offers translations for almost four dozen human languages. It has a comprehensible graphical user interface (GUI), including bookmarks, filename filtering, drag-and-drop capabilities and a file transfer queue that displays all of the files currently downloading as well as those scheduled to do so. FileZilla has a handy site manager that stores all of the access information for any site to which you have connected. You can transfer files larger than four gigabytes, and if any transfer is interrupted, it can be resumed later, without having to start over.

For those readers interested in some of the technical details, note that FileZilla supports ASCII, binary and PASV modes. You can perform a number of actions on the remote server, including creating directories and setting file permissions (i.e., chmod support). If the system time on the remote server differs from that of your local machine, you can set a time offset so that when you next connect to that server, the timestamps on its files will be synced up with your own time zone. Lastly, FileZilla can be run from a non-boot partition, which is helpful if you have multiple boot partitions and want to avoid installing it on each one.

Transfer Me Up, Scotty!

The best way to experience the capabilities and value of FileZilla is by installing it and trying it out. Simply click on the Download FileZilla Client button on the home page (be sure not to confuse that with the Server version). On the client download page (*filezilla-project.org/download. php?type=client*), click the link that corresponds to your operating system. Windows users can choose from either the executable installer or an archive file; the former would be easier for those unfamiliar with installing applications from Zip files.

The installation process is quite straightforward, with each dialog explaining what choices are available to the user. Hence, detailed instructions and screenshots of each dialog will not be shown here. But here are some pointers to keep in mind: On the Choose Components dialog, if you are certain that you will only need the English interface, then you can save space on your hard drive by deselecting the "Language files" checkbox. On that same screen, you can deselect Shell Extension if you have no interest in dragging files back and forth between FileZilla and Windows Explorer. On the Choose Install Location, if you had uninstalled an earlier version of FileZilla, then the site manager settings file (FileZilla.xml) might still be located in that old directory, so you could specify that directory to avoid having to copy that file into a new location or, far less efficiently, re-creating all the site manager settings.

When you run FileZilla for the first time, it will display the welcome dialog, which has links to documentation and other helpful information on the Web.

Figure 2. Welcome dialog.

The main window has six panels. In the top panel, you will see any messages from the remote server, such as login results. The file transfer queue is in the bottom panel. In between, the main part of the screen is divided vertically in half, with the left half representing your local computer,

and the right half for the remote server. Each of these areas contains a directory tree in the top part, and a file list (for the selected directory) in the bottom part.
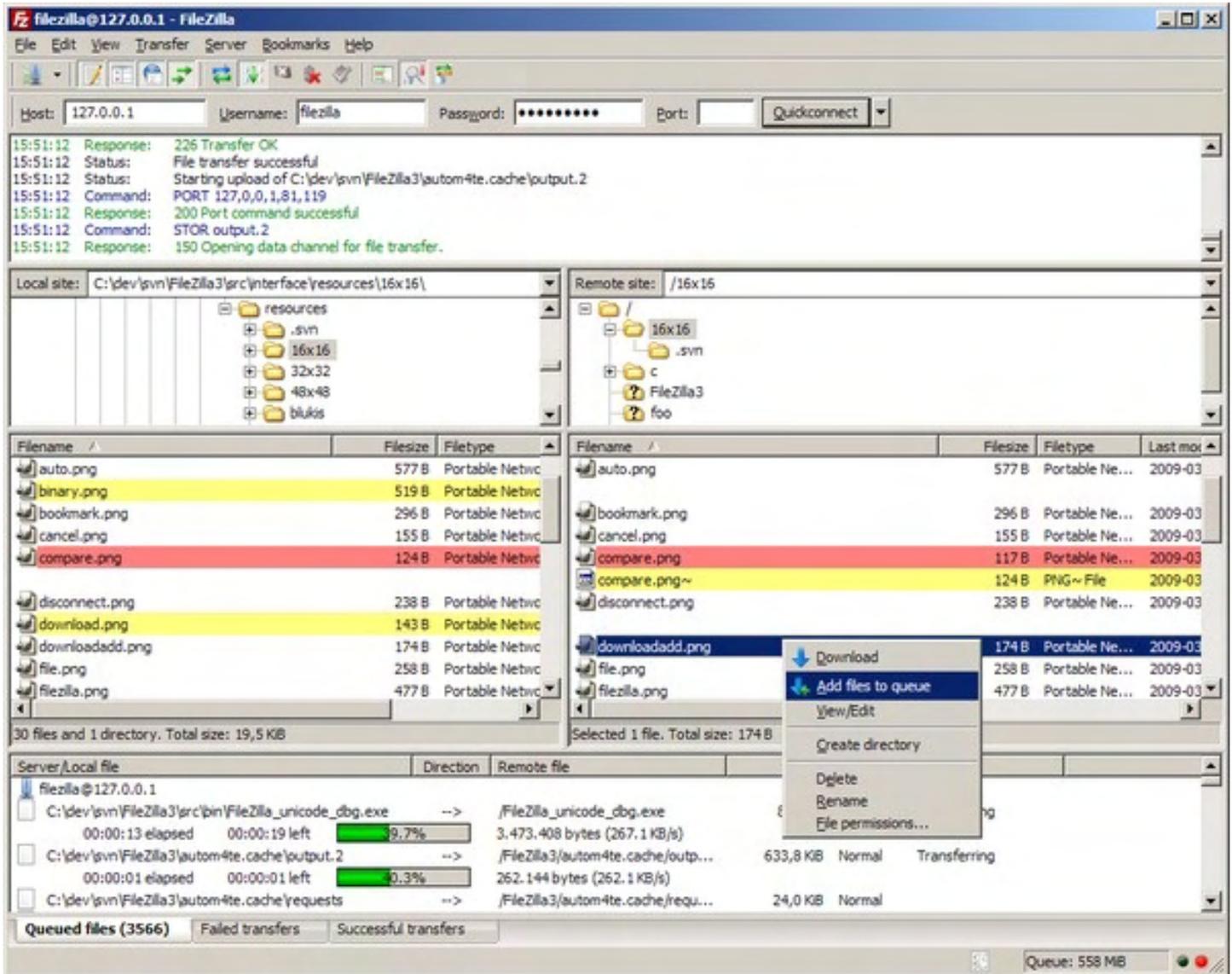
Figure 3. Main window.

Choose the menu item File/Site Manager, or just press Ctrl + S, to open up the site manager dialog.
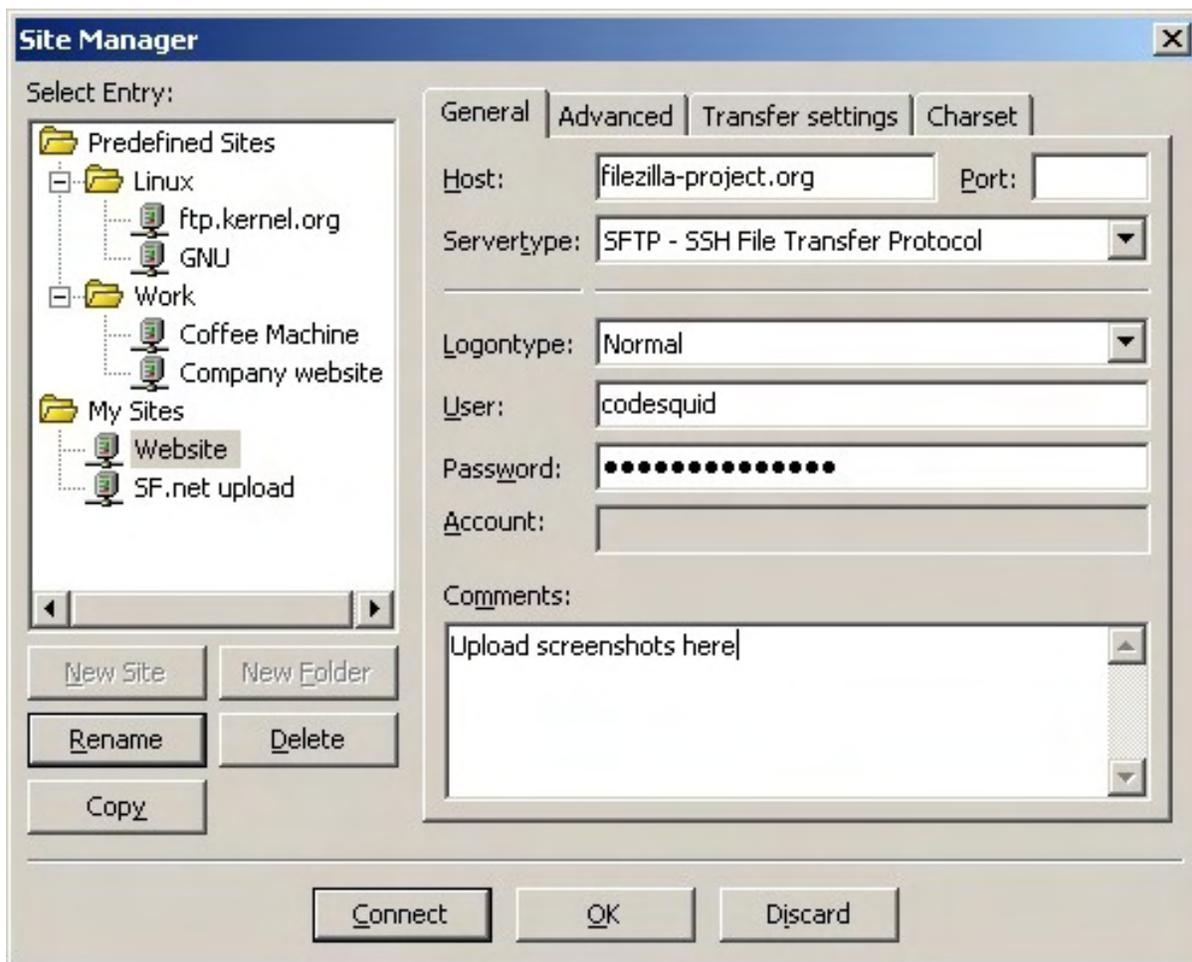
Figure 4. Site manager.

The site manager dialog has a section on the left listing all of the servers you may want to log into (Predefined Sites) and any that you have logged into in the past (My Sites). To see the details of any one of them, just click on the server name, and then in the right-hand portion of the dialog you can use the four tabs to change the site's settings. Most of the default settings do not need to be changed, except for the host name (or an IP address), the username and password (change the login type from Anonymous to Normal), the default local directory (typically where you are saving that site's files on your PC), the default remote directory (usually "/public_html"), and the server time zone offset mentioned earlier.

You can also connect to a server using the Quickconnect bar (located just below the menu and tool bars), which is ideal for one-off connections that you are certain you won't need in the future.
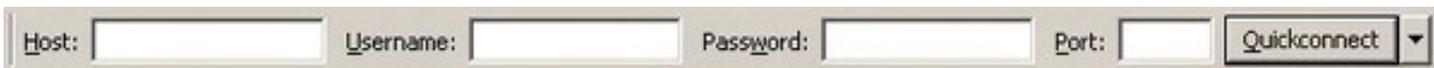
Figure 5. Quickconnect bar.

One problem with managing large numbers of files on local and remote file servers is that when you have more than a few dozen files in any particular directory, you will have to do a lot of scrolling, which wastes time and can become frustrating. Fortunately, FileZilla allows you to filter out the display of files in which you have no interest. To access the filename filters dialog, go to View/Filename filters.
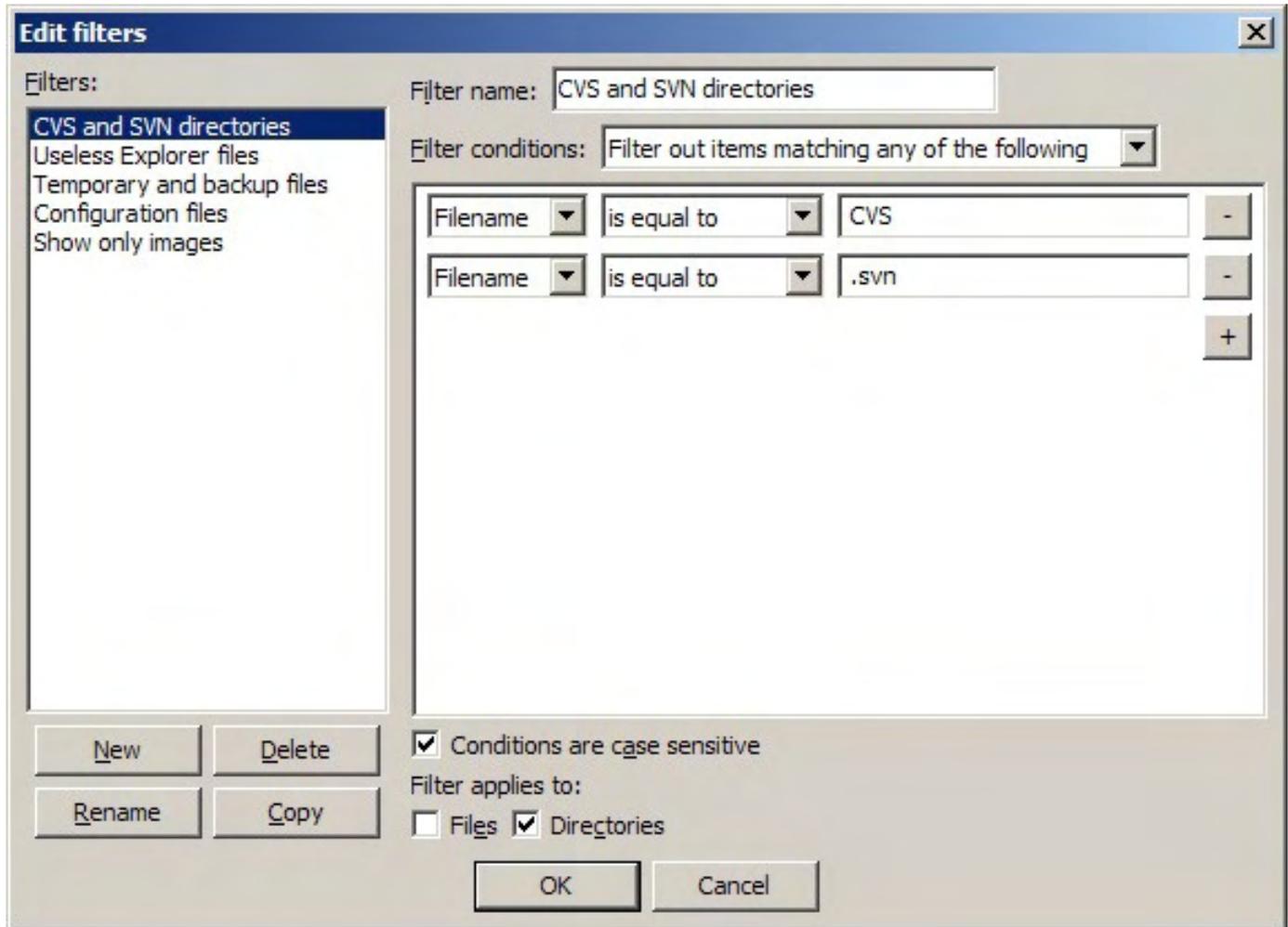
Figure 6. Filename filters.

The program settings dialog (Edit/Settings) allows you to change the default configuration that is applied to site connections, unless overridden on a per-connection basis. You can set limits on the number and speed of files transferred, customize the FileZilla interface, specify an external editor, set file type associations, and enable logging and debugging.
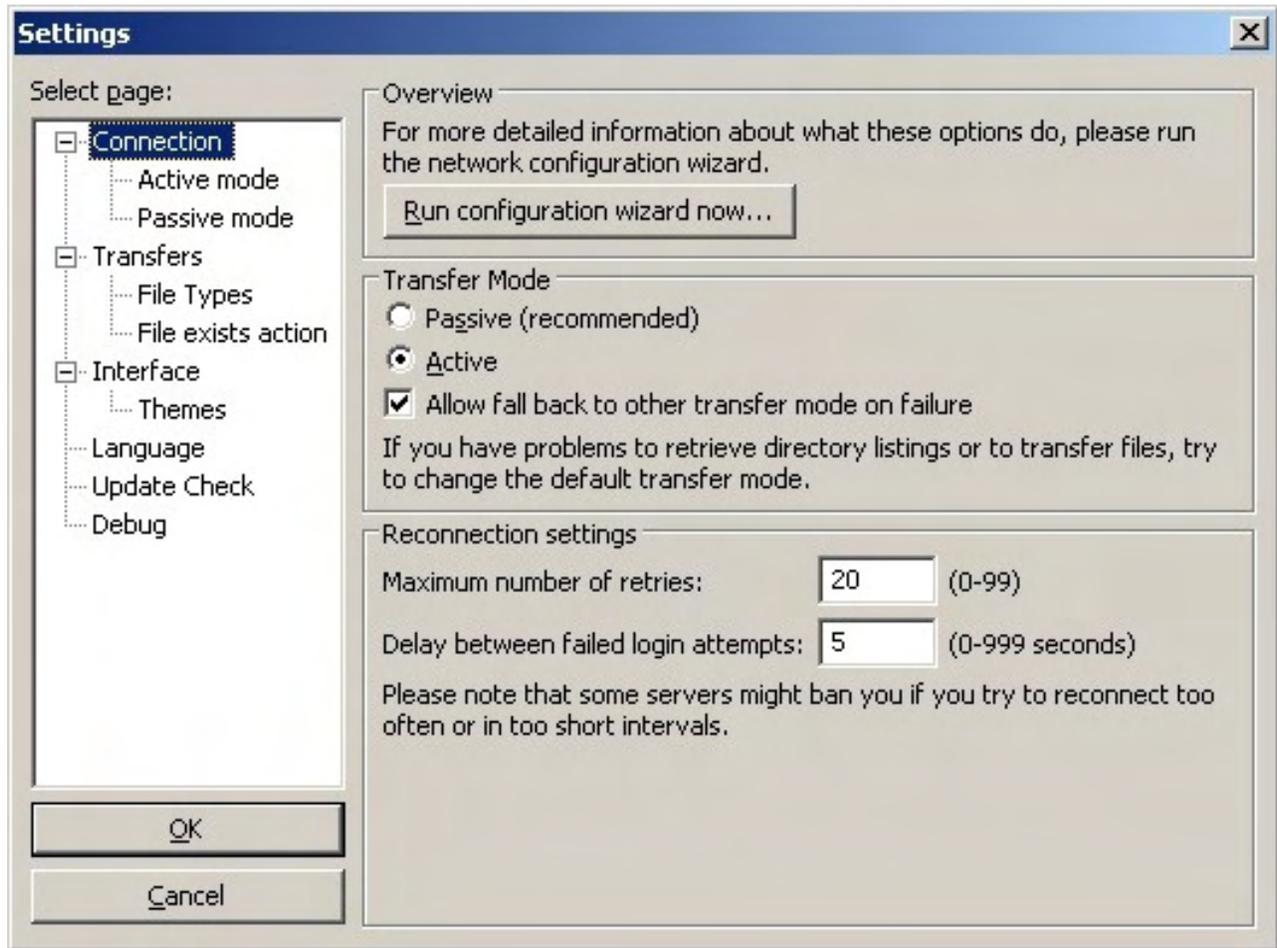
Figure 7. Settings dialog.

To learn more about FileZilla, you could start by reading its FAQ page (*wiki.filezilla-project.org/FAQ*) and its forums (*forum.filezilla-project.org/*), which are quite active.

If your business or personal projects involve any sort of uploading or downloading of files to remote file servers—even if they are not related to Web sites—then take a look at FileZilla, which can stomp on any FTP hurdles that may get in your way.

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.
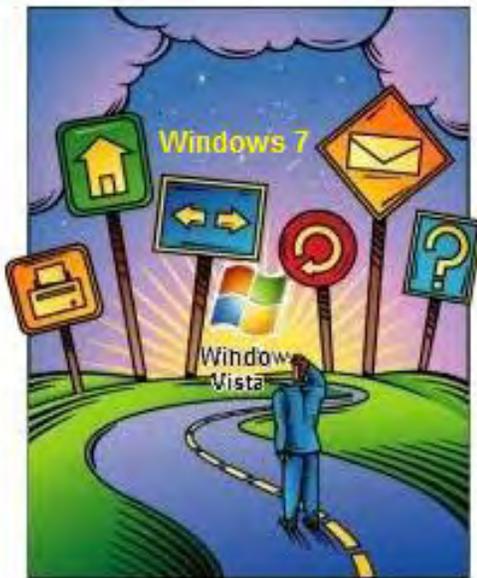
Windows Media Programs

"Home entertainment is in flux." by Jack Dunning

Just as it has gutted many other business models, the computer and the Internet are in the process of turning the home entertainment world upside down. Is Windows Media Center poised to lead the market?

What's happening in the world of home entertainment is a confusing mess. I would venture to say that most of what is now available will change significantly in the coming years. This will cause a good deal of distress for the cable companies, but there are few people who will shed a tear for them. Just as it has gutted many other business models, the computer and the Internet are in the process of turning the home entertainment world upside down. For most people, it may be best to wait it out and see who comes out on top. Others will want to dive right in and deal with the associated problem.

In this series of columns on Windows Media, I plan to explore what Microsoft and other companies are doing to take advantage of the changes in the marketplace. Each week I will highlight either a Windows feature, or attempt to hook up a piece of media equipment to a Windows computer.

Last week I pointed out that Windows 7 includes both Windows Media Player and Windows Media Center. Windows Media Player is oriented toward the organizing and playing of music, videos and other media. While Windows Media Center will also play various types of media, it is much more aimed at delivering content over the Internet. The marketing phrase "The best in TV on your PC" demonstrates how Microsoft wants to push Media Center. Windows Media Center, which is capable of playing high-definition TV (HDTV), is oriented toward watching television on your computer while getting your programming from the Internet.

It appears that all of Microsoft's efforts in this area are directed toward Windows 7. There are significant differences between what's available on Windows 7 and Windows Vista. Vista is being allowed to languish as a relic of the past. Microsoft realizes that the marriage between the computer and the television is just now coming to fruition. However, Microsoft may not doing the best job of positioning itself and Windows in this emerging market. There is no surprise there.

Windows Media Center in Windows 7

Windows Media Center can be loaded by typing "Media" in the "Search programs and files" field of the Start Menu and selecting it from the list. (It can also be found under the Start Menu All

Programs listing.) When first loaded you will see a screen similar to Figure 1. The highlighted option is Internet TV, which delivers a limited amount of commercial programming.

Figure 1. Windows Media Center in Windows 7.

The Media Center interface is oriented toward joystick operation. It responds to the mouse wheel and double clicking, but the menu items often seem to float by under their own inertia. Right-click does nothing, so regular PC users will need to grow accustomed to the new look and feel. When not in focus, the additional items fade. The operating menu (play, pause, record, etc.) will disappear until you move the mouse. This is a good thing since the entire window is used during playback.

Note the grid-like control on the menu, which is a button for a quick-view guide for Internet TV (see Figure 2, circled in red). This button will toggle to the grid of available Internet TV programming. While playing a program users can navigate to another screen.

Figure 2. Windows Media Center offers Internet TV with the click of a button.

The amount of available programming is severely limited, although it does offer some catch-up content for recently aired programs. One collection of interest is old episodes of The Twilight Zone (see Figure 3). Each starts with a commercial and they are occasionally interrupted.

Figure 1. The Twilight Zone playing on Internet TV in Windows Media Center.

If you happen to own an Xbox, then you can use it to stream video to your television. However, the required Windows Media Center Extender is not well supported by other companies. I would guess that future releases will need to support more streaming options. Otherwise Microsoft may find that Window Media Center won't be able to compete as a Home Theater PC.

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Wally Wang's Apple Farm

"File Transfer Protocol (FTP) Programs" by Wally Wang

In the Macintosh world, popular Web page-designing programs offer a built-in FTP program, and third-party options exist, as well. Also, tech firms offer lessons about reacting and adapting to change; Photoshop helps you combine digital photography with artistry; Brushes lets you turn your iPad into a painting canvas; and a tip on using the Installed Software tab for a list of all the updates you've installed on your Macintosh.

The average person will probably never need to use an FTP (File Transfer Protocol) program. However, anyone who designs Web pages needs to transfer files from their own computer to a server that's hosting the Web site. To transfer Web pages and other related files, you need an FTP program.

Web page designing programs designed for novices often have an FTP program built in, so all you need to do is specify the Web site, a directory to store your Web pages, and the account password to upload files directly from your Web designing program. In the Macintosh world, three popular Web page designing programs that offer a built-in FTP program include RapidWeaver (*www.realmacsoftware.com/rapidweaver*), SandVox (*www.karelia.com*), and iWeb (*www.apple. com/ilife/iweb*).

Figure 1. SandVox offers built-in FTP support so you can create and
upload Web pages without using a separate FTP program.

If you want to use a separate FTP program, two popular choices are CyberDuck (*cyberduck.ch*)
and FileZilla (*filezilla-project.org*). Best of all, both CyberDuck and FileZilla are free (donations
cheerfully accepted), so download a copy of each and see which one you like best.

Figure 2. CyberDuck provides multiple file-transfer options.

The Failures of the Old and the New

The New York Stock Exchange recently delisted Blockbuster Video since the stock has stayed under the $1 mark for too long. With massive debt and competition from Netflix (DVDs by mail and streaming movies) and Redbox (inexpensive DVD rentals), the future of Blockbuster Video remains dismal. What happened?

The simple answer is that, while the world around it changed, Blockbuster Video remained stuck with its old business model of expensive retail stores, late fees, and limited physical inventory. Against the much larger selection of Netflix, the lower rental fees of Redbox, and the future of streaming video from Netflix and others (including Apple TV), Blockbuster Video refused to change fast enough. Now it's struggling for survival with little hope of recovery.

Blockbuster Video's fate should be a warning to us all. You absolutely must adapt to change. The more you resist change, the further you'll get behind and the more opportunities you'll miss,

For anyone involved in promoting a business, the latest seismic marketing shift comes from Google's AdMob (*www.admob.com*) and Apple's iAds (*advertising.apple.com*). Both AdMob and

iAds target the growing and increasingly lucrative mobile advertising market of smartphones and portable devices such as the iPad and iPod touch.

Marketing and business people need to know how AdMob and iAds could help them reach the mobile market, which generally consists of higher-income customers. However, programmers also need to know how AdMob and iAds could help them embed advertising in their mobile phone apps to help generate revenue.

AdMob and iAds let programmers create free apps and make money from the embedded advertising. The more popular your app, the more people will likely see and respond to the embedded ads, and the more money you'll make. To see a demonstration of iAds, watch this YouTube video (*www.youtube.com/watch?v=Sdi2IrIf4wI*).

While Google and Apple are carving up the smartphone market (at the expense of Nokia and BlackBerry), where's Microsoft? Where Blockbuster Video is dying through its inability to change, Microsoft is struggling to break into the mobile market through its inability to change as well.

For years, Microsoft insisted on trying to cram the Windows look and feel of menus and icons into the smaller form of a tablet and phone, thus creating an unsatisfying user experience from its Windows Mobile operating system. After unsuccessfully trying to convince people that Windows Mobile was just as good as Google's Android and Apple's iPhone, Microsoft decided to start from scratch.

Two warring factions within Microsoft had their own ideas how to compete against Android and the iPhone. One faction thought that buying out another phone company and rebranding it under the Microsoft name could help Microsoft win back part of the phone market.

Another faction wanted to start from scratch and create an operating system optimized for phones dubbed Windows Phone 7. While Microsoft was finally willing to adapt to change, it suffered from the inability to make a single decision. Instead, it decided to pursue a dual strategy of creating Windows Phone 7 *and* buying out and rebranding the Danger Sidekick brand for $500 million.

This decision split Microsoft's efforts. While Microsoft was promoting Windows Phone 7 as the next best phone operating system, Microsoft was also busy acquiring Danger and watching most of Danger's top employees abandon the company. Now Microsoft was left with Danger's technology, but not all of its best people.

Then Microsoft made another fatal error. Since the Danger Sidekick's operating system was based on Java, Microsoft decided to rewrite and duplicate the operating system based on Windows CE. The end result meant wasting 18 months duplicating something it already owned, which begs the question of why Microsoft bothered to buy another company when it wasn't going to use the acquired technology anyway?

Nearly two years later, Microsoft finally unveiled its new phone, dubbed the Kin One and Kin Two, which were only two years behind the times and lacking features that rivals offered, such as a calendar and the ability to download and install apps. After spending more millions promoting the Microsoft Kin phones through television ads (*www.youtube.com/watch?v=40z2Wl-7ISQ*), Microsoft abruptly cancelled the entire Microsoft Kin phone project after the company reportedly

sold only a few thousand phones throughout the United States. (Neither Microsoft nor Verizon will confirm an exact figure, which suggests they're trying to hide dismal sales figures.)

Essentially Microsoft spend $500 million for a company that they killed, wasted 18 months duplicating the technology they just bought, and released a phone that lacked basic features that its rivals offered. Even worse, Microsoft was busy telling everyone that Windows Phone 7 would be the next great phone operating system, which undermined the sales pitch of the Microsoft Kin phones that didn't run Windows Phone 7.

Predictably, Microsoft's Kin phones proved unpopular and lasted only 48 days on the market. Verizon even cut the Microsoft Kin prices in half to boost sales, but when you're selling something that nobody wants, you're still not going to succeed.

If you refuse to recognize and adapt to change, you could end up like Blockbuster Video. If you react to change but don't think clearly how to adapt to change, you could wind up like Microsoft's Kin phones.

If you don't want to adapt to change, stick with what you already know and pray that it won't disappear any time soon. Otherwise, stick to what's working today, and make sure you adapt to change so you'll be in an even better position tomorrow. For right now, adapting to change in the computer industry means keeping a close watch on whatever Apple and Google are doing. Then keep an eye on Microsoft just for comic relief and lessons for how infighting within a company can be more destructive than competing against any rivals.

Turning a Picture Into a Painting

Most people use Photoshop (*www.adobe.com/products/photoshop/photoshop*) to touch up and improve a digital photograph. However, the latest version of Photoshop now offers a feature that rivals one other programs (such as Corel Painter) have offered for years. Take any digital picture and modify it to look like a painting, as demonstrated in this YouTube video (*www.youtube.com/ watch?v=TtmIA3GbdcI&feature=player_embedded*).

Figure 3. Photoshop can make any digital picture look like a watercolor painting.

Changing a picture to look more like a painting lets you get more creative with your pictures, especially if you capture a picture that isn't quite good enough to show, but could still be interesting enough to save. Photoshop CS5 still isn't for casual users, but if you're an artist, Photoshop can help unleash your creativity so you can combine digital photography with Photoshop and touch up your digital photographs, or create art from any image you can capture with a camera.

Painting with an iPad and iPhone

To demonstrate the painting ability of the iPad, artist Kyle Lambert (*www.kylelambert.co.uk/ gallery*) has created a portrait of the singer Beyoncé, using his finger and a paint program called Brushes (*www.brushesapp.com*).

Figure 4. Brushes lets you turn your iPad into a painting canvas.

Brushes not only demonstrates the versatility of the iPad, but also shows how artists can use the iPad as a portable painting canvas that ordinary laptops can't match in terms of convenience and portability.

Figure 5. The finished portrait of Beyoncé created on an iPad.

To watch a time-lapse video of how the artist created the Beyoncé portrait, visit this video (*www. kylelambert.co.uk/ipad/beyonce/video.html*).

In case you still aren't convinced of the power of Brushes, you can read how artist Jorge Colombo (*www.newyorker.com/online/blogs/tny/2009/05/jorge-colombo-iphone-cover.html*) created a cover for the New Yorker magazine using Brushes on the much smaller screen of the iPhone.

The iPad and even the iPhone aren't just for passively watching content, but can also be used for creating it. With the right app and a little bit of imagination, you can turn your iPad or iPhone into a creative tool for expressing yourself wherever you happen to be.

*   *   *

In case you want to see what updates you've installed on your Macintosh, click the Apple menu, and choose System Preferences to open the System Preferences window.

Now click the Software Update icon in the System category and click the Installed Software tab.

This will let you scroll through a list of all the updates you've installed on your Macintosh.

Figure 6. The Installed Software tab lists all software updates.

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*.
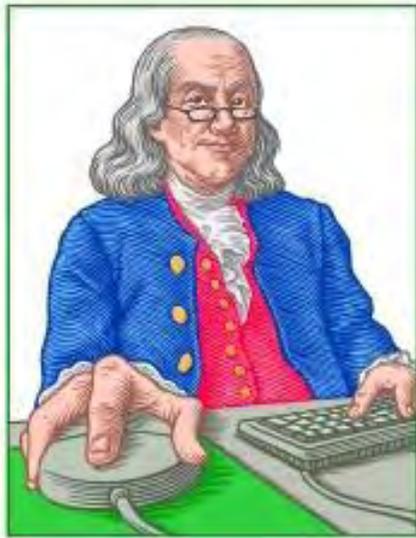
Linux Lessons
"Linux Alternatives to FTP" by Pete Choppin

One of the many advantages of Linux/Unix is how many ways you can do one thing. This week's Linux Lesson is going to show you some of the alternatives to transferring files over a network connection.

One of the many advantages of Linux/Unix is how many ways you can do one thing. This week's Linux Lesson is going to show you some of the alternatives to transferring files over a network connection.

In this column we will cover rsync, scp and tar. Please note that there are many other ways to use these commands. These are just some of the more common ones. The methods covered assume that ssh is used in all sessions. These methods are all much more secure and reliable than using rcp or ftp. This is also a great alternative for those looking for an FTP alternative to transferring files over a network.

scp

scp, or secure copy, is probably the easiest of all these methods. It is designed as a replacement for rcp, which was a quick copy of cp with network functionality.

Here is the scp syntax:

```
scp -Cpr username@example.net:destination_path
```

In the command, the -C switch compresses the data before it goes over the network, which significantly decrease the time it takes to copy large files. -p stands for "preserve," in other words, it keeps the last modified time, access time, etc. the same, and -r recursively copies subdirectories. Note: For the –r switch to work, you must specify the source file as a directory.

Before scp does any copying it first connects via ssh. Unless proper keys are in place, then you will be asked for usernames, so you will need the username and password to the destination connection. Otherwise, you can run this command on the source computer:

```
ssh-keygen -t dsa
```

This will create a pair of keys at $home_dir/.ssh/ and by default, the public key will be called id_dsa.pub.

What scp shouldn't be used for:

1. When you are copying more than a few files, as scp spawns a new process for each file and can be quite slow and resource intensive when copying a large number of files.

2. When using the -r switch, scp does not know about symbolic links and will blindly follow them, even if it has already made a copy of the file. That can lead to scp copying an infinite amount of data and can easily fill up your hard disk, so be careful.

rsync

rsync has very similar syntax to scp :

```
rsync -ave ssh source.server:/path/to/source /destination/dir
```

rsync's specialty lies in its ability to analyze files and copy only the changes made to files rather than all files. This can lead to enormous improvements when copying a directory tree a second time.

Switches:

-a Archive mode, most likely you should always keep this on; it preserves file permissions and does not follow symlinks.

-v Verbose, lists files being copied

-z Enable compression, this will compress each file as it gets sent over the pipe. This can greatly decrease time depending on what sort of files you are copying.

-e ssh Uses ssh as the transport; this should always be specified.

Disadvantages of using rsync :

1. Picky syntax; use of trailing slashes can be confusing.

2. Have to remember that you are using ssh.

3. rsync is not installed on all computers.

tar

tar is usually used for archiving files, but what we are going to do in this case is tar it, then pipe it over an ssh connection. tar handles large file trees quite well and preserves all file permissions, etc., including those Unix systems that use ACLs, and works quite well with symlinks.

The syntax is slightly different as we are piping it to ssh :

```
tar -cf - /some/file | ssh host.name tar -xf - -C /destination
```

or with compression:

```
tar -czf - /some/file | ssh host.name tar -xzf - -C /destination
```

Switch -c for tar creates an archive and -f which tells tar to send the new archive to stdout.

The second tar command uses the -C switch, which changes directory on the target host. It takes the input from stdin. The -x switch extracts the archive.

The second way of doing the transfer over a network is with the -z option, which compresses the stream, decreasing the time it will take to transfer over the network.

If using the -v (verbose) switch, be sure to include it only on the second tar command, otherwise you will see double output.

Using tar and piping can also be a great way to transfer files locally to be sure that file permissions are kept correctly:

```
tar cf - /some/file | (cd /some/file; tar xf -)
```

This may seem like a long command, but it is great for making sure all file permissions are kept intact. What it is doing is streaming the files in a sub-shell and then untarring them in the target directory. Please note that the -z command should not be used for local files, and no performance increase will be visible as overhead processing (CPU) will be evident, and will slow down the copy.

Downsides of using tar:

1. The syntax can be hard to remember

2. It's not as quick as to type scp for a small number of files

3. rsync will beat it hands down for a tree of files that already exist in the destination.

There are several other ways of copying over a network, such as FTP, NAS and NFS, but these all require specialized software installed on either the receiving or sending end, and hence are not as useful as the above commands.

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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: Tech Solutions with Microsoft Word
"Word Fields" by Rob Spahitz

Last week we completed our business cards, and this week we look into adding custom objects and fields onto a Microsoft Word document.

This week we look into adding custom objects and fields onto a Microsoft Word document.

Last week we completed our business cards, two across and five down. To set them up, we created a table, added one card into one cell, then copied it and pasted it into the remaining nine cells.

That's not bad for a relatively small amount of cards. However, what if you decide to make a business-card-printing business and you want to create a great template and then fill in people's information? You'd like to print 100 or maybe 500 cards at a time, which means up to 50 sheets. Do you really want to copy and paste over and over into those pages? Sure, I guess you could just print the first page 50 times. But let's look at another way.

Aside from the many paragraph-related features of Word, there are also many other things you can apply. Let's look at some of the objects that are supported in Word.

Word Objects

First, one of the more obvious and common objects for a Word document is the picture.

Create a new blank document. To add a picture in Word 2010, go to the Insert tab and in the Illustration group box, select Picture. You'll get a dialog box that allows you to browse for a picture. Pick one, such as the Sunset.jpg file located in the My Documents/Sample Pictures folder of many people's Windows installations. When you click the Insert button (or double-click on the picture) it is inserted into the Word document as though it were a piece of text. What I mean is that the text will flow around it as though it were just another character that you typed. If you had inserted a picture of a letter that was the same size as the surrounding text, it would let you move the cursor around it as though it were a typed letter.

Since this picture is an object, we can also do more things with it, including making it a background or foreground image or treat it like a blocked-out section of the document.

Click on the inserted picture, and Word 2010 adds a new Picture Tools tab with a Format sub-tab, as seen in Figure 1.

Figure 1. Picture Format Options.

The first group box, Adjust, contains features to manipulate the picture. Although you can do a better job in some decent picture-editing tools, these are here for your convenience. We'll touch on them here.

Remove Background is a way to try to surround the focal point (usually a person) in a picture and crop out the rest of the picture. It doesn't work so well in my above picture since it's really all background. Instead it tries to crop out part of the sky and leave the sunset, its reflection and part of the mountains.

Corrections lets you sharpen and soften your picture or adjust brightness and contrast. Color lets you adjust the color saturation or tone, or simply change the base coloration. For example, my red sunset could be switched to look blue or green. Here you can also set a transparent color so that your boxy picture of a candle in a dark room could show just the candle, or the picture you took with the white background behind the clay model you want to sell can have the white portion removed.

Next in this group is Artistic Effect, which lets you make the picture look like you painted or sketched it using various effects (like watercolors or chalk).

Finally in this group, you can compress it so it takes less space, switch it to a different picture (new selection), or reset it to its original state.

The next group box, Picture Styles, is primarily used for framing effects. You can add a simple frame, oval frame or drop-shadow. You can also adjust the border color, add effects (like a reflection or glow like you can do with text) or manage the picture layout, which gives you a nice collection of things to make the picture look better in the surrounding document. We'll explore this in a future column.

The next group box, Arrange, is where I want to stop for a bit. The first item is Position, which lets you place your picture somewhere on the page and let the text flow around it. When you click on this, you see the options shown in Figure 2.
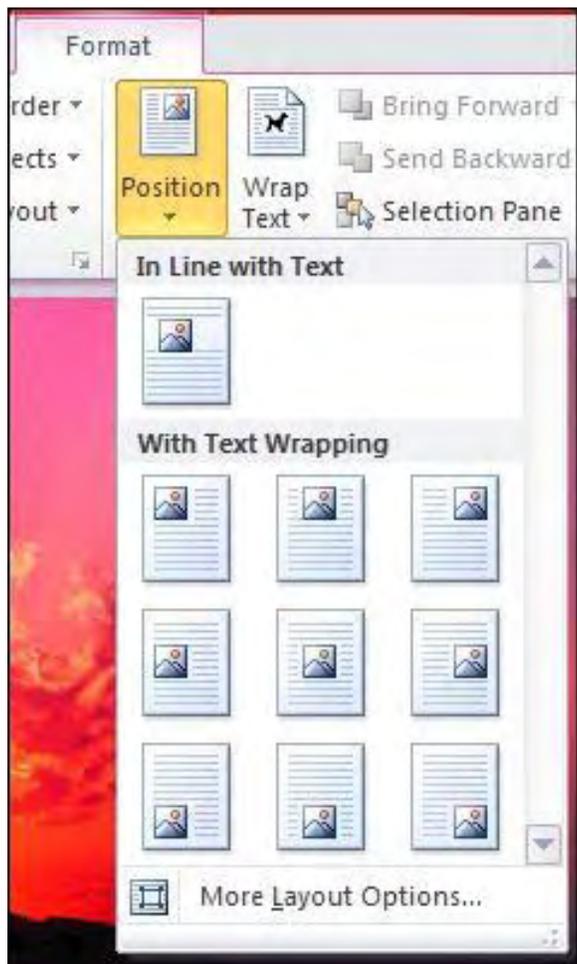

Figure 2. Picture Position Options.

You basically have two options: treat the picture like just another character so it is in line with the text, or set it so that the text can wrap around it. By looking at the samples, you can see that you can set the picture to any of the corners of the page or centered anywhere. If you want it at any particular position, you can also further customize it to align anywhere else on the page.

The next item is Wrap Text. This takes the Position one step further and lets you define how the text will flow around or through the image. You can set it to have the text flow around the box defined by the picture, in which case text flows around the picture as though there's an imaginary border around it, even if the background is transparent. You can also let the text flow in a tight box tightly around the image, with little padding between the text and the picture, or even around parts of the picture, which works well if the image is odd-shaped like a portrait.

And you can even have the text flow through the picture, which really makes sense only if the picture's background is transparent, essentially making the picture a background image. Conversely, you can have the text flow behind the image, which typically makes sense only if the image is at least partially transparent or if the text is just filler text that's not important if some of it is not seen.

In addition to those options, you have a few more. You can make the picture show up on top of other objects or behind them with Bring Forward and Send Backward. You can also view a list of all pictures in the Selection Pane, align the images in a variety of ways, group collections of pictures (if you multi-select by selecting one then Shift-Click to select the next), or you can rotate and/or flip the pictures.

The last group box is Size. This lets you re-size the image horizontally or vertically, or you can crop out portions that you don't want to see.

Note that all of these effects adjust only how Word shows you the image. It does not change the original image.

Playing with pictures is fun, so we'll do more of that at a future time, although again, other tools will likely do a better job since Word is a word processor, not a picture editor.

Fields

Moving on, the business cards we created each have pieces that repeat over and over. Let's create a page that lets us enter the name only once and have Word update it into all of the other cards.

First let's set up a very quick business card page. Add a table that contains a grid of two columns and five rows, similar to what we did last week. Set the height to 2 inches and the width to 3.5 inches. This is easily handled in the Table Tools tab's Layout tab and then the Cell Size group box. Also adjust the page margins so the table fits (a .2-inch top and bottom with .7-inch left and right should work).

With that in place, we'll create the first card (I'll call it the base card), and then create a sort of template card that will pull the information from the first card. After that, we can copy the template card over and over as needed. When we change the base card, we can then tell Word to update the rest of the cards with minimal effort.

Create the base card by adding your business name, your name, address and phone number. Format the pieces to make them look nice.

Now comes the key: We need to bookmark the pieces that will change. Select your name and bookmark it by going to the Insert tab's Links group box and clicking on Hyperlink. You'll get a window that looks like Figure 3.
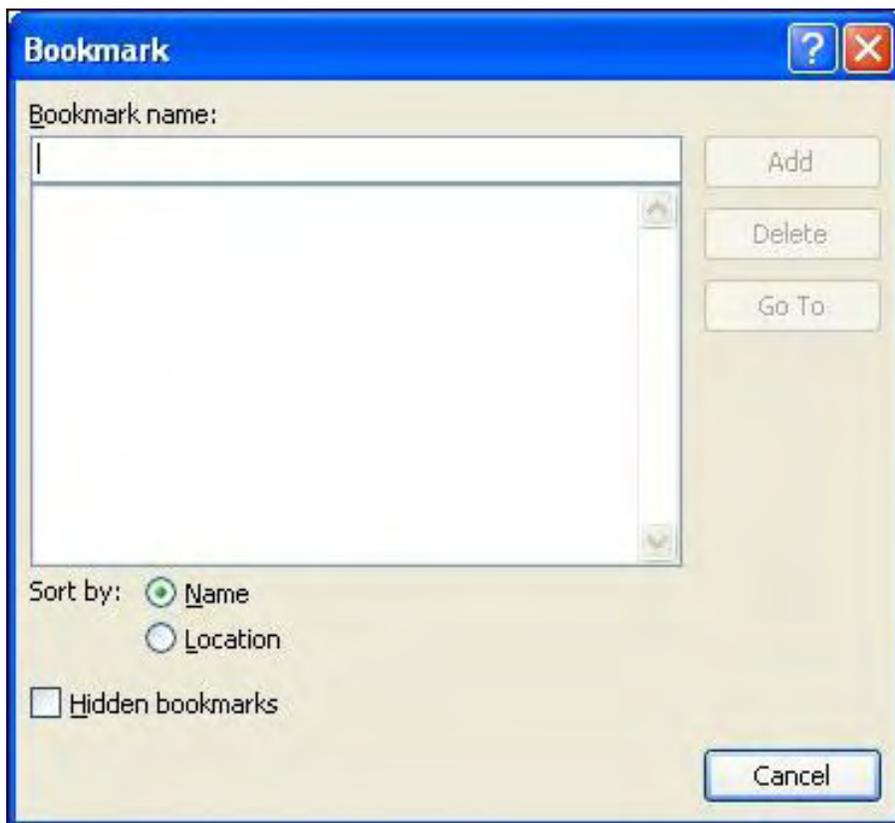
Figure 3. Bookmark Window.

What we need to add is a generic name for what this information represents, just as we did long ago when we went over database information. Since this information represents the employee name, let's call it that: EmployeeName. Note that spaces (and most other symbols) are not allowed, but you can use letters, digits and underscores to make the unique name. Click the Add button and you now have a bookmark.

Bookmarks have several uses in Word. Most often they are used for allowing you to jump to them as needed. For example, if you are writing a dictionary, you could bookmark each word (probably with the word you want to look up) and then ask Word to jump to a bookmarked word any time you want to see the nearby information you added. In our case, we'll use it to get Word to copy the information to another place.

Let's repeat this bookmarking process for the address and phone number. Select the entire address and bookmark it as Address, the phone number as Phone and the business name as Business. As you add the item, it will appear in the list area seen in Figure 3 above.

With this in place, we can now create the template portion of the cards. Go to the second card, and at the top let's add an updatable copy of each piece. If you copied and pasted, you would have a one-time copy and the parts would not be easily updated. Instead, we'll add a reference field. Back on the same Insert tab, proceed to the Text group box and click on Quick Parts to find an entry for Field, as seen in Figure 4.
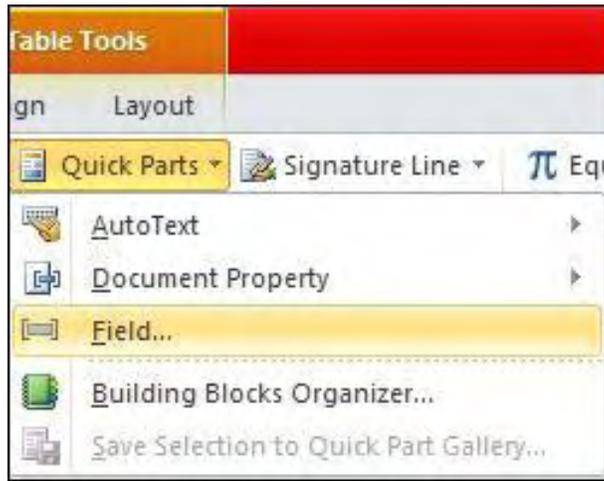
Figure 4. Field Reference.

When you select this, you'll see a window that shows a collection of things that can be used inside fields. Most commonly, these are used for page headers and footers for showing things like the page number and document name. However, we'll use it for inserting our custom bookmark. As seen in Figure 5, click on the Formula button near the top middle.

Figure 5. Field Choices.

When you click on the button, you get another window asking for the formula. If you were doing some totaling you might add some fields together. In our case, we just want the EmployeeName

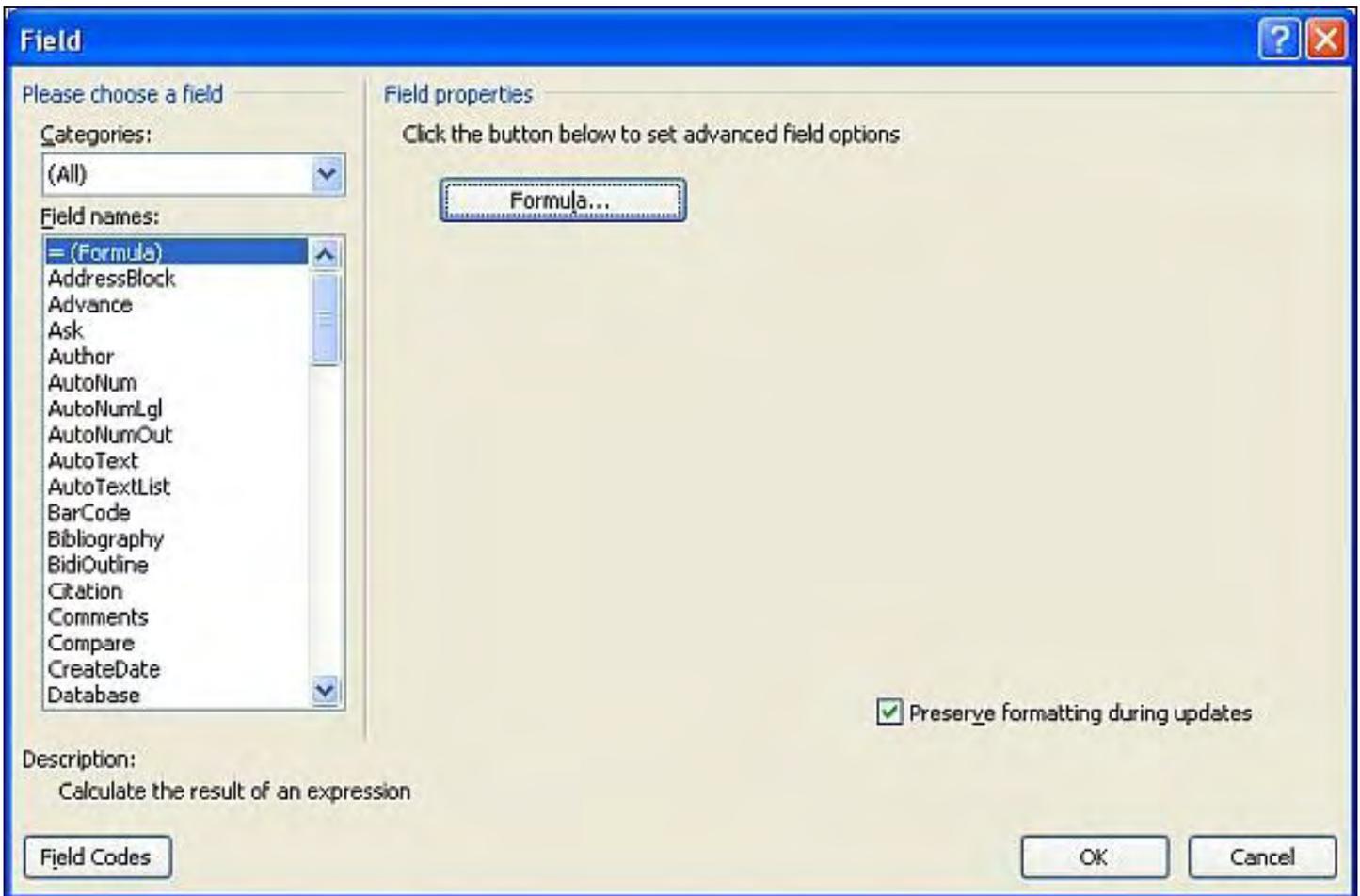field. First remove the equal sign that appears in the formula box, and then select EmployeeName from the "Paste Bookmark" dropdown list. Click the OK button, and you should now see what looks like a copy of the employee name in the second table cell.

Note that when you select any part of the EmployeeName field, the whole field is selected. And although you can edit the text, if you later update it, it will be restored to the original bookmarked value.

Complete the task by adding the remaining fields in the appropriate places. However, be sure that any previous field is not selected when you insert a new field or your field will be embedded inside the other field, which is going to get lost when you update. A simple way to ensure this is to click away from any previous field before inserting the next field. If you see the highlighted background, the field is still selected and you may have to press the Enter key to open an area where you can add the next field and then remove the extra line. When you are done, if you set it up right and did some minor adjustments to alignment and such, the new card will look just like the old card.

That seemed like a lot of work just to copy and paste, right? Well here's the benefit. Copy the contents of the template cell and paste it into the other eight cells. (The best way is to move the mouse near the top-left corner of the cell until it shows a little black arrow pointing up to the right. Click and the cell is selected. You can also use Layout/Table box/Select/Select Cell.) And gee! That's nothing special either. We could have done that from the beginning without all the trouble. So what's the benefit?

The benefit comes when you change the bookmarked items. Go back to the employee name bookmark. A simple way to do that is Ctrl+G, click on Bookmark, and then select the EmployeeName bookmark. Another way is to click on the Bookmark item that we previously used and in the bookmark window (Figure 3) click on the Go To button. Now that you're there, change the name to something else. When you're done, nothing has happened. Unlike Excel, which will typically automatically update formulas, in Word we have to be explicit. To update all of the cards, select all of the document (Ctrl+A works well) and then press the F9 key. If you wanted to update a single field, you could select it and press F9 or make sure it's NOT selected and then right-click it to get a menu that lets you update it.

Next time, we'll explore Mailing labels so that your cards and resumes can go out to a whole group of predefined recipients.

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.

EdgeWord: A Note from the Publisher

"Loading Files to the ComputorEdge Site" by Jack Dunning

Various tools, such as Filezilla and SSH Secure Shell, are used to maintain and manage files on the ComputorEdge servers.

I'm a regular user of Filezilla FTP software—a program for transferring files between computers—but it doesn't do everything that I need, although it has been reliable and efficient. The *ComputorEdge* Web site pages load files from two different Internet locations. HTML and text files need to be uploaded to both. If all that is required is file transfer, then Filezilla is great. But if you need to remotely control Linux-like computers, then something more is called for.

When Jack discovered that he could e-mail to himself, he got stuck in an infinite loop.

The actual *ComputorEdge* Web servers are at a colocation facility with a fixed amount of bandwidth. When sending only text to a browser, not much bandwidth is required to keep the loading speed fast—even if there are thousands of users on at the same time. However, graphics consume considerably more bandwidth based upon their size and numbers. If all of the graphics were loaded from the same server with limited bandwidth, then there could be significant impact on page-loading speed. For this reason, *ComputorEdge* keeps most of the graphics at an alternate location without the same bandwidth limitations. Fortunately, the Web browser doesn't care where you keep all the pieces of a Web page—as long as it knows where to find everything. By designing your Web site for optimizing available bandwidth, you can do some pretty involved things without slowing things down.

The site that stores the *ComputorEdge* graphics is at a standard Web hosting company. There is no need to access the server's operating system, since that is the responsibility of the hosting company. All that is needed is a simple FTP program for uploading and updating graphic files. For this Filezilla does an excellent job. In fact almost any FTP program should be adequate. For a while I was using the FTP extension in Firefox. I forget why I stopped—maybe because I don't use Firefox much anymore.

The programs that drive the *ComputorEdge* Web site are located on our own servers. Although they are installed at a remote location, we are responsible for their support and maintenance.

That means we need to be able to access the operating system remotely. Filezilla and other FTP programs were not designed to do this. For this we use the Windows-compatible SSH Secure Shell (see download locations) (*www.filewatcher.com/m/SSHSecureShellClient-3.2.9. exe.5517312.0.0.html*). (SSH Secure Shell was developed by SSH Communications Security, which is now called Tectia. The program in free for non-commercial use.) This program is useful for file transfer, but more importantly it will offer a secure method for controlling Linux machines remotely.

We use SSH Secure Shell to remotely access the operating systems on our FreeBSD servers with a secure connection. When we log in we get a command prompt, which is essentially the same screen that you can get on any Linux computer. This allows us to control all server features including modifying rights, installing software, and shutdown and restart via the Internet. It is the next best thing to actually working directly on the computer. SSH operates on a default port 22, while FTP uses port 21.

I could use Filezilla with the FreeBSD servers to transfer files, but I've been using SSH for so long, that it is automatic to load the program and login with it whenever I want server access for any reason. There may be other tools that are better for the job, but I haven't needed them.

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

"To Netflix or Not," "Amazon Customer Service," "Wally's Two Cents," "Linux Multimedia: Easier Than Ever"

To Netflix or Not

[Regarding the June 25 EdgeWord: To Netflix or Not to Netflix column:]

I enjoyed your article on Netflix because I recently have become a "member." The way I did it was by canceling my cable subscription, installing an antenna so I could get my local channels on my TV (in HD no less), buying an "Internet-ready" Blu-ray player, and then subscribing to Netflix. I absolutely love Netflix!

The only problem with my Netflix is that, in order to get streaming video or movies to my TV, I've heard that I must have an Internet connection of at least seven megabits per second. I have a broadband connection to my computer with only a fraction of that speed. But Netflix has a partial answer to that. I don't stream a movie to my TV, but watch it on my computer, unless I get one of its DVDs via the mail. When Netflix streams its video, it will spool the content, and if my Internet connection is unable to keep up, the movie will stop and Netflix will spool the content again. This can be annoying to some, but it only takes five minutes. I then take a snack break, etc., until the movie resumes playing, automatically. It's like waiting for a commercial, which I don't mind. With my slow Internet connection, this may happen from one to four times during a movie.

The visual quality of the movies that I stream to my computer is pretty good, but may depend on when the movie was made or other quality factors involving the individual movies.

If my Internet connection were fast enough to handle the streaming videos, I would then watch them on my TV through my Blu-ray player. (Oh, if you buy a Blu-ray player you may want to make sure it has that feature of playing streaming movies to your TV.)

Netflix offers movies, TV shows, etc., for a very reasonable rate, and as mentioned in your article, it keeps on evolving, which will keep it in business for years to come. The mailing cycle for the rental DVDs is very fast and they offer to send one, two or three videos per week, depending on the package you purchase. All in all, a great deal!

-Jerry Hughes, San Diego

Netflix offers *free* DVDs for Wii and PSP units, so you can stream your video to your TV via either of those units. Personally, I have a Roku unit and love it.

-Steve, Escondido

I had submitted a comment about Netflix earlier and would like to clarify. I mentioned that a subscriber could rent out one, two or three DVDs via mail, per week. I misspoke. I think it should be that you may rent out one, two or three DVDs in the mail at a time. Sorry for the misinformation.

-Jerry Hughes, San Diego

Amazon Customer Service

[Regarding the June 25 Editors Letters: Tips and Thoughts from Readers column:]

I was certainly surprised to read the negative comments about Amazon by Stewart Levin. I have always found their customer service outstanding, myself. For example, when I changed my mind about a $100 order a couple months ago, there was no problem at all with my canceling it later, since it had not yet shipped.

-Steve Johnson

Wally's Two Cents

[Regarding the June 18 Editors Letters: Tips and Thoughts from Readers column: Wally's Comments:]

"The Evo is also one of the first app phones that can run Flash videos and animations on the Web, which the iPhone, notoriously, can't."

David Pogue in New York Times, Personal Tech 6/16/10 (*www.nytimes.com/2010/06/17/ technology/personaltech/17pogue.html?partner=rssnyt&emc=rss&pagewanted=all*)

-Ron Cerrato, San Diego, CA

"Verizon promises that the Droid X will receive both the Android 2.2 update...as well as Flash Player 10.1. Apple has lately been adamant about not supporting Flash in its iPhone and iPad devices..."

MSNBC: Technology and Science—Wireless (*www.msnbc.msn.com/id/37877702/ns/ technology_and_science-wireless/print/1/displaymode/1098/*)

-Ron Cerrato, San Diego, CA

Linux Multimedia: Easier Than Ever

[Regarding the June 25 Linux Lessons: Linux Multimedia column:]

Linux multimedia is easier than ever with Ubuntu 10.04 and catagory5.tv's Perfectbuntu. I have set up Linux machines for multimedia faster than you can restore a Windows machine. Ubuntu 10.04 installs the operating system and most of the programs I like to use. It does lack a lot of the non-open-source programs. Perfectbuntu is an interactive script that allows you to choose a lot of these non-open-source programs, including the multimedia programs and codecs. After I run Perfectbuntu, I install some of my favorite Linux multimedia programs: Audacity for audio editing;

VLC for playing DVDs and videos; and K9copy for copying that DVD you haven't had time to watch, but has to be returned in the morning. I don't have a HDTV card, so I haven't set up a PVR, but I'm thinking about it.

-Dennis, 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*.