ComputorEdge™ Online — 10/09/09



This issue: Digital Cameras

The latest on what to look for when buying a digital camera. Plus, how to make the best use of the digital camera in your phone.

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

A reader needs to create a file association in order to open pictures; a reader's specialized software won't run on her new Vista computer because of dongle issues; a reader has a question about IP addresses.

Dear Digital Dave,

For a long time now (more than nine months), when I click to open a picture or document in Documents/My Pictures, a message opens and reads, "This file does not have a program associated for performing this action. Create an association in the folder options control panel." I have looked in the options control panel, but nothing there helps. Can you help in this matter?

Wally Schultz Colorado Springs, CO

Dear Wally,

A file association is when a program is assigned to load whenever a file with a specific extension (.jpg, .html, .doc, etc.) is opened (or double-clicked). When Windows does not recognize the extension as being associated with a program, you will see the message you cited.

There are a number of ways to create a file association, but by far the quickest way is to right-click on the file and select "Open With/Choose Default Program" (see Figure 1). You will be given the opportunity to either select from a list of recommended programs or to browse for others. (While the layout may vary, this works in Windows XP, Windows Vista and Windows 7.)

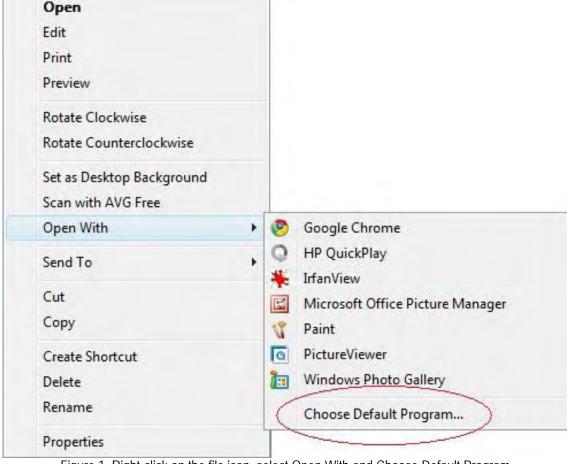


Figure 1. Right-click on the file icon, select Open With and Choose Default Program.

If the proper checkbox is selected, the target program will be permanently assigned to that file extension.

As you install various programs, they will often give you the opportunity to make the software the default program. If you say yes, the installation will change all the pertinent file associations to the new program—some may not be what you expect. Sometimes in the process associations that you wanted to keep with another program will change. If you have numerous programs installed on your computer, you should avoid making a new program the default until you're sure it is what you want.

Digital Dave

Dear Digital Dave,

I have a home-based embroidery business and just had to get a new laptop (Vista). My embroidery and digitizing software will not work with Vista because it won't accept the dongle. The software company says I have to buy a new \$500 program and use that. Is there any way around doing this, as I don't want to pay that much for another program when mine is perfectly good?

My old laptop just quit on me.

Theresa Linda Fairplay,Co.

Dear Linda,

It sounds like you have a parallel-port dongle. The parallel port is the old printer connector that has now been replaced by

USB. Most new computers do not come with parallel ports anymore. To use the dongle, you will need to add a parallel port to your computer—plus you may need special drivers to get your computer to recognize the parallel.

I've never tried adding a parallel port to a Vista machine. There are USB-to-parallel adapters/cables available. However, I suspect that you might need special drivers to make it work. Another option is to get a parallel port expansion card. A search of the Web will indicate availability.

It is possible that the Windows drivers would work if you can install a parallel port that can be recognized by Vista. This would be a trial-and-error process, because it may be that the drivers from your software won't work in the Vista environment. In a test of a similar situation, an older XP driver for a USB dongle worked with Vista, but you had to manually browse for the file in the Device Manager or the New Hardware Found Wizard.

If this company is like many other small software companies, they use only the USB dongles now, and possibly just as a backup for when the software protection has a problem. They won't offer a USB for older versions of their software. Software companies must focus on new technology, and at some point cut off work on old versions.

If the software company is a diligent business, their effort to create newer and better software should be adding more benefits in the new program for their users. In other words, there should be other valuable features included when purchasing the new software—besides merely solving the dongle problem. Otherwise, I would consider looking closely at the competitors' software packages.

The other option is buying a used computer that has XP and a parallel port, just to run that software. I'm sure you could get one for under \$200. When Windows 7 is released, there will be many used XPs suddenly available.

Digital Dave

Dear Digital Dave,

I've noticed that when I download pictures, the IP address that comes up is always the same. Why?

Mike Barletta Spring Valley, CA

Dear Mike,

There are many things that I would need to know before I could properly answer your question. But I've never let that stop me before—why not give it a shot now?

The IP address is a series of numbers assigned to specific locations on a network or the Internet. These numbers are characterized by four sets of three numbers (0 to 255) separated by dots (.) in the form xxx.xxx.xxx.xxx. This is how systems find their way around networks and the Internet. Every location on the Internet will have its own address, which in the case of servers rarely ever changes.

In your situation, either you are always downloading pictures from the same location, and therefore seeing the same IP address, or the IP address you are seeing has nothing to do with the downloading site. More than likely, you are seeing your own IP, either the one assigned to your computer or the router/modem IP.

If the IP address takes the form of 192.168.xxx.xxx (starts with 192.168.), then it is an internal IP not exposed to the Internet. Your modem IP would be an external IP, but may not change often.

Naturally, this answer is a shot in the dark since I don't know what software you are using, or where you're reading the IP. However, if it never changes, it is probably assigned to you. Enjoy it!

Digital Dave

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Digital Cameras: Where to Start

"A primer on digital camera basics." by Pete Choppin

Beginners are faced with a bewildering array of digital cameras on the market, with a slew of new terms and acronyms. Here's how to decide which digital camera is right for you.

Digital cameras can be confusing to those new to digital photography, and even for some of the more experienced photographers from the days of film. In this article, I will give digital beginners the basics to use in deciding which digital camera is appropriate for them, as well as an understanding of the common features of digital cameras.

When shopping for a digital camera, it's good to know what the basic terms—such as "white balance," "pixel," "ppi" and "dpi"—mean and how they affect image and print quality. It's also important to know the difference between features such as optical zoom and digital zoom, as well as the advantages and disadvantages of storage formats such as Compact Flash (CF), Microdrives, Sony Memory Stick, Secure Digital (SD) and multimedia.

Choosing a Camera

There are countless digital compact cameras out there, many of which look much the same and offer similar functionality. So which one is right for you, and how do you sift through the myriad features and functions? That depends greatly on two main factors: what you plan to use it for, and your budget.

Expectations

Before you rush out to the stores and spend a lot of money, you must decide what you want to get out of a digital camera. Buying a digital camera and expecting your photos to come out like they do in the magazine advertisements is like taking a roll of film to your local one-hour photo lab and believing your pictures will be as good as the ones on display—taken by professionals on professional equipment and certainly not developed at the photo service in your local drugstore.

My first camera I spent real money on was not digital at all. It was a Minolta 35mm film camera. I never intended to "go digital," and for a while I held onto the belief that film had its own unique image properties that

digital could never achieve or replace. Since then, I have changed my mind about digital photography.

Digital has come of age and can certainly compete with 35mm film, especially in the compact camera market. But without knowledge of how to use a camera, or how to manipulate digital images with software like Photoshop, you will not achieve better or more consistent results. One major plus is the LCD screen on the back of the camera, letting you see the image you have taken and giving you an opportunity to try again if you wish, all without the costs of extra film and development. To get that extra quality, you will need to know and understand about resolution, white balance, levels/curves, cropping, and many other concepts. They are not hard concepts to grasp, thus making your digital photos look much better, but you will need to invest the time to learn the techniques.

That said, if you are happy with the quality of your 35mm film camera developing and printing at the local minilab, but want a digital because you won't have to worry about the expense of film anymore, be able to share your pictures with others across the globe, and only print those photos you really want prints of, an inexpensive digital camera may be all you need. There's a lot to be said about digital cameras, but nobody can say that they are not a lot of fun—being able to snap away without worrying about costs of film and seeing instant results is the greatest thing since the invention of photography. But please do all your friends and family a favor—just because you shoot more pictures doesn't mean they want to see all of them. Pick out the best and only show those!

A Word about the SLR



Single Lens Reflex (SLR) cameras, with interchangeable lenses used by professionals and discerning consumers alike, have been available in digital variants for a couple of years now, and with their prices coming down fast, many consumers are tempted to buy them. It is beyond the scope of this article to explain all their details, but you should know what you are getting into before shelling out \$3,000 on a camera, memory cards and lenses. Many people have been disappointed by their first digital SLR because of the complexities of these cameras. They are designed as professional tools, and more than likely, if you use it as a point-and-shoot automatic, your results will be less than those of a camera

designed for that purpose. In general, unless you have been using an SLR for years as an advanced amateur or professional, you may find the learning curve of these cameras daunting to say the least. If you are just learning about digital photography or have not been exposed to photography techniques using the aperture, shutter speed, depth of field, etc., you are probably not ready for a digital SLR. You have been warned.

Camera Features



Now that we've spent some time discussing the pros and cons of different camera types and covered the preliminary consideration before going shopping, let's talk about the digital camera and what it can and cannot do.

Megapixels

On most Web sites that sell cameras, as well as store shelves, digital cameras are lined up by their "megapixel" count. Megapixel simply means "million picture elements," or dots that make up the image. The number of megapixels is simply the number of horizontal pixels multiplied by the vertical pixels. For example, 1,600x1,200=1,920,000 pixels, which any marketing department will happily round off to 2 megapixels. How many do you need, then? That depends on your use. If you only plan to put your pictures on a Web page, a 1.3-megapixel image is about five times bigger than you need. However, if you want a decent quality 11x8-inch print, a 4-megapixel camera is your friend.

Below is a table showing the megapixels you need for which print size and which screen resolution this gives.

Megapixels vs. Resolution and Print Sizes					
Megapixels	Resolution	Print 300ppi	Print 150ppi		
1.2	1280×960	4.3x3.2"	8.7x6.4"		
2	1600x1200	5.3x4"	10.6x8"		
3	2048x1536	6.8x5.1	13.6x10.2"		
4	2272×1704	7.6x5.7"	15.2×11.4"		
5	2592x1944	8.6x6.5"	17.2x13"		

Megapixels vs. Resolution and Print Sizes

But this isn't all there is to it. Manufacturers do not put their best quality CCD or CMOS censors (the light-sensitive component behind the lens that records the image) and best lenses in their lower-resolution cameras. So it is quite possible, even when your picture is scaled down to only 600x450 for Web page use, to tell the difference between a 4- and a 1.3-megapixel camera. In most cases, however, if you buy a 2-MP camera and make 6x4 prints from it, you will generally have a quality similar to, if not surpassing, a 35mm point and shoot. And you can e-mail these images or post them to a Web site.

Lens

It used to be, in the old 35mm film days, that you put your money in your lens and not in the camera. What this meant was that we relied heavily on the quality of the lens to provide a good image. In film photography, the lens plays a crucial part in light, focus and clarity. Because digital cameras have a much smaller image area than a big 35mm negative, they only need a very short focal length (distance from the lens to the CMOS sensor) lens to achieve the same magnification. Quite often you will see lenses in the single digits on the wide end, but usually, the 35mm equivalent focal length is given, so a 35-70mm zoom lens will act the same as it did on your 35mm point and shoot.

Shutter Lag

Before taking the actual picture, a camera needs to focus, work out exposure and do many other things to be ready to record the image. The time it takes from pressing the shutter release to taking the picture is called shutter lag. It is a problem in many compact cameras and even more so in digitals. This delay is different in all cameras, and you should check it in-store before you buy, as a long shutter lag may result in missing the "decisive moment." An object may already have moved out of frame by the time the picture is taken. One way to minimize this is with a feature called pre-focusing. When you press the shutter release halfway, the camera will focus, set exposure and, if needed, charge the flash, indicating in the display or viewfinder when it is ready. Keep the shutter depressed halfway until the best moment, and then press it fully. Your camera should now take the picture almost instantly. If it doesn't, move on to the next model.

Flash

The short answer is deal with whatever is on your camera. For me, this is simply not a show-stopping feature that would make the difference in whether I purchased a camera or not. If you do buy a better camera, you may want one that has a connection for an external flash, which will be vastly superior to whatever you find built into any camera.

Memory Cards

There is an ever-increasing number of memory card formats available and, in all honesty, for general use they don't differ all that much. You may want to keep in mind that more than one person in your household has a camera or memory card equipped MP3 player and settle on one format, but other than that you should be more

interested in the price of the cards. And at that, the price is decreasing fast.

File Formats

Every camera offers a JPEG option, and in general I recommend using the highest JPEG quality setting at the camera's highest resolution. This will result in reasonable file sizes and quality. More expensive cameras also offer TIFF or RAW files. TIFF is an industry standard non-compressed (or light-lossless compression using the LZH protocol) file format. It produces giant files, though. RAW is implemented differently by different manufacturers and really is the raw data from the CCD, which also tends to be quite big but nowhere near the size of a TIFF. You will need the camera's software/drivers to create a TIFF or JPEG image from it.

Power

Some cameras work with AA size batteries; others come with a rechargeable lithium-ion battery and adapter to charge it. Both systems have their merits. You can buy pretty powerful rechargeable AA batteries, but still a lithium-ion battery specifically designed for your camera is likely to give better performance. If you choose a camera that uses a special battery with its own charger, getting a second one is probably the smart thing to do; you will one day forget to charge it. Personally, except for the most casual of shooter, I recommend a camera that comes with rechargeable lithium-ions, but be sure to buy a spare (or two) if you do heavy shooting.

Computer Connectivity

After you have taken the shots, you will probably want to transfer them to your computer for editing, e-mailing, printing and archiving. Most, if not all, cameras connect to your PC or Mac via USB. Some cameras only connect with special drivers, which you have to install (and may contain bugs), and need to be kept up to date with newer versions of your operating system in a few years time, and are therefore generally a pain. The better way is if your camera acts as a "USB Mass Storage Device." All you need to do is plug the USB cable into the camera and into the computer, and it appears in Windows or Mac as a removable drive from which you can simply copy the image files.

Other Considerations

Many cameras offer special effects and other tricks, most notably movies, sometimes even with sound. Movies are an added little extra, but don't expect too much from them. As for special effects, those are nothing you couldn't do in photo-editing software like Photoshop after you transfer the images to a computer with better quality and more control.

On the zoom side, most cameras offer only the usual "zoom in" and "zoom out" buttons for motorized zoom, which is usually too fast to get your composition exactly right. Again, on the higher end of the spectrum you will find SLR cameras that offer a zoom ring on the lens for accurate zooming.

Very important is how easy it is to use all these functions, and if the camera can remember all of them or if it goes back to factory default every time you turn it off or change the battery. When you go into a shop, play with some cameras and see which ones you like. Take some pictures. Is the menu system easy to navigate? Is the image quality what you expect? Does it respond the way you would like?

Avoiding Rip-Offs

It's sad to say, but there are more dishonest discount camera stores than you'll find in almost any other business. Some of the popular photography magazines are cram full of ads advertising very low prices. What they don't tell you is that you won't ever actually get the camera for that price. Either they will add on \$75 in shipping charges or they will be "out of stock" on that model, but they will have a more expensive model available, of

course. Sometimes they'll tell you that the advertised plastic camera is made in Taiwan, but for another \$50 you can get the model made in Japan. Sometimes they'll ship you the wrong item in the hopes that it will be too much trouble to send it back.

The key to avoiding being ripped off is to do a little homework. Find out what the features really are and how the camera actually works. Then, armed with knowledge, shop around. Compare the online prices of specific models and then try them at the store.

Remember the old adage—you get what you pay for—often applies to photography equipment.

Resources

- Excellent camera reviews and comparisons (www.digitalcamerareview.com/)
- Adobe Photoshop learning and photo storage (www.photoshop.com)

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Cameras in Your Phone

"Catch the shots you may otherwise have missed." by Dawn Clement

If you're waiting for the price of 12-megapixel camera phones to come down, there are definitely ways to improve the quality of pictures taken on a low-megapixel camera phone.

If you're a professional photographer, you probably already know about the Hasselblad H3 DII-39, which is a high-end digital camera with an astounding 39 megapixels. It comes with an equally astounding price tag—\$21,995! I am not a professional photographer, and I do not have a Hasselblad. I take a lot of pictures, but I use a \$99 Polaroid T1031 with 10 megapixels. When I don't have my Polaroid handy, I sometimes use the camera built into my cell phone. The camera in my Motorola Razr has 1.3 megapixels. It doesn't take great pictures, but I have used it to take some shots that I otherwise would have missed. For a digital camera, the Polaroid is pretty good for the price. The Razr, however, is more of a toy.



"We don't have any pictures of our vacation because Jim bought one of those disposable digital cameras.

Tossed in the trash when he was done."

That's all about to change, because the 12-megapixel camera phone is on its way. Earlier this year, Nokia, Samsung, LG and Sony Ericsson all announced plans to release 12-megapixel camera phones.

It may be a while before I get my hands on a 12-megapixel camera phone. The Nokia N98 hasn't been "officially" announced yet, but word on the street is that it will be unveiled later this year or early next year. The LG Louvre GC990 is still technically a concept phone, and LG is not planning a market release anytime in the near future. The Samsung Pixon 12 is currently available only in South Korea, but if you're optimistic, you can pre-order one on Amazon for \$899.99 The Sony Ericsson Satio (previously called the Idou) is scheduled to be released in the U.S. on October 7, 2009 at a cost of \$799. I think I'll wait for the prices to come down a bit.

In the meantime, there are definitely ways to improve the quality of pictures taken on a low-megapixel camera phone. The most important thing to remember when using a camera phone is that it's not the same as a standard camera. The sensors, lens curvature, and capture abilities have been optimized for a device originally designed to

pass voice twisted antennas. Read your phone's user guide, and figure out exactly what the camera is capable of. Set your resolution to the highest level possible, and keep the lens clean. Don't use the zoom function, as this lowers the resolution of the final picture. Instead, move in closer to your subject. There's probably a shutter delay of a second or two, so keep the phone steady for a few seconds after you've pressed the button to reduce the possibility of blurred pictures.

Follow standard rules of composition when using your camera phone. Make sure there's plenty of ambient light,

as most camera phones do not have a flash. Use a plain background and shoot at eye level. Experiment with the white balance if your camera has one, and take lots of pictures. Experiment with camera angles and don't trash your "mistakes." Remember, you can always edit the pictures later on your computer, and you'll never know what those mistakes could turn into if you throw them away.

Cell phones have limited storage space, so it's a good idea to download your pictures to your home computer on a regular basis. This is the best way to avoid having to delete pictures you don't really want to lose. There are three ways to get the pictures off of your camera phone. You can e-mail pictures to yourself or someone else using your camera's messaging features. If your camera supports Bluetooth, you can copy the pictures to a Bluetooth-enabled device (i.e., your computer or printer) wirelessly. Or, you can connect a USB cable to your camera and download the pictures that way.

Most camera phones support USB connections, but usually don't come with a USB cable. You can find a cable for your particular cell phone by contacting your wireless service provider. You will also have to install driver software for your phone on your computer. If you don't have the driver software, you can probably find it online (or contact your service provider). For example, Motorola offers the iDEN Media Downloader on its Web site. Once you've installed the software, just connect your phone to your computer using the USB cable and download the pictures. Of course, there is also third-party software that you can use to transfer pictures. BitPim, for example, is a free software program that you can use to copy photos to and from some LG and Sanyo phones.

The fun starts once you have your pictures on your computer. With all of the editing software available today, it's easy to turn even those camera phone mistakes into works of art. One of my favorite tricks is to zoom in on my subject and crop it. Remember—don't zoom on the camera phone itself (it reduces the quality of the final picture even if it looks OK on the viewfinder). The editing stage is where all zooms should take place. If you've already got Photoshop or another editing software, you're set. If you don't, there are plenty of good programs you can download for free.

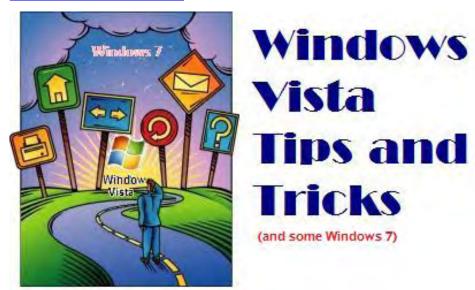
Mobile Photo Enhancer (*mobile-photo.smartcode.com*/) from Smart Code is an extremely useful little program that comes in a free Lite version, so you can decide if you want to pay for the full version or not. Pic Treat (*www.pictreat.com*) is another free program that is specifically designed to improve the quality of portrait shots. Picnik (*www.picnik.com*) works with Windows, Mac and Linux, and will even synch up from one of the many online photo-sharing sites (i.e., Flickr, Picasa, MySpace).

I carry a very large purse filled with stuff. Not because I want to, but because I'm a mom. Whenever I find a trick to reduce the amount of stuff I have to carry around, I get just a little bit excited. Right now, I have a cell phone, a camera, and an MP3 player in there. With the advent of 12-megapixel camera phones, I could trade in three devices for one—that's an extremely attractive proposition! When you factor in the cost of each device separately, it's not as expensive as it initially sounds.

G_0	ahead	l—be	excited.	Be very	/ excited.

Dawn Clement is a freelance writer, domestic engineer, and mother of three with a Masters of Arts in Philosophy and over nine years experience in technical support.

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Windows Tips and Tricks

"Windows Photo Gallery and E-Mailing Photos" by Jack Dunning

The move from Windows Vista to Windows 7 includes some minor—yet important—variations in how to e-mail and store digital photos, including Windows Photo Gallery changes.

I've found Windows Photo Gallery in Vista a convenient tool. It makes it easier to find the downloaded images from my digital camera. I first talked about the Vista program last year in Windows Vista Tips and Tricks dated July 18, 2008. Photo Gallery automatically sorts your image files any way it can. I've never been very good about labeling all of my pictures, so the fact that the date from the camera (one of the sorts) is embedded in the file has made everything much easier. I also create a new folder in the Pictures folder whenever I download new photos, thus giving me another sort of the images. In Vista Windows Photo Gallery, it's easy to store, sort, edit and view photos. I rarely have a problem locating a particular image. If I were better about tagging the photo, it would be even easier.

While Windows Photo Gallery is not included with Windows 7, there is a free download of Window Live Photo Gallery (*download.live.com/photogallery*). The primary difference that I can see in the Live version of Photo Gallery is that it has built-in support for storing your photos online and sharing with family and friends. Otherwise, the program looks functionally similar.

As I pointed out last year, Windows Photo Gallery in Vista is one of the easiest ways to e-mail pictures, but to be fair you don't need the program to quickly e-mail photos. In Vista, anytime you highlight a file in Windows Explorer, an E-Mail button will appear in the top menu bar (see Figure 1). When you have selected a file (or multiple files), clicking the E-Mail button will bring up the picture size-selection dialog box. This allows you to e-mail multiple photos by reducing the size enough to fit your e-mail constraints. It's a quick way to use your e-mail to share pictures.

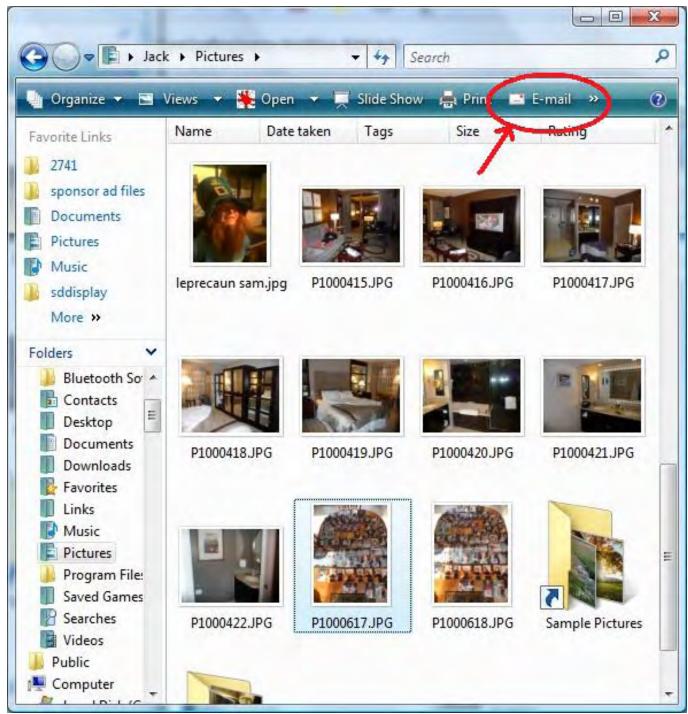


Figure 1. When a file is selected, the E-Mail button appears in the menu.

However, this E-Mail button does not appear in Windows Explorer in either Windows XP or Windows 7. It must have been a Vista experience that was less than satisfying to old XP users. (The E-Mail button does appear in the top menu bar of all versions of Photo Gallery.)

Sending Photos by E-mail in Windows XP and Windows 7

One of the features of Windows XP that Microsoft must have decided was a winner was using the right-click menu to send files via e-mail. In XP it was always easy to e-mail a file by right-clicking on the file, then selecting Sent To (see Figure 2). Selecting Mail Recipient initiates a dialog allowing either sending full-size images or reductions. (The dialog for e-mailing in both Windows Vista and Windows 7 allows the selection of various images sizes while calculating the total estimated size for all attachments to be included in the e-mail.)

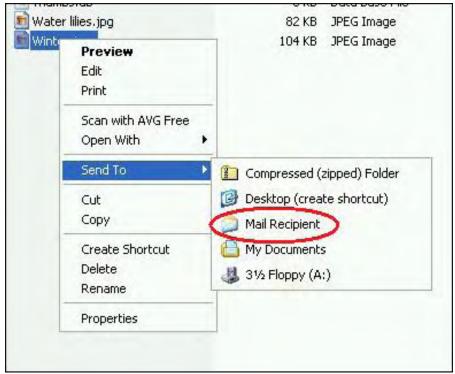


Figure 2. E-mailing a photo in Windows XP (right-click on file).

There must have been a ton of complaining when this right-click technique was removed from Vista (see Figure 3). Microsoft probably figured that people wouldn't need the right-click technique if the E-Mail button always appeared in the top menu. But as with so many things, once a person learns to do something one way, they can't even see the other options. As you will note by Figure 3, the options listed under Send To in Vista are primarily logical storage drives.

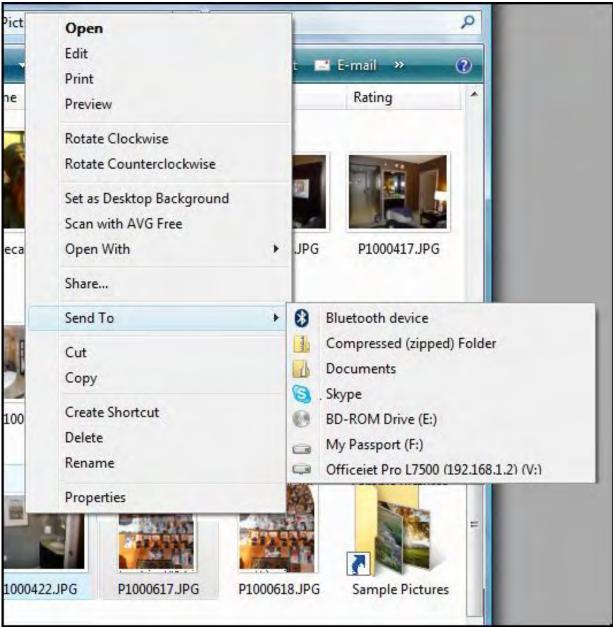


Figure 3. In Windows Vista there is no e-mail option in the right-click Send To menu.

In response, Microsoft has decided that Windows 7 will return to the XP method for e-mailing files by right-clicking on the file icon and selecting Send To, then Mail recipient (see Figure 4). At the same time, the old Vista E-Mail button has been removed from Windows Explorer's top menu bar in Windows 7. This may be a boon for all the old XP users that never tasted Vista, but for those who grew to love this particular Vista top-menu technique, it's a disappointment. However, once they learn how to right-click and select Send To (something people rarely bothered with in Vista), recovering Vista users will quickly adapt.

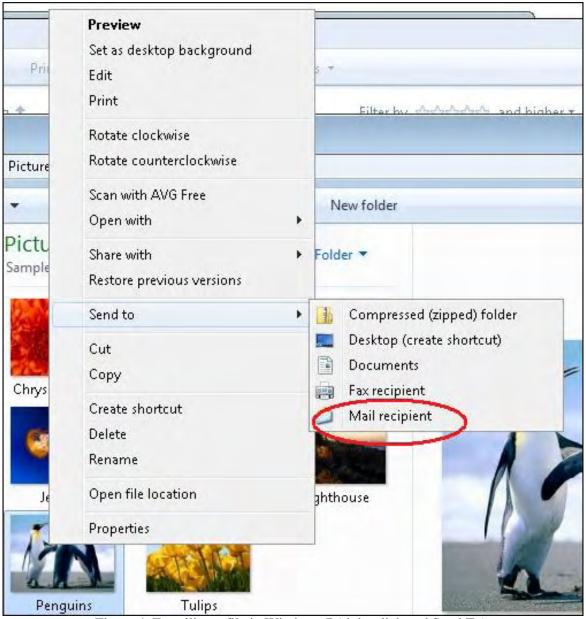


Figure 4. E-mailing a file in Windows 7 (right-click and Send To).

If you regularly e-mail photos to your family and friends in Windows, then you will want to know these differences in Windows releases. If not, then all of this will seem pretty trivial. However, it's the little things that tend to drive us crazy. I predict that in a couple of months, Digital Dave will get the question, "Why can't I e-mail my photos in Windows 7 (menu bar in Windows Explorer) the way I could in Vista?" (I'll let Dave deal with that.) As I come across these seemingly innocuous little variations, I will continue to make a big deal about 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*

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Wally Wang's Apple Farm

Wally Wang's Apple Farm

"iPhoto: Your Digital Photo Destination" by Wally Wang

While there are plenty of different digital cameras to choose from, the ultimate question is, where are you going to put your pictures? If you're a Mac user, the answer is to store your pictures in iPhoto. Also, an update on Wally's stolen MacBook; a look at Microsoft's "laptop hunter" ads; and a tip on defining the programs to load with different types of discs.

Digital cameras have improved dramatically over the years. Initially, digital photographs offered much poorer resolution than traditional film cameras. Nowadays, with resolutions up to 8 megapixels or more, digital cameras are for all intents and purposes equal to film, but with greater convenience.

While there are plenty of different digital cameras to choose from, the ultimate question is, where are you going to put your pictures? If you're a Mac user, the answer is to store your pictures in iPhoto.

At the simplest level, iPhoto lets you store pictures, tag them with descriptive labels, and display them when you want to see them again. While storing pictures is easy, finding them again can be much harder, so to help you out, iPhoto offers a Places and Faces feature.

The idea behind Places is that you can tag a picture with the physical location where you captured it, such as in San Jose, Paris, or the Grand Canyon. Now if you want to find all pictures taken in Paris, iPhoto can retrieve just those pictures in an instant.



Figure 1. Places lets you organize pictures by the physical location where you captured the image.

Some newer digital cameras include a GPS chip that can automatically tag every picture you take with the location where you took it. That way iPhoto can identify your pictures by location right away.

If your camera won't tag your pictures with GPS coordinates, you can manually add the location of a picture by just clicking on a Google map within the iPhoto program. Obviously, manually tagging your pictures will take time, so if you think this feature might come in handy, look for a GPS-enabled digital camera.

Another way to organize pictures is through Faces, where iPhoto examines your images and tries to match a face if it appears in any of your other pictures. That way if you take a picture of your daughter in Paris, iPhoto can recognize her face in pictures captured in your backyard or Las Vegas.

Although iPhoto's facial recognition software isn't 100 percent accurate, it can automate the task of organizing and grouping your pictures so you can effectively dump them into iPhoto, tell the program to recognize a particular face, and then let iPhoto rummage through thousands of pictures to match all (or at least most) of your pictures that contain that same person.



Figure 2. iPhoto can identify faces in a picture that you can name.

Of course, iPhoto can also organize your pictures based on the time and date you captured them. For minor corrections, iPhoto can modify your pictures slightly, such as rotating, cropping, or removing red-eye. For more sophisticated photo editing, you'll probably want a program like Photoshop Elements (www.adobe.com/products/photoshopelmac) or Pixelmator (www.pixelmator.com), but since iPhoto comes free with every Macintosh, you might as well give it a try and see if it works for you.

Stolen Laptop Update

Here's a reason to buy your next Macintosh directly from Apple. When I had my MacBook stolen while sitting in a Starbucks in Tempe, Arizona, I didn't have the serial number of my computer recorded. However, I called Apple, told them what happened, and asked if they could search their sales records to determine what serial number my laptop had. To my surprise, they could.

A day after calling Apple, they sent me a copy of my original 2007 invoice showing exactly how much I paid for my MacBook, its specifications, and most importantly, its serial number (2Y71600BWGL in case you happen to find a used MacBook being sold by any thieves in the Phoenix area).

Armed with the serial number, I could then provide the Tempe police department with this number in case they happened to find it (long shot, but better than no shot at all). I also visited the Stolen Computer Registry (www. stolencomputers.org/home.html) and posted the serial number in their database.

According to this site, they list serial numbers of stolen computers that people can use to verify that a used computer being sold isn't stolen. Whether or not this database will be effective or not is questionable, but some chance is better than no chance at all at letting others know your particular computer has been stolen.

Since Apple doesn't print the serial numbers of computers directly on the outside case, here's how you can find the serial number on your Macintosh.

Click the Apple menu and choose About This Mac. This opens a dialog that explains how much memory your Mac has and its processor type and speed. Click the More Info button and the System Profiler program appears, listing your serial number on the screen. Now copy this information down and store it in a safe place so you'll be able to retrieve it again in case your computer gets stolen.

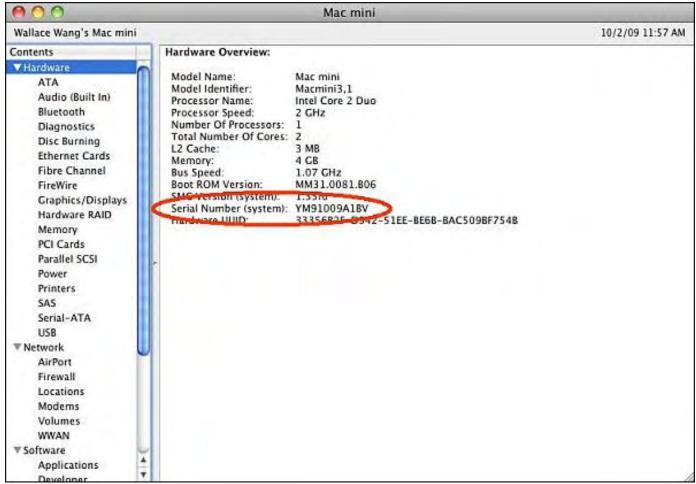


Figure 3. Finding the serial number of a Macintosh.

Microsoft Laptop Hunter Ads

Steve Ballmer, Microsoft's CEO, recently gloated to a roomful of financial analysts that Microsoft's Laptop Hunter ads, criticizing Apple's higher prices, was working. Of course, Steve Ballmer also noted that the majority of the analysts in the room were using Apple laptops at the time. See Business Week (www.businessweek.com/technology/ByteOfTheApple/blog/archives/2009/07/more_faint_prai.html).

Here's the big difference between Microsoft and Apple. By focusing on price, Microsoft is training customers to make decisions solely on the lowest price possible. That's why so many people are buying less expensive netbooks and leaving Apple with 91 percent of the \$1,000 and up laptop market.

With netbooks eating away the traditional laptop market, Microsoft and its partners are left selling lower-priced computers with increasingly smaller profit margins. Meanwhile, Apple, with its much smaller market share, can sell a single laptop and rake in as much profits as another company can selling a handful of netbooks.

What's easier to do? Sell to multiple customers or sell to one customer? PC manufacturers are simply killing

each other in their quest to lower prices as far as possible. While this improves market share, it also kills profit margins for everybody.

Tony Hsieh, the CEO of Zappos.com, said, "If someone is buying just on price, then we really don't want them as a customer."

The rationale behind such counterintuitive thinking is that it takes a lot of effort to sell to a single customer, so if you're going to take all that time and effort, you might as well sell a high-margin item rather than a low-cost commodity. After all, why work your butt off to earn a paltry \$5 in profit when that same amount of advertising and marketing could have netted you a \$500 profit?

Who do you think makes more money with less work? The corner 99-cent store or a department store like Nordstrom? Nordstrom may not sell as many items as a 99-cent store, but profits from one item can easily exceed the profits made by selling a thousand 99 cent items.

That's the big difference between Microsoft and Apple. Technical issues and personal preference aside, Microsoft is gunning for the large marketshare, slim-profit-margin business model, while Apple is aiming for the smaller marketshare, but higher profit margin of more affluent customers.

What should alarm Microsoft is that Apple continues selling an increasing number of Macintosh computers while the rest of the PC market is treading water. The more users defect to the Macintosh, the harder Microsoft and its partners will have to work to sell to an increasingly smaller market that demands increasingly lower prices.

Dell Computer recently earned \$472 million on sales revenue of \$12.76 billion. In comparison, Apple earned \$1.23 billion on sales revenue of \$8.34 billion. For less work, Apple earned three times more money.

Would you rather work twice as hard for half the profits, or work half as hard for twice the profits?

To claim that Microsoft's Laptop Hunter ads are working may be accurate in getting consumers to believe PCs with Windows are cheaper, but it's like cutting your own throat in the long run. When your only advantage is a lower price, you're basically targeting people with the least amount of money who are the hardest to sell to and who will generate the smallest amount of profit. Does anyone at Microsoft ever ask, "Is it really worth it?"

Once you train customers to expect lower and lower prices, it's nearly impossible to raise prices and expect those same customers to accept it without question. In the race for the bottom, Microsoft is helping drive the entire PC industry to the brink of bankruptcy. If that's the goal of Microsoft's Laptop Hunter ads, then Steve Ballmer is right. They are working.

* * *

By default, Mac OS X assumes that if you insert a DVD, you want to start the DVD Player program so you can watch a movie; if you insert an audio CD, then you want to load iTunes and listen to your music; and if you insert a CD full of pictures, then you want to load iPhoto to view and import the pictures.

For most people, that may be fine, but if you want to use a different program to watch movies, listen to audio CDs, or access your pictures (such as using Adobe's Lightroom instead of iPhoto), you can switch these defaults by clicking the Apple menu and choosing System Preferences to open the System Preferences window.

Click the CDs & DVDs icon under the Hardware category and you'll see a bunch of pop-up menus that let you define how your Macintosh should respond to different types of discs. From here you can click on each pop-up menu and choose a different program to use by default.

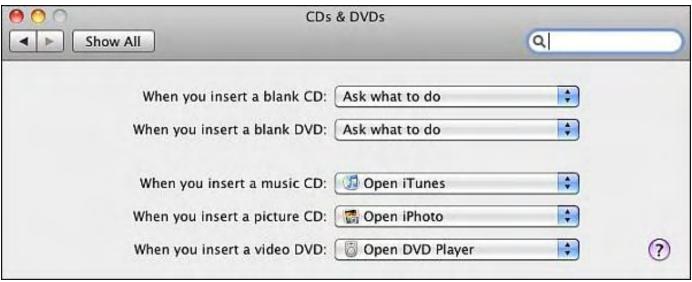


Figure 4. Defining the programs to load with different types of discs.

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)

Every Saturday morning from 9:00 am - 10:00 am in San Diego, you can hear Wally with fellow co-hosts Dane Henderson and Candace Lee, on the radio show CyberSports Today (*cybersportstoday.com*/), which covers the video gaming industry on ESPN Radio 800 AM. Wally covers the military history side of the video game industry.

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.

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LINUX LESSONS

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

Linux Lessons: Tips and Tricks from Users

"Installing Linux in a Virtual Machine." by ComputorEdge Staff

A discussion about using Linux with virtual-machine software.

Virtual Machines in Linux: Xen/KVM/VMware/VirtualBox/DosBox/ESXi/Wine

[Last week, Jack Hamilton reviewed his experience with the various flavors of Linux distributions. This week, Jack talks about Linux with Virtual Machines.]

A lot of the reason I like running Linux is that, from experience, it has always been better at memory management and multitasking than Windows (and I could never afford a Mac). So naturally I chose it as the host for my virtual machines. Here's what I learned in the process of experimenting with virtual machines.

I read that Xen is kernel-based, unlike VMware and SUN's VirtualBox. Naturally I'd want Xen because it should theoretically be more efficient if it's supported natively in the kernel. What I learned was that Xen did not like all CPUs, and upon trying to install it, I was sadly told by the installation that my Xen could not run on my computer. So much for that. KVM is an alternative to Xen and is being pushed by Red Hat, from what I'm told, so if you're going the route of Red Hat/CentOS, you might want to keep an eye on KVM.

So I experimented with VMware. The server version is free now. Version 1.0 was a standalone hypervisor executable. It seemed fairly efficient and ran my 32-bit Windows just fine. I was happy. Version 2.0 came out and it got rid of the standalone hypervisor executable in favor of a Web-based plug-in that runs in Firefox. I love Firefox immensely over Internet Explorer in Windows land, and over any browser in Linux and Mac land, but it seems that unlike Google Chrome and very much like Internet Explorer, Firefox tends to be a memory hog. I guess it's just in the nature of these browsers. So now my VMware seems a tad clunkier and more sluggish than when I was in the 1.0 days of VMware. I'm now experimenting with VirtualBox to see if it's faster.

Oh, on a side note, the annoying thing about running VMware (and this may be true later when I learn VBox) is that every time I get a new kernel (because it's that easy now with "apt" in (k)ubuntu land) and reboot after it's installed, I have to re-run the VMware configuration script to recompile the VMware virtual machine. Not a big deal, but annoying and a caveat for you all. Also on a side note, use of USB devices varies. Most devices work fine, but I could never get my Palm Treo to sync, despite all the tweaks I read online. Buyer beware.

The downside to VirtualBox is that it runs Windows 98 poorly. Why on earth would anyone want to run Windows 98? Well, because I'm a product of the early '90s and I have a collection of Windows 98 games that I still love to play. ("Where.In.The.World.Is..Carmen San-Die-Go!") I was able to use DosBox to run my old DOS-based games, but Win98 games still require Windows. (OK, I could use Wine, but OMG it is such a headache to configure, obtain the DLLs and even then, sometimes it just doesn't wanna work!) By far a virtual machine is a gazillion times easier to configure and run. But VirtualBox, unlike VMware, runs Windows 98 poorly. This is a

known fact and some have purported installing a third-party set of drivers (for video and mouse), but even then I find it tremendously slower than in VMware.

For the sake of completeness, I'll include my experience with ESXi since it was an alternative to running virtual machines in Linux. The thing that makes ESXi (free version of VMware's ESX virtual machine host operating system and guess what—based on Linux) so promising is that it has a small footprint. It doesn't have a lot of overhead like a full-blown Linux or Windows OS (and this is a selling point VMware makes in competition with the Microsoft hypervisor). This can be read as more efficient, more secure and more reliable as less code might equate to less bugs and security holes.

The issue I had was that, like Xen, it was *very* picky about what hardware (CPU, SATA controller) it will and won't work with. After trying parts from three different work PCs, I finally got it working. The downside is that it's not a full-blown Linux under the hood—not all the tools are available—and can be frustrating when logged in via SSH. Also, it has no console to view your machines. Console is reserved exclusively for maintenance on the box. To actually see your virtual machines you have to access them remotely (via VNC, RDP, remote X-Windows). That I did not like. Anyone who's watched videos over RDP, let alone VNC, knows how horrible this can be. Also, from what I've read, USB support with ESXi is not the greatest. This thing was meant to run server virtual machines. It does it well, but if you want a virtual machine host *and* desktop machine in one, look elsewhere.

Hope this helps,

Jack Hamilton San Diego, CA

Can you help to fill in some of the gaps? Send your comments to Linux Distributions Comments, Tips, and Tricks (ceeditor@computoredge.com). They will appear in a future column.

[Next week, "Conky a good example of a simple Linux tool," by Richard from Longmont.]

* * *

Give Us Your Linux Tips and/or Questions

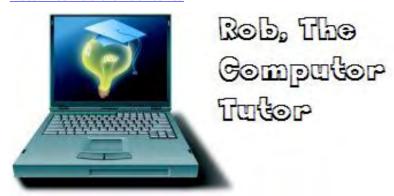
If you have an opinion on these or other Linux topics, then please let us know. Also, if you have another Linux tip that works for you, or a favorite Linux software application, and would like to pass it along (or have a question), please drop us a line at Linux Lessons (ceeditor@computoredge.com).

This is a column for Linux and Unix-like operating system users. The goal is to give Linux users an opportunity to share tips, tricks and ideas with both fellow users and the *ComputorEdge* Linux newbies. Each week in this column, we will highlight the thoughts you submit to us. This is your column. As long as a submission is dealing with the Linux/Unix-like world, we want to share it.

The tips and tricks may be short or long, and can include graphics. If there is a little technique or program that you use on a regular basis, then we want to hear about it. You may also pose questions for other Linux users to answer. E-mail your ideas or questions to Linux Lessons (*ceeditor@computoredge.com*). Be sure to put the words "Linux Lessons" in the subject line so it won't get lost in junk mail. We depend upon you to make this column a success.

Jack Dunning *ComputorEdge*

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Rob, The ComputorTutor Does VB.Net 2010

"Sticky Wrap-Up With Fun Touches" by Rob Spahitz

Last week, we explored debugging techniques in our "Sticky Notes" application. This week we'll see if we can add a few fun touches.

Last week, we explored debugging techniques in our "Sticky Notes" application. This week we'll see if we can add a few fun touches.

Note: These columns are written using VB.Net 2010. However, most of the features will work just fine with VB. Net 2008 or even earlier versions. To see how to install VB.Net 2010, check my July 31, 2009 column, and to retrieve project files, check my server at www.dogopoly.com/ce.

Touch-Ups

When creating any application, you have to consider many factors. What will the app be used for? How long will it be used? Who will be using it? How will it be distributed? What are the expectations of the app? How will problems or enhancement requests be sent? Each of these presents problems, and most of these should be considered when the app is first being designed. Let's look at a few of these.

What will the app be used for? Well, our "Sticky" app was designed to allow you to quickly put a message on the screen. Since it's very similar to Windows' Notepad, the question was really, why would anyone use it? To make this more useful, we decided to offer the ability to change fonts. Well, Notepad offers that too. So we allowed the background color to be changed. That was a nice touch. We also wanted the app to be lower profile, so we removed the borders and allowed you to still drag from the menu bar. And, of course, we allowed you to save text, load text, or print text. At this point, it's pretty functional but not especially interesting. We'll explore some ideas on that shortly.

How long will this app be used? If you're working on a one-time conversion app, then it doesn't have to be fancy. If you expect to use it over and over, as was the hope with this app, then you want to add some nice touches to make it user friendly. That's why we added the background color feature.

Who will be using it? If the developer is the only user, you can get away with making it a bit sloppy. As long as the developer knows what to do for any given feature, you don't even need labels. Of course, there is the risk that the app will sit on the shelf for six months and then get recalled for use. When the developer goes to use it, those unmarked features will be a bit of a mystery as though you'd never seen them before. All the more reason to make nice apps from the start—just in case.

In addition, the idea of "knowing your audience" is very important for an app. If you're creating something for kids, you usually want it colorful and with limited amounts of text. If it's for a scientist, probably the most important part is the content, such as formulas and graphs. For general audiences, you want to offer plenty of help files for features that may not be obvious. Oh, and for those older folks, you may want to start with a larger font size and better contrast between colors.

How will it be distributed? If you give it to a friend on a floppy disk (do people still use those?), then your friend can probably ask you questions about it as needed. If you offer it as a download through a Web site, you

probably need to have a nice installation package. We'll look at that today, too.

How will you get notified of issues or requests for new features? Maybe a phone call from a friend? Maybe an email from information found in the About window? Maybe a submission from a Web form? And how will you track these if there are a lot of messages? Ultimately, that's up to you, but you'll then need to consider how/if to reply and how to let people know that an update is ready.

Well, let's see if we can wrap things up here.

Fancy Features

Now that we have a working product, albeit not ideal, let's look at some fun things to make this more interesting and useful.

First, let's add a feature to the menu so that we can quickly add new Sticky notes. In the menu, click on Help, and in the box that opens next to it, enter a + (plus sign). You could put "Add," but the plus symbol is easier to spot. You could also add the font, foreground color, background color, etc. I'll skip this step and just add to the ToolTipText property, "Add another window." Now change the name to something more appropriate, like frmAdd. We'll program it shortly.

Now add another item next to this to act like a typical close button. In the next menu spot, add an item with the text "X" and name it mnuClose. Also, change the Align property to right, which moves it to the right end of the menu block to make it look more realistic, as seen in Figure 1.

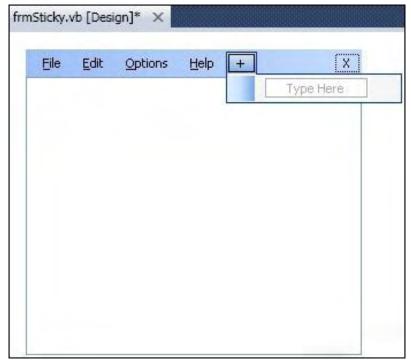


Figure 1. Menu with add and close items.

Now let's quickly program them. Double-click on the "+" or select it and double-click on the Click event in the Properties window's Event section. Enter this code:

```
Private Sub mnuAdd_Click(ByVal sender As System.Object,

ByVal e As System.EventArgs) Handles mnuAdd.Click

Dim frm As frmSticky = New frmSticky
```

```
frm.Show()
End Sub
```

[Lines 1 and 2 are continuous—broken for display purposes only.]

This will create a new instance of the sticky form, and then show it.

Now add some code for the close:

If you run and click on the "+" a new form appears. Click on an "X" and the window closes. Note that currently, if you close the first form you open, all other forms also close since they are controlled by the "master" form. To change this, you'd need to launch each as a new app rather than as a new form. I leave that to the reader to determine how to manage.

Finally, let's add a cool feature that will make your future programming more fun. You may have seen various applications that show a small notification window to let you know that mail has arrived. These typically fade in and out before hiding. Let's do something similar. A feature of the form is the Opacity property. This indicates the percent of visibility: 100 percent means that you see the form completely obscuring everything behind it, while 0 percent means that it is completely transparent. By changing this property on the form to something like 75 percent, you can partially see through it, as seen in Figure 2. By mixing the colors and using additional forms, you can see how this app has some potential for fun.

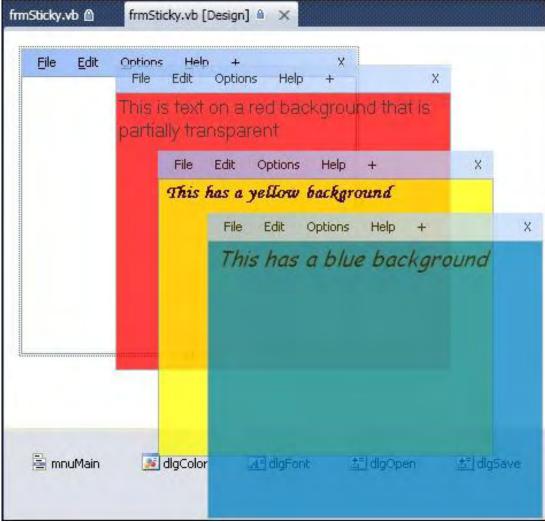


Figure 2. Partially transparent form.

Additionally, you could check for the MouseEnter and MouseLeave events to change the Opacity to 100 percent, then 75 percent respectively to add to the effectiveness of these forms. Note that the MouseLeave event procedure does not always fire the way you would expect due to some difficulties Windows has in detecting this. For that reason, you may also need to add a Timer control, to automatically fire it every few seconds just in case it's not properly detected. In addition, the Timer control can be used to slowly increase or decrease the Opacity until it reaches a specific value. This might be an interesting feature for a Halloween app with floating ghosts that fade in and out.

Installation Package

Once all of the features are added, you'll want to get the app out to friends, neighbors and maybe the entire world. You could simply put it up on a Web page and see how it goes. However, projects often include additional files that also need to be distributed. In addition, there may be various dependencies, such as the DotNet Framework, that you probably had to install to develop using VB.Net 2010.

To assist with this effort, VB offers the Package and Deployment wizard. This has been around since the earlier days of VB but has changed over the years. The latest version is simply treated as a new project that gets added to the solution.

To add a packaging project, go to menu File and select "Add New Project..." and select the "Other Project Types" group. Within this group is something called "Setup and Deployment," which includes a "Setup Project,"

as seen in Figure 3.

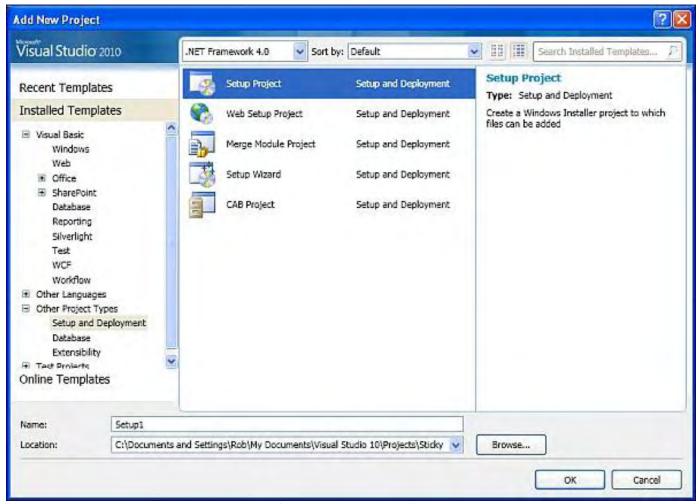


Figure 3. The VB Installer.

Select a desired name for the installation, such as StickyApp, and click on the OK button.

When the project loads, you are presented with a folder structure as seen in Figure 4.

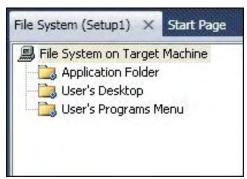


Figure 4. Setup Features.

In addition, the Setup project has a variety of properties, including your company name if added to the configuration file as we had previously done. Together, you can explore these settings and the settings of each folder to see what's available. Probably the most interesting is the Application Folder's DefaultLocation property that will include something like this:

[ProgramFilesFolder][Manufacturer]*bckslsh*[ProductName]

I realize that this may get messed up when shown in *ComputorEdge*, but it's basically a few bracketed items and a backslash that together act like a folder structure for where to install the product. You can replace this with a specific location, but these bracketed items represent variables that help the user install this in a custom location rather than a location that *you* choose.

Now let's add the current Sticky project. Right-click on the StickyApp project in the Solution Explorer and select Add/Assembly. In the Browse tab, select the Sticky.exe in the Sticky/bin/Debug folder, and then click on the OK button. This will add the file to the setup project.

To prepare the setup project, you will need to build it. Unless you are planning to include additional files (like a database or some help files), then the default settings with this one executable should work. Choose the Build menu and select "Build StickyApp." If it is not available, you will need to select StickyApp in the Solution Explorer window first.

If all goes well, in the bottom left corner you will see the status change from "Building..." to "Build succeeded." At this point, you should have a new set of files available in your Project folder in Windows, as seen in Figure 5.

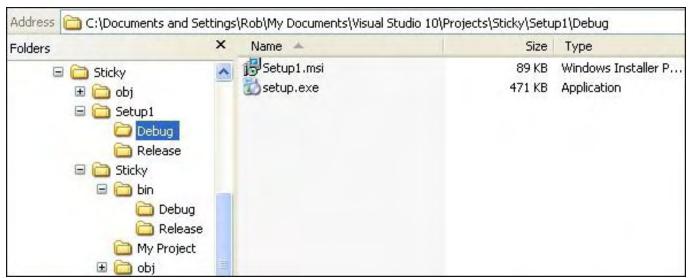


Figure 5. Setup files.

When you deliver these files (two for this project), the user can run a traditional installation process that makes your application look like something worth paying for. As part of the installation, Windows will ensure that the proper files, including the proper DotNet framework, are in place and put the app into the specified place, ready for use like any other Windows application. When the user runs and completes the Setup, your executable and additional files will be installed in the desired location.

Next week, we'll start looking at how VB can connect to databases.

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.



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Worldwide News & Product Reviews

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

When Social Networks Behave Asocially— Unfortunately, Facebook can be a place to hook your company's network up with some nasty viruses; Paper Records Still Edge Out Virtual Ones—Many organizations still have no formal records-management policies; Samsung/Verizon Omnia Smartphone—A review of the touchscreen device.

When Social Networks Behave Asocially

Chip Reaves, global director of Computer Troubleshooters (www.comptroub.com), writes in this week:

Facebook isn't just a place to hook up with ex-girlfriends from high school anymore. Companies large and small are now using it for networking and legitimate business tasks. Unfortunately, it can also be a place to hook your company's network up with some nasty viruses.

The latest one, a worm called Koobface, has hit all the social networks, including Facebook, MySpace, hi5, Bebo and Twitter, and can riddle your network with malware, spyware and steal sensitive data right from your workstations' hard drives. Like past generations of computer bugs, Koobface wants to not only infect your computer, but then use you as a jumping-off point to infect others. But unlike past viruses, Koobface and similar new malware programs are leveraging your company's social network account to reach out and infect your online friends and business associates.

Somewhere in the world there are some guys sitting around and dreaming up things that will make you click on a link. Koobface's most effective way to spread is to send links to your friends with text like 'I can't believe it's you in this video—were you sober? LOL!' Koobface combines state-of-the-art software that can infect your computer in multiple ways with these creative lures designed to make you want to click on the infected links. It's pretty insidious.

According to an analysis by malware research firm Trend Micro, Koobface is composed of as many as 26 separate functional pieces, each of which is designed to use you and your computer in different malicious ways.

[Reaves offers the following tips to protect your office network:]

• Antivirus, anti-spyware

First and foremost, every computer user on the Internet needs professional, up-to-date protection software. This should at a minimum include both antivirus and anti-spyware support (some free packages do not include anti-spyware), and ideally should also include a link scanner component to minimize the risk of visiting Web sites that are known to be infected.

• Claim your name, check your fame

If you are using social networking sites such as Twitter or Facebook, do periodic searches for yourself. This is especially helpful with small businesses to see what people are saying about you, but if you're infected you may

find updates from yourself—which you never sent.

• Use a third-party Twitter application or your phone

Third-party applications such as Tweekdeck or Twhirl can help block certain exploits that would otherwise infect you from the Twitter Web site. They can also help by showing where a "shortened" URL will take you before you click. Using your cell phone for updates is also safer than using the Twitter or Facebook Web sites directly.

Secure your browser

Make sure your Web browser is the most up-to-date version, since many vulnerabilities in older browsers (even ones from just a few months ago) are often used by malware creators to infect your computer. Chrome and Firefox are generally considered safer than Internet Explorer, but any browser with its security setting set to "High" and with the most recent updates should be fine. For the highest level of security consider using Firefox plus Noscript.net to block most potential points of vulnerability.

• Ask to include social media protection in your IT management plan

Many small businesses and home users today are outsourcing all their computer management to a local computer service provider through what's called a Managed Services plan. Ask your local computer troubleshooter or other service provider to include social media protection in your computer management plan.

If your IT department or outsourced support doesn't take all those elements into account, it's not a matter of if you'll experience downtime—it's a matter of when and for how long. It's not right to be held hostage by your computer troubles or by your IT support by proxy. Uptime is not a luxury—it's a necessity for any home or business.

Paper Records Still Edge Out Virtual Ones

According to AIIM (www.aiim.org), a non-profit organization focused on helping users understand the challenges associated with managing documents, content, records and business processes, "Electronic records are twice as likely to be unmanaged compared to paper records, with 26 percent of organizations admitting that no records management disciplines are applied to the majority of their electronic records."

In a new survey entitled "Electronic Records Management—Still playing Catch-up with Paper," AIIM found that policies for applying legal hold to electronic records exist in only 56 percent of organizations compared to 71 percent for paper records. With IT staff rather than records management staff expected to carry out records management processes on electronic documents and e-mails, organizations could be heading into trouble.

"Based on over 700 responses," says AIIM, "the survey shows that the volume of paper records is still increasing in over half of organizations, but in 21 percent it is finally showing signs of going down. Meanwhile, 70 percent of respondents report that the volume of electronic records is increasing rapidly, with none reporting a decrease. Over half of the respondents now scan newly received paper items and file them electronically. On the other hand, as well as directly filing incoming paper documents, 40 percent admit that they print newly generated electronic documents and e-mails for the purpose of filing them as paper records."

Samsung/Verizon Omnia Smartphone





The Samsung Omnia (www.verizonwireless.com/b2c/store/controller? item=phoneFirst&action=viewPhoneDetail&selectedPhoneId=4366) (\$49 with two-year Verizon activation agreement) is an excellent phone packed with features that Windows users will love. It has a generous 3.2-inch 240-400 pixel screen touchscreen with vibration feedback and an on-screen keyboard that can be typed on with your thumbs or the included stylus. I was almost always able to use every feature of the phone without the stylus.

The Omnia also includes a 5.0 megapixel camera with face recognition and a flash that can also double as a light. People are surprised at the quality of the pictures I took. They're very sharp and have great color.



The phone connects to the Internet via your Verizon Wireless account or with the built-in Wi-Fi. It also has built-in Bluetooth and even an FM radio for on-the-go music, sports or talk.

The Omnia is really a mini-computer. Running Windows Mobile 6.1 Pro, it can multitask which, while generally good, can in some cases lead to resource-management issues. For example, let's say you have the video viewer, PowerPoint, and Solitaire open at the same time and want to open Internet Explorer. All those programs running at once can really slow down the phone. To get around this, I simply used Task Manager to manually close programs I didn't really need to have running. Once you develop the habit, you don't even think about it.

In my opinion, the Omnia would be an ideal phone for a businessperson—especially one who uses lots of Office programs. Mobile versions of Internet Explorer, Outlook, PowerPoint, Excel and Word put your office in your pocket. You can search though your e-mail and can easily follow embedded links. You can also view and edit Word documents and Excel spreadsheets without changing their original format.

The Omnia has an internal memory of 8GB for all your pictures, videos, music, documents and just about anything else. Plug it into your computer's USB port and the Omnia shows up as an external drive, so it's easy to move data around or do backups. There's also a microSD card slot for adding even more storage.

All in all, the Omnia is a great phone and I enjoyed the time I spent with it.



Review contributed by Alex Carr

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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ComputorQuick Reviews

News and Reviews from Readers and Staff

ComputorQuick Reviews

"Panasonic Lumix DMC-TZ4" by ComputorEdge Staff

> A reader finds the Panasonic Lumix DMC-TZ4 to be a gem for novice and experienced digital camera users. Also, a call for Wi-Fi experiences and recommendations.

Panasonic Lumix DMC-TZ4 Digital Camera

I bought my digital camera about two years ago. I knew I wanted a digital camera, but didn't know the differences between the brands. I've never been into photography, so I didn't want anything too difficult. To pick out my camera, I used a tried-and-true technique. I waited until there was a coupon at Costco for a substantial discount on a digital camera, then I bought it. That saved me learning anything about it. My camera is a Panasonic Lumix DMC-TZ4.

I don't think Panasonic make this camera anymore, although it's still being sold. Its replacement is the Panasonic Lumix DMC-ZS1. My camera lists at \$300, but I'm sure I didn't pay anywhere near that much. The replacement DMC-ZS1 (which has more capabilities) lists at \$280.

While I probably don't understand half of what this model can do, it is a great little camera. It has an automatic mode that allows me to ignore all the complicated settings, although if I do ever learn what they do, I can make numerous tedious adjustments. It has a 10x optical zoom that I use liberally when I'm taking pictures of my grandchildren. I use a 4GB SD chip with the camera, which seems to be plenty for high-quality pictures and movies. (Yes, it will take movies.)

If you're not an expert photographer (and maybe even if you are), I highly recommend this camera or its replacement. It may not be any better than other digital cameras on the market (I wouldn't know), but you won't be disappointed. Just make sure that you have a coupon for a discount before you buy it.

David San Diego

[Do you have another digital camera that you would like to tout? Tell us about it.]

Next Week: Public Wi-Fi!

Next week, ComputorEdge will be talking about finding and using public Wi-Fi. Tell us about your favorite (free) Wi-Fi locations and Wi-Fi experiences. Where are they, and how easy are they to use? Your comments will appear right here in ComputorQuick reviews. Send your thoughts to ComputorQuick Wi-Fi Reviews (ceeditor@computoredge.com).

We Want Your Opinions About Hardware, Software and Web Sites

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

We have decided to include this feature in every issue as a reminder that this is your magazine—even if we don't have any new reader reviews. If you would like to see the type of reviews that we have run in the past, then check out ComputorQuick Reviews (webserver.computoredge.com/sitemap.mvc?

feature=Columns&columnedcode=persrev&column=ComputorQuick%20Reviews) in the ComputorEdge Site Map. You will find that they are quite varied. We would like to see more. Consider this column a gentle prod saying that we would like to hear from you.

You can send us an e-mail at ComputorQuick Reviews Submissions (ceeditor@computoredge.com).

The purpose of this column is to give our readers an opportunity to express their opinions about products and services that they have found particularly useful. If you have had experience with hardware, software or a Web site that made you say, "This is really great! I want to tell everyone about it," then this is a good place to do it. While we do want to post warnings, we are not interested in slamming the obscure bad products, because there are too many of them. We would like to hear about those things that you would recommend to your best friend. The only caution is to please use proper capitalization (do not use all caps) and complete sentences. If it takes us too long to edit the piece, it may be a long time before it's published on this 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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EdgeWord: How Microsoft Profits from the Mac

"Microsoft, Apple and the Windows Redemption" by Jack Dunning

Now that Windows 7 is about to be released, the Vista mistakes will soon fade into history for Microsoft.

It's funny how people think that the low prices of PCs hurts Microsoft while benefiting Apple. Apple does have an excellent high-end strategy that works for them, but that doesn't have much impact on Microsoft. Microsoft doesn't want to drive Apple out of business—nothing would be worse for the Goliath corporation. Apple's existence helps to keep the government antitrust people off Microsoft's back (not that Microsoft doesn't have plenty of problems with that anyway). So the question is, "Why is Microsoft running commercials claiming that Macintosh computers are overpriced?"

Microsoft runs anti-Mac commercials because the various computer manufacturers (HP, Dell, etc.) want that type of advertising. The PC makers are the companies in direct competition with Apple. They are the ones who could go out of business if Apple gets too much of the computer market—not Microsoft. Microsoft couldn't care less if any particular computer builder (other than Apple) went out of business. There will be another PC maker to replace each fallen enterprise. Those companies will continue buying the Windows operating system. The myth persists that Microsoft is in competition with Apple.

Every Macintosh computer sold is another potential sale for Microsoft's Windows operating system. Even our own Mac writer, Wally Wang, has on numerous occasions recommended running a virtual machine on Apple computers with Parallels or Fusion software so that Windows programs can be loaded. In order to do that, each Mac owner will also need a copy of Windows. Another sale for Microsoft. I don't know how many people actually run Windows on a Mac, but getting access to only one important Windows program could cause users to get a copy of Windows to run in a virtual machine on a Mac.

Low-priced PCs don't squeeze Microsoft's profits. They still get their price for Windows regardless of how the computer manufacturers price the machine. In fact, since lower-priced computers help to sell more of them, Microsoft can do even better without ever lowering its price for Windows. I doubt there is much pressure that the computer makers can put on Microsoft to lower the price of Windows. What alternative do they have? Linux would be great, except the average person is reluctant to go down that road.

Now that Windows 7 is about to be released, the Vista mistakes will soon fade into history. For Microsoft, Windows 7 is redemption. The new operating system, along with inexpensive PCs, will quickly recover from any slump from Windows' reputation.

I loaded Windows 7 RC onto my old XP laptop. I knew I had a hardware problem with the machine's USB ports; therefore, after loading Windows 7, I disabled the ports so I wouldn't get random crashes. The Windows 7 computer has now been running continuously for months. It's incredibly stable—much like the FreeBSD (Unixlike) Web and e-mail servers we use. I occasionally access the machine using the mouse pad, but for the most part I get on it remotely from one of the Vista machines. That's how I compare Windows 7, Vista, and XP for the "Windows Tips and Tricks" column without getting out of my seat.

Frankly, I'm amazed at how well Windows 7 does work on old hardware. It is a little slow, but so was XP by comparison with today's computers. When I get a new computer, there will be no hesitation about which operating system I get. Newer hardware will make it easier for me to evaluate the performance.

Apple fans who promote the idea that Microsoft is on its last legs are engaging in wishful thinking. I'm not saying this as a Microsoft fan. I think that Internet Explorer 8 is a serious step backward in Web browsers. I prefer Firefox and am rapidly becoming a fan of Google's Chrome browser. I wouldn't go near Microsoft Office, especially when there are so many free office suites on the market, such as OpenOffice.org. If I'm putting up a server, I wouldn't bother with Microsoft. Give me Linux or FreeBSD. Those are the only operating systems more stable than Windows 7—and they're free. (The Macintosh operating system is based upon FreeBSD.) In spite of all the mistakes of the past and present, Microsoft has Windows 7 right.

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

"Firewalls," "Installing Linux on Windows Without USB Boot or CD," "Maximize Windows Screens," "Wine on Ubuntu," "Facebook? I Don't Need It!," "Another Way to Close Windows"

Firewalls

[Regarding Michael J. Ross' September 25 article, "Firewall Basics: Protect Your PC":]

A hardware firewall is best; that is what the pros use. They can be difficult to hack when properly set up! Most hardware firewalls must be set up; quite a few routers are not set up as a default; the end user has to do it. That includes setting up the wireless part separately.

If you want a true layered defense, install both the hardware and software firewalls. I use a ZOOM X6 hardware firewall (built into the wireless router) and Comodo firewall software on all Windows systems connected to the Net. I use Firestarter on the Linux boxes.

I have yet (knock on wood) to be infected with this setup.

-Art Blackwell, Evergreen, CO

Installing Linux on Windows Without USB Boot or CD

[Regarding the September 11 Digital Dave column:]

I noticed a few comments on Digital Dave's article where the user had an older computer with a broken CD-ROM drive and wanted to install Linux to play with, but they all left out the solution. The easy solution is to install Ubuntu using the Wubi (the Ubuntu installer for Windows) installation option. To quote from the Web site:

"Wubi is an officially supported Ubuntu installer for Windows users that can bring you to the Linux world with a single click. Wubi allows you to install and uninstall Ubuntu as any other Windows application, in a simple and safe way. Are you curious about Linux and Ubuntu? Trying them out has never been easier!"

I've done this on a Windows XP system, and it worked great. The laptop or computer will require an Internet connection if you don't have a CD-ROM, or as an alternative, you can download the Ubuntu .iso file onto a 1GB USB stick and transfer the 700MB ISO image file to the wubi.exe directory before running wubi.exe.

Here's the Ubuntu link (www.ubuntu.com/getubuntu/downloadmirrors#wubi) to read about it and get started.

-Doug LaRue, San Diego, CA

Maximize Windows Screens

[Regarding the September 25 Digital Dave column:]

I've been using a program for several years called IE New Window Maximizer to keep windows at full size when

opening a new window in IE or in Outlook Express. It may also work for other programs. The free program can be obtained at: jiiSoft (www.jiisoft.com/Default.aspx).

-Nathan Clark, San Diego, CA

[Regarding the question on maximizing Windows screens:] Not 15 minutes ago, just before reading this week's magazine, I noted reference to this same problem in my new Oct. PCWORLD magazine. I quote, "To expand your software so that it fills the screen, press <F11>." It works on Chrome, Firefox and IE. I just tried it, and it seems to work nicely. I do not know that it will restart in this configuration, but it's a nice alternative.

After many years, I still think that your column and the magazine are tops.

-Carl Bliss, Encinitas, Calif.

[See also the April 10 Windows Tips and Tricks column on using the F11 key. —Editor]

Wine on Ubuntu

[Regarding the September 25 Linux Lessons: Tips and Tricks from Users column:]

Andy should look at the CodeWeavers Crossover product for one way to run Windows applications in Linux. It not only eases the installation of Windows applications and managing them, it also does the adding of icons to the desktop and application menus.

Back to Wine, I'm surprised he didn't add Wine to his computer using the built-in appStore on Ubuntu. Wine is there and once installed, many Windows programs just need the setup.exe installer run. Wine will take it from there, and in many cases it too will install icons on the desktop and startup menu. The appStore [app] is labeled something like Add Software, Add Applications, Add/Remove Applications, etc., and is either under the KDE kicker menu, System menu or Applications menu, depending on which desktop you prefer.

-Doug LaRue, San Diego, CA

Wine provides a menu under the "Applications" icon in Ubuntu. This menu can be modified with included Ubuntu software. Wine works well with old Windows programs like Quicken. I find it a useful adjunct.

-G. Thom Hahn, La Jolla, CA

Facebook? I Don't Need It!

[Regarding the September 18 ComputorQuick Reviews: "Who Needs Facebook?" column:]

I wanted to chime in on the ComputorEdge ComputorQuick Review concerning "Who Needs Facebook?"

I agree 100 percent with the review.

For me, social networking is simply a glorified chat and message center. My kids are on Facebook and, if left unchecked, they could spend hours wasting their time chatting about nothing.

For my kids, it is not social networking. According to your dictionary.com, social networking is "individuals connecting with other individuals to form groups, groups connecting with other groups to form larger groups, and then individuals from one group connecting with individuals from another group to form an entirely different group." I cannot speak for others, but my kids are not participating in any such activity. They are simply wasting time online. I have read through their chat sessions and it is nothing but nonsensical gibberish

that has no point or value other than maintaining contact with their friends—friends they see every day at school and at after-school activities.

Moreover, we have had to ensure that they are not providing their personal information or otherwise exposing themselves to the Internet. Although Facebook states in their privacy page to parents that they "have implemented many safety and privacy controls on Facebook as part of our goal to enable people to share their information with only the people they want to see it," they also provide several words of advice for the safe use of their software, including being "cautious about posting and sharing personal information." Facebook is not, nor does it claim to be, safe from Internet predators.

Personally, I do not have a Facebook account and I do not intend to create one. Much like the Colorado Springs Senior Computer Club survey results, I (1) refuse to post my personal information online, (2) I do, in fact, understand how "social networking" Web sites actually work, and (3) I have much better things to do with my time.

-Pete, Roy, Utah

Another Way to Close Windows

[Regarding the September 25 Windows Tips and Tricks column:]

Thanks for your note on pop-ups. I just wrote Digital Dave about pop-unders, noting the Denver Post as an example of these getting through.

I usually cancel these using the taskbar. Based on your article, this doesn't sound like a good method of closing these windows, am I correct?

Thank you,

-Rich DiSanto, Denver, CO

Rich,

Actually, if it works to close it from the taskbar, it's probably fine to do that. I think it's pretty much the same effect. Those other pop-ups often either don't appear on the taskbar or won't close. I don't know why.

Thanks,

-Jack Dunning, ComputorEdge

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.

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