# *ComputorEdge™ Online* — 10/02/09

## This issue:
## Listening to (Free and Legal) Music on Your Computer

**We spend so much time on our computers that we need our music up and ready. Where to find free, legal MP3s, and a look at the free Quintessential Music Player.**

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## Digital Dave

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

A reader wonders why annoying "pop-under" ads bypass his pop-up blocker; a reader is experiencing screen-resolution problems with Windows 7; why have computer screens all gotten so big?

*Dear Digital Dave,*

*Thanks for all your tips. I'm confused as to how "pop-unders" bypass my pop-up protection. Some Web sites insist on annoying us with this trash, and I'm not sure how to stop it.*

*Rich DiSanto*
*Denver, CO*

Dear Rich,

The reason that seemingly respectable Web sites offer annoying ads is because the advertisers want them. Many advertisers will go to any extent to get in front of your face. Pop-under ads are said to be more effective because they are not seen until you close the main window on top. This is supposedly less annoying (and read more) than the regular pop-ups.

The problem with pop-up blockers is that they are handcuffed by the normal use of a Web browser. Inevitably Web sites can find a way around almost any pop-up/ad blocking. Ultimately, to stop all ads, it's necessary to cripple the functionality of your browser and the usefulness of many Web sites. This is not normally desirable.

The way most pop-up blockers work is by issuing the JavaScript command in the Web page that will open a new window. However, there are times when you want to open a new window, such as when clicking on a link. Therefore, the blockers have an exception for user-initiated action. To circumvent the blocker, Web sites will piggyback the JavaScript command on a regular link, thus fooling the pop-up blocker.

Another way the blocker is fooled is by simulating user action, such as implementing an "onmouseover" action trigger. When the user moves the mouse over the page, it triggers a pop-up script.

As blockers become more sophisticated, they are designed to recognize more of these scripts. Yet, the Web designers parse and obscure the code to make it unrecognizable. For example, the commonly used JavaScript function for opening a window is "window.open". The words can be broken into "win"+"dow"+"."+"op"+"en" in the Web page and recombined with the document.write function, thus bypassing the pop-up blocker.

The only way to defeat all JavaScript pop-ups/pop-unders is to turn off JavaScript in your browser. However, as I pointed out before, you will lose functionality in many of your more important sites.

Advertisers have started using Flash and other common browser plug-ins to launch their ads. Blocking these creates a whole new set of problems for ad blockers. Also, many of the ads you now see covering part of a new Web page are

generated inside the page with DHTML (Dynamic HTML). (HTML is the basic language of the Web page.) The only way to avoid these is to avoid the site.

The answer is to never go to sites that have pop-up/under ads. If enough people do this, the advertisers will stop using them. In the meantime, you avoid the annoying pop-ups and probably annoying sites that employ them. I certainly don't see them very often.

Digital Dave

*Dear Digital Dave,*

*I have a five-year-old Sony laptop, and when booting up in Linux, the picture is full screen. When I load Win 7, I get a 10.2-inch screen. At 1024x768, I get a screen size of 13 inches. I can't get a larger Win 7 screen, although Linux fills the screen properly.*

*Why the difference between Linux and Win 7? Same hardware! How do I fix Win 7?*

*Wayne Peck*
*Centennial, CO*

Dear Wayne,

The three primary components that affect your video screen size settings (possibilities) are the video card, the monitor and the video drivers. The video card and the monitor are both hardware and, as you point out, the same in both setups. Therefore the only remaining variable is the video driver, which is operating system-specific. Your Linux video driver is capable of the desired 1280x800 resolution that fills your screen, whereas your Windows video drivers appear to lack this capability.

Sounds like Windows 7 or the driver is enforcing a 1:1 relationship between pixels and resolution (i.e., it is not stretching the image to fit the screen). This could be due to Windows 7's aspect ratio fixing. Also, there probably aren't Windows 7 drivers for a five-year old Sony laptop. Is there a way to run XP drivers in compatibility mode, or are there Vista drivers? There may also be monitor drivers. There are lots of people experiencing screen resolution problems with Windows 7. Perhaps things will be better when it's released.

Identify your video card manufacturer and look for an undated Vista set of drivers from either them or Sony. This is not an uncommon problem with older computers, but if you do a Web search, you should find forums where others have encountered the same issue and found a solution.

Digital Dave

*Dear Digital Dave,*

*Am I missing something? It seems that all the monitors and all the laptop screens now available are widescreen. Why? Do that many people watch movies on their computer?*

*I prefer the "normal" screen, but can't find any anymore.*

*Paul Lee*
*San Diego, CA*

Dear Paul,

The trend is definitely toward wider computer screens. Most consumers tend to think the bigger, the better. You can do

so much more with a larger computer desktop.

For example, in Windows Vista you can launch Windows Sidebar and load it up with gadgets. Once the sidebar is in place, the screen has a more normal size. In Windows 7, there are easy tricks for placing two open windows side-by-side for viewing and working. The wider screens make this technique more useful.

Ironically, a lot of people buy wide monitors and lose screen space because they buy one with a lower resolution, but a bigger size (1680x1050 is fewer pixels than 1600x1200). In any case, the only reason I can think that someone would prefer 4:3 is because they are used to it. 16:9 (or 16:10) more closely approximates the shape of our field of vision, so it feels less constrained. Try to go back to 4:3 after using a wide monitor for a while and you'll see the difference. It feels like you have blinders or an eyepatch on.

Today, there is very little demand for the older (square) type of monitor, even if the consumer never watches movies. Therefore, no manufacturer is going to make one.

If you want a smaller screen, look at the netbook computers. You can get one for about the price of one of the larger monitors. Another alternative is to find a used monitor on Craigslist. Most of them are being given away.

Digital Dave

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## Finding Free (Legal) MP3 Downloads

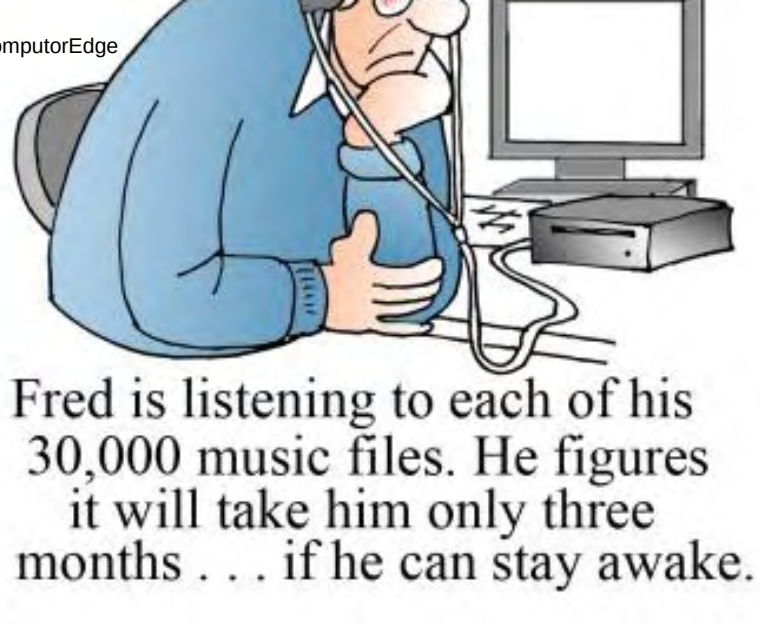
**"Free downloads are good advertising."** by Dawn Clement

> Artists are allowing the public unprecedented access to free music in the hopes that fans will buy traditional CDs, concert tickets, books, and T-shirts.

Music is an extremely profitable industry. It's really no wonder that the music industry reacted so strongly to digital music when they realized that people were downloading entire albums for free. What the music industry failed to realize back in the Napster days was that the lines of distribution were changing and that they needed to act accordingly.

Today, most musical artists have figured out that releasing an album for free online is great publicity. The way it works is that a band offers a new album (or a single from an upcoming album) as a free download, usually for a limited time, and then follows up with a traditional CD release. In fact, commercial sites frequently offer free downloads right alongside their commercial offerings. Free downloads are good advertising, and a great way to promote new bands. Sites such as MTV (*www.mtv.com/music/downloads*), Amazon (*www.amazon.com/s/ref=nb_ss?url=search-alias%3Ddigital-music&field-keywords=&x=12&y=17*), and iTunes (*www.itunes.com*) regularly offer free music downloads. MP3.com (*www.mp3.com/free-music/?tag=topnav;freemusic*) has thousands of songs by well-known, current artists available for free, including Vampire Weekend, The Raconteurs and classic artists such as Bob Marley. Their generosity is paying off with both fan loyalty and the almighty dollar.


In July of 2007, Prince gave away his album "Planet Earth" for free in the United Kingdom by including a copy of the album in the Sunday edition of a newspaper. Prince subsequently sold out 21 London concerts. Later that year, Radiohead released its album, "In Rainbows," free on its Web site. It paid off for the band




when the eventual CD release sold better than any of its previous albums.

Slowly, other well-known bands began doing the same thing and benefited from it. Nine Inch Nails offered its Ghosts I-IV album free through its Web site, and it ended up becoming the bestselling MP3 album of 2008 on Amazon.com. Pennywise offered its album "Reason to Believe" as a free download for two weeks before its release, and the single "The Western World" became Pennywise's biggest hit ever. The top-selling iTunes track, "Shot in the Back of the Head," off of Moby's self-released album "Wait for Me," was first available as a free download. Some artists prefer to offer new albums directly from their Web sites. Right now, for example, you can get the Nine Inch Nails album "The Slip" from the Nine Inch Nails site (*theslip.nin.com*).

Many independent record labels and distributors offer free songs (and sometimes whole albums). These entrepreneurs know that free downloads are a great way to promote new bands. If people like what they hear, they are more inclined to buy the whole album. And there's something for all tastes. Fans of world music will find over 100 free album downloads available at WM Recordings (*www.wmrecordings.com/freedownloads.htm*), while fans of heavy metal, thrash or punk, should check out Misantrof AntiRecords (*www.misantrof.net/mma.htm*). SongSlide (*www.songslide.com*) is a great place to find alternative music, and parents of small children can find free music at Free Kid's Music (*freekidsmusic.com*), and there is a great selection of classical music available at Musopen (*www.musopen.com*).

In addition to independent labels and commercial sites, there are a host of sites specializing in public domain music. When someone says that a piece of intellectual property is "in the public domain," they mean that no one owns or controls it. In the case of music, this applies only to the sheet music itself, and not to the recordings. Recorded music is either copyrighted or out-of-copyright. Dedicated musicians have taken the time to record songs that are in the public domain and post them under a new "Creative Commons" license for the public benefit. What this translates to for the consumer is "free." Public Domain 4U (*www.publicdomain4u.com*) has an awesome selection of Creative Commons and out-of-copyright blues music that is definitely worth checking out. For more information on Creative Commons licenses, visit Jamendo (*www.jamendo.com*) or Phlow Magazine (*phlow-magazine.com*).

There are thousands of sites on the Internet claiming to have free music available. The problem is how to tell which sites are legal and which are not. Always check a site's FAQ section to see what they have to say on the subject.

The best places to look for free music are the sites dedicated to supporting the artists themselves. For example, the Internet Archive (*www.archive.org*) has an incredible collection of Grateful Dead music—all available free with the band's endorsement. Open Source Music (*www.opensourcemusic.com/*) and Open Source Wire (*openmusicwire.com*) both leave no doubt as to whether or not the music they offer is legal (it is), whereas some sites, such as Free Albums Galore (*freealbums.blogsome.com/*) are harder to figure out. The Open Directory Project (*www.dmoz.org*) is another place you could start. They have lists of Web sites that offer free music (as well as a lot of other things), but they leave it up to the user to determine legality.

Most people think there are only two ways to download music off the Internet: either you get it free illegally,

or pay to download it legally from a commercial Web site. However, these days there is another option. Artists are allowing the public unprecedented access to free music in the hopes that fans will buy traditional CDs, concert tickets, books, and T-shirts. This strategy works only if the fans support the music. You can help encourage more bands to give away their music by supporting those that already do—if you like an album, go out and buy it! Better yet, buy it from a commercial Web site that also has a free download, and give that Web site some feedback when you do!

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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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# Quintessential Music Player

**"A free and capable media player"** by Michael J. Ross

> Regardless of what type of music you like to listen to on your PC, if you are looking for a free and capable media player, consider giving Quintessential a try.

Back in the 1990s, the most popular format for storing recorded music and other audio content was the ubiquitous compact disc. At that time, CDs had largely replaced cassette tapes and vinyl records, and had every appearance of facing no viable competition. Only a tiny percentage of audio consumers—even some of the most tech-savvy audiophiles—had yet heard of MPEG-1 Audio Layer 3. Fans of CDs could boast that cassettes and records were obsolete media formats, and that their vastly superior CDs would reign supreme for years to come.

But all of that began to change in the late 1990s, with the advent of a combination of technologies that essentially freed the music from the CD: audio file formats, CD drives commonly available in computers, and software that could read the music off those CDs and convert them into audio files. Within just a few years, most Internet users became well aware of the MPEG-1 Audio Layer 3 format—usually referred to as "MP3," since that is the file extension used for naming the files in that format. MP3 made it possible for an individual to copy his entire CD collection onto a hard drive, and then promptly sell those CDs through online aftermarket venues, such as the then-popular Half.com.

This movement received a huge boost with the advent of various file-sharing networks and the peer-to-peer (P2P) technologies that made them possible. These networks included such pioneers as Audiogalaxy (*en.wikipedia.org/wiki/Audiogalaxy*) and Napster (*en.wikipedia.org/wiki/Napster*), and allowed people to copy music and other files from one another's computers. Years later, the BitTorrent file distribution standard solved the problem of any given download not completing as a result of the file sharer turning off her computer, or some technical glitch, such as a lost modem connection.

The big record companies—and, years later, the movie industry—initially did not pay much attention to these file-sharing networks. In contrast, public interest in obtaining music for free, as should have been expected, increased at a phenomenal rate, and still shows no signs of declining. It did not take long before seemingly everyone with a computer connected to the Internet was uploading and downloading music, if only to try it out and discover what everyone was talking about. For many people, this resulted in countless nights watching the progress meter for one music file after another downloading—especially during the short period before Napster was shut down by the courts, when file sharers had only several days to download as much music as they could, before the party was ended.

### The Quintessence of Online Music

The most commonly used operating systems—Microsoft Windows, Linux and Mac OS X—have built-in programs that play MP3 files, sending the audio content through the computer's sound card and along to whatever output device is plugged into that sound card—typically computer speakers, although some people prefer headsets. Most if not all of these native music players are adequate; but like so many of the applets built into operating systems, they do not offer nearly as many features as stand-alone alternatives. Furthermore, the operating system vendors oftentimes put little effort into adding new functionality to keep pace with the stand-alone competitors, partly because that is not the focus of their business, and partly because in most cases they would make no money from enhancing applets bundled with their operating systems.

Some of the third-party music players support two or more of the major operating systems, while other players are specific to just one OS. In this article, we will take a close look at one of the most highly regarded free Windows-specific music players, Quintessential Media Player, from Quinnware (*www.quinnware.com/*).

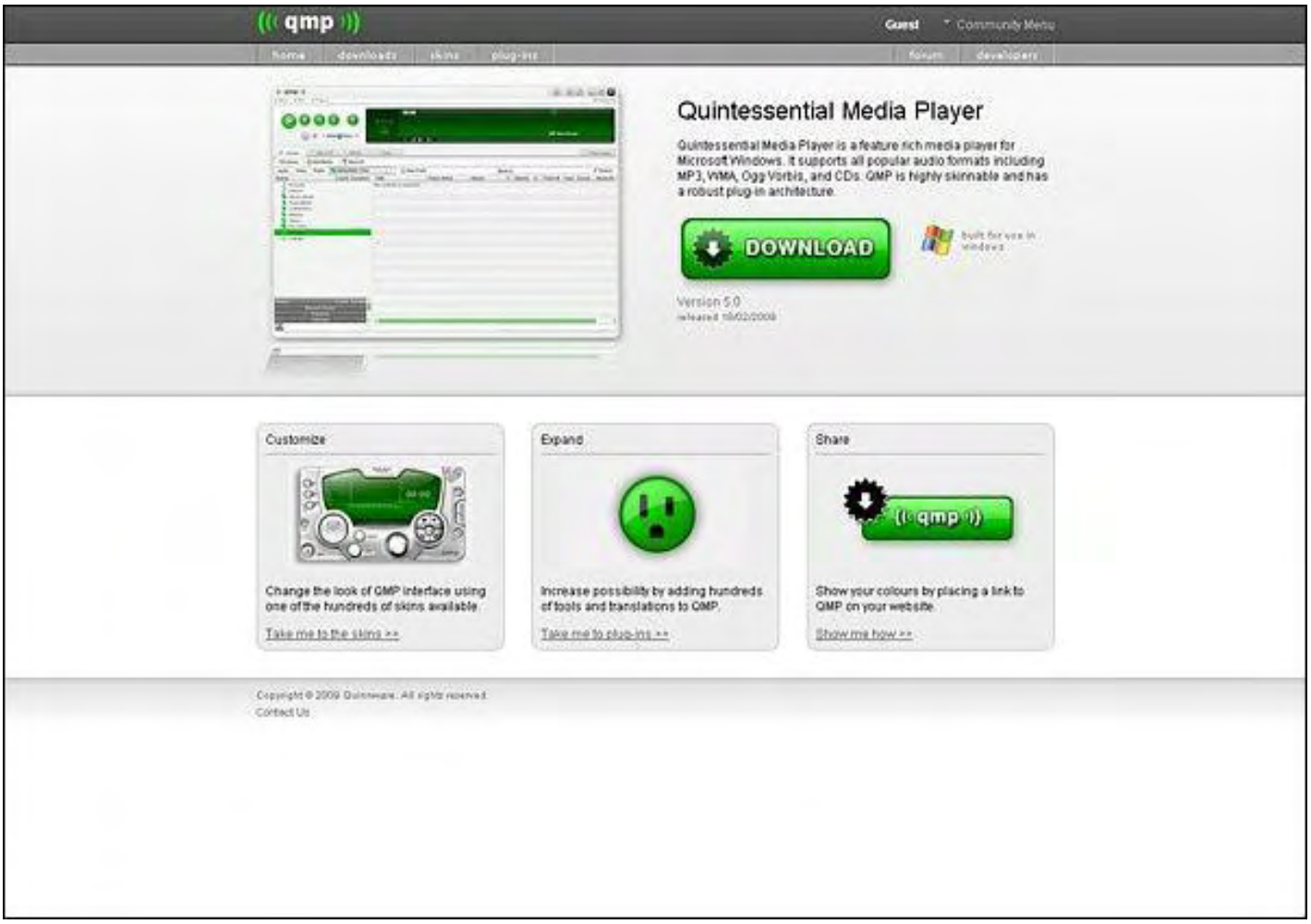

Figure 1. Quinnware home page.

(For those readers who are running PeerGuardian or any of the other peer-to-peer privacy utilities, the Quinnware Web site may be blocked, so you will need to shut down or disable any such program in order to access the site.)

**Essential Software**

If you have a Windows computer, and you would like to try out Quintessential, then simply click the large green Download button on the home page, and you will be taken to a page listing the three options: Quintessential Media Player + Media Library 5.0, Quintessential Media Player 5.0, and Quintessential CD. That first option is the music player bundled with a media library and other resources for managing your MP3 collection, such as setting song names inside of the ID3 tags. The third option on that page is for those people who only want a program to play back music directly from CDs, and not MP3 files. In this article, we will choose the second option, to download the Quintessential MP3 player only.

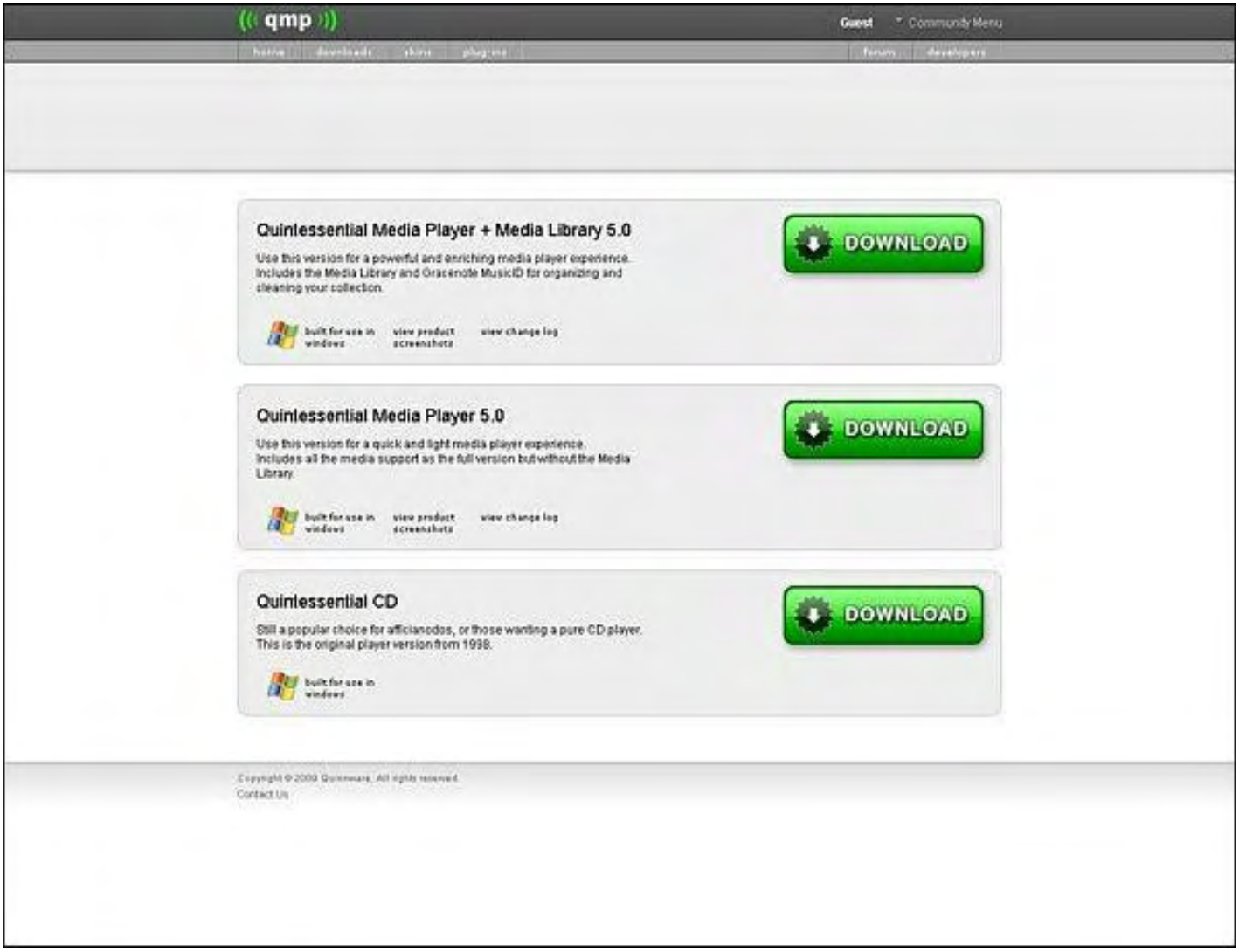


Figure 2. Quinnware Downloads page.

Save the installation file to a folder where you can easily find it, or to the Windows desktop. Note that the Web page you land on has buttons linking to two additional pages, offering language packs and plug-ins. The language packs are for Chinese (simplified and traditional), Japanese, French, German, Italian, Spanish, Russian, Portuguese, Greek, Hebrew, Norwegian, Swedish, and various other Asian, east European, and Middle Eastern languages.

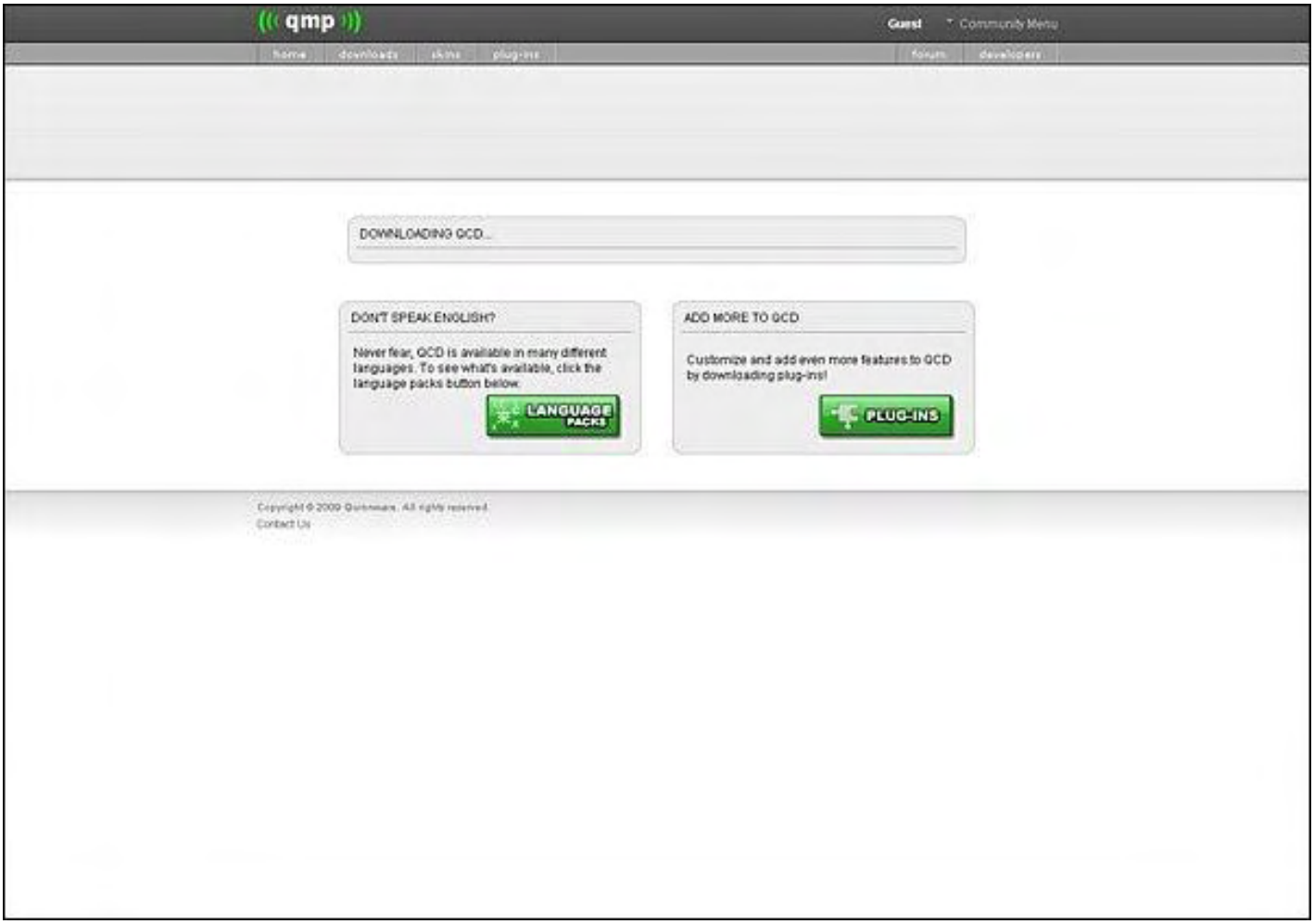


Figure 3. Language packs and plug-ins.

Plug-ins can be thought of as components that can be easily added to an application, and that provide complementary capabilities. In the case of Quintessential Media Player, all of the plug-ins are free, and they allow you to listen to additional music formats (such as FLAC), convert music files to MP3 from other formats (such as the increasingly popular Ogg Vorbis), improve sound playback with signal processing, display animated graphics coordinated with the music, and change the icons within the program's user interface.

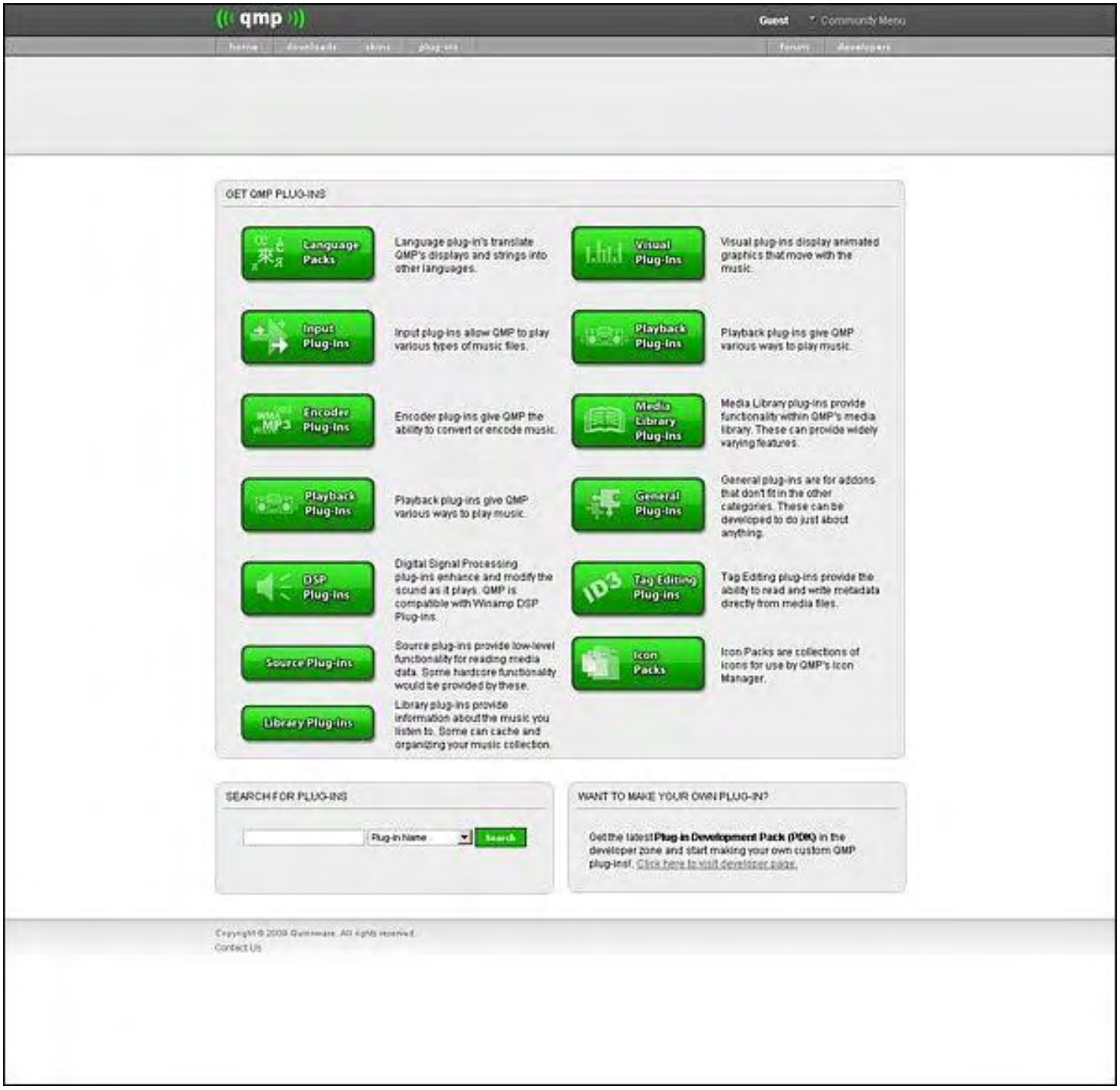


Figure 4. Quinnware plug-ins page.

In order to install Quintessential on your computer, open the file you have downloaded earlier, at which point you will be presented with the license dialog box.

Figure 5. Quintessential license.

Once you have agreed to the license, you will be shown a dialog in which you can choose the type of installation (complete or custom), as well as the individual components in the program. In this example, we will not make any changes to the default selections.

Figure 6. Quintessential components.

Having specified what exactly you want installed, you have the option of accepting the default installation folder (C:*bckslsh*Program Files*bckslsh*Quintessential Media Player) or designating an alternate one. We will use the default value.

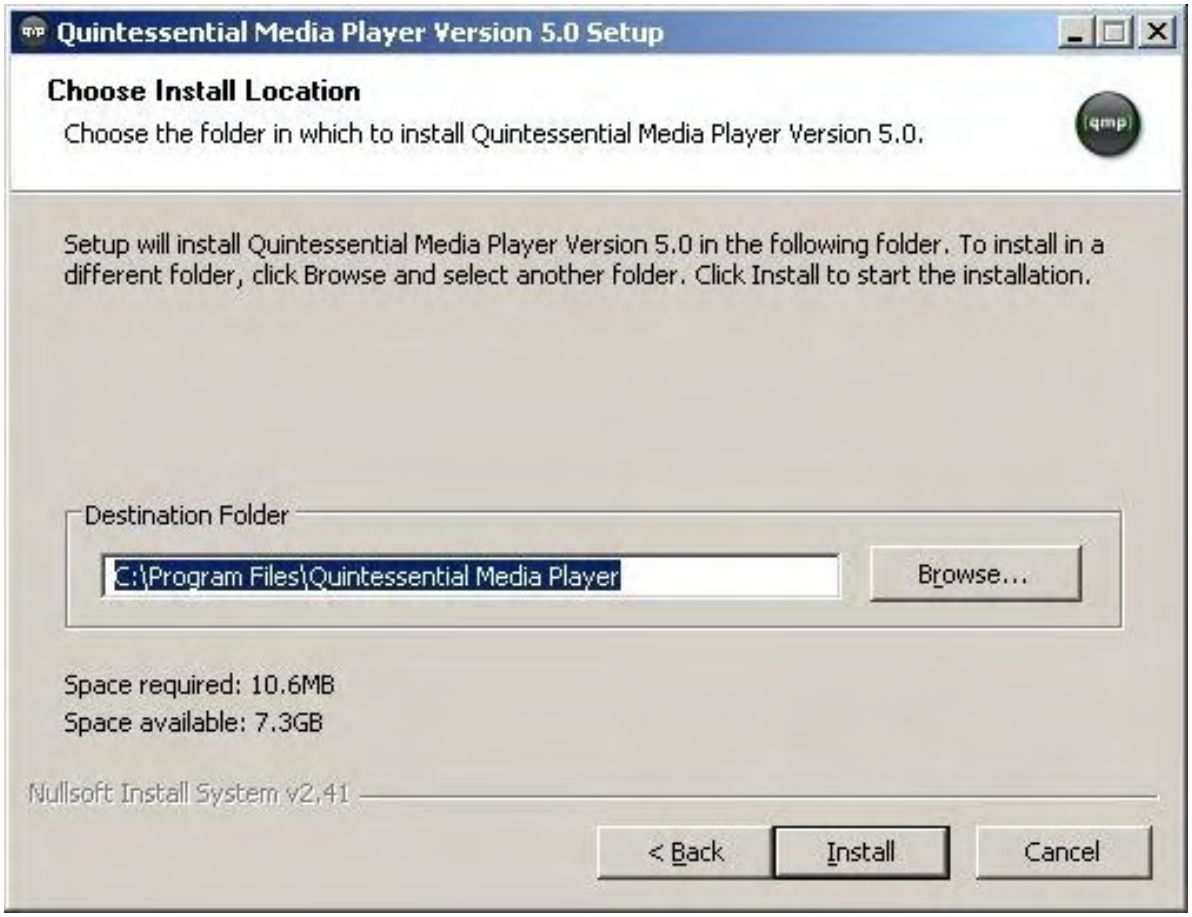


Figure 7. Quintessential install location.

Assuming that no problems occur in your installation process, you will then see a dialog showing that all of the components have been unpacked and installed.

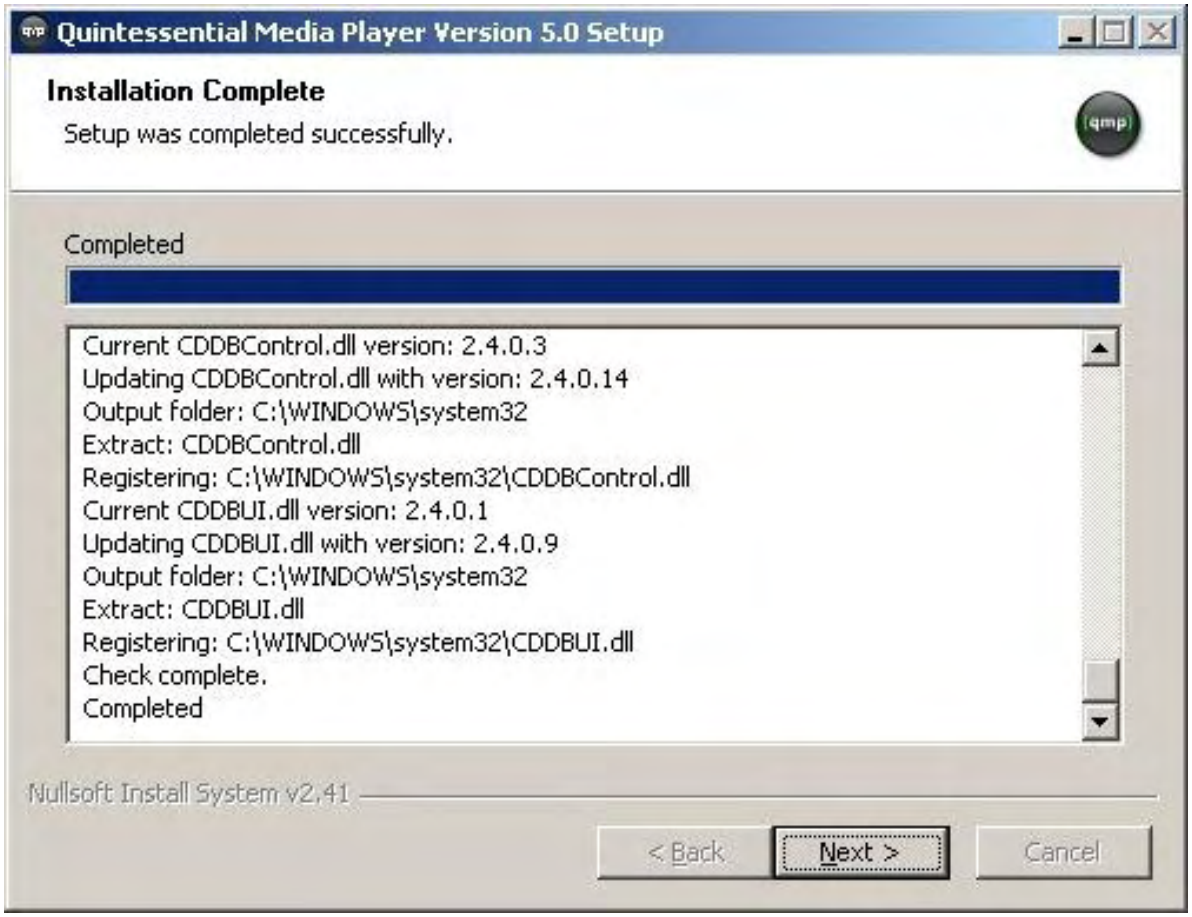

Figure 8. Quintessential install components complete.

Finally, you will be informed that the installation wizard is done. At this point, you are ready to run your newly installed copy of Quintessential.


Figure 9. Quintessential install wizard complete.

**Hit Play**

When you run Quintessential for the first time, it will attempt to connect to a server at cddbp.net, apparently to register your copy of Quintessential. You will see this immediately if you are running a firewall that detects and blocks such outbound requests, such as the one shown in the figure below, Sygate Personal Firewall Pro. (If you have no such firewall in place, you definitely should add one to your computer's security setup.)

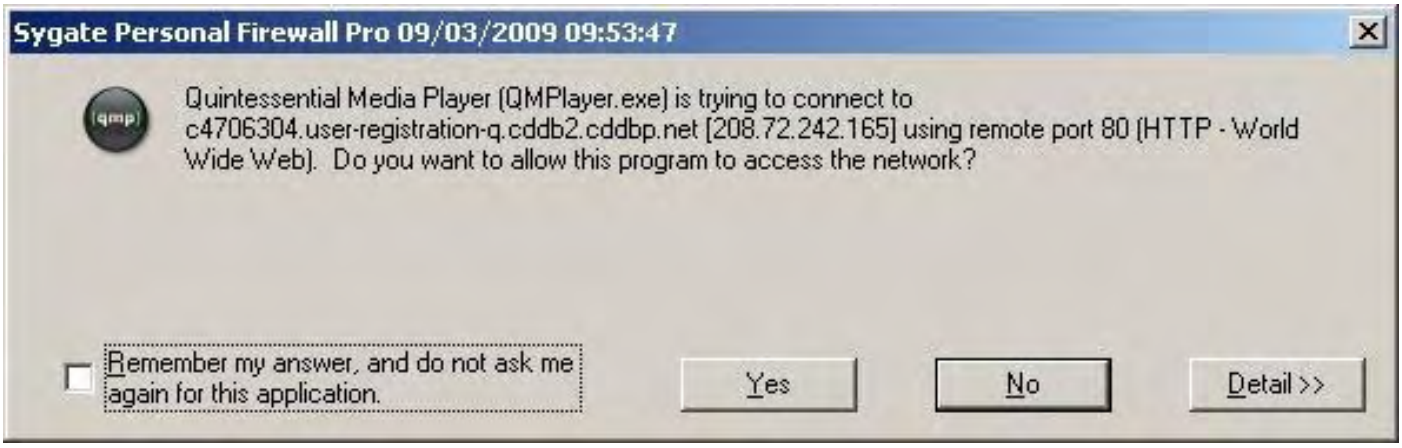


Figure 10. Firewall message.

Fortunately, the registration is not needed for Quintessential to function, so you can safely block this initial attempt and any subsequent ones. When the media player first starts up, you will find that it has a clean and attractive user interface.


Figure 11. Quintessential empty.

In the upper-left portion of the interface, there are three menus: Menu, Skin and Plug-ins. The first one is the one that you would most often be using, because it has menu items for setting preferences and for adding individual files and entire folders to the player queue. The other two menus, as well as the Preferences link to the right of them, are all self-explanatory.

At the lower edge of the green track area, there are controls for such capabilities as having Quintessential automatically repeat playing all of the tracks loaded, randomly reordering them, etc. Below this area is a horizontal row of much larger controls, for playing or pausing the current track, stopping the track, jumping forward and backward to other tracks in the queue, etc.


Figure 12. Quintessential playing a track.

When Quintessential is playing a track, as shown in the figure above, it displays the current position within the track (in seconds and minutes, by default, but not hours), as well as the song title, album name, and artist —assuming that that information has been embedded in the particular MP3 file (using the aforesaid ID3 tags). When the current track is paused, you are shown the total length of the track.

Regardless of what type of music you like to listen to on your PC, if you are looking for a free and capable

media player, consider giving Quintessential a try.

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

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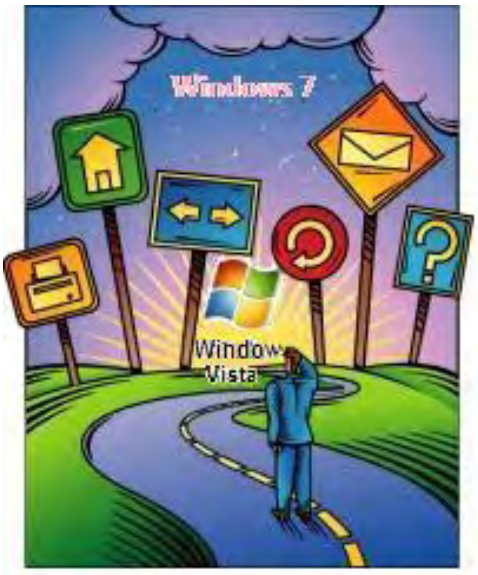


# Windows Vista Tips and Tricks

(and some Windows 7)

## Windows Tips and Tricks

**"Customize Your Windows Desktop"** by Jack Dunning

Many people may not realize (because they have never tried it) that in Windows there are ways to change the desktop to a configuration that will work better for you.

When we buy a computer, regardless of type, we tend to accept and work with the default setup. We grow accustomed to how it works and may even become unsettled if anything changes. Yet, the default setup may not work best for everyone. Many people may not realize (because they have never tried it) that in Windows there are ways to change the desktop to a configuration that will work better for you.

For most people, the initial desktop configuration may be just fine. If not, here are some tips for customizing yours.

While I'm working, I may have a number of programs running with various windows open simultaneously. This causes tabs to accumulate in the taskbar, as shown in Figure 1. The program tags get so small that all I can see is the icon and a number indicating how many windows are running. I usually have the icons memorized, but it is still pretty cryptic.

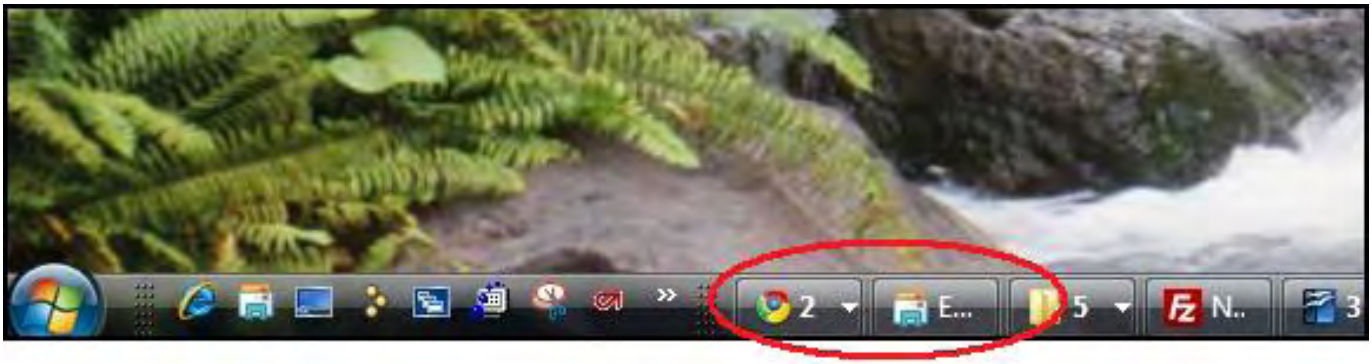


Figure 1. The taskbar in Windows Vista with program tabs crowded together.

To improve the situation, click the left-mouse and hold down on the top edge of the taskbar. Drag the edge of the taskbar up. The taskbar will expand, making more room for the program tabs (see Figure 2). (Make sure the taskbar is unlocked. If locked, right-click on an empty space in the taskbar and deselect "Lock the Taskbar" from the menu.) The tabs expand and place themselves in multiple rows. Now it is easier to identify the programs by name. This simple technique alone can make working easier in many situations. Also, with the increased space, more copies of programs can be opened before they will be relegated to a menu in a single tab.

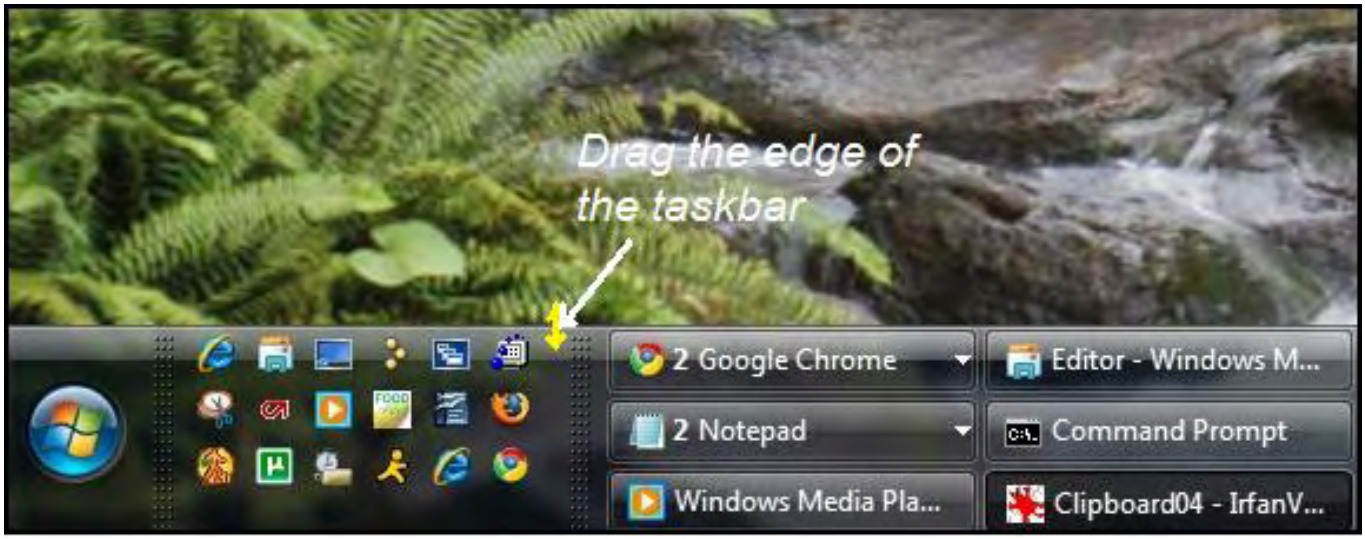


Figure 2. Expanded Windows Vista taskbar.

Most Windows computers we see have the taskbar at the bottom. Why? Because that is the way the computer comes and no one ever bothers to change it—even if they know how. Maybe most people do work better with the taskbar at the bottom of the desktop. I don't know of a study that's ever been done. However, some people may actually find it more natural to move the taskbar to the left, right, or top of the computer screen. There are applications such as graphics programs that may work better with increased vertical space, while sacrificing a little of the horizontal area. Click and hold the left-mouse in an empty space of the taskbar. Drag the mouse to the left side of the screen. The taskbar will reposition itself as in Figure 3.


Figure 3. Windows Vista taskbar on the left side of the desktop.

Maybe you like the layout of the taskbar when it's on the bottom of the screen, but would prefer it up and out of the way. Drag the taskbar to the top of the desktop (see Figure 4).


Figure 4. Windows Vista taskbar at the top of the desktop.

In Windows Vista, you may already have the Windows Sidebar active on the right (or left) side of the computer screen. It might be convenient to put everything together (sidebar and taskbar). When you drag the taskbar to the same side as the Sidebar, the Sidebar moves out of the way (see Figure 5). In Windows 7, which doesn't use the Sidebar, when the taskbar is positioned over an individual gadget, that gadget will move out from under the taskbar.

Figure 5. Windows Vista taskbar next to the Sidebar on the right side of the desktop.

You may want to experiment with various positions of the taskbar. When it is on the left, or right, side of the desktop, while you will reclaim more vertical screen space, stretching the taskbar will not buy you more space for tabs, but merely widen each tab. Another plus to changing the traditional layout is that you will really freak out other people who try to use your computer. "Where is the Start Menu?"

Although I know how to change the setup, I may never actually implement a new scheme. I may be too accustomed to the way it is now with the taskbar on the bottom.

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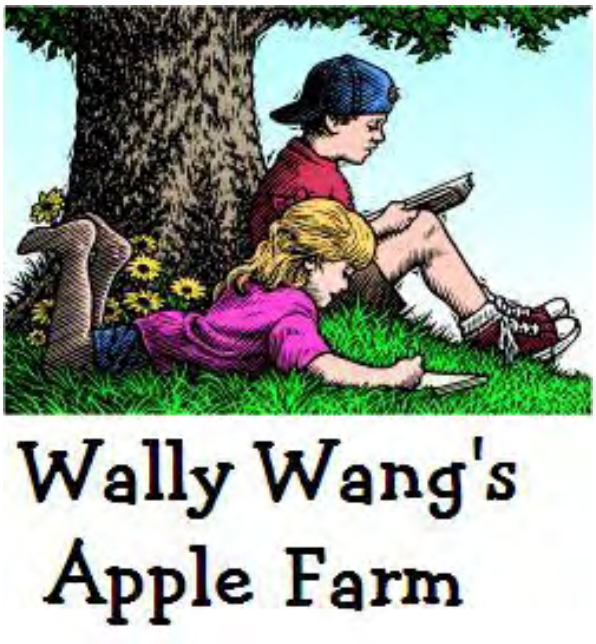


## Who Stole Wally Wang's Apple Farm?

**"Snatch-and-Grab Laptop Thefts"** by Wally Wang

Most laptop thefts are likely crimes of opportunity, so the less opportunity you give a thief, the less likely there will be a crime. Also, a tip on turning on password protection for your screen saver.

I was with a friend, sitting on the outdoor patio of a Starbucks in Tempe, Arizona, when a young black man ran over, snatched my laptop off the table, and ran off with his friend into traffic, dodging cars as they escaped with my MacBook. As I watched him and his friend run off with my MacBook, I immediately realized what I had done wrong, and now I'd like to share those thoughts with others so they don't lose their laptops to a similar snatch-and-grab theft.

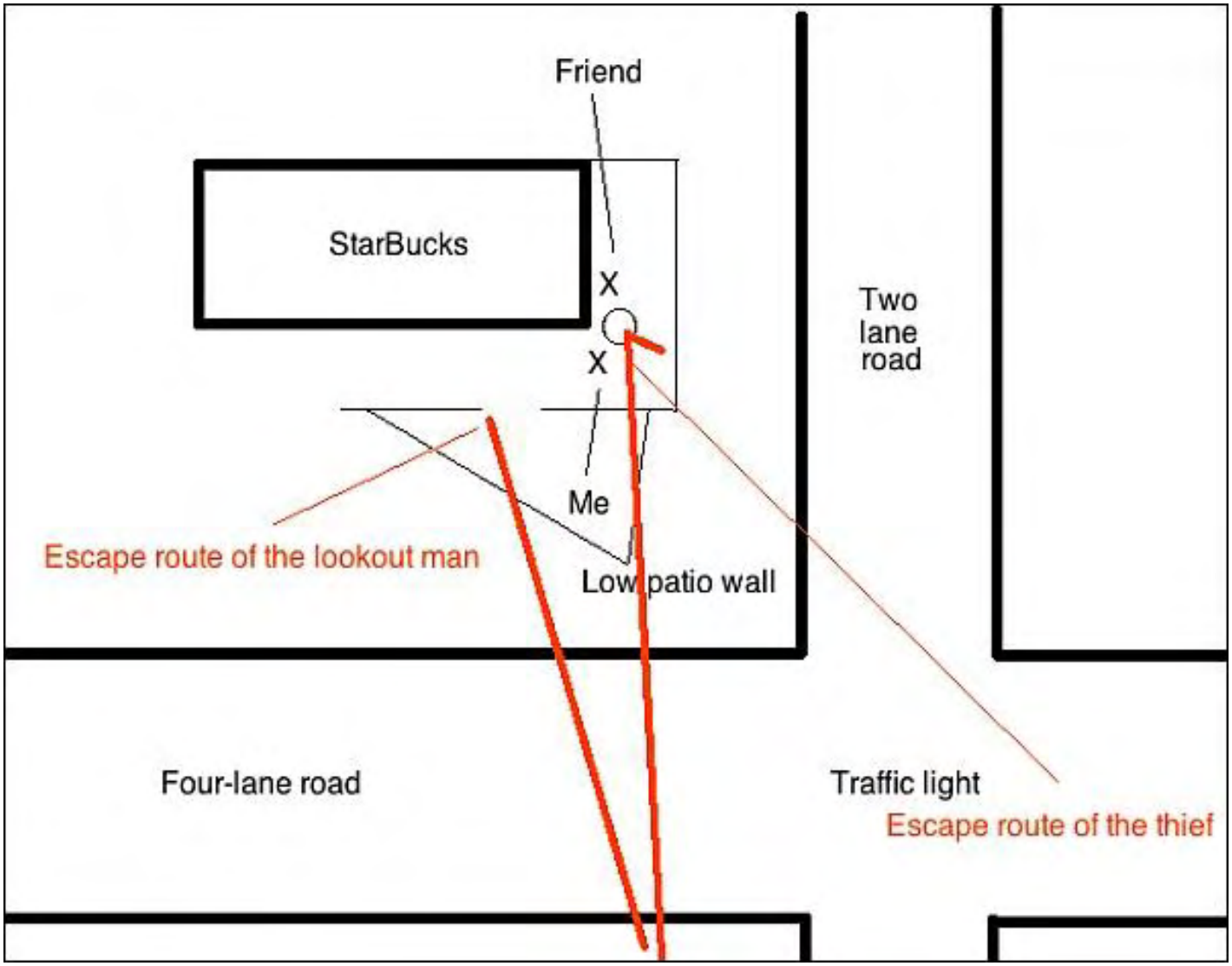


Figure 1. The layout of the crime scene.

Figure 1 shows that my friend and I were sitting outside near the corner of the Starbucks building, which was located near a busy intersection next to University Drive, a four-lane road that cuts through Tempe. The intersecting road consisted of just two lanes with light traffic, but the four-lane road had consistently heavy traffic.

Here was my first mistake. I put my MacBook on the table and never opened it. So rather than tuck it safely back in its carrying case, I just left it sitting on the table. It was a white MacBook, which basically advertised its presence like a flashing neon light, especially against the dark black metal of the table on the patio. At a glance, it seems obvious that the pair of thieves noticed my MacBook from a safe distance away, where they could scope out the situation and plan their attack.

My second mistake was sitting with my back to the main patio, which allowed the two thieves to observe me without attracting my attention. Although my friend was facing in the direction where he could see behind me, both he and I were too busy chatting to take notice of anyone around us.

The third mistake was when I noticed the two black men sitting at different tables around us and constantly moving around. At the time, I didn't think anything of their actions, but it seems clear that they were scoping out the location of the laptop and eyeing their escape route. I thought it was suspicious that two young black men would be standing around us without any drinks in their hands, but trying to be politically correct, I

didn't want to fall into the stereotypical thinking that all young black men are criminals, so I ignored my gut feeling.

That's when I learned that being politically correct gets you nowhere. The smart thing would have been to notice the odd behavior of these men and tuck the laptop safely away. The stupid thing (which I did) was feel that I didn't want to offend these men by hiding my laptop as if I thought they were criminals simply because they were black.

If anyone's going to snatch your laptop from you and run, it's going to be a young person. They could be male or female, but when faced with the idea of stealing a laptop from two men sitting at a table, any snatch-and-grab laptop thief seems likely to be a young man.

While it's possible that a young man of any ethnicity might try to steal a laptop alone, it's more likely that he would work in pairs. One man scoped out the laptop's position while the other acted as a lookout. Any laptop thief working alone would have to focus on the laptop and watch for others, which doubles the burden and makes the theft harder to pull off.

So the first lesson I learned is to sit in a position where you can easily spot someone who might approach your table, and the second lesson is to position your laptop in such a way that grabbing it isn't easy.

Although I had pulled my laptop out of the carrying case, I didn't flip its screen open, which would have been a minor obstacle to a thief, who would then have to try to grab the laptop with the open screen and run with it, or try to grab the laptop, close the screen, and then run with it. A snatch-and-grab thief is looking for speed, so any obstacle, however minor, you can place in a thief's path can slow or discourage him from stealing your laptop.

I left my laptop as the only item on the table. I should have placed minor obstacles near the edges of the laptop, which could have slowed or blocked the thief from grabbing the edges. For anyone to grab a laptop, they need a clear line of sight to rush at it, grab it and run away. When you put your laptop down, look for a possible direction that a thief could come at you the fastest and put obstacles in the way, such as coffee cups, books, or backpacks. The less visible and clumsier grabbing the laptop might be, the more likely you'll discourage a thief from snatching it.

After the first man grabbed the laptop and ran off, he joined with his buddy in running toward the busy four-lane road. Not coincidentally, the traffic light was red, halting the normally busy traffic, although cars were still turning right from the smaller two-lane road. These cars almost hit the two men as they fled, but it was apparent that the thief's lookout man signaled when the traffic light turned red so they could make their getaway across the busy street and lose any pursuers in the process.

Since a laptop thief relies on speed to rush in, grab the laptop, and run away, you can lower your risk of theft by simply sitting inside. When my thief took off running, instead of running through the open doorway of the patio wall, he hurtled it instead.

When thieves steal something, their first thought is to get away as fast as possible with as many open spaces as possible so their escape routes remain numerous. If a thief steals a laptop inside a building, his escape routes are limited to one or two doors.

Even if his friend holds the door open, would you really want to run through an open door in the adrenaline rush of stealing a laptop? (The Starbucks where I was sitting was a drive-through building only, so sitting outside was the only option.)

Immediately after the theft, my friend suggested we call the police, but I made my fourth mistake by assuming the police would never find these two thieves as they disappeared across the street and ran through an apartment complex. Of course, not calling the police right away guaranteed they would get away, while calling the police right away might have had only a one percent chance of catching them, but those are still better odds than a zero percent chance by not calling the police.

My chances of getting my laptop back are virtually zero since my fifth mistake was not recording the serial number of my laptop. Like everyone, I never thought I'd ever lose my laptop to a thief, but by not having the serial number recorded, there's no way the police can identify my laptop if they ever do find it.

So here's what I learned about how to get your laptop stolen:

Leave your laptop on the table where its presence can catch the attention of a potential thief. If your laptop is worth $700 like mine was, think of leaving a stack of seven $100 bills on a table where anybody could snatch it. If you wouldn't trust a stack of hundred dollar bills out in the open, then don't leave your laptop exposed either.

Sit in a position where you can't see a thief coming at you until it's too late. By sitting with my back to the only direction where a thief could come from and escape, I couldn't possibly react in time to stop the thief. Remember, the thief always has the element of surprise advantage over you because he can choose when to strike. When you sit down, check all possible routes to your laptop. If there are too many obstacles or people in the way, it makes it harder for a thief to snatch and grab your laptop. (Where I was sitting, there were no other people besides my friend and the two thieves.)

Sit outdoors to give thieves the easiest possible access to escape. Sitting indoors (which wasn't available at this particular Starbucks) restricts a thief's escape route. Sitting outdoors immediately makes it easy for a thief to get away.

Don't record the serial number of your laptop to make it impossible for police to identify it if it's ever recovered.

The thief who took my laptop knew what he was doing by having his friend wait until the traffic light halted traffic long enough so he could get away. After running through traffic across the four-lane road, the thieves ran through an apartment complex, suggesting they were familiar with the area. So wherever you take your laptop, look for the escape route a thief could take to lose a pursuer, such as a busy street, forest, or a big apartment complex. Remember, the thief's goal is to shake off pursuers as quickly as possible, so if you wouldn't feel comfortable running through a certain area, that's probably where a thief would want to run to lose you. By making it difficult for a thief to reach likely escape routes, you'll put one more obstacle in the thief's path.

Most laptop thefts are likely crimes of opportunity, so the less opportunity you give a thief, the less likely there will be a crime. Chances are good that if you use your laptop in public, potential thieves have already scoped out your computer, but never took the risk because the opportunity never presented itself.

Of course, the good news is that the thieves didn't hurt me or my friend and that I had taken my older laptop with me that day instead of my newer MacBook Air that I was going to take due to its lighter weight.

More importantly, I didn't have anything valuable on my laptop (such as credit card numbers) or crucial data that wasn't already on my main computer instead, so the theft simply cost me the price of a laptop and nothing more serious.

Finally, ask yourself what your laptop is really worth to you? Is it worth chasing someone through moving traffic and risking injury or possibly death to chase down a determined thief? If I did chase and catch up to the thieves, is it worth a confrontation with someone who might have a weapon?

If someone was stealing your kid, then the risk of pursuit is worth it, but if someone steals your laptop, it's probably not worth the risk to your health to chase after them. Just look back on what you might have done to make a thief's job easier, and then vow never to do that again.

Then go one step further and let other people know the mistake you made so they hopefully won't fall prey to the same snatch-and-grab theft that took your laptop away. My only nagging question is wondering, "If I had placed a Windows laptop on that patio table instead of my white MacBook, would thieves have still been motivated to take it?"

* * *

When the thief took my MacBook, it was asleep, which meant all they needed to do was open the lid to start using it. For additional security, I should have also turned on password protection every time the screen saver kicks in or the computer goes to sleep. Using a password to lock a thief out of a computer might not stop a skilled computer enthusiast, but it could stop a common thief from using the laptop.

To turn on password protection for your screen saver, click the Apple menu and choose System Preferences to open the System Preferences window. Click the Security icon in the Personal category and then click the General tab.


Figure 2. The General tab displays a check box that lets you define when a password will lock your computer down.

Select the Require Password check box, and then click on the pop-up menu to choose a time setting, such as Immediately or 5 minutes.

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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.

Wally can be reached at *wally@computoredge.com* and at his personal web site (*www.wallacewang.com/*).

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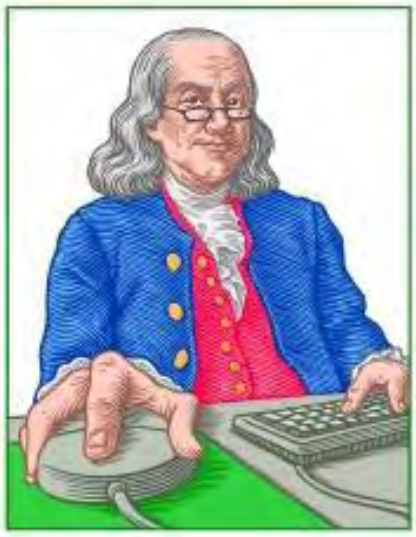

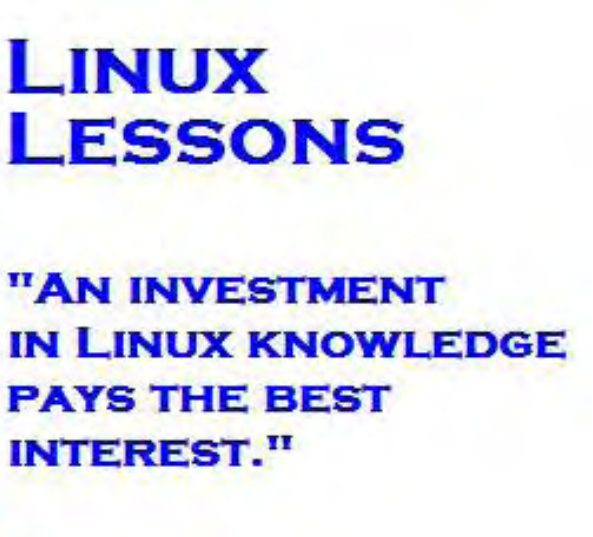


## Linux Lessons: Tips and Tricks from Users

**"Linux users share ideas and ask for help."** by ComputorEdge Staff

Readers write in with responses to the question of "Linux distributions—which one?" One reader says variety is the spice of life when it comes to distros.

*This week, we received a couple of excellent responses to the question of "Linux distributions—which one?" The first is from Greg Richardson, who gives us guidelines for looking at the various flavors of Linux. The second, more in-depth evaluation is based upon Jack Hamilton's life with the operating systems. (Jack also included an extensive look at using various virtual machine programs in Linux, which will be included in next week's column.) If you want to add your two cents, send your comments to Linux Distributions Comments, Tips, and Tricks (*ceeditor@computoredge.com*).*

**How to Look at the Various Linux Distributions**

All Linux distributions basically do the same things. Their differences lie in how they achieve them, and how much control they give the user.

All distributions have an installer and disk partitioner to install the basic system, another program which adds software to an existing install, and a means by which that software can be updated.

Some distributions are package-based, in that the programs are pre-compiled and ready to install on a system (Ubuntu, Red Hat, Debian etc.). These distributions offer much faster installs and upgrades and are newbie-friendly, as long as the newbie isn't an idiot.

Other distributions (Gentoo and Slackware come to mind) are source-based, which means each bit of software is compiled on your machine, for your machine. They give the user more power to install and configure his system as he sees fit. They can be intimidating to a newbie and maddening to the impatient. Installs and upgrades can take all day and still fail. But once everything works, it works really well.

Another thing to consider when choosing a distribution is how well everything is documented and maintained. This can vary wildly from distro to distro.

Greg Richardson

* * *

**Ten Years of Linux Immersion**

Here is my personal experience with Linux distros (and then some), and some information I've read over the

years. Obviously my experience will be completely different from others, and undoubtedly some will disagree, but this is how I came to use the different versions.

**Red Hat/Fedora/CentOS**

I started using Linux more than 10 years ago after having used Unix (Solaris/SunOS) at the university. My first taste was Red Hat 5.x. Over time, I saw Red Hat become more enterprise-centric, finding it more difficult to get free software updates (without having to hunt down individual RPMs) unless you dished out money to pay for annual support and get use of their auto-updater.

That's basically when I left, but not before checking out their forked-off non-enterprise-centric version called Fedora Core. Still, the damage was done, and I began looking elsewhere. Today I have read about CentOS, which, from my understanding, takes the Red Hat distribution releases, but redistributes them stripped of any copyright references to Red Hat.

Because many companies (my job included) select Red Hat as their primary Linux distribution, learning CentOS (unless you want to pay for Red Hat) will go far. It is also the default OS of choice when I've taken online Linux classes.

**Debian/Ubuntu/Kubuntu**

I discovered Debian and loved it because it seemed very hacker friendly. I then discovered an offshoot called Ubuntu. Gone were the days of RPM dependency hell, where to install one software package, you had to manually go hunt a dozen other RPMs that it required to function first. With Ubuntu, I had discovered the use of "apt" and its front-end variants like "aptitude" (text-based) and "adept" (GUI-based), which relied on online repositories to hunt for the latest packages, but using Debian's RPM alternative (.deb packages). "Apt" worked in conjunction with Debian's package installer "dpkg," and together they kept in harmony a database of all your installed applications in Linux (similar to Red Hat's RPM database).

Now, Ubuntu's look-and-feel felt very similar to a Macintosh. It uses the Gnome window manager. I ended up sticking with Ubuntu's variant Kubuntu—it uses the KDE window manager—because it had more of a Windows look-and-feel (I know I'm probably being judged right now), but it felt more functional. I felt more comfortable.

But I should add that Gnome and KDE are more than just window managers (the programs that give your Linux desktop GUI its look-and-feel and determine how windows and desktop objects interact with you). Each came with its own set of utilities for configuring Linux, which certainly helped a lot because I was getting tired of having to manipulate *everything* in Linux via config files. Now don't get me wrong, I still have to configure things in Linux via text files 50 percent of the time (think Samba, NFS, etc.), but to have a GUI to take care of a good chunk of it was a heaven-sent. (I'm not saying Red Hat doesn't have that, I'm just pointing out the virtues of Gnome and KDE window managers bringing it all under one roof, or trying at least.)

**Gentoo**

I haven't used Gentoo, but I read up on it and am familiar with its purpose. I will explain the gist of it for our fellow newbies' edification.

Back in the "old" days of Linux, you didn't have fancy-schmancy package managers to automatically install and uninstall apps cleanly, or to look online for what programs are available for update—or even available period. You had to manually go out and find the package source code, uncompress it to a temp directory,

tweak a few files to match your particular computer hardware configuration, run the installer script to start compiling, and cross your fingers that you didn't get any errors you'd have to troubleshoot to get the darn thing to install.

If you did install it and later wanted to uninstall it, good luck because it was scattered all over the place. Well, that's why RPMs and DEB packages and package managers were invented. They did all that for you *except* they don't compile the program. They rely on someone else with *similar* hardware to compile it in advance. What you get is that pre-compiled "binary" (like a Windows .EXE) program.

The upside is that we all get to benefit from ease of use, ubiquitously available software out in the cloud. The downside is that you may not be getting every last ounce of efficiency from that program and your PC because the program made broad, generic, greatest-common-denominator assumptions so that it would work on many PC architectures (i.e., are you a 386, 586, 686 machine?, 32 bit vs 64 bit machine?, etc.).

Now, if you *did* want to ensure you were getting the best performance possible, you're gonna have to forget that RPM/DEB file and download the source tarball yourself, read the README, tweak the install script parameters and compile it. It'll be a pain, but in the end, you can ensure that the code is running as efficiently as possible on your machine because it'll (in theory) make use of your specific CPU features. (Do a cat /proc/cpuinfo and take a look at the "flags" section—plenty of features in your CPU to take advantage of.

Well, now extend that ideology to the entire friggin' OS and applications, and you have Gentoo. Maybe your machine will scream with that power—maybe you'll scream trying to compile it all the darn time? I intend to do this someday when I feel a bit masochistic.

**SUSE**

One day IBM and Novell joined forces to push the SUSE operating system on people, as a way to fight against Microsoft (and I guess Sun Microsystems) and ensure they are still relevant in the event the mainframe one day goes away in corporate America (not quite yet). As a vendor to my job, we had no choice but to go with SUSE for one of our systems instead of Red Hat, much to the chagrin of our IT department.

Using SUSE, I'm reminded that, from a day-to-day admin perspective, it's like Red Hat—very enterprise-centric. And like Red Hat's Fedora Core, it has an open-source community version (OpenSUSE.org). And just like Red Hat, for use as a desktop it left a lot to be desired when compared to hacker-friendly (K)Ubuntu. I think the bottom line about these enterprise-centric systems is that as a server they will do great, but as a day-to-day multimedia desktop, they aren't great and require more tweaking than if you just used the Debian Linuxes. Again, that's just been from my experience.

**Macintosh/Darwin/BSD/Solaris/SunOS**

As I recall, Unix forked off into variants. The AT&T's System V R4 combined these and went on to live as Solaris from Sun Microsystems (but yes, there are others like IRIX, IBMs AIX, HPUX).

The free versions of the BSD forks can be found in derivatives like FreeBSD, NetBSD, and OpenBSD. These aren't Linux, but were developed as non-proprietary recreations of Unix, just like Linux. I haven't used any (yet), and I'll leave it to the CE community to fill in the gaps if desired, but from my understanding, the source code is held a little tighter than Linux. The upside (as I'm told or have read) is that it tends to be more secure, the code is cleaner/efficient/less-buggy, than Linux, which is known to have the philosophy of release-now/fix-later. These BSD offshoots are said to be ideal for use as servers, for which many companies like Yahoo utilize them. One such company was Apple, which created Darwin as a derivative from BSD for use

on the Intel machines it now sells. If you open a terminal on a modern Mac, it's as if you're just running another distribution. You can install Fink and have use of many of the programs available for BSD and Linux.

**32-bit vs 64-bit Linux**

I have Intel 64-bit hardware. Because I want to use *all* of my 4GB of memory, I installed 64-bit Kubuntu. (I know, it's only 4GB. Soon I'll be able to afford my 24GB dream machine, so there!) But as I've learned, 64-bit Linux still has a way to go to fully operate in this 32-bit world. We're getting there, but it's not 100 percent yet.

Here are the issues I've run into. The first time I ran 64-bit Kubuntu, there was no Adobe Flash player for 64-bit for use in the 64-bit version of Firefox. There was a hack to install and run 32-bit Firefox (but that required 32-bit libraries). It worked so-so. I think there was talk of a 64-bit third-party hack of Flash, but before I could get around to installing it, Adobe finally released a 64-bit Flash player. However, some Web sites still refuse to recognize it and will display a "please update your flash player" to view this video. CNN is notorious for not working with my 64-bit player. Sad. On occasion I come across apps (like Citrix, which I need for remote access) that don't have a 64-bit version. Since I already have VMware installed, I just view Flash-dependent Web sites from a 32-bit OS running in VMware.

*[Jack gives us more on "Virtual Machines in Linux" in next week's column.]*

**Which One Is Better?**

Ha! None of them. This is like asking if Linux is better than Windows or Mac. (I know—careful!) It depends on the job. To be honest, I am OS-agnostic and I love it. I don't get into religious battles over which OS I will and won't use. I use all of them, and for that, company after company seems to want to keep me around. Currently I run a Linux 64-bit Kubuntu with VMware running 32-bit Windows 98, XP. I have an Intel laptop that I hacked to run the Mac OS 10.5 and like to play with Darwin. (Someday I *will* be able to afford a Mac PowerBook Pro—I'm sold after having used my hackintosh!)

My plans are to replace my machine for a screaming 64-bit quad-core i7 with 24GB RAM. I'll install a lean secure Linux server like SELinux on CentOS with KVM. In a virtual machine I'll run a 32-bit Linux using Mint (Multimedia Ubuntu), so I get the best of the multimedia 32-bit application support and a 32- or 64-bit Windows 7 with XP emulation, DosBox and maybe VMware to run Win98. I say, why settle for just one OS, or one OS variant? As they say, variety is the spice of life!

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.*

* * *

**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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*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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# Rob, The ComputorTutor Does VB. Net 2010

**"Sticky Wrap-Up"** by Rob Spahitz

Last week, we finished the core part of our "Sticky Notes" application. This week we'll handle some crashing problems using some debugging techniques.

Last week, we finished the core part of our "Sticky Notes" application. This week we'll handle some crashing problems using some debugging techniques.

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*.

**CHALLENGE (due 10/9/2009):**

Do you listen to music on an electronic device? If so, what kind of device? Do you listen on your computer? Do you think it's OK to pay for the same music over and over so you can listen on different devices or to reload if it's erased from a device?

**Responses:**

Arch of San Diego correctly noted that our Sticky application fails if you choose to save a file then cancel. We'll address that today.

**Sticky and Smooth**

There are several stages to any project, whether it's a computer project, a construction project, a book or even a vacation trip. You start with a design, even if it's just a two-second thought about what you expect from your result. You then work toward your expected result, typically called development (although for a trip, it would be the drive or flight). Along the way you test the pieces you're building, like trying the parts of an application, looking to make sure the pieces of wood are properly nailed together, scanning through your previous pages to make sure that the paragraphs make sense in the given order, or that you're on the right road or plane. Finally, you evaluate your results to ensure that you got the expected result (which may have actually changed along the way).

In the case of applications, the stages are design, development, testing and production. So far we've done the basic design of creating a mini Notepad-like application, we developed it, and we did some basic testing. What we really missed is adding parts to reduce the chance of future problems. Also, now's the time to add some minor enhancements to make it look nicer.

**Bug-Deterrent**

Visual Basic offers features to help you reduce potential problems in your code. The first is that it reviews your code as you type and highlights lines that don't follow the proper syntax (structure). This syntax checking is easy because the rules of VB are quite well defined. As with English or other human languages,

the words have to be assembled the right way or the sentence is either wrong or confusing. The next thing VB offers is what I'll call integrity checking. When you "compile" (or convert from VB into computer code), the VB tool will check to make sure that pieces fit together properly. If you use a function that requires a number and you give it some text, it will notify you that you have a problem. If you forgot to define a variable that you're using (or maybe misspelled it), then you'll get a warning. You can override many of these features by defining all of your pieces in a generic way, but why would you want to do that? Well, we'll see in future columns that you may really have no choice in some cases. And the last thing that VB offers is run-time checking, to see if the parts work when you run. This is the part we need to explore.

Run-time errors come in two varieties. One version is where a problem occurs in some piece that works correctly much of the time, but may have some "exceptions." For example, you want to read information from a CD. If the CD is in the drive and you have the right CD in place, it will pretty much always find it. However, if the CD is not in there, the wrong CD is there, or the wire to the CD player is broken, you won't be able to get the data. The program is reading from the correct place and doing it the right way. The problem is really outside the code. You still have to manage this problem.

The other version of error is a logic error. A logic error is not really an error in the code. It may not even be an error in how it was programmed. Logic errors are problems with what the computer is doing compared to what was expected. For example, if the developer was told to program a textbox in Font 8, she may have set it to use font size 8. However, maybe the intent was to use a font with the name "Eight." This misunderstanding did not result in an error; just a misunderstanding. In other cases, some element was simply never defined. This is the problem we have in our code. When a user wants to select a place to save the text, a file dialog box appears. Specify a file and everything works fine. However, what happens when you cancel? Well, the assumption is probably that nothing in particular should happen. This was never really defined, so it was not handled and therefore gave us results that we now see are not ideal.

Let's try it. If you simply run the Sticky app we created (not necessarily loading VB.Net and running the project from within VB), you can see the problem. Select menu File/Open and, when the File Dialog box appears, simply press the Cancel button. You'll get an error like that in Figure 1.

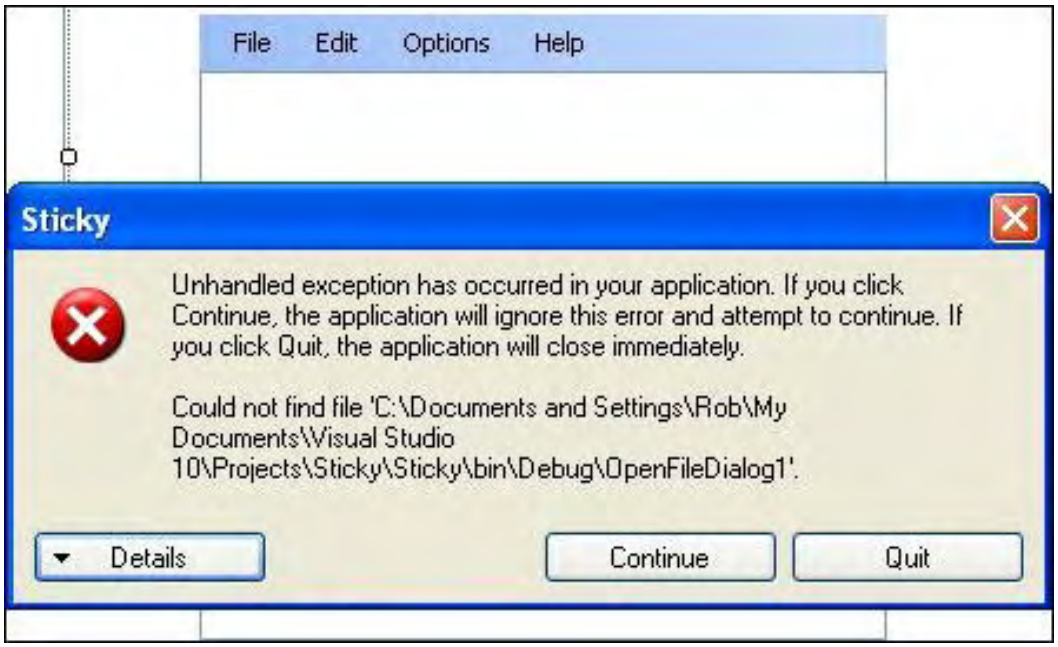

Figure 1. Unmanaged error.

Typically, you try to prevent these potential errors while writing your code so you can prevent these

messages. Let's go find this "bug" and squash it. Choose either the Quit button or the Continue button followed by menu File/Exit. Open the VB.Net project from its solution (sln file). When you reopen a project, it doesn't retain the previous form you were working on, so go to your solution explorer (menu View/Solution Explorer as needed) and double-click on frmSticky so the form appears. Since we know how to reproduce the error, let's use the VB environment to help us get to the nearby code. Select the File menu from the project, then double-click on the word "Open" to get to the code for the Open menu item. Here's the code we see there (*):

```
Private Sub mnuOpen_Click(ByVal sender As System.Object, _
        ByVal e As System.EventArgs) Handles mnuOpen.Click
        Me.dlgOpen.ShowDialog()
        Me.txtNote.Text = IO.File.ReadAllText(Me.dlgOpen.FileName)
End Sub
```

(*) The first two lines are combined; I show it this way for readability, but the space-underscore at the end of the first line also makes this syntactically correct, so you can copy-paste as needed.

So looking at this, the "Sub" line is fine since VB created it according to the requirements for the Click event. And "End Sub" is fine since it's merely the syntax required to complete a Subroutine. That leaves us two lines to explore.

VB offers several tools to help us "debug" (find and remove code errors). But we'll start with the most powerful: human deductive reasoning.

Looking at this line:

```
Me.dlgOpen.ShowDialog()
```

What is it doing? How does it work? As a VB developer, these are things you should get familiar with. Get to know your objects and how they work.This (the ShowDialog method/procedure of the OpenDialog Class) is one you'll likely use a lot, so it's good to learn about it. Its primary purpose is to show a standard Windows form that lets users locate a directory and select a file to use. Because it's the standard Windows form, it lets users do things they can do in the same form when they use other applications. They can do things like create new files, show the files in different ways, and even delete files. You may not like offering these features, but since users are so familiar with this form, it's reasonable to trust your users to use this correctly.

OK, so the method does what it does. You really don't specify any parameters, so it's unlikely to be the problem line. Behind the scenes it will set various fields as needed, depending on how the user responds. None of those settings are likely to cause our crash. If they did, then thousands of other developers would be experiencing the same problem and Microsoft would quickly offer a patch. And even though this is the beta version, this component has been around in VB for over a dozen years, so the likelihood that Microsoft messed it up is unlikely (although not impossible).

Let's look at the next line:

```
Me.txtNote.Text = IO.File.ReadAllText(Me.dlgOpen.FileName)
```

This is a simple assignment, putting something into the Text property of a textbox. We've done that many times before without problems so the only potential problem would be putting the wrong kind of data into the text area. However, VB is pretty good about managing that for us. If you try to put a number into a text field, it converts the number for you. Likewise with a date. Even arbitrary objects get converted into something that it thinks would look good as text. This means that the problem is probably NOT what we're trying to put into the textbox, but rather how we calculate it.

The part to the right of the equals sign is a method (ReadAllText) that uses a parameter (shown inside parentheses). Did we put a valid type into the parameter field? Did we put enough parameters? Too many?

To help answer these questions, we have to get VB to help us. Take your mouse and click after the first parentheses, then press the Space key (or use menu Edit/Intellisense/Parameter Info, or Ctrl-Shift-I). You'll see a tooltip similar to Figure 2.

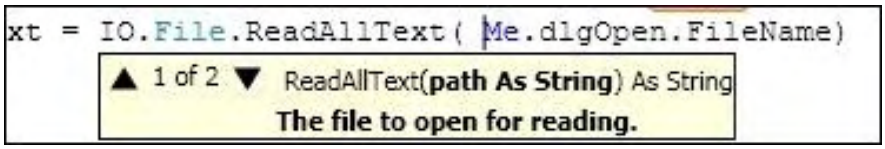

Figure 2. Method settings.

This is VB asking the method how it works. It lists the method's expectations and also shows how many variations the method offers. In this case, we're seeing the first of two variations. This variation expects one parameter, named "path," that must be data type String. If you were to click on the tooltip, you'd see the next variation, which is the same except that it wants a second parameter called "encoding" that wants something of data type System.Text.Encoding. Obviously, we are not using the second variation. What we are supplying as the parameter is Me.dlgOpen.FileName. Is that data type String? If you take your mouse and hover over the property "FileName," it tells you that it is defined as a public property with the name FileName, not requiring any parameters, returning a String. Perfect. So what happened?

Well, since all of the pieces seem to match up, the next step is to ask VB for more help. Click on the FileName property and press the F1 key to launch a help window. Since this is a standard Windows class (Save Dialog), there is plenty of online help about it. Among other things, the class indicates the following:

The file name includes both the file path and the extension. If no files are selected, this method returns an empty string ("").

Well, even when there is no file selected, we get the right data type. This looks like we've hit a dead-end. Although we could dig further, it seems that it's time to get more direct help from VB. We know how to generate the error, and we can easily guess that the problem is within the method we've been exploring, so let's tell VB to stop when it gets there.

Let's add a point where VB can stop. These are known as breakpoints. Breakpoints are lines of computer code where you want the computer to pause and let you look around. In this case, let's stop at the top of the method. There are several ways to add a breakpoint. The easiest way is to click in the beige area to the left of the line. Another way is to right-click the line and select the Breakpoint menu item and let it expand to the right and select Insert Breakpoint. When you do this, a little red stoplight circle will appear in the beige area, as seen in Figure 3. It also highlights the entire line in maroon. Note that some lines do not allow breakpoints because VB never actually stops on those lines. An example is a Dim statement that does not assign an initial value.

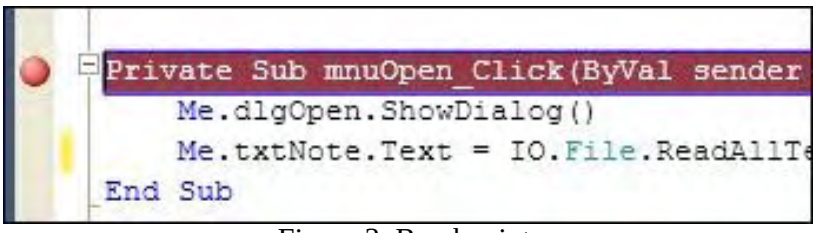

Figure 3. Breakpoint.

Run the program from VB (F5 will do it), and when you click on the Open menu, VB stops at the breakpoint. This means that VB switches from run-time to "debug" mode. The application will temporarily pause and the VB code window will show the breakpoint and, highlighted in yellow, the line that is about to be processed, as seen in Figure 4.

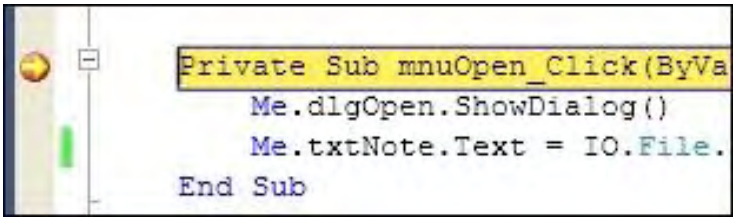

Figure 4. Breakpoint at Run-time.

So far so good; let's continue processing. Press the F8 key to go to the next line (or use menu Debug/Step Into.) The yellow line moves down, but the breakpoint remains for next time.

Continue to the next line (F8). This will actually launch a Dialog window. Since VB is not in charge of the code for this, the Open Dialog window appears and waits for a response. To replicate the problem, click on the Cancel button. This will send a response back to VB so it can continue processing where it left off.

VB continues along. It's back in the code and highlights the line we were exploring earlier.

Take your mouse and hover over the FileName property. This will open a tooltip that shows the current value, as seen in Figure 5.

Figure 5. FileName value.

It shows the FileName as "OpenFileDialog1." That's certainly not what was selected since we cancelled. Press F8 to continue since all seems good so far.

Oh! There's the problem. Something went wrong as this line was being processed. As seen in Figure 6, the problem is that the file is not found. Well, of course! We canceled. It shouldn't be trying to load the file. At this point, choose menu Debug/Stop Debugging and let's fix this.

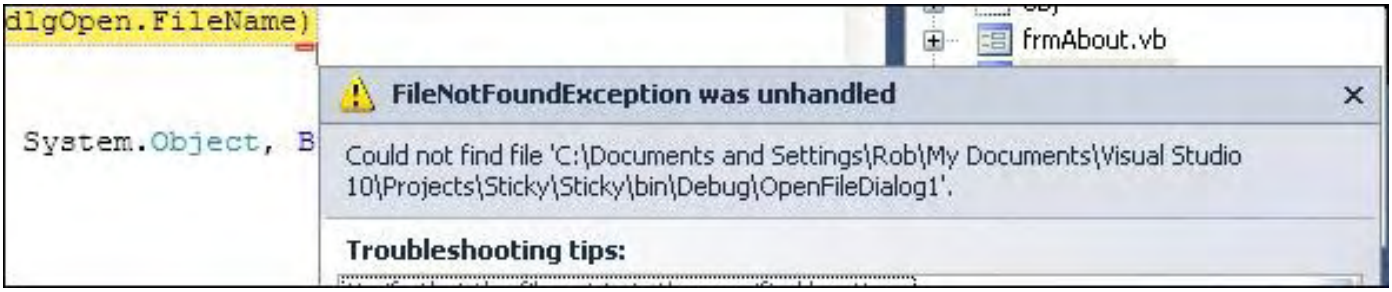

Figure 6. File Load Problem.

There are actually several ways to solve this problem. One way is to use the FileOK event available for the Open Dialog class. By putting the "Read" code into that event procedure, it will only occur when the user clicks the OK button, which is only allowed with a valid file. However, the file could also be locked or there could be other problems we need to address. So a more effective way is to use VB's Try/Catch keywords. Any time you think there may be a problem with a line, put the word "Try" on a blank line before the problem line. If you press the Enter key, VB helps by building the right structure for it. You can then move the problem line immediately after the Try like this:

```
Me.dlgOpen.ShowDialog()
Try
    Me.txtNote.Text = IO.File.ReadAllText(Me.dlgOpen.FileName)
Catch ex As Exception

End Try
```

Although this will solve the problem, often you want to put a message after the Catch line. You may also want to put multiple Catch lines to handle different types of errors. We'll explore some of those in future columns.

Repeat this "Try" code in the Save procedure. You could also include this in the Font and color procedures, but it turns out that those don't crash when the user cancels, so that shouldn't be a concern.

For now, locate the breakpoint and remove it. The easiest way is to click on the red circle.

This problem should be solved. Next week, we'll see if we can put some finishing touches on the app and then start looking for some more uses for VB. Thanks for reading. Send your comments and suggestions.

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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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ComputorQuick Reviews

News and Reviews from Readers and Staff

## ComputorQuick Reviews

**"Logitech Vid: Final Judgment--Maybe"** by ComputorEdge Staff

An update on Jack's usage of the Logitech Vid Internet video call system is not good news for Logitech. Also, call for personal experiences and advice on digital cameras.

### Dropping Logitech Vid

In the September 11 Edgeword column, "The Webcam Process," I talked about the Logitech Vid Internet video call system. It's time for an update.

While I still think that the video quality may have been better on Logitech Vid than Skype, it turns out that the sound was horrible. No matter how I changed the settings, I couldn't get decent audio. The volume was too low, with lots of feedback. By switching back to Skype, the audio problems went away. Regardless of how easy it was to use Vid, having bad audio is worst than poor video. It's crucial to be able to hear the people on the other end.

I suppose that Logitech may get the system problems worked out someday, but it may be a waste of time. In something like this, you usually only get one shot at a client. Once they decide it's not good enough, they may never load the software again.

Jack Dunning

***Next Week: Digital Cameras!***

*Next week,* ComputorEdge *will be talking about digital cameras. Tell us about your camera or what to watch out for. What camera do you use, and does it do the job for you? Your comments will appear right here in ComputorQuick reviews. Send your thoughts to ComputorQuick Digital Camera 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*).

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*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.*

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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: Which Version of Windows 7, Home or Professional?

**"Should you spring for the extra money?"** by Jack Dunning


If you're buying a computer with Windows 7 installed, you are probably just as well off with Home Premium unless you need Remote Desktop Hosting, remote drive syncing/backup, or the XP compatibility mode. Otherwise, it might cost you an extra 100 bucks.

*One of the problems that I have with Windows Vista and Windows 7 is that the Home Premium version does not support Windows Remote Desktop Host. By that I mean that I can access my other Business and Professional version computers remotely from anywhere in the world with any of the Windows computers, including Home versions, but I can't access my Home Premium laptop. The vast majority of the laptops come with Windows Home Premium installed, requiring an upgrade for anything more.*

*This has not been a major problem, since the laptop is my primary working machine and doesn't need to act as a host. When I'm writing the Windows Tips and Tricks column, I'm often accessing the XP Professional, Vista Business, and Windows 7 RC machines with the Vista laptop via Remote Desktop. This saves me going upstairs to get on some of the computers (or driving 11 miles, as would be the case with the XP machine). The fact is that I've never had a need to access the Vista Home Premium laptop as a Windows Remote Desktop Host, but if I get a Windows 7 laptop, I will increasingly want to reach the old Vista laptop remotely.*

*There are other services such as LogMeIn and GoToMyPC that will serve the same function as Windows Remote Desktop, but they charge a regular fee. It has always been so easy for me to use Remote Desktop that I've never even considered a paid service. I wish every Windows version included the remote hosting function.*

*For most people, there are not enough more features in the Professional version of Windows 7 that are not found in Home Premium to justify the additional cost. The few capabilities missing from Home Premium will not be needed by a majority of users. The key items not found in the Home Premium version, other than Windows Remote Desktop Host, are the remote syncing/backup capability and the Windows XP compatibility mode.*

*It seems that Microsoft was arbitrary when it decided to create various versions of Windows. I can understand the lack of Windows Remote Desktop (although I don't like it). When you own a laptop and you're traveling, the computers that you usually want to access are at home. The machines at home (or work) are the only ones that usually would need the remote-hosting capability. However, if you have kids with Home Premium computers, it would certainly help to be able to get on their machines in the middle of the night while they are sleeping. (Yes, I'm an advocate of keeping an eye on your kids.)*

*I use the syncing program in Windows Vista Business (Profession for Windows 7) to automatically maintain a real-time backup of critical files on my laptop. I can add or edit any of the synced files on either computer and they both stay up-to-date. But I must use the syncing program on the Vista Business machine because the Home machine doesn't have the capability to sync to a network drive. It serves my purpose, but I don't know what makes syncing with a network drive a business-only application. You will need at least Windows 7 Professional if you want to do automatic network drive syncing/backup.*

*The other significant feature that's missing from the Home Premium version of Windows 7 is the Windows XP*

*compatibility mode. This is just plain silly. It seems that the people most likely to want to run older programs are those very same people who buy the least expensive computer—which will come with Home Premium. The purpose of the XP compatibility mode is to run in an emulation mode XP programs that are not supported by Vista or Win 7. This could turn into a reason for some XP users to avoid Windows 7 completely —as they did Vista.*

*Microsoft doesn't fool anyone with its pricing structure. It's $199 ($119 for an upgrade) for the Home Premium version; $299 ($199 for an upgrade) for the Professional version; $319 ($219 for an upgrade) for the Ultimate version. The little you get for the extra $100 between Home Premium and Professional is ridiculous, but if you need one of those features (there are always third-party programs) you may opt for it. The $20 between Professional and Ultimate seems strange. It's like announcing that there is not much difference between the two packages—and there isn't. There is a family pack of three upgrades to Home Premiums priced at $150, but they can only be used to upgrade Home Premium versions of Vista and XP.*

*Microsoft is trying to make more money through the confusion caused by the different versions of Windows 7 —as it did with Vista. There are many people who will spring for the extra $100 to be called a Professional user rather than a Home user—even though they will probably never use the extra features. It's an ego thing. "And, for only $20 more, I can be the Ultimate user!"*

*If you're buying a computer with Windows 7 installed, you are probably just as well off with Home Premium unless (as I noted above) you need Remote Desktop Hosting, remote drive syncing/backup, or the XP compatibility mode. Otherwise, it might cost you an extra 100 bucks.*

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*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

"Windows Movie Maker Big Downside," "Joining Facebook," "Forgetting to Remember Login Params," "You Tube Over Dial-Up?," "Registry Cleaners," "Shrinking OS Meets Growing-Capacity Drives," "Win 7 Creates a Windows.old Directory," "E-Mail Etiquette"

***Windows Movie Maker Big Downside***

*[Regarding Jack Dunning's August 21 article, "Movie Making in Windows for the Neophyte—and Its Free!":]*

*I'm still looking for a video editor that is intuitive for a beginning-level person like me. I find that the quality of the picture in the finished product from Movie Maker gets degraded so much from the original that it's almost unwatchable. There may be some setting that I don't know enough to fix, but it is not as easy as loading your video and then dragging and dropping. Too bad—otherwise, it's pretty neat.*

*-Mike, Denver*

Mike, when you create the finished product there are options that allow you to choose the resolution (size) of the movie to be created. Higher resolutions (better quality) will make a much larger file, but it should retain the original quality of your source.

-Jack Dunning, *ComputorEdge*

***Joining Facebook***

*[Regarding Marie Loggia-Kee's September 18 article, "Face the Facts: Facebook Is Here to Stay":]*

*Very interesting, so as soon as I finish the comment, I'm going to join Facebook.*

*-Ray, Chula Vista, Calif.*

*I liked Facebook, except it was sooo slow on my seven-year-old 512MB machine. I moved to MySpace, which runs much faster, but not many people I know are there. Is there any way to solve this short of getting a newer computer?*

*I have found blogs most interesting. Have you found a method of cataloging blogs?*

*Google—ah Google. Took out a new account—put in the Google toolbar—and everything else was blocked out. Google literally wanted to own me. Had to do a Ctrl-Alt-Del to get out of their clutches. Love Google for searches—hate what it has done to me every time I start a new account. Have any solutions for this? Maybe this belongs to Digital Dave?*

*Thanks for the info.*

*-Julie, San Diego*

***Forgetting to Remember Login Params***

*[Regarding the September 18 Digital Dave column:]*

*When I am asked to log into my e-mail account before my "two week window" is up, that usually means that I have picked up a "bug" from some site I have visited. Slow performance is another hint. This tips me off and right away I run my antivirus and anti-spyware software, which fixes the problem.*

*P.S. Really enjoy your magazine! Thank you.*

*-Jerry Hughes, San Diego*

*Since Windows Mail on Vista is the equivalent (well almost) of Outlook Express, I'm guessing the problem Ivy has noticed may have more to do with Internet connectivity then multiple client connections or a bug. Mail clients like Outlook, Outlook Express, Windows Mail, etc. will appear to "lose" the password, when what has really happened is they attempted to authenticate to your mail server and failed.*

*Since computers and programs are essentially "stupid," they fall back on error messages or behavior programmed by the authors. I've seen this problem for at least 10 years, and it is a constant source of problems—especially when the user "helps" out and types in the password incorrectly and tells the client to "remember" it. Then when Internet connectivity improves, the client still can't connect because the user plugged in the wrong password.*

*My advice in this situation is to simply wait and try again in a while—just as Dave suggests, but not for the reason he surmised. I've actually never seen concurrent connections to the same account across multiple machines cause the problem unless your mail server denies concurrent connections.*

*-Dale Harrington, Denver, CO*

*Since I don't have access to the e-mail client code, I can only guess at what's happening. I've always wondered how an app knows when I'm entering login info, but I think it has to do with the fact that it's always part of an HTML form, each field having its own tag ID.*

*If, for whatever reason, the HTML (or most likely in the case of Microsoft, the ASP) developer decides to change the HTML tag's name or ID, then the "remember" part will see it as a different set of form fields then what it had saved in the past. But the only way you could verify this would be to do a View Source on the page when it has remembered it. Note what the name/ID of the UserID and Password form fields are. Then when it fails, look again. It would be a pain to do this all the time, however, and it wouldn't help anyhow since we have no control over what the developers decide to do.*

*That's my unverified theory of why it happens. Being a different kind of developer, I know we're always involved in the process of "continuous improvement" of our code.*

*-Roger Crowley, Poway*

***You Tube Over Dial-Up?***

*[Regarding the September 18 Digital Dave column:]*

*This is regarding the question submitted to Digital Dave about playing You Tube and other videos when only a dial-up connection is available.*

*I do not mean to sound insensitive, but this question is like asking if it is possible to travel from California to New York when your only means of transportation is a bicycle. And Digital Dave's answer was exactly right, "Yes, you can. It's just going to take a little patience."*

*I am an IT professional, and working in the IT field I am often approached by people who would like their computer to perform functions for which they were never designed. We try our best to finagle and "mickey-mouse" around to get them to work sort of in a way that the user wants it to work, but the fact remains that these are just machines that were originally built by some engineers that had some specific purposes in mind. There is no computer built, not even the so-called "supercomputers," which can run a small country, that will be able to perform unlimited tasks.*

*Videos are extremely large (in byte size), resource intensive, and require connections that dial-up connections cannot accommodate. The amount of data that is in a video actually was never even conceived when dial-up even was at full capacity, and is not realistically feasible to download.*

*I appreciate Digital Dave's kind and generous answer to the question; however, for those who may be considering using a dial-up connection to access this type of media, may I respectfully say that it was never designed or intended to be utilized in this way.*

*Like traveling across the country, you would be far better off to find a more efficient form of transportation, rather than to attempt to adapt what is not intended for this purpose.*

*-Pete, Roy, Utah*

***Registry Cleaners***

*[Regarding the August 28 Digital Dave column:]*

*I have been using RegSeeker (*download.cnet.com/RegSeeker/3000-18512_4-68382.html*) for three years. It was recommended to me by a senior software engineer from Hitachi who has been a good friend since 1968. I use it regularly, and I find that if I do not my computer slows down. I have had no problems with it. It will also find entries for you, and it will back up before doing anything* if *you have the box checked.*

*If there is a problem, it is very simple to undo the previous action. I have never seen this utility recommended in any list of Registry cleaners and wonder why not! This works quite easily and is versatile. It is very easy to undo any action that has caused any problems.*

*I just downloaded the newest version for use on Vista machines and have not yet had a problem with it either. I recommend it to even beginners because it is quick and easy to use—and is so easy to undo any problem actions.*

*-Paula Barefoot, Borrego Springs*

***"Shrinking OS Meets Growing-Capacity Drives"***

*[Regarding Michael J. Ross's March 13 article, "Linux on a Flash Drive":]*

*Interesting idea. I'm looking at YouTube Downloader, or similar, on a semi-public computer.*

*I have a 4GB flash drive that is overly large for my limited data-transfer needs. Can Linux (or Downloader) be on one drive, and data on a second drive? Most USB drives seem to be dual in nature.*

*-Rich Johnson, Encinitas, CA*

***Win 7 Creates a Windows.old Directory***

*[Regarding the September 18 Windows Tips and Tricks: Windows 7, October 22 column:]*

*I've just read your article on upgrading to Windows 7, and you say a clean install will wipe your files. That's not true. I've installed multiple Windows 7 RC and RTM "custom" installs, and unless you explicitly delete the partition, your files are not deleted but moved to a Windows.old directory. If you already have a Windows.old directory, it will create a Windows.old.00 directory, and so on.*

*Try it for yourself. Windows 7 makes upgrading an existing Windows system pretty painless. It can still be time-consuming, but it is certainly worth the effort. I still have some networking issues, but by and large it is a significant upgrade from Vista and blows XP out of the water.*

*-David*

***E-Mail Etiquette***

*[Regarding the February 13 Web InSites column:]*

*I finally got around to reading the article by Dawn Clement about e-mail etiquette. In the article she mentions that cleaning up all the prior addresses is much appreciated by one and all, and I certainly agree. Is there a simple way to accomplish this feat? I mean highlighting and deleting all this mess can sometimes take a great deal of time. Just an ole dummy here trying to figure it out.*

*Thanx,*

*-Bryan Pidcock, Chula Vista, Calif.*

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