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This issue: Is Netflix Taking Over the World?

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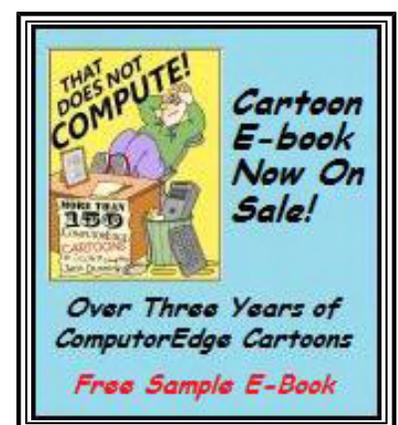
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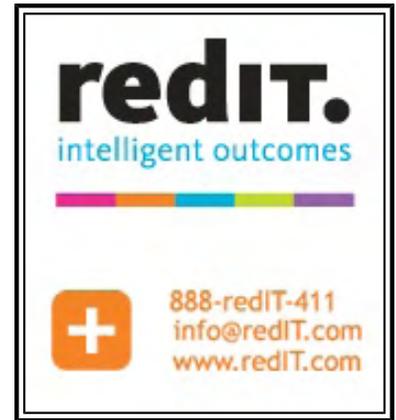
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Computer and Internet tips, plus comments on the articles and columns.

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Digital Dave

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

External Backup—Help!; Missing Router Lights; Wireless Card?

Dear Digital Dave,

My computer just crashed and it was pretty outdated (2003). Like a fool, I did not have my system backed up. Hopefully all I lost was a power supply. Long story short, what is your recommendation for an external backup drive/system? I've heard numerous horror stories and read about some systems, but none of it was very good. Help!

*Mike Dubreuil
Lakeside CA*

Dear Mike,

If the only thing that failed on your computer was your power supply, there is a good chance that your data is safe. Once your computer is up and running, you'll know. Even if it doesn't boot up, you may be able to plug the hard drive into another computer as a second drive and recover the data. However, you're right to want a good backup system. Eventually all computer hard drives will fail.

Most of the horror stories related to backup systems are about people who just didn't do any backup. Reliable systems for protecting your data are easy and affordable. The simplest, most straight forward form of backup is a USB hard drive attached directly to your computer. They are inexpensive (\$60 for a one terabyte drive) and easy to install (just plug it into a USB port). Most of the new drives will come with some type of backup software, but you can also use the Windows Backup and Restore program. (For Windows XP computers see Programs => Accessories => System Tools => Backup or this Microsoft support article (support.microsoft.com/kb/308422).)

Most USB drives are sold in the FAT32 format, which has greater universal use (Linux and Mac). But if you're only using the new drive with a Windows computer, then you may want to reformat it with the NTFS format used by Windows. NTFS is more secure and will save more data in a Windows system.

Digital Dave

Dear Digital Dave,

I recently upgraded to a Cisco E4200 wireless router. All the status lights are on the back where the cables plug in. It hardly does one any good when you have the front of the router facing you. I know if I have a problem, I can turn the router around to look at the lights—dragging all the wires also. I like to see the status lights. Do you know of any handy little utility that shows the router's status lights on one's monitor? Or is my only answer to mount a mirror on the wall behind my desk?

Thanks!

*Steve
Escondido*

Dear Steve,

I also enjoy having the blinking router lights in my line of view when I'm computing. They make me feel like work is going on even when I'm daydreaming. The number one bit of information I get from the lights is the fact that the router is actually turned on. Those bulbs are certainly useful for confirming direct connections. I suppose that Cisco was trying to give the router a cleaner look by minimizing the number of lights on the front panel, but it is not nearly as functional.

There are some gadgets available which act as a "network monitor" or "network meter," but these are essentially measuring the activity of the network card(s) in the computer. I don't know of an app that would directly monitor a router (although another reader may know of one). The software would need to directly read the data from the router.

I like your idea of mounting a mirror on the wall. The other option is to permanently maintain the router with the backside facing out—cables and all.

Digital Dave

Dear Digital Dave,

I have a second hand Dell Inspiron 1200 laptop computer (2006 vintage) and I am not certain if it has a wireless card for connecting to the Internet. How can I find out?

*Richard
Palm Desert, CA*

Dear Richard,

Computers come packed with so many things these days that it's easy to forget (or not realize) everything that's in the box. That's why it is handy to know where to look. In Windows there is a feature called the Device Manager. It lists all of the installed hardware and will tell you whether it is functional (see Figure 1).

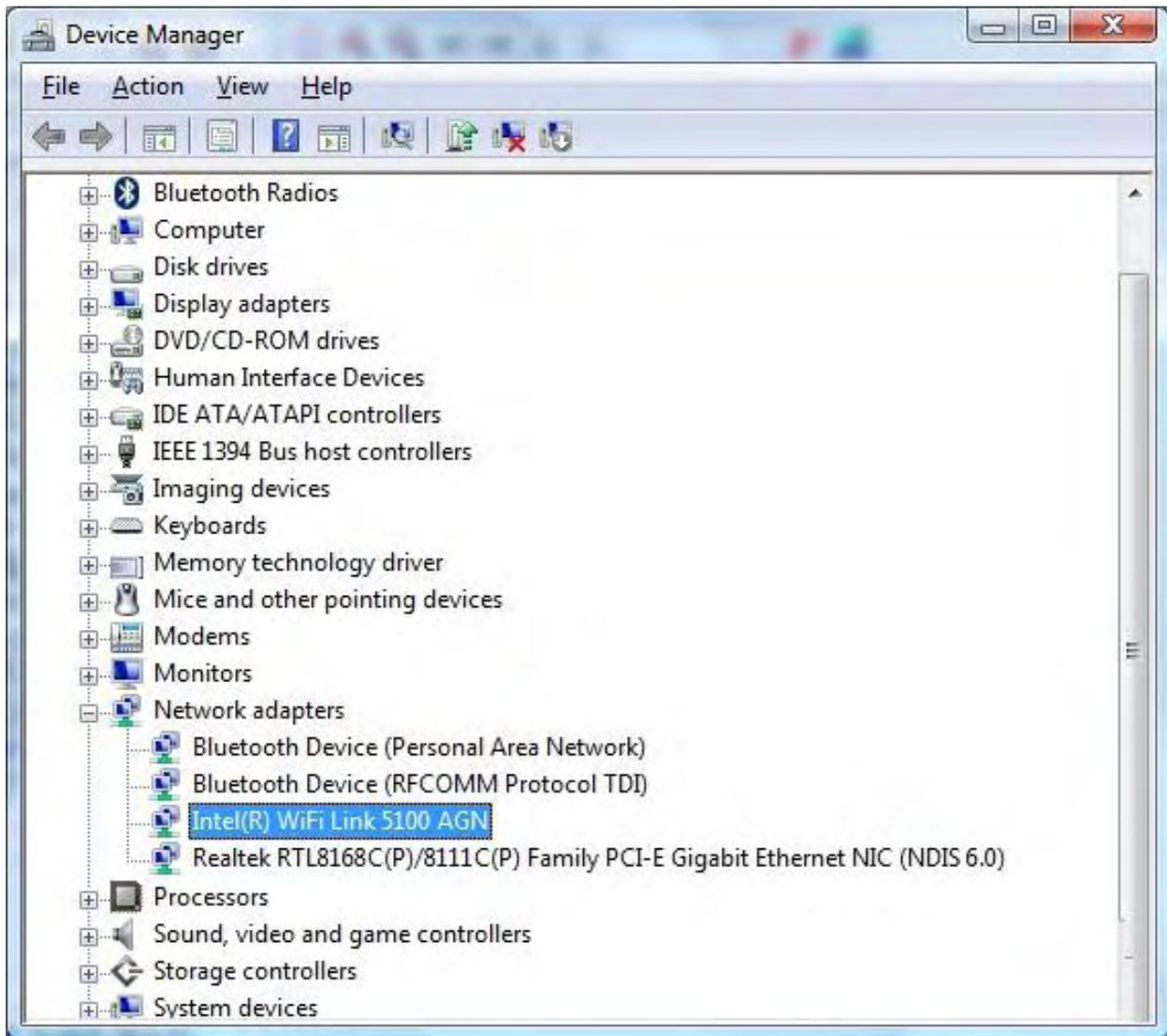


Figure 1. The Device Manager window in Microsoft Windows.

You can access the Device Manager through the Control Panel => Systems in Windows XP under the Hardware tab. The process is similar in Windows 7 and Vista, but the easiest way to find it is to type "device" into the Start Search field and select "Device Manager" from the menu.

If you have a wireless card installed, you should find it listed under "Network adapters", as shown. The key terms for a wireless network card are "WiFi" and "802.11" with possibly a "b", "g", or "n". Although, "n" is unlikely for the age of your computer. If the card is present and operational, then you should be able to use it.

If you don't have a wireless card installed, then you can always add one either as an expansion card or a USB adapter. The required software usually comes with the adapter, or you can setup via the network setup features in Windows.

Digital Dave

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Streaming Video Storms the World of Entertainment

“While the competition is floundering, Netflix builds a commanding lead.” by Jack Dunning

Netflix has significantly raised rates, but there is still a lack of serious competition. Jack describes some video streaming alternatives, but can they really compete? The difficulty is that the video library seems to be the most important feature for consumers.

If you have been enjoying the \$9.99/month Netflix plan, which includes unlimited Internet streaming and the one-at-a-time DVD rental, then you've already been notified that starting in September your rate will go up by 60%. This has been a shock for many people, but it's part of the Netflix strategy. When first introduced by the company, Internet streaming of movies and television was free, included as part of any regular DVD rental package. The service was new and Netflix needed a way to get their customers hooked. It worked big time! Now, it seems that people are more willing to drop DVD deliveries (either go to a cheaper plan or eliminate them completely) than they are to forgo their streaming.



“They were up all night watching nature videos on Netflix!”

Customers dropping or reducing their DVD rentals is part of the Netflix plan. The physical problem of delivering DVDs is a source of great expense. Postage is one of the company's highest costs. Ultimately the management of Netflix believes that Internet streaming is a much better source of revenue and see their future in the online digital video market. All their marketing and business efforts are moving in that direction. They are betting the future of the entire company on video streaming. They just might be right. According to CNNMoney (money.cnn.com/2011/07/25/technology/netflix_earnings), “Nearly 75% of Netflix's new customers during the [last] quarter signed up for streaming-only plans.” Who needs DVDs anymore?

The Market Price of DVD Rentals

Video rental stores cannot compete with the economies of Netflix DVD rental—which works out to about \$1 per viewing. If someone is using the one-at-a-time Netflix DVD package (now \$7.99/month), they can reasonably expect to receive eight or nine DVDs a month. It is normally three days between each delivery (put the old DVD in the mail; the next day Netflix receives and sends another DVD; the following day, you receive the next DVD in the mail), which limits the number of possible rentals. No delivery on Sunday and holidays further limits the possible number of monthly DVDs. This cost (\$7.99/month) is about the same as it is for someone renting \$1 DVDs at a Redbox kiosk—although at Redbox there is no pressure to watch a DVD every three days just to get your money's worth. The Netflix price is much less

expensive than the floundering video stores and is competitive with Redbox. The primary advantage Netflix has over low-cost Redbox is a much more extensive library of DVDs. Redbox is limited to the most current and popular movies. Netflix's DVD rental system is proven and effective, yet now the company plans to put itself out of the DVD business with Internet streaming. Better that Netflix do it than have it brought on by a competitor.

Internet Streaming of Video Works

Netflix has already proven that the concept of delivering video entertainment via the Internet is a successful business model. Now it is up to others to compete. Fortunately for Netflix, much of the opposition is still operating under the outdated DVD rental model—even though they are streaming their rentals. The market value for DVD rental is no more than \$1 per movie, as shown by both Netflix and Redbox (above). At the new price for Netflix streaming (\$7.99/month), the cost per movie or television show is potentially way below \$1 each. (If a person watches one show each night for a month, the cost would be about 26 cents per viewing.) Any video rental or streaming service which works out to a price higher than that \$1 per showing will have trouble competing with Netflix. This explains why so many of the video rental stores have closed their doors and why competitive video streaming companies and cable "on demand" services are in trouble. These other streaming businesses are attempting to charge \$2.99 to \$3.99 per film (some higher). Those prices will not hold up in the digital streaming market.

The cable television providers attempt to earn extra income by offering video on demand services for a fee. Most of these are charged on a per view basis (\$4.99 for two days at Comcast). They are not doing well since by comparison with even DVD rentals the price is viewed as way too high. The cable providers are now running ads stating that they get their movies 30-days before Netflix, but it doesn't seem to help. If Netflix DVD rentals are hurting the cable on demand service, then Netflix streaming is killing it. People are growing accustomed to getting unlimited streaming for one low monthly fee rather than paying a per view charge. Most of the current streaming services will probably be forced to change to the subscription model.

The Importance of the Video Library

One complaint commonly heard about Netflix streaming is the limited availability of new content. While it has a huge library of films and television shows, it's often sparse in a certain niches—especially recently released films. The movies and television shows are generally older, although if you're a fan of British and independent entertainment (or SpongeBob SquarePants) you might find a great deal to interest you. The challenge for Netflix will be to obtain more and more of the popular and current shows and films for its digital library. As the quality of the library grows, subscribers will be weaned off DVDs while keeping them attached to the Internet streaming. However, if the quality of the library is not continually improved, people will abandon the system as they run out of desirable videos to watch. This eventual collapse could happen if Netflix is unable to cut continuing deals with the major producers. (Netflix is currently in negotiations with Dreamworks for streaming rights.) A number of production companies, such as, HBO and a few other entertainment companies are resisting Netflix.

The Netflix Name on the Box

One marketing advantage for Netflix is that virtually any new piece of equipment, (DVD players, televisions, game consoles, etc), which supports Internet streaming will also support Netflix. It is almost a requirement to have the Netflix logo on the box of any new Internet capable DVD player or HDTV. It is a much more hit or miss proposition for the competitors.

Hulu Prime is a computer streaming service which offers television series (current and recent past) and a few movie collections for \$7.99/month. That rate is competitive with Netflix, but Hulu may or may not be supported by your Netflix streaming device. For example, my Blu-ray DVD player does not support Hulu, while another Wi-Fi capable HDTV I own does. The newer the device, the more likely it is to support multiple streaming services in addition to the market required Netflix service.

Note: If you don't mind watching movies on your computer, then you can use any of the streaming services. They all support computer delivery. I'm not particularly fond of using a computer to watch films, but it will do when there is no other reasonable alternative.

Yet even if the other streaming companies get the hardware support, Netflix is not encountering much competition because most streaming companies are stuck in the antiquated business model previously mentioned. Many of the services are charging \$3.99 or more per rental for streaming the most recent releases. That doesn't even compete with the \$1 DVD rentals. Unless the movie is

extremely compelling, most people are not likely to spend the \$3.99 to watch it. They can either put the selection in their Netflix DVD queue or get it at Redbox.

Video Streaming Alternatives

I have not yet signed up for any streaming service other than Netflix, but, with the equipment I currently own (Wi-Fi enabled Blu-ray player and HDTV), I have a few options. My Blu-ray DVD player offers VUDU (www.vudu.com) and CinemaNow (www.cinemanow.com). VUDU is geared toward recent movies and charges \$3.99 for most rentals. They do offer a \$5.99 free trial which would be good for checking out one movie. CinemaNow is pretty much the same deal as VUDU with no free offer. Both sites allow you to buy the video, but in the current times I have trouble understanding why anyone would buy unless it was a pretty special production.

I own a small HDTV that supports Wi-Fi streaming. It is newer than the DVD player, which is probably why it supports more streaming options. In addition to Netflix, the television supports VUDU, Hulu Plus, Blockbuster and Amazon Prime.

Hulu Plus offers a one week free trial. Otherwise it's \$7.99 per month (down from \$10.00/month when first introduced). The videos consists primarily of current television programming from the major networks. (Did you miss it the first time?) Hulu does include entire past seasons for selected programs. A few hundred movies are also available from the Criterion Collection. I looked them over, but didn't recognize very many. The concept of a monthly charge is the right model for competing with Netflix, but overall it seems like a pretty weak offering (and even the Plus side of Hulu contains some ads). I normally see anything of interest on television when I record its first airing on cable. I'm not one for watching reruns, unless it is something exceptional. That's pretty rare.

Blockbuster is another video rental service in the model of VUDU (\$3.99 a pop). I get the feeling that they will probably go the way of their video rental stores—away. Unless Blockbuster can start cutting deals for streaming content and charge a low monthly rate, it's not likely that they will get much but a few leftovers.

Amazon Prime (www.amazon.com/gp/prime?ie=UTF8&tag=googhydr-20&hvadid=2480937525&ref=pd_sl_4jhisc5c2_e) is the last service available for my television and it may bear watching (both as a service and for the business model). While Amazon does offer direct video streaming rental on the per film basis, many at \$4.99 each, Amazon Prime includes unlimited video streaming for \$79.00 per year (\$6.58 per month). The video streaming service is actually an add-on to their priority shipping service for Amazon retail operations. This is a bonus for people who buy a lot of stuff from Amazon. (Two-day and standard shipping are free on selected Amazon.com items and one-day shipping is \$3.99 an item.) The catalog of movies and television shows is currently much smaller than that of Netflix, but if you find enough variation to suit your taste, it may be worth a try—especially since you can get a one month free trial. (I did glance over the offerings and saw a good deal of overlap with Netflix.)

Free Video Streaming

Virtually all of the television networks offer free streaming of their current television shows directly to your Internet connected computer. If you miss an episode of your favorite show, then you can often catch up by going directly to the network's Web site and clicking on the "Watch Full Episodes" link. These do contain ads, but not as many as you get when watching them on TV. I know people who have continued to keep up with certain television series via their computers. They don't have cable or broadcast television in their home and use Netflix for most entertainment. The free "Watch Full Episodes" Web service from the television networks fills in for those exceptions to their cable and broadcast free TV viewing habits.

Ultimately the days of the DVD may be numbered, put out of business by Internet streaming. DVD sales have already seen a dramatic drop off (techland.time.com/2011/05/04/dvd-sales-plunge-in-u-s-digital-sales-on-the-rise/). Up to now, movie production companies have been making 70 percent of their profits on a film from DVD sales. Video streaming deals may be hard pressed to cover the loss in DVD sales. However, the battles have only just begun in video streaming. The fights will be over licensing and acquiring content for the Internet video libraries. The larger the library the more value to the streaming subscriber. To a large extent, this puts the production houses in the drivers seat—if they have quality, high demand productions. These producers are now looking for greater streaming revenues to offset the DVD sales decline.

The transition between DVDs and digital delivery of video will be messy at best and there is no guarantee that the current leader will

end up on top. Right now, Netflix has a substantial lead in both the streaming business model and the size of its library. However, Amazon, Google, Apple and other cash rich behemoths are eyeing the market.

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

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Wally Wang's Apple Farm

“Updating to Mac OS X 10.7 Lion” by Wally Wang

Updating to Mac OS X 10.7 Lion; burning Lion to a DVD; scrolling differences in Lion; the Mac Mini versus the iMac; Army cloud failure; happy iOS users; iCloud working with iBooks; changing Lion scrolling feature.

Wally Wang's Apple Farm

Before you upgrade to Mac OS X 10.7 Lion, make sure you're not dependent on any old Mac programs that were originally designed for the old PowerPC processors because Lion won't run these programs any more.

If you're using Mac OS X 10.5 Leopard, you have a built-in program called Rosetta, which lets your Mac run old PowerPC programs. If you're using Mac OS X 10.6 Snow Leopard, you do not have Rosetta, but you can optionally install it. If you never installed Rosetta, then you can safely upgrade to Lion, knowing that none of your programs will suddenly stop working.

However, if you're relying on Rosetta to run old PowerPC programs like Quicken, wait before upgrading to Lion. First, find alternatives to your PowerPC programs. If you're using Quicken, consider the free GnuCash (www.gnucash.org) which runs on Mac OS X, Windows and Linux. Export your data from Quicken, load it into GnuCash, and get used to GnuCash before wiping Quicken off your Mac. By eliminating all PowerPC programs, you can make sure your transition to Lion will go smoothly.

Since few people are likely to know which PowerPC programs they have, click on the Apple menu and choose About This Mac. This displays a window that lists your Mac's processor speed and memory.

Click the More Info button to open the System Profiler program. Click on Applications underneath the Software category and you can see a list of all your programs. Under the Kind category, you'll see three different listings: Intel, Universal and PowerPC.

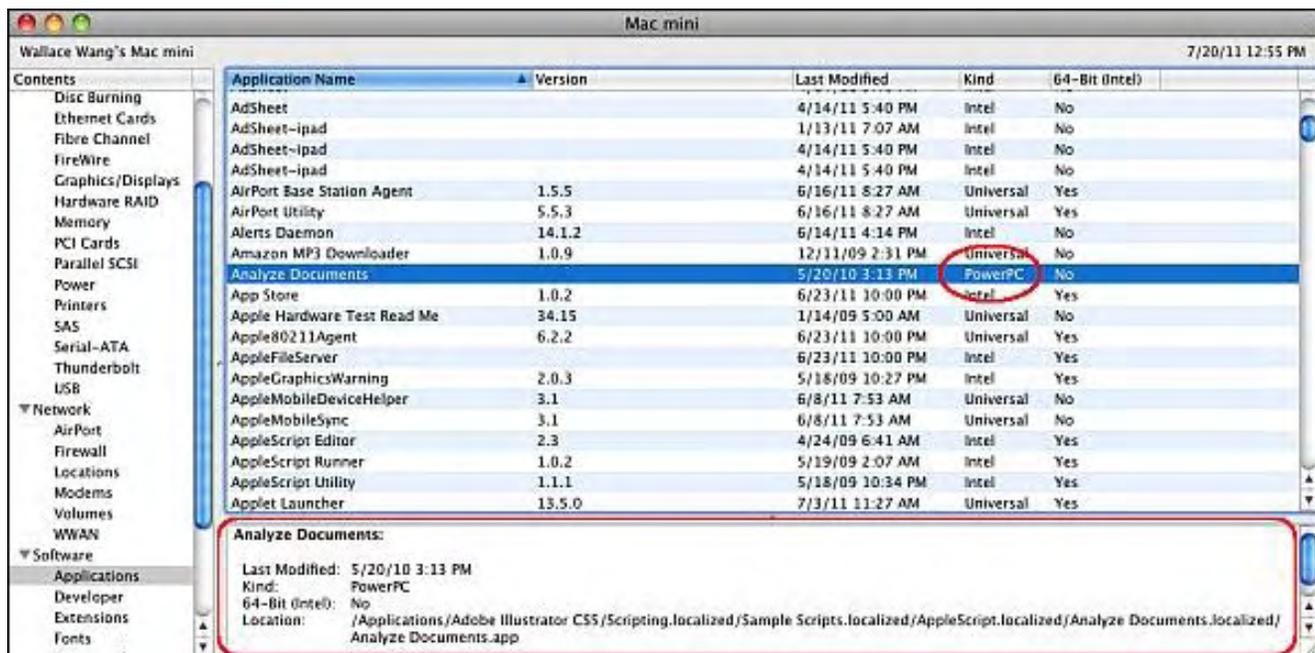


Figure 1. The System Profiler can identify PowerPC programs.

Intel means that the program will only run on Intel-based Macs. Universal means the program will run on both Intel and PowerPC Macs. PowerPC means the program will only run on PowerPC Macs or Intel-based Macs running Rosetta. Since Lion doesn't support Rosetta, no PowerPC programs will run on any Mac using Lion.

By scanning this list of PowerPC programs on your computer, you can see exactly which PowerPC programs you may still be using and which ones may cause problems if you upgrade to Lion. For example, a surprisingly large number of Adobe programs rely on old PowerPC utilities, which means if you upgrade to Lion, some of your Adobe programs (like Illustrator) may not work perfectly any more.

If you find that you rely on some PowerPC programs and can't find a suitable replacement for them, you might be better off sticking with your current version of Mac OS X.

Burning Lion to a DVD

For \$29, you can download Mac OS X 10.7 Lion through the Mac App Store. If you wait until August, you can buy Lion on a USB Flash drive for \$69. However, if you download Lion, don't install it right away because you can create your own Lion installation DVD by following the instructions on the OS X Daily site (osxdaily.com/2011/06/08/create-burn-bootable-mac-os-x-lion-install-disc/).

The basic idea is that you need to extract a file called InstallESD.dmg and burn it to a DVD. Then you can insert this DVD into another Mac, open the InstallESD.dmg file, and click the Install Lion icon to update your Mac to Lion from the DVD. Once you have Lion stored on a DVD, you won't have to worry about having an Internet connection to download and install Lion from the Mac App Store.

Scrolling Differences in Lion

As expected, some people are already complaining about the scrolling differences in Lion compared to previous versions of Mac OS X. Ellis Hamburger of Business Insider complains that scrolling seems horribly unnatural (www.businessinsider.com/mac-os-x-lion-natural-scrolling-2011-7).

Lion's natural scrolling means that when you slide your fingers up on a trackpad (or scroll the mouse wheel up), the text on your screen slides up to correspond with the motion of your fingers. Slide your fingers down on a trackpad and the text on your screen scrolls down.

Yet, early versions of Mac OS X and all versions of Windows behave differently. Scroll down and your text goes up. Scroll up and your text goes down.

This behavior stems from the use of scroll bars. Slide the scroll bar up to move to the top of your text, and your text scrolls down. Slide the scroll bar down to move to the bottom of your text, and your text scrolls up.

While navigating through a document using scroll bars may seem "natural," it's actually annoyingly inefficient compared to scrolling with Lion. Instead of forcing you to move the mouse pointer over a scroll bar and slide it up or down, Lion lets you simply move the mouse pointer anywhere over your document and start scrolling in the direction you want your text to go.

It's obviously much easier, more accurate and less time-consuming to move the mouse pointer over a large window and start scrolling rather than move the mouse pointer precisely over a skinny scroll bar all the way to the side or bottom of a window, and then start scrolling.

The problem is basically what people are used to, which explains why Ellis Hamburger believes Lion's new scrolling method feels so horribly unnatural. It's not that the scrolling itself is unnatural, but Ellis's expectations that have been conditioned to accept the scrolling behavior based on the crutch of scroll bars.

For years, people were conditioned to believe that dialing a telephone meant actually spinning a dial in a circle. Then telephones started offering buttons to press. Initially, dialing felt more "natural" while pressing buttons probably felt foreign and unnatural. Gradually people soon began to feel that touching buttons felt more natural (and faster) while dialing started to look archaic and unnatural.

It all depends on your point of view and if you cling to the belief that the old familiar method is "right," then anything different will feel unnatural. If the thought of even trying something unfamiliar terrifies so many people, it's a miracle human society can make any type of progress at all.

The Mac Mini Versus the iMac

Having abandoned my Vista PC for the Macintosh way back in 2007, I've always been partial to the Mac mini since it let me plug in my old monitor, keyboard and speakers from my PC. In addition, the Mac mini was always the least expensive Macintosh while taking up a fraction of the space as a typical PC.

However, I've decided to switch to the iMac instead of upgrading to the Mac mini for several reasons. First, the current iMac offers a quad-core i5 processor while the latest Mac mini only offers a dual-core i5 processor.

Second, the Mac mini lacks a built-in CD/DVD drive. I often watch DVDs, listen to CDs, and burn both CDs and DVDs on my Mac mini, so the lack of a CD/DVD drive makes the iMac far more appealing. For an extra \$79, you can plug a MacBook Air external SuperDrive into a Mac mini, but that takes up a precious USB slot and represents one more external item cluttering up the place.

Third, the value of plugging in my old external PC devices is no longer important. My old PC keyboard needs replacing as certain keys are starting to wear out, I've already dumped the mouse for the Magic Trackpad, and my 19-inch monitor now feels too small. In addition, there's a tangle of cables that need to plug into the Mac mini and an electric outlet.

The least expensive Mac mini costs \$599, but only comes with 2GB of RAM. For an extra \$100, you can boost its memory up to 4GB of RAM, bringing the total cost to \$699. The \$799 Mac mini comes with 4GB of RAM and a dual-core i5 processor while the latest 21.5-inch iMac only costs \$1,019 (refurbished).

For an extra \$200-\$300, I can reduce the tangle of cables connected to my Mac and get a quad-core i5 Mac while also getting a built-in Web cam, speakers, monitor and CD/DVD drive. The added power of the iMac's quad-core i5 processors means that the iMac will likely remain useful much longer than the Mac mini's dual-core i5 processor. The Mac mini is still a fully capable Macintosh, but the iMac now looks like the better value despite its higher cost.

Army Computer Failure

A while back, the U.S. Army chose Android (techie-buzz.com/tech-news/us-army-chooses-android-over-iphone-for-its-soldiers.html) for their mobile computing operating system because of Android's open nature. While admirable that the Army would evaluate how technology could help soldiers, now it looks like the Army has taken a massive step backwards in the world of computing.

The Army has apparently developed a \$2.7 billion dollar cloud computing system (www.rawstory.com/rs/2011/07/05/armys-2-7-billion-cloud-computing-system-does-not-work) that simply does not work.



Figure 2. The Army's vision of cloud computing on the battlefield.

"Almost any commercial solution out there would be better," one analyst said. A second analyst added: "It doesn't work. It's not providing the capabilities that they need."

Of course, the Army isn't solely to blame for wasting taxpayer money on computer projects that ultimately go nowhere. The FBI once had to scrap a \$170 million dollar computer project (www.guardian.co.uk/world/2005/mar/10/usa.julianborger) that never worked either.

Don't blame the government for incompetence since many corporations have carefully hidden away their own computer failures. Part of the blame can rest on poorly defined project goals, but part of the blame can also rest on choosing the wrong tools.

Too often, organizations choose to start a software project using the most popular programming language at the time whether it's C++, Java, or C#. While there's nothing wrong with these programming languages, these languages are often better suited for lower level programming tasks such as creating operating systems (C+). Both Java and C# were designed to improve upon C++ by avoiding pitfalls that trip up the most experienced C++ programmer, but they can still feel like building a skyscraper out of bricks.

In the Windows world, one of the most productive programming tools is Delphi (www.embarcadero.com/products/delphi), which offers the rapid-application development features of Visual Basic with the more powerful programming language of Pascal. Delphi is a Windows-only tool but an open source project called Lazarus (www.lazarus.freepascal.org) has teamed up with the Free Pascal open source compiler to create a Delphi-clone that runs on Windows, Mac OS X and Linux.

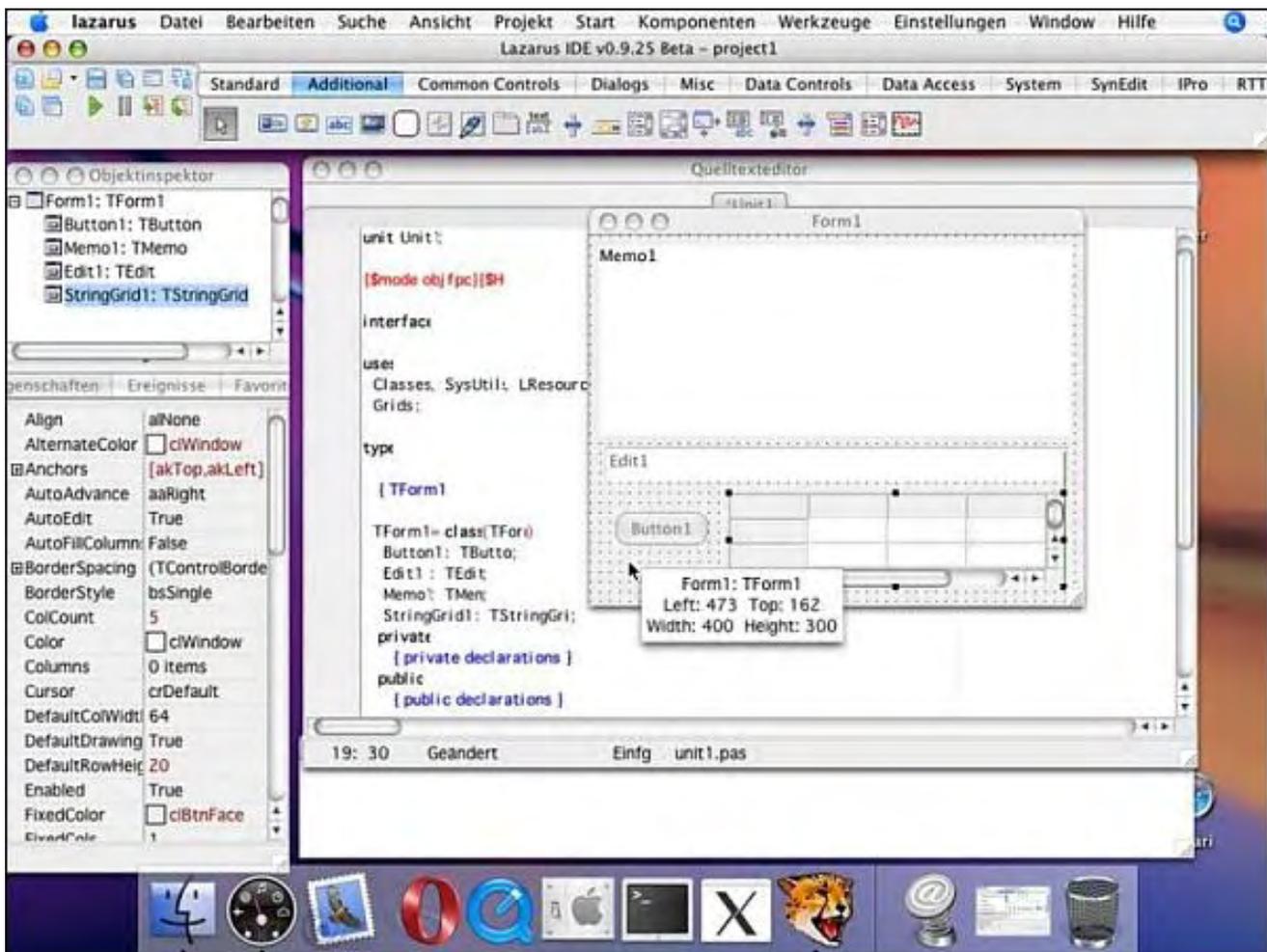


Figure 3. Lazarus offers a Delphi-like programming tool for Mac OS X.

Like all open source projects, Lazarus is constantly improving and may not be as polished as you might hope. If you're a Delphi programmer switching from Windows to the Mac, you'll find Lazarus very similar to Delphi. If you're just looking for a faster programming tool than C++, Lazarus is worth investigating, especially since it's free.

A programming tool like Lazarus can't overcome incompetence and poor planning, but it can make programming easier and faster, which can translate into a greater chance of creating a program that actually works. Given a choice between an ambitious project that never works at all, or a smaller scale project that at least does one useful task, perhaps the government should stop trying to create a massive project perfectly from the start and just build gradually using intelligent planning and more efficient programming tools like Lazarus.

Happy iOS Users

According to the latest ChangeWave survey (tech.fortune.cnn.com/2011/07/18/ios-favored-over-android-even-without-new-iphone-survey/), iPhone users are the most satisfied (70 percent) followed by Android (50 percent), Microsoft (27 percent) and Research in Motion (26 percent).

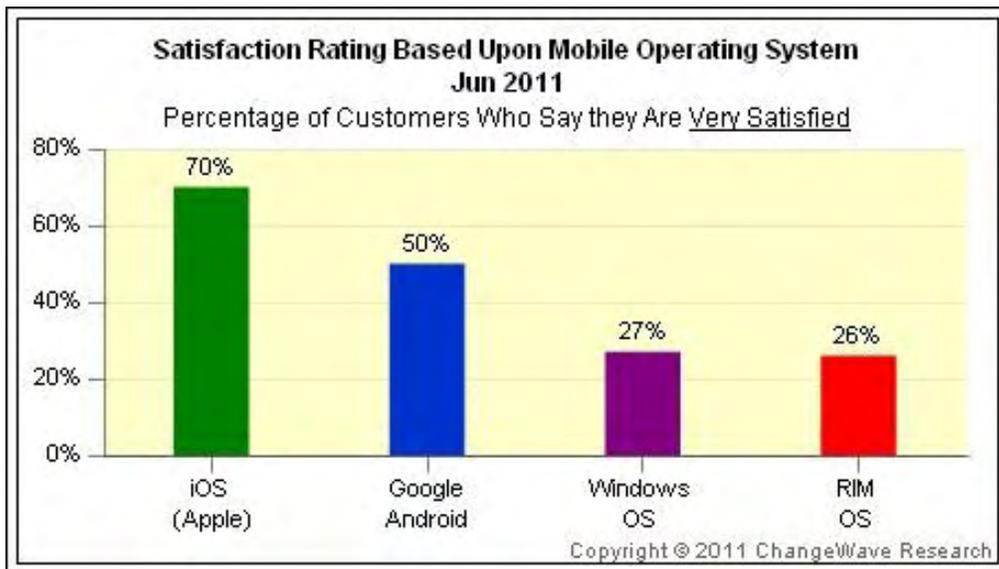


Figure 4. Satisfaction rate of mobile operating system users.

Despite Android's rapid growth, Good Technology (www.good.com/resources/Good_Data_Q2_2011.pdf) tracked activations of different devices and found that the iPhone is still more popular than Android. What likely slowed the growth of Android (at least in the United States) is the availability of the iPhone on Verizon along with Verizon dropping their massive marketing support for Android in favor of the iPhone.

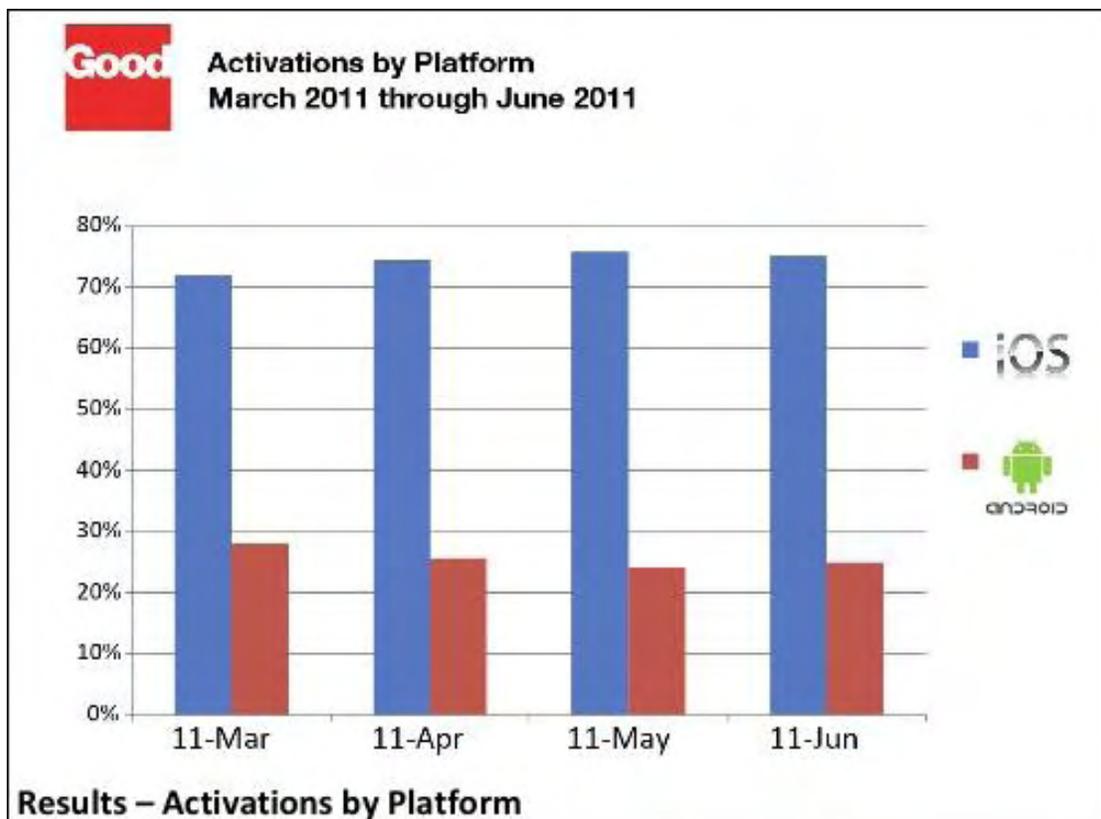


Figure 5. iOS activations outnumber Android activations.

When broken down into activations by device, the difference becomes even more striking. Android smart phones are doing relatively well, but still trailing iOS, while Android tablets are dramatically behind the iPad.

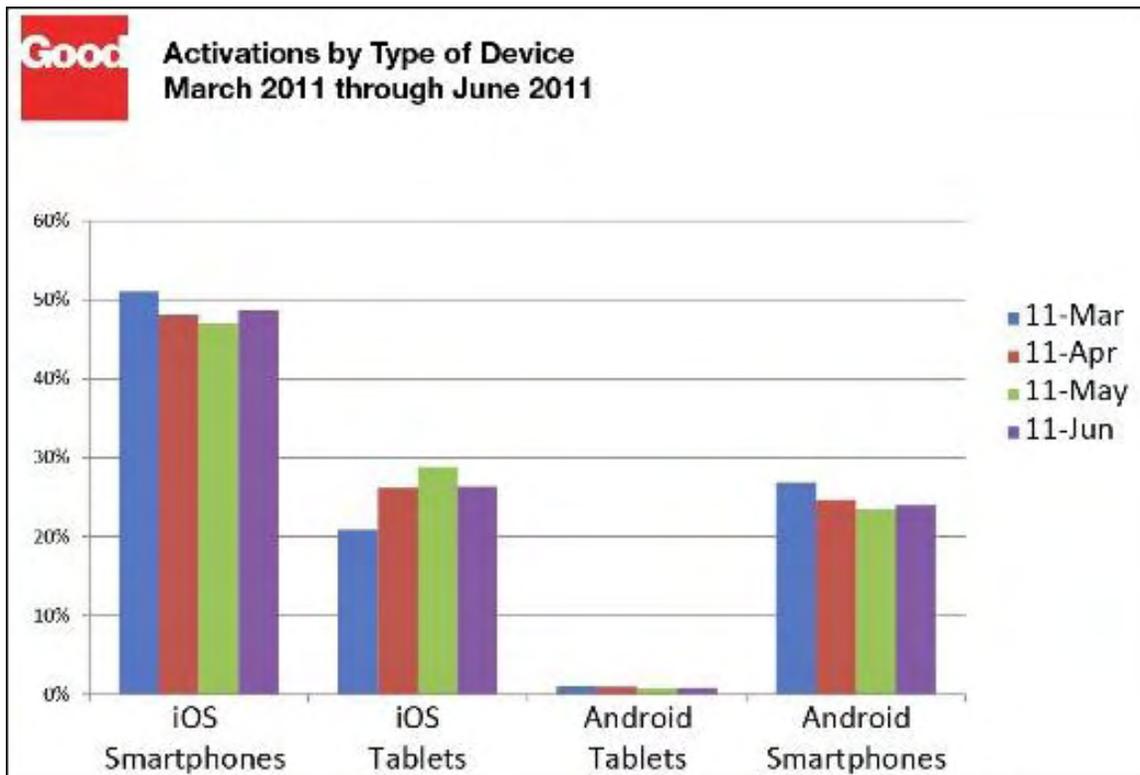


Figure 6. Android tablets trail behind the iPad.

Technically, Android and iOS are both similar, but the difference lies in their usability. With so many manufacturers modifying Android for their own use, there's no single Android operating system in the same way that there's a single Windows operating system for PCs. After denying the possibility of fragmentation, Google now plans to let Android developers create multiple installers (www.engadget.com/2011/07/22/android-market-embraces-fragmentation-allows-multiple-apks-for/) to deal with different devices, which essentially acknowledges that there is fragmentation within the Android market.

If you just want to use a device, then the Macintosh, iPhone and iPad offer immediate productivity and convenience. If you prefer a device that you can fiddle and tinker with, you have the option of jailbreaking your iPhone, but you may be happier using Windows, Linux, or Android instead.

From a security standpoint, iOS beats Android because it's trivial to distribute infected Android apps (www.zdnet.com/blog/security/google-android-market-malware-problem-escalates/9001) on the Internet for victims to download and install, but it's much more difficult to trick iOS users into installing infected apps due to the vetting process of the Apple App Store.

On computer operating systems, Mac OS X 10.7 Lion has at least equaled, and maybe even exceeded, the security features (www.theregister.co.uk/2011/07/21/mac_os_x_lion_security/) of Windows 7 and Ubuntu Linux according to The Register. There have always been fewer malware attacks on Linux and Mac OS X than Windows, so combined with nearly identical security features as Windows 7, the safest operating systems to use are Mac OS X or Linux for computers and practically anything else but Android for mobile platforms.

As these latest surveys indicate, there are more people who just want to use technology rather than tinker with it, just as there are more people who want to buy a car rather than build one from scratch. If you just want to use technology as a tool without becoming a slave to constantly maintaining and protecting it, it's clear which operating system you should consider for computers and mobile devices first.

iCloud Working with iBooks

If you have an iPad and an iPhone, you can install a copy of the free iBooks app on both devices and use iCloud automatically to synchronize your reading with an e-book. First, store the same e-book on both the iPad and iPhone. Next, start reading your e-book on your iPad while you're in a Wi-Fi hotspot such as your home.

Turn off your iPad, grab your iPhone, and open the same e-book inside the iBooks app. Your e-book now displays the last page you were reading on the iPad, courtesy of iCloud working invisibly in the background. Bookmark a page on your iPhone and go back to your iPad. Your iPad shows you where you last left off on your iPhone.

By synchronizing your place in an e-book, iBooks and iOS makes it easy to read the same e-book on multiple devices wherever you go. To duplicate this e-book synchronization on other devices, download the free Kindle app for Android, Blackberry, or Windows Phone 7 (with eventual support for webOS). The big difference is that if you want to read e-books stored in other file formats such as EPUB, you may need to convert them before you can read them on the Kindle app.

E-book synchronization is just one more way to make reading e-books on multiple devices easier and more convenient. Rather than carry a physical book around (and risk forgetting it), you can just carry your smart phone around, which most people are going to do anyway, and read at any time. A smart phone screen may not display much text, but it's better than forgetting to bring a book and not having anything to read at all.

* * *

In case you dislike the "natural" scrolling feature in Lion, you can change scrolling back to the previous behavior. Just click the Apple menu and choose System Preferences to open the System Preferences dialog.

Click the Mouse or Trackpad icon under the Hardware category, and modify the scrolling feature.



Figure 7. You can revert the scrolling behavior of Lion to previous versions of Mac OS X.

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:

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),

My New iPad (www.amazon.com/gp/product/1593272758?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593272758),

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),

Microsoft Office 2010 for Dummies (www.amazon.com/gp/product/0470489987?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470489987),

Beginning Programming for Dummies (www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702),

Beginning Programming All-in-One Reference for Dummies ([www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-](http://www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541)

[20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541](http://www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541)),

Breaking Into Acting for Dummies with Larry Garrison ([www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-](http://www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468)

[20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468](http://www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468)),

Strategic Entrepreneurism with Jon Fisher and Gerald Fisher ([www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-](http://www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894)

[20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894](http://www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894)),

How to Live With a Cat (When You Really Don't Want To) (www.smashwords.com/books/view/18896).

Mac Programming For Absolute Beginners ([www.amazon.com/gp/product/1430233362?](http://www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362)

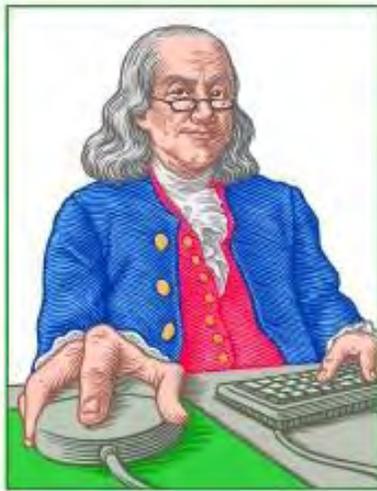
[ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362](http://www.amazon.com/gp/product/1430233362?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1430233362))

The 15-Minute Movie Method

(www.amazon.com/gp/product/B004TMD9K8/ref=as_li_tf_tl?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=B004TMD9K8)

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method" (www.15minutemoviemethod.com/) along with blogging about electronic publishing and how authors can take advantage of technology at his site "The Electronic Author." (www.wallacewang.com) Wally can be reached at wally@computoredge.com.

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LINUX LESSONS

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

Linux Lessons: Tips and Tricks from Users

"PING Script" by Tony J. Podrasky

Tony shares a script that will "PING" machines on your network and display the results.

Filename: PING

Use: <ping> machines on your network and display the results.

Do you have more than one machine on your network? If so, you might find this script useful. The script contains a list of the hosts on your network. When you do a <ping> it will <ping> all the hosts, one at a time, and save the results to two files (ping_reachable and ping_unreachable). It will also print the results on the screen of the xsession you called it from.

Example:

```
tonyp% PING <enter key>
REACHABLE NODES:
happy 64 bytes from toshi (15.19.89.7): icmp_seq=0 ttl=64 time=0.777 ms
dopey 64 bytes from hammy (15.19.89.8): icmp_seq=0 ttl=64 time=0.661 ms
sneezy 64 bytes from ministry (15.19.89.9): icmp_seq=0 ttl=128 time=0.798 ms
sleepy 64 bytes from vizzy (15.19.89.11): icmp_seq=0 ttl=64 time=0.561 ms
grumpy 64 bytes from m2404txp (15.19.89.12): icmp_seq=0 ttl=0 time=0.162 ms
doc 64 bytes from hp6840 (15.19.89.13): icmp_seq=0 ttl=255 time=0.704 ms

UNREACHABLE NODES:
bashful 1 packets transmitted, 0 received, +1 errors, 100% packet loss, time 0ms
crashy 1 packets transmitted, 0 received, +1 errors, 100% packet loss, time 0ms
downey 1 packets transmitted, 0 received, +1 errors, 100% packet loss, time 0ms

tonyp%
```

We see that happy, dopey, sneezy, sleepy, grumpy and doc answered the <ping>, and bashful, crashy and downey did not.

—————CUT HERE—————

```
#!/bin/csh -f
touch /var/log/ping_reachable
echo >/var/log/ping_reachable
echo "REACHABLE NODES:" >/var/log/ping_reachable
touch /var/log/ping_unreachable
echo >/var/log/ping_unreachable
```

```

echo "UNREACHABLE NODES:" >/var/log/ping_unreachable
foreach node (happy dopey sneezy sleepy grumpy doc bashful crashy downey)
  touch /var/log/ping_tmp
  echo >/var/log/ping_tmp
  ping -c 1 $node >>/var/log/ping_tmp
  if ($status == 0) then
    echo -n "$node " >>/var/log/ping_reachable
    grep icmp /var/log/ping_tmp >>/var/log/ping_reachable
  else
    echo -n "$node " >>/var/log/ping_unreachable
    grep loss /var/log/ping_tmp >>/var/log/ping_unreachable
  endif
end
echo " "
cat /var/log/ping_reachable
echo " "
cat /var/log/ping_unreachable
echo " "

```

—————CUT HERE—————

How It Works:

First, we'll create the files to save the data in:

<code>touch /var/log/ping_reachable</code>	<i>Creates the file "ping_reachable" in the /var/log directory.</i>
<code>echo >/var/log/ping_reachable</code>	<i>Puts a new line into the file.</i>
<code>echo "REACHABLE NODES:" >/var/log/ping_reachable</code>	<i>Puts the words "REACHABLE NODES:" into the file.</i>
<code>touch /var/log/ping_unreachable</code>	<i>Creates the file "ping_unreachable" in the /var/log directory.</i>
<code>echo >/var/log/ping_unreachable</code>	<i>Puts a new line into the file.</i>
<code>echo "UNREACHABLE NODES:" >/var/log/ ping_unreachable</code>	<i>Puts the words "UNREACHABLE NODES:" into the file.</i>

Second, we'll set up the list of hosts to <ping> and save the data to the files (above):

<code>foreach node (happy dopey sneezy sleepy grumpy doc bashful crashy downey)</code>	<i>Do the following for each host listed.</i>
<code>touch /var/log/ping_tmp</code>	<i>Create the file "ping_tmp" in the /var/log directory.</i>
<code>echo >/var/log/ping_tmp</code>	<i>Put a new line into the file.</i>
<code>ping -c 1 \$node >>/var/log/ping_tmp</code>	<i><ping> the host once and save results in the file "ping_tmp.</i>
<code>if (\$status == 0) then</code>	<i>If the host responded, copy the result into "ping_reachable".</i>
<code>echo -n "\$node " >>/var/log/ping_reachable</code>	<i>Look for the word "icmp" to verify it worked.</i>
<code>grep icmp /var/log/ping_tmp >>/var/log/ ping_reachable</code>	
<code>else</code>	<i>If the host did not respond, copy the result into</i>
<code>echo -n "\$node " >>/var/log/ping_unreachable</code>	<i>"ping_unreachable".</i>
<code>grep loss /var/log/ping_tmp >>/var/log/ ping_unreachable</code>	<i>Look for the word "loss" to verify it didn't work.</i>

```
endif                                     End of the "foreach" loop.

end
```

Third, we'll type the results to the xsession:

```
echo " "
cat /var/log/ping_reachable
echo " "
cat /var/log/ping_unreachable
echo " "
```

* * *

Silly signature du jour:

```
Tony J. Podrasky | I used to think that the brain was the most
                  | wonderful organ in my body.
                  | Then I realized who was telling me this...
                  |                                     - Emo Phillips

--:-ETX-:-
```

NOTE: I give my shell files uppercase names so that *I know* they are my shell files and not the system's binaries. For example, when I save the data (the commands between the "CUT HERE" lines, which is the actual shell file) I might call it "VI", which is *not* to be confused with the system's "vi" file—but I call it "VI" because it calls (or uses) the system's "vi editor."

Tony has been in the computer field since 1976 when he started working for Data General Corp as a field engineer. Later going on to design hardware interfaces, write patches for operating systems, and build networks. It was in 1995 while working with the military on several projects that he ran into a "spook" who showed him a laptop that ran a then-unknown O/S called "Linux." "A laptop running a form of UNIX tony = a marriage made in heaven!" Tony can be reached for questions at Linux Questions for Tony (hunybuny@netzero.net).

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Beyond Personal Computing

“Computer Connections: M-Wave Modems, Mom and Lodge-Ins” by Marilyn K. Martin

Marilyn shares some humorous anecdotes about connections—Internet and psychological.

Computing is all about "connections." It's about sweating behind your computer, clutching crumpled instructions in three fingers, with a mini-flashlight in your teeth, to hook up peripherals. Or researching Internet providers that can give you the fastest downloads for the best price. And Wi-Fi, although invisible, still "connects" from a source to your computer. Even smartphones have to be recharged.

So Joe and Jane Public have it set in their minds that computing involves a lot of connecting to this or that. And if you absolutely can't make an important connection, or think a connection to something else may solve your latest computing problem, who you gonna call? Tech Busters!

Microwave Computing

A lady called up a Help Desk to complain that she couldn't access the Internet. She stated that she had an IBM system with an "Mwave" modem. She said that every time she tried to connect to the Internet, it told her that there was no dial tone.

Her Help documentation had told her to make sure the phone line was connected. "I can see that I put one cable end in my computer," she explained. "But where does the other end of the phone line go? My 'Mwave' microwave doesn't have a connection that fits this plug."

In another case, a Help Desk answered the phone one day, "Tech Support. May I help you?" **"Yes!"** thundered an irate customer. "My microwave isn't communicating with my computer correctly anymore. I'd like to bring in my microwave and computer for you to fix the connection."

Issues with Connectivity

An airport manager marched into their Service Tech office one morning and complained, "I can't log onto the city network. It won't take my password. And it's been like this for three *&#%\$ days!"

The Tech rushed to the airport manager's office, asking the trailing manager troubleshooting questions all the way. Once there, he asked the manager to try and log into his computer. When the Netware Login came up, the user name was "admin." Meaning that someone from IT had been in three days ago and done work on his computer.

The manager didn't know how to change the username, and had been trying to enter his regular password. So he'd been locked out of his computer for three days, before he'd contacted the Service Tech.

Then there was the customer who called a Help Desk to place an order. The Tech processed the order while chatting with the

customer. Then came the last bit of information—the Tech needed the customer's e-mail.

"E-mail?" blurted out the customer. "I won't have anything to do with that Internet or modems of any sort! Don't you know that once you install a modem, the government can look into your computer and watch everything you do? That's why every night before I go to bed, I turn the monitor to face the wall!"

Mom Connections

One young man sent his mother an old computer for Christmas. Then she went out and bought a modem. Soon the generous son got the inevitable phone call: "This thing doesn't work! The light doesn't come on, so I can't put the hard drive in and download the modem."

Another dutiful son bought a laptop and a cell phone that were bluetooth compatible. He tried to show his mother how he could connect the two pieces of equipment. But his mother wasn't impressed. "Don't do that! I don't want my voice on the Internet!"

Car Computing

How about the Help Desk who got a call one day from a customer on a cell phone. There was some slight noise in the background, but the Tech didn't think anything of it. The user complained that he couldn't remotely connect to his company's network, but he'd forgotten the exact error message. The Tech asked him to run the program, so he could troubleshoot it.

"OK," agreed the customer. "Let me get it open here." Grunt-Click-Bump-Grunt-Click. "OK, I just opened my laptop here in the passenger seat." "Uh, Sir?" asked the Tech curiously. "Are you driving?"

"Yeah," came the reply. The Tech tried to talk quickly. "Sir, I can't troubleshoot a connection issue with your network, if you aren't plugged into a phone or DSL line." Grunt-Click. "OK, just let me turn on my laptop so I can write down the ticket number."

The quick-thinking Tech replied, "Uh, Sir, tell you what. Just call this Help Desk back when you've stopped somewhere, and give us your User ID. We can look up your ticket number from that. OK?"

Instructions That Don't Connect

A male customer called a Help Desk one day, but his son was the one physically sitting at the computer. So the Tech's instructions had to be relayed through the father. "Click on 'start,' then select 'shut down,'" instructed the Tech. "Then select 'restart in MS-DOS mode'."

The father then relayed to his son, "OK, press 'start.' Then 'shut up' and 'sit down'." The son then piped up. "OK, I'm at the C: prompt!" The Tech figured that communication in that household must be very interesting indeed.

One Tech routinely tries to get people to try "pinging" a Web site to determine connectivity. He reported that some users read the "Ping Statistics" at the end, as either "Ping Statics" or "Ping Satisfaction."

A student approached his Computer Lab Supervisor one day, and asked how he "lodged into Hotmail." The Lab Supervisor explained about typing in his username and password in Hotmail's fields that ask for username and password. Also adding that "It's called log in, not lodge in."

The student became irate. "Excuse me, but I think I know what I'm talking about! It's called LODGE IN, and I don't want a username and password! I just want to get some e-mail!" And then stormed out.

One computer company put asset numbers on the front of everything. They gave the location, name and everything else just by scanning the computer's asset barcode, or by using the number beneath the barcode.

Yet, a customer still called up to report "Uh, Hi. I can't get on the network." The Tech replied, "OK, just read me your asset number so we can open an outage. It's that little barcode on the front of your computer." The customer duly complied. "OK. Big bar, little bar, big bar, little bar, big bar, little bar ..."

Connections That Don't Compute

A student once had a Computer Science professor who couldn't figure out how overhead projectors worked. She'd put a transparency on the glass, and crank the focus knob to focus it. She'd then crank the same focus knob to make the screen image bigger and out of focus. She went on and on like this, back and forth, unable to grasp the connection that a bigger screen image meant that the picture would be thrown out of focus.

Or how about the Tech who was consulted by a friend who wanted to buy a computer. The Tech generously explained all the advantages and disadvantages of various systems, how much they all cost, and so on. But then his friend started in on a train of thought that even the Tech couldn't follow: "And I'll need two printers to hook up to the same computer."

The Tech told him that was impossible. "OK, how about two computers," his friend asked. "Can you hook two computers together?" The Tech was about to lose it. "No one needs two computers for a home PC! No one needs two printers! Why on the earth do you think you need all that?"

The friend was nonplussed. "Well, when I go to print out the manuscript I'm gonna write, it'll be like 800 pages. How am I ever going to get one printer to print that much? And one computer alone probably can't hold that much, right?"

The Tech took a deep breath, then explained that Yes, one computer could hold 800 pages of data. But that NO home printer could hold 800 sheets of paper at one time. The Tech reports that now, years later, his friend has yet to produce his 800 page tome.

Foreign Connections

Another Tech worked for a nationwide ISP, doing overnight technical support. A man who had immigrated from Croatia called one night, to ask why they kept kicking him offline. The Tech checked the records and told him "It looks like our servers are reporting that either your modem is hanging up like a normal disconnect, or the connection is just being lost. This is usually attributed to line noise. I'd advise you to contact..."

"No! That is not it!" interrupted the man. "What I'm trying to do is look at some Croatian newspapers online, to keep up with what's going on in my old country. The government did not like me when I was there. So they do not like me being in touch with my family and events there!"

The Tech tried to explain that Croatia couldn't just disconnect him from an American Internet. But the user had his own ideas. "No, no, no. That is alright," the man insisted. "I just wanted to know if you were doing it intentionally. Or if it was them. Now I know. Thank you. Good night."

Disconnect to Start Over

Don't you wish when life is bad / And things just don't compute / That all we really had to do / Was stop and hit reboot?

Things would all turn out OK / Life could be so sweet / If we all had those special keys / Ctrl and Alt Delete

You'd like to have another job? / You fear living in the street? / You can solve it all and start anew / After Ctrl and Alt Delete...

(Many of these jokes are on multiple Computer Joke Web sites. But special thanks to *Rinkworks.com* and *Its-hilarious.com*)

Marilyn is a freelance writer and humorist with many interests. She has sold teen anti-drug articles, as well as had numerous esoteric articles published. She has almost seventy mini-articles on Helium.com (www.helium.com/users/573405/show_articles), and is writing a humorous Young Adult Science Fiction series, *Chronicles of Mathias*. Volumes One and Two have received a "Gold Star for Excellence" from TeensReadToo.com (www.teensreadtoo.com/ReptilianRebirth.html), and are available from most on-line bookstores.

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EDITOR'S LETTERS

Editor's Letters: Tips and Thoughts from Readers

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

"File Size," "To Recover Your Data," "Two Video Cards," "Scrolling in the Deep"

File Size

[Regarding the July 8 Digital Dave column:]

In regards to the drive C file clean up letter. For file size statistics, making it easy to clean things up, I use WinDirStat (*windirstat.info*).

It gives a graphical representation as well as textual for finding those large files on a system. I've used it for years with great success, on many different Windows systems.

-Brian, San Diego, CA

Try "Everything (www.voidtools.com/)" search engine. It works great for me. It is the best file search I have seen yet.

-W. Heer, Denver, CO

To Recover Your Data

[Regarding the July 8 Digital Dave column:]

To recover data that a FORMAT has overwritten, try DFSee (www.dfsee.com). This wonderful utility has saved me from several disk problems. It's been out for a number of years and is constantly updated. A DFSee UNFORMAT might work, otherwise it will copy the found files to a new partition. The program is very robust. I recommend joining the DFSee mailing list and (after reading the docs) asking questions on the list about how to use it to recover your partition.

-Peter Skye, Los Angeles, California

TestDisk (www.cgsecurity.org/wiki/TestDisk) is great to recover data from an unpartitioned hard drive or any hard drive with problems. I've been using it for years, and best of all it's free.

-Javier Sandoval, Denver

Two Video Cards

[Regarding the July 8 Digital Dave column:]

You can only have two video cards in certain limited circumstances, not in general. They must be similar or the same for some SLI uses, I think, which is intended for two cards. For general use, the cards must match closely in order to share drivers, as "most" motherboards/systems do *not* allow multiple video drivers. I tried adding a second, different video card to use a "spare" monitor, and could not get the drivers to allow both boards to work. I gave it up after wasting a lot of time trying. The cards were too different and each driver would not run the other card.

-Rich, Denver, CO

Scrolling in the Deep

[Regarding the July 8 Wally Wangs Apple Farm column:]

While some people may prefer their mouse scroll wheel to move the text one way (or the other), it takes about two seconds to grow accustomed to either setting. In one setting the text moves the same direction as the wheel. In the other, the wheel moves toward the top or bottom of the text. Hardly a compelling difference and impossible to say if one is more intuitive than the other. Want to check it out yourself? Turn your mouse around (front to back) and scroll away in a new direction.

-Richard, Oceanside, CA

ComputerEdge 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 specific article/column at ComputerEdge.com (webserver.computoredge.com/online.mvc?src=ebook). 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 "ComputerQuick Review", or yell at us, please e-mail us at ceeditor@computoredge.com.

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Send mail to cwebmaster@computoredge.com with questions or comments about this Web site.

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