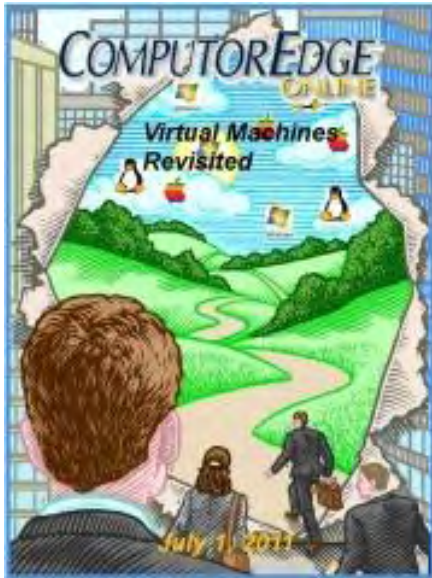


ComputerEdge™ Online — 07/01/11



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Virtual machine software makes it possible to run multiple operating systems on the same computer.

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Digital Dave

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

Keyboard Won't Respond, Plus Tip for No Keyboard Working; Smooth Scrolling in Firefox 5; Unwanted Mobile Annoyance from Facebook.

Dear Digital Dave,

Since installing Windows 7 on a Dell desktop PC with a Microsoft keyboard, whenever I do a "restart," the computer will not respond to keyboard commands when entering the "log in password." I need to do a "shutdown," and then the computer will respond normally to the keyboard commands during log in. Any idea how to remedy this?

*Don L.
San Diego, CA*

Dear Don,

The fact that you can get the keyboard to work by rebooting shows that there is nothing wrong with your hardware. Since the issue only occurs on restart (warm boot), a conflict is most likely caused by an application or driver which has been loaded after the first log in and remains during a restart.

First, make sure that you completed all of the updates in Windows Update. Often both hardware and software drivers will be provided via Windows Update which will be necessary—especially for a new installation of Windows 7.

If you have any special keyboard drivers which are loaded by Windows, try getting the latest drivers from the appropriate site. If that doesn't help try disabling or uninstalling the special drivers.

I've also read that some antivirus programs have caused this keyboard problem. Try switching to another one of the many free programs, or go with my preference Microsoft Security Essentials (www.microsoft.com/en-gb/security_essentials/). (In addition to being free, Security Essentials doesn't try to upgrade you to another program.)

Failing the first few options, you may need to disable Startup items which load after log in. Open the System Configuration window by typing "system" in the "Search programs and files" field of the Start Menu. Select "System Configuration" from the Programs list at the top of the Start Menu and click on the "Startup" tab (see Figure 1). Disable those startups which you suspect may be the problem and continue to test until you find the culprit. The quicker option is to disable all of them to see if your keyboard will work on a restart, then (if the problem is fixed) add them back a few at a time until you find the culprit.

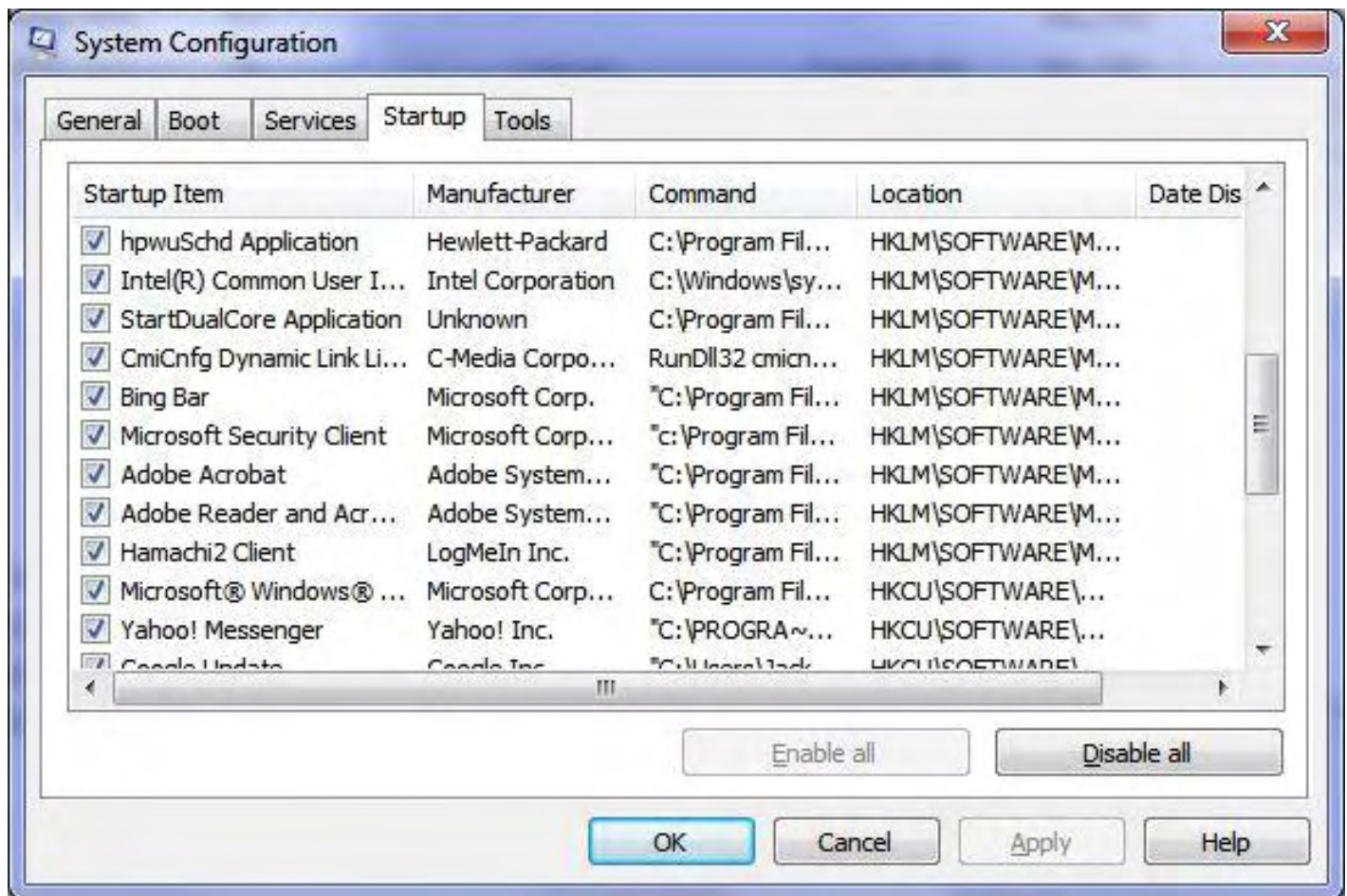


Figure 1. The System Configuration Startup tab allows you to disable startup items.

How to Log In with a Mouse and No Keyboard

There are times when your keyboard may not work, but your mouse does. When you reach the log in screen, the system is working but it seems that there is no way to type in your password. By using the Ease of Access capabilities of Windows, you can use the On-Screen Keyboard to continue logging in and working with your computer.



By clicking the Ease of Access logo (shown at left) located in the lower left-hand corner of the log in screen, a window will open offering the option "Type without the keyboard (On-Screen Keyboard)." Check this option a click "Apply." The virtual keyboard will pop up allowing you to continue to log in with only your mouse.

Digital Dave

Dear Digital Dave,

You and your readers always have valuable advice, so here goes again!

Yesterday we updated to Firefox 5, and it seems to work fine for the most part. But, one thing I definitely notice that's different is the scrolling. To scroll down and read an article, etc., the scrolling is slow and jerky, whether I use the arrow or the mouse. I'm wondering if anyone else encountered this problem. I still love Firefox for its security.

By the way, I will generally read various reviews to see if there are problems, before accepting

updates of any kind.

Thank you!

Sandy
San Diego

Dear Sandy,

People have noticed this problem with Firefox, although not just with the latest version. There is a special feature for smooth scrolling in Firefox which is generally already implemented. Perhaps yours needs to be reset.

Open the Tools menu in the Menu Bar at the top of the window. (If you can't see the Menu Bar, then hit the Alt key and it will pop up. Use the View menu to permanently turn on the Menu Bar. Also, right-clicking on a dark area of the bar will allow turning on the Menu Bar.) Select Options and click Advanced => General when the Options window opens (see Figure 3).

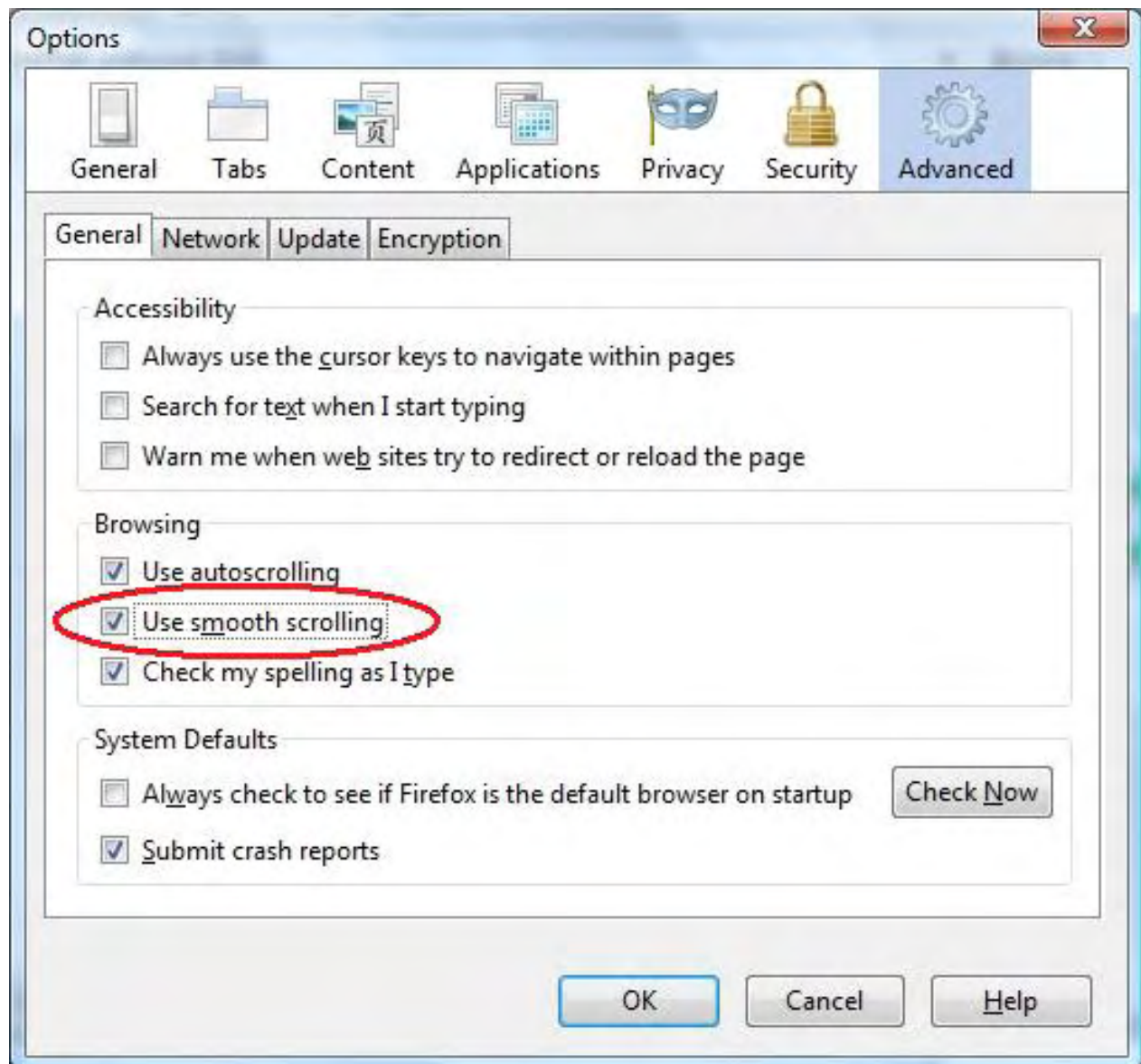


Figure 2. "Use smooth scrolling" selected in Firefox.

Check "Use smooth scrolling" and OK.

Perversely, the smooth scrolling option might also be the problem. It seems to be a graphical effect which in some cases could make the situation worse. If it is already enabled, try disabling it.

If this is not the problem, then there are add-ons for Firefox which are designed to help with scrolling problems. Open Add-Ons in the Tools menu and search "scrolling". I haven't tried any of these add-ons, but possibly a reader could give an opinion.

Digital Dave

Dear Digital Dave,

I know this isn't a computer question, but the folks at Facebook are not interested in answering questions. I am getting a feed from a "thing" called Bancuri. It's the same thing as OnStar meaning these "things" are not listed as my friends. My question is "How do I stop these feeds from getting on my Facebook page?" I do not get these feeds on my Facebook page on my computer, only on my BlackBerry.

Thanks, I hope you can help me.

*Mike
Spring Valley, CA*

Dear Mike,

First, your question is definitely a computer question and it's totally appropriate for you to ask me—even if I don't know the answer. However, I do occasionally guess right. (The definition of an expert is someone who guesses right three times in a row. I don't know if I've ever done that.)

While I'm not a major user of Facebook, it can be hard to avoid the monster. It seems to creep into every aspect of life and, like a weed, is very difficult to root out. There are only two places for you to look for your solution. One is within the Facebook app or browser on your Blackberry. The other is your Facebook page accessed via your computer. With the little bit of looking I did, it seems that the bulk of your settings are done in your main Facebook page. There are a multitude of settings (including mobile settings) available which might just solve your problem. However, Facebook is primarily interested in making money through advertising, so it may not be easy to get rid of these feeds on your Blackberry.

There may be readers who can give you more specifics on how to tailor Facebook on your Blackberry. Me? I would just delete it from my smart phone. I can wait until I get home to find out what everybody else ate for lunch.

Digital Dave

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Virtual Machine Software Re-Update

“Virtual Machines: What They Are and What They Can Do” by Barry Fass-Holmes

Barry reviews the definition of virtual machines—are they virtualization, simulation or emulation? He then shares a comparison of VirtualBox, Parallels Desktop and VMWare Fusion—each with their own strengths and weaknesses.

"Virtual Machine Software Update" was the subject of the June 18, 2010 issue of *ComputerEdge*. Where do things stand one year later in the world of Virtual Machine (VM) software? The reason for addressing this question here and now is that VMs can be a low-cost, high-benefit tool for computer users at home and in the workplace. So let's take a look!

Virtualization = Simulation = Emulation?

Before diving into VM software's current status, we first should revisit the topics in the title of last year's lead article in *ComputerEdge*—"Virtual Machines: What They Are and What They Can Do"—in order to debunk any misconceptions while bringing up-to-speed readers who are either unfamiliar or only peripherally acquainted with VMs.



Figure 1. Is Windows Virtual PC a VM, a simulation, or an emulation?

Last year's lead article defines VMs as "...a simulation of a particular machine..." and Wikipedia (en.wikipedia.org/wiki/Comparison_of_platform_virtual_machines) states that VMs are "software packages which emulate the whole physical computer machine..."

These definitions of VMs imply that virtualization, simulation and emulation are synonymous or interchangeable terms. But they beg the questions "What is simulation?" and "What is emulation?" Wikipedia says "A computer simulation (en.wikipedia.org/wiki/Simulation#Computer_simulation) (or "sim") is an attempt to model a real-life or hypothetical situation on a computer so that it can be studied to see how the system works" and "...emulation (en.wikipedia.org/wiki/Hardware_emulation) is the process of imitating the behavior of one or more pieces of hardware (typically a system under design) with another piece of hardware..."

Combining these definitions leaves us with the following one—VMs are models of particular computers created by software packages that imitate the behavior of the whole physical computer. Do you find this definition to be more confusing than instructive? We can do better.

To develop a reader-friendly definition of VM that is distinct from simulation or emulation, let's





"Joe wants a 'virtual' wedding with a 'virtual' reception so all of his 'virtual' friends can attend, but I drew the line when he tried to give me a 'virtual' engagement ring."

consider a real-life scenario. Suppose you want to use two Windows versions (e.g., Windows 7 and XP) on the same computer at the same time. (Disclaimer: Although I have no experience installing Windows 7 in a VM (www.troublefixers.com/install-windows-7-inside-windows-vista-or-windows-xp-using-virtual-pc/) on an XP box, it evidently is doable.) Why would anyone want to do this? One reason might be to evaluate a particular program's performance under both operating systems. Another reason could be to conduct quality assurance or troubleshooting tests under Windows 7 and XP. Perhaps a third reason would

be to check out Windows 7 and determine whether to upgrade from Windows XP.

How would you accomplish this? Install Windows XP on the computer's internal hard drive and Windows 7 on an external one? Create two partitions on the internal hard drive, then install Windows XP in one partition and Windows 7 in the other? In either case, after booting into one version, how would you then boot into the other so that both were up and running together simultaneously? Change settings in Windows? In the computer's BIOS?

If your response is "Install one version of Windows in a VM," bingo! That's because, as Oracle, Inc. explains (www.virtualbox.org/manual/ch01.html), "...[a VM] extends the capabilities of your existing computer so that it can run multiple operating systems (inside multiple virtual machines) at the same time."

To distinguish virtualization (and VMs) from simulation or emulation, I propose the following operational definitions (en.wikipedia.org/wiki/Operational_definition).

- Virtualization is running two or more operating systems simultaneously on a single computer.
- VM is the set of conditions—i.e., configuration—that supports another operating system (OS) running alongside the computer's boot OS and displays the other OS in a window for user access and interaction (Figure 2).
- Emulation is a specific type of virtualization in which the other OS is translated from its code into the (different) code required by the computer's CPU (Figure 3).

What about simulation? My recommendation is to exclude simulation from this discussion because it relates to something other than running multiple operating systems on a single computer (think of flight or weather simulation).



Figure 2. A VM can be operationally defined as a set of conditions (configuration) for running an additional OS alongside the boot OS and for displaying the other OS in a window that the user interacts with. In this screen capture of Windows XP in a VM, the configuration appears in the window at the lower left corner.

The above scenario exemplifies virtualization rather than emulation (per our operational definitions) because Windows 7 and XP both run natively on Intel CPUs without translation. An example of emulation is any Windows version running under the Connectix, Inc. (en.wikipedia.org/wiki/Connectix)'s now-defunct Virtual PC program for Macintoshes equipped with PowerPC CPUs (aka G3, G4, or G5) which we reviewed in the October 8, 2004 issue of *ComputerEdge*. This is emulation because Windows' code is written for Intel CPUs which are complex instruction set computers (en.wikipedia.org/wiki/Complex_instruction_set_computing) while Virtual PC is written for PowerPC CPUs which are reduced instruction set computers (en.wikipedia.org/wiki/Reduced_instruction_set_computing). Virtual PC translates Windows' code for Intel CPUs into code for PowerPC CPUs.

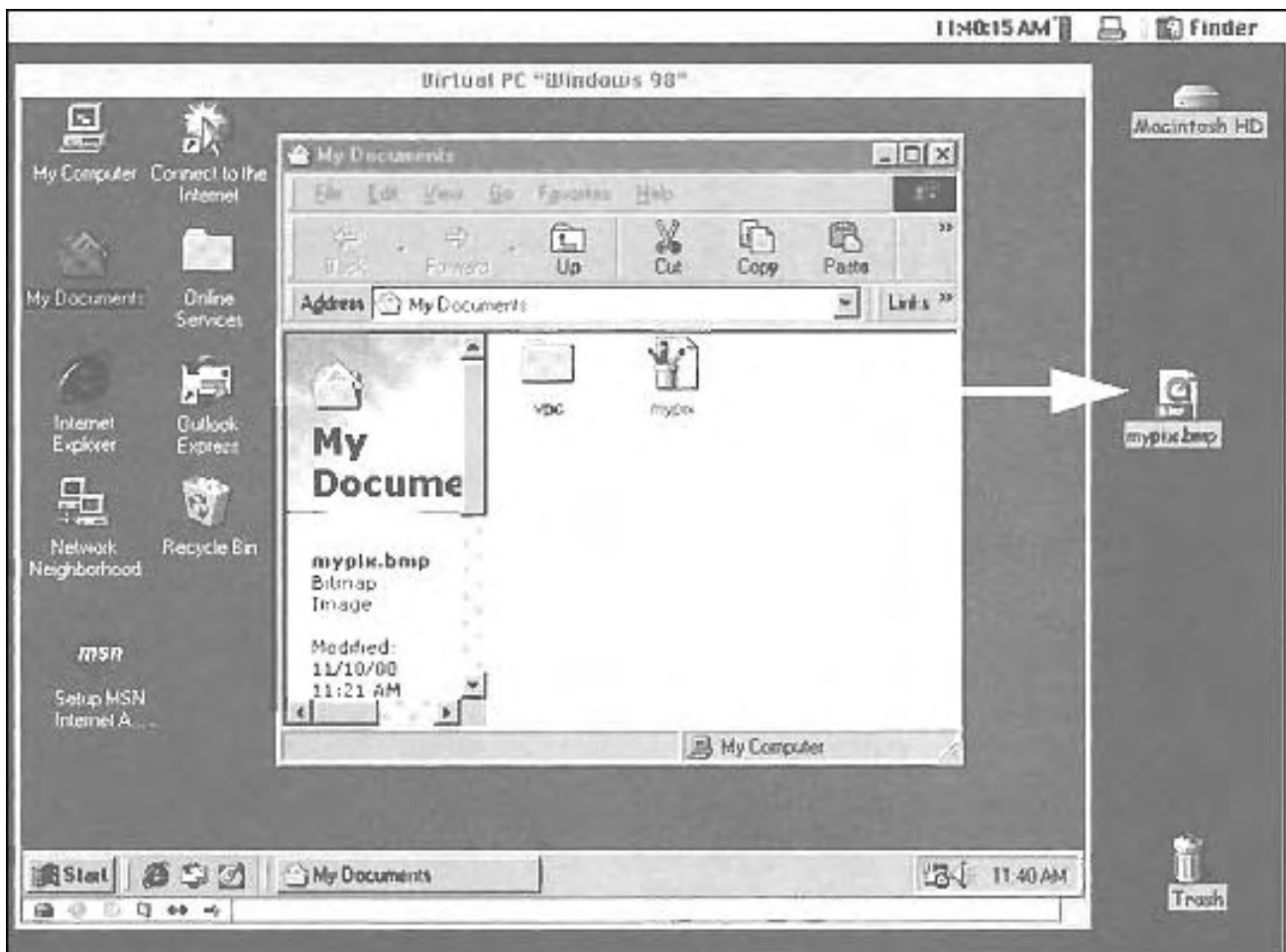


Figure 3. Although Virtual PC's name suggests a VM, this defunct program actually is an emulator according to our operational definitions. That is because Virtual PC translates Windows' code from the complete instruction set used by Intel CPUs into the reduced instruction set used by PowerPC CPUs in obsolete Macintosh models.

One more thing—last year's article on VMs indicates that they suffer from a performance penalty. "Generally, emulating an entire machine in software is almost always going to be slower than actual hardware." This statement is exactly correct for emulation because emulators translate code for one CPU into code for another. The defunct Virtual PC program, for instance, is painfully, glacially slow in performing ordinary tasks as shown by published benchmarks (www.xlr8yourmac.com/VPC/virtual_PC_5_tests.html). By contrast, VMs are fast because VMs are not emulators; instead, they execute code without performing translation. You can get your work done in a VM (en.wikipedia.org/wiki/Comparison_of_VMware_Fusion_and_Parallels_Desktop#2009_Benchmark_tests) without experiencing prolonged processing delays.

Update on Three VM Programs

Although many VM software programs (en.wikipedia.org/wiki/Comparison_of_platform_virtual_machines) are available, this update will be limited to the "big three": Oracle VirtualBox, Parallels Desktop and VMWare Fusion. (Disclaimer: My experience with VM programs is limited to VirtualBox—details in a moment.)

VirtualBox (www.virtualbox.org/) is "freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 2." This VM program is under active development and editions are available for computers running Linux, Macintosh, Solaris, or Windows operating systems; it currently is not available for Android,

Blackberry, iOS, Windows Phone 7, or other mobile platforms. VirtualBox VMs support Linux or Windows OS versions on Macs or PCs, and they provide "experimental" support for Mac OS X Server on Macs. VirtualBox VMs do not support Mac OS X (www.virtualbox.org/manual/ch14.html) on Macs or PCs due to Mac OS X's end user license agreement and hardware requirements.

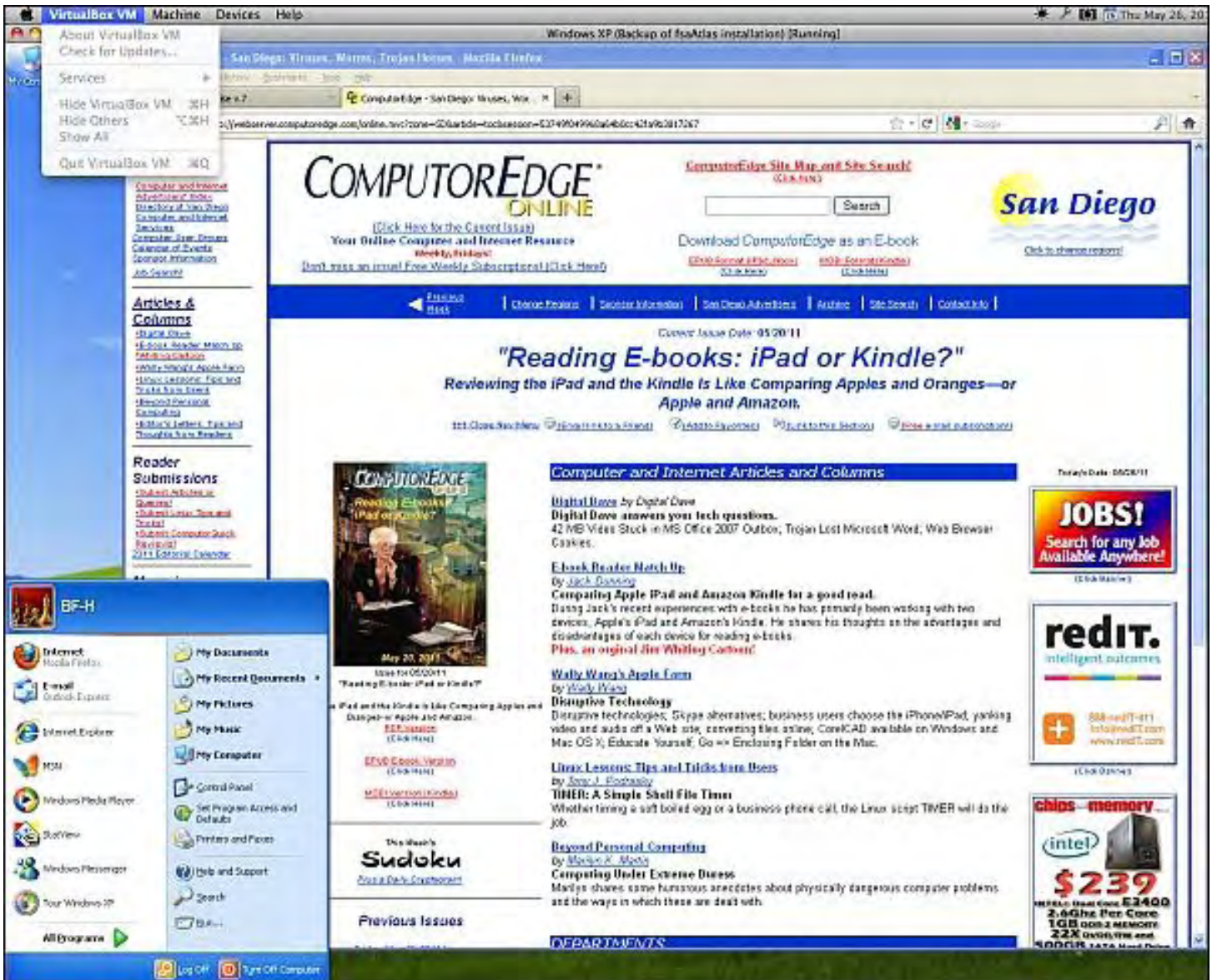


Figure 4. VirtualBox is an open-source virtualization program that creates VMs on computers running Linux, Mac OS X, Solaris, or Windows operating systems. In this screen capture, Windows XP is running in a VirtualBox VM alongside Mac OS X on a Macintosh.

The current version of VirtualBox (www.virtualbox.org/wiki/Downloads), as of this writing, is 4.0.8 which Oracle released on May 16, 2011. New features and fixes in 4.0.8 include, but are not limited to, the following: (Note (www.virtualbox.org/wiki/Changelog): "Host" refers to the computer on which VirtualBox' VM resides, "Guest" refers to the OS running in the VM.)

- Mac OS X hosts: bug fix.
- NAT: built-in services use the correct Ethernet addresses in Ethernet header and in ARP requests.
- Host-only networking: fixed adapter reference counting.

- SATA: bug fix.
- 3D support: fixed a potential crash when resizing the guest window.
- 3D support: fixed GNOME 3 rendering under Ubuntu 11.04 and Fedora 15.
- Solaris Additions: added support for X.Org Server 1.10.
- Guest Additions: bug fix.

VirtualBox's noteworthy features (www.virtualbox.org/manual/ch01.html) include, but are not limited to, the following.

- Does not require hardware virtualization and consequently supports older hardware.
- Supports shared folders, seamless windows and 3D virtualization via VirtualBox Guest Additions. (Note: Guest Additions are software packages that are installable inside of supported guest systems to improve performance and provide additional integration and communication with the host system.)
- Supports up to 32 virtual CPUs to each virtual machine regardless of the host's actual number of CPU cores.
- Supports USB devices via a virtual USB controller without having to install device-specific drivers on the host.
- Supports IDE, SCSI and SATA hard disk controllers, several virtual network cards and sound cards, virtual serial and parallel ports and an Input/Output Advanced Programmable Interrupt Controller (I/O APIC).
- Supports Advanced Configuration and Power Interface (ACPI).
- Multiscreen resolutions support.
- Built-in SCSI support.
- Supports remote booting via the Preboot Execution Environment (PXE).
- Supports snapshots (saves the VM's current state for later resuming where you left off).
- Modular architecture.
- Supports the Remote Desktop Protocol (RDP).

My experience using VirtualBox is limited to running Windows XP in a VM alongside Mac OS X. What I like most about VirtualBox is the snapshot feature—it is a very handy time saver. Admittedly, however, I am more a fan of CrossOver (reviewed in June 10, 2011 *ComputerEdge*) than VM programs because CrossOver runs Windows programs on Macs without running or installing Windows; however, that's a Windows issue rather than a VirtualBox issue. What I don't like about VirtualBox per se is that in order to display the dialog for saving the current VM state before quitting, you need to click the close (red) widget in the VM's window (or press Command-W) rather than selecting File>Quit from the menu bar (or pressing command-Q); this seems counter-intuitive to me.

VirtualBox is a potentially good candidate for readers interested in checking out one of the freely available Linux distros. Instead of partitioning an internal hard drive or purchasing an external one for installing and exploring a Linux

flavor, you can download and install VirtualBox, use the wizard/assistant to build a VM, then download the Linux distro of interest and install it into the VM (or download a pre-built VM (www.oracle.com/technetwork/community/developer-vm/index.html)). If you lose interest in it, simply delete the VM file without disrupting your boot OS installation.

Unlike open-source VirtualBox, Parallels Desktop (www.parallels.com/products/) is a family of commercial VM software products. In addition to VM software for computers running Linux, Macintosh, or Windows operating systems, Parallels has developed an app (Parallels Mobile (itunes.apple.com/us/app/parallels-mobile/id295531450?mt=8)) for iOS devices that supports remote access to and control of a Parallels VM running on a Macintosh.

The range of Parallels virtualization programs is truly extensive. They include, but are not limited to, the following.

- Parallels Desktop for Macintosh (www.parallels.com/products/desktop/)
- Parallels Desktop Switch to Macintosh Edition (www.parallels.com/products/desktop/stm/)
- Parallels Desktop for Windows and Linux (www.parallels.com/products/desktop/pd4wl/)
- Parallels Desktop for Upgrading to Windows 7 (www.parallels.com/products/upgrading-to-windows-7/)
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- Parallels Virtuozzo Containers (www.parallels.com/products/virtuozzo/)
- Parallels Server for Mac mini Edition (www.parallels.com/products/server/mac/audience/mme/)

The current version of Parallels Desktop for Macintosh (www.parallels.com/download/desktop/) (Figure 5; \$79.99 MSRP), as of this writing, is 6.0.12090.660720 which Parallels, Inc. released on June 2, 2011. New features and fixes in this version include the following:

- Supports Ubuntu 11.04 VMs.
- Improved mapping of Mac OS X system shortcuts to their equivalents in guest operating systems.
- Improved clipboard sharing between Windows and Mac OS X.
- Twitter and Facebook support.
- Supports migrating multiple user accounts from a PC to Mac OS X.
- Bug fixes.



Figure 5. Parallels Desktop for Macintosh is one member of a family of commercial VM programs for Linux, Macintosh, or Windows host computers.

Parallels Desktop for Macintosh has some very slick features. They include, but are not limited to, the following.

- Supports Mac gestures in Windows apps running in a VM.
- Maps Mac OS X keyboard shortcuts to the virtualized OS.
- Supports Apple Remote for controlling Windows apps.
- Improved USB connection dialog.
- Improved VM configuration.
- Supports Coherence (note: Coherence is a display that integrates Windows apps in the VM with Mac OS X's Finder, and hides Windows' Desktop), Full Screen and Window modes.
- Supports Windows apps in Mac OS X's Dock and Spotlight.
- Supports Windows 7 Jump Lists, progress indicators and duplicate app icons grouped to one icon in Mac OS X's Dock.
- Imports Boot Camp partition into a Parallels VM.
- Imports Virtual Box 3.1.2 and 3.1.4 VMs.

- Supports 32- and 64-bit VMs with up to 8 CPUs and 2TB virtual RAM.
- Supports 3D performance.

Like Parallels Desktop, VMWare Fusion (www.vmware.com/products/) is a family of commercial VM software products. In addition to VM software for end users, IT departments, developers and businesses, VMWare has developed an app (VMWare View (itunes.apple.com/us/app/vmware-view-for-ipad/id417993697?mt=8)) for iOS device users that supports remote access to and control of a VMWare Fusion VM running on a Macintosh.

The range of VMWare's virtualization programs is even more extensive than Parallels'. Instead of taking space to list them individually, they are shown in Figure 6 and interested readers can access information from VMWare's products page (www.vmware.com/products/).

The current version of VMWare Fusion for Macintosh (downloads.vmware.com/d/info/desktop_downloads/vmware_fusion_for_the_mac/3_0) (Figure 7; \$79.99 MSRP), as of this writing, is 3.1.3 which VMWare, Inc. released on May 31, 2011. New features and fixes in this version include the following:

- Support for Windows 7 SP1 32-bit & 64-bit.
- Support for Ubuntu 10.10 and 11.04 32-bit & 64-bit.
- Updated Windows WDDM driver with stability improvements.
- Improved reliability accessing shared files on Macintosh.
- Improved handling of smartphones.
- Bug fixes.

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Figure 6. VMWare, Inc. develops an exceptionally broad range of VM software products for end users, IT departments, developers and businesses.

Like Parallels Desktop, VMWare Fusion has some pretty slick features. They include, but are not limited to, the following:

- Customizable tool bars.
- Searchable help.
- Boot Camp support.
- Integrated Dock notification.
- Supports Aero, Flip 3D, and OpenGL 2.1.

- Seamless scrolling.
- Supports overlapping Unity windows in Exposé and Dock Exposé (note: Unity is comparable to Parallels Desktop's Coherence mode).
- USB EasyConnect feature for assigning USB devices to PC or Mac.
- Always-on applications menu to access the VM's Windows apps directly from Mac OS X's menu bar.
- Re-sizable preview window.
- VM library.
- Import Parallels Desktop VMs.
- Automatic updates.
- Migration Assistant for Windows.



Figure 7. VMWare Fusion for Macintosh is one member of a wide range of commercial VM programs.

Decisions, Decisions

How can users choose which virtualization program to adopt? According to other product reviewers' VM comparison articles (www.macworld.com/article/145613/2010/01/choosevmapp.html), each of the big three has strengths and weaknesses. Therefore, the choice depends upon the user's specific needs and budget. Keep in mind that regardless of which virtualization program you choose, it will involve time and effort to obtain, install and maintain another OS.

In conclusion, the world of VM software has advanced considerably since last year's *ComputorEdge* issue on this topic. There is something in the VM world for just about everyone. If you have a VM software experience to share with other readers, please click the link to submit your comments.

Barry Fass-Holmes has been reviewing products for *ComputorEdge* since 2003. He previously worked as a software support representative and quality assurance analyst in San Diego. His product reviews are available in *ComputorEdge's* archives and at his Web site (web.me.com/barryfhphd/BF-H/art_comp.html).

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Wally Wang's Apple Farm

"Cloud Computing" by Wally Wang

Cloud computing; Microsoft sinks Ford's quality rating; corporate adoption of different operating systems; MobileMe vs. iCloud; the mobile computing trend; the threat to game consoles; a free audio file converter; Apple Worldwide Developer's Conference session videos available; a vision of irrelevance; updating your operating system.

Wally Wang's Apple Farm

One problem with buying technology is that it gradually gets old and obsolete. Then you have to buy all new equipment and start the process all over again. To avoid this hassle, Google is banking on cloud computing with both Chrome OS and Google Apps.

The idea behind both approaches is that organizations simply access the Internet to use the software they need. Since Google takes care of updating the cloud apps, companies never have to worry about clinging to obsolete equipment. Now the state of Wyoming has announced that they're the first to rely entirely on Google Apps (www.pcmag.com/article2/0,2817,2387469,00.asp).

By switching the entire state government to Google Apps, Wyoming claims they can save over \$1 million dollars a year. To further secure government data, Google has set up special servers located in the United States to hold any American government's data.

Since most people only need basic e-mail and office suites, relying on Google Apps is cost-efficient and simple. With cloud computing users pay a monthly fee, Google earns regular revenue outside of their traditional advertising model. Everyone wins except for the companies that rely on periodic equipment refreshes like Dell, Hewlett-Packard and Microsoft.

Microsoft offers their own cloud computing services such as Microsoft Office 365 (www.microsoft.com/en-us/office365/online-software.aspx#fbid=hTopJriSapD) where the basic idea is the same. Put the software on the Internet and let users access the software from any Internet connected device.

To work, cloud computing needs an Internet connection, which makes cloud computing more suitable for desktop PCs than mobile devices that may lose Internet connectivity in isolated areas, certain buildings, or in airplanes. Because of this requirement for constant Internet connectivity, Google's emphasis on selling Chrome OS laptops seems a bit puzzling when they should also be marketing low-cost Chrome OS desktop PCs at the same time.

Apple's iCloud solution is a bit different. Instead of forcing you to store and use software over the Internet, iCloud just synchronizes data between multiple devices. This has the advantage of letting you work with your data without an Internet connection, but it does require you to install multiple copies of the same program on each device if you want to

use and edit your data there.

For example, if you want to write a letter using Google Apps or Microsoft Office 365, you can use any Internet connected device to do it. If you want to write a letter using Pages on your Mac or iPad, you must first buy a copy of Pages for both your Mac and iPad. Without an Internet connection, you can't use Google or Microsoft's cloud. Without an Internet connection, you can't synchronize data between multiple devices with Apple's iCloud, but you can still use your programs and data on each device.

Whichever approach proves more popular, the end result is that fewer people will need to constantly update their computers every few years, which will translate into reduced sales of computers and operating systems such as Windows. For any company that relies on selling computers, their business is now in danger of slowing down dramatically with the growing popularity of cloud computing.

Microsoft Sinks Ford's Quality Rating

Ask people if they think Microsoft makes reliable, intuitive software and they'll probably laugh in your face. Most people's experience of using Microsoft software typically borders on confusion, frustration and resignation.

Now Microsoft's reputation for software quality has hurt Ford. Microsoft partnered with Ford to create their Sync entertainment and phone system. According to J.D. Powers, Ford's quality rating dropped from fifth place to twenty-third place because "People were finding several problems with the system in that it would crash, freeze, black out," said David Sargent, vice president of global vehicle research at J.D. Power. "Beyond that, people complained that it was more complex to use than they would like."

People expect glitches with all types of computers, but when the fault lies with Microsoft's software, nobody ever seems surprised. When people associate your product with failure, despite numerous evidence to the contrary, that's never a good sign, much like people used to associate Circuit City with incompetent sales people or American car companies with poorly-made automobiles.

For years, Microsoft has been the butt of software failure jokes with numerous sites posting the infamous Windows Blue Screen of Death (www.techmynd.com/50-plus-blue-screen-of-death-displays-in-public/) image that signifies a computer crash. The problem isn't whether Microsoft's software is more prone to failure than other software, but what is Microsoft doing to change this perception that their software is confusing and unreliable?



Figure 1. Windows fails in public.

Despite decades of people complaining about Microsoft's software, Microsoft seems to simply ignore the problem altogether. Microsoft allocated \$500 million to advertise Windows Phone 7, but how many Microsoft ads do you see trying to alter the public's perception of Microsoft software as intuitive and dependable? Having people claim "I'm a PC" and "Windows was my idea" ignores this perception problem. If Microsoft continues to ignore this perception that their software is too hard to use, they may find people will start ignoring Microsoft in return.

Corporate Adoption of Different Operating Systems

Windows remains the dominant operating system used in corporations, but a large majority of computers still use Windows XP (www.crn.com/news/applications-os/231000221/microsoft-windows-7-or-mac-os-x-lion-which-will-rule-the-pride.htm). When you consider that running Microsoft Office 2010 on Windows 7 gives you no major advantage over running Microsoft Office 2010 on Windows XP, what's the advantage of Windows 7, especially when Windows 7 requires more memory to run than Windows XP?

	Apr 2010	May 2010	Jun 2010	Jul 2010	Aug 2010	Sep 2010	Oct 2010	Nov 2010	Dec 2010	Jan 2011	Feb 2011	Mar 2011
Windows	89.6%	89.9%	90.0%	89.0%	88.9%	89.2%	89.1%	88.2%	89.0%	88.0%	87.1%	87.6%
Windows 7	9.5%	10.4%	11.4%	12.2%	14.4%	15.1%	16.4%	17.8%	17.5%	17.5%	19.9%	20.9%
Windows Vista	11.3%	10.9%	9.8%	9.7%	9.5%	8.9%	8.7%	8.3%	7.3%	7.2%	6.4%	6.2%
Windows XP	67.5%	67.4%	67.8%	66.0%	63.9%	64.3%	63.1%	61.2%	63.3%	59.4%	60.1%	59.9%
Windows NT	1.0%	0.9%	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.7%	0.5%	0.5%
Windows 2000	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Windows other	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%
Mac OS X	9.1%	8.7%	8.5%	9.3%	9.6%	9.9%	9.8%	10.4%	9.6%	10.4%	11.2%	11.0%
Linux	1.3%	1.4%	1.4%	1.7%	1.4%	1.0%	1.0%	1.4%	1.4%	1.6%	1.7%	1.4%

Base: 418,000-plus Forrester client sessions
(percentages may not total 100 due to rounding)

Figure 2. Windows XP is on three times as many corporate computers as Windows 7.

While Linux seems relatively stagnant in growth, Mac OS X has been steadily creeping up into the double digits while Windows 7 keeps growing as Vista, Windows 2000 and Windows NT continue plummeting. With so many versions of Windows, Microsoft seems more in competition with themselves.

When Microsoft releases Windows 8 next year, corporations will further fragment into running Windows XP, Windows 7 and Windows 8. With Windows XP at 59 percent and Windows 7 at over 20 percent, it's likely that Windows XP will maintain its leadership as Windows 8 erodes some of Windows 7's share. For corporations to continue using an operating system first released in 2001 indicates that neither Vista nor Windows 7 offered a compelling reason for corporations to upgrade. If Windows 8 offers no advantage over Windows XP that increases productivity, then what's the point of releasing a new version of Windows at all?

Windows 7 is only twice as popular as Mac OS X despite Windows running on over 87 percent of all corporate computers. If Microsoft can't figure out how to make an operating system that offers a clear advantage over Windows XP, then Windows XP could still hold a majority share of the operating system market until Windows 9 finally arrives by 2015.

MobileMe vs. iCloud

Apple is replacing MobileMe with iCloud and dropping some of MobileMe's features in the process. The most notable change is where MobileMe cost \$99 a year for a paltry amount of storage space, iCloud is completely free. The three main features of MobileMe that iCloud will not replace are iWeb hosting, Galleries for displaying pictures and movies to share with others, and iDisk for storing data.

Following is a list of MobileMe services and whether they will be available or not in iCloud this fall:

MobileMe Service	Available in iCloud
Mail	✓
Contacts	✓
Calendar	✓
Bookmarks	✓
Find My iPhone	✓
Back to My Mac	✓
iWeb publishing	—
Gallery	—
iDisk	—

In addition, the following new services will be available in iCloud:

- iTunes in the Cloud
- Photo Stream
- Documents in the Cloud
- Automatic downloads and purchase history for apps and books
- Backup and restore

Figure 3. iCloud duplicates most, but not all of MobileMe's features.

Anyone still using iWeb can continue using the program, although iWeb will likely never be updated any more so it's basically a dead end product. You'd be better off switching to another Web designing tool such as RapidWeaver (www.realmacsoftware.com/rapidweaver/overview/) and using another Web hosting service that's much less expensive than MobileMe such as GoDaddy or HostGator.

If you use a different Web hosting service, you can duplicate MobileMe's Gallery feature by simply posting your pictures and videos on your new Web site. It won't be as convenient to use as MobileMe, but it's still possible to duplicate MobileMe's Gallery feature if you're willing to take the time to design your Web site.

To replace iDisk, you can simply use DropBox (www.dropbox.com/) or ADrive (www.adrive.com/). With the demise of MobileMe in June 2012, you'll have plenty of time to transfer your data from MobileMe to some other service

and also take advantage of iCloud as soon as it arrives later this year. Given MobileMe's high cost and sparse features, few people should be mourning the loss of MobileMe in exchange for iCloud.

The Mobile Computing Trend

Mike Elgan at ComputerWorld recently published an interesting article (www.computerworld.com/s/article/9217929/Elgan_The_rise_and_rise_and_rise_of_Apple_s_iOS?taxonomyId=15&pageNumber=1) about iOS. When Apple introduced the iPhone in 2007, people questioned who would want it. Less than four years later, the iPhone (with the help of Android) has helped kill Nokia and Research in Motion.

Despite holding less market share than Android, the iPhone generates far more profit than any other smartphone in the world. With iOS powering the iPad, Apple currently dominates the tablet market with Android trailing far behind.

As mobile computing (smartphones and tablets) takes over, Apple stands to benefit the most as the only company with a growing share in the computer, smartphone and tablet market. Google, Apple's nearest competitor, is only strong in the smartphone market. The old leaders of Nokia and Research in Motion are struggling to maintain their dwindling smartphone market. Microsoft still dominates computers, but is still struggling in the smartphone and tablet markets.

With the shift to mobile computing, Apple will likely continue setting the standards with the MacBook Air, iPhone and iPad as the rest of the world follows behind. With iCloud helping synchronize data between Apple products for free, there will be much less incentive to switch from an Apple product to a rival product, helping Apple maintain their mobile computing dominance.

The Threat to Game Consoles

Business Week hints that the game console market (www.businessweek.com/magazine/content/11_27/b4235037448495.htm) may be peaking as more gamers play video games over the Internet. Business Week says "The bottom line: New video games based on cloud computing are as visually rich as console games. The future of consoles looks bleak."

Besides Internet games threatening game consoles, GamePro even believes that Apple's mobile devices (www.gamepro.com/article/features/220492/apples-videogame-future/) could threaten the game console market when combined with AppleTV. Imagine using your iPad or iPhone to control a game displayed on a TV screen, then walking away with your iPad or iPhone when you're done.

Game companies are already looking to cut costs and reach more people through digital distribution, which means Apple's iTunes store for digital downloads makes it perfectly situated to sell video games electronically. This could simultaneously lower video game costs while giving game companies more profit by eliminating the expense of physical media and video game distributors and retail stores. Everyone wins except for the middlemen (along with Sony, Nintendo and Microsoft).

A Free Audio File Converter

Although MP3 files make up the majority of audio files, you can still find plenty of audio trapped in oddball formats like FLAC, Ogg Vorbis, or WAV. In case you don't want to use a separate audio player to listen to different file formats, use the free Max program (sbooth.org/Max/) to convert batches of files into different file formats.

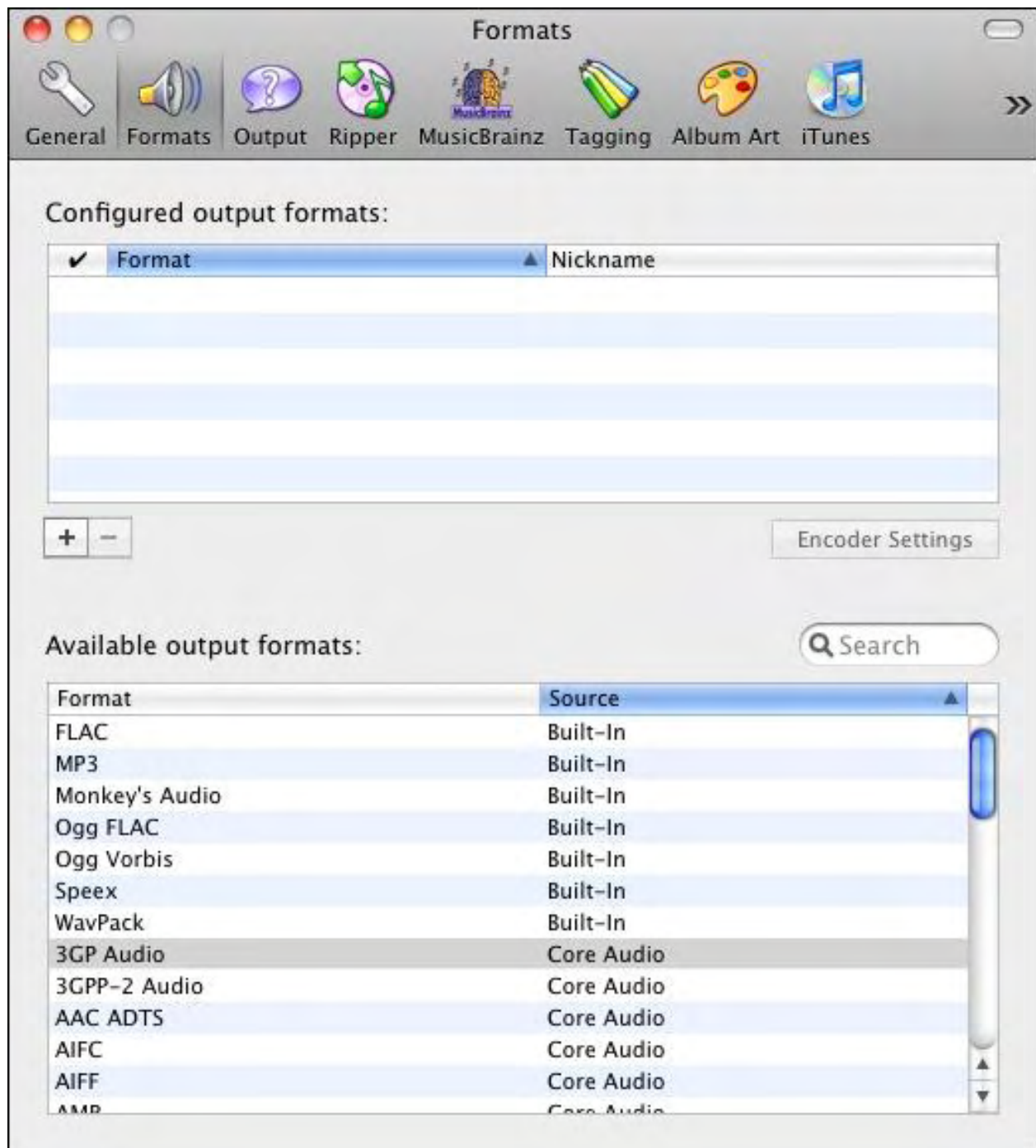


Figure 4. Max can convert audio files into a variety of formats.

Max can be handy for ripping your favorite songs off your CDs and shoving them into iTunes in the file format you believe provides the best audio quality. Max can also be handy if you use a digital voice recorder that stores audio in a format that a Macintosh normally can't play, such as WAV files. With Max on your Macintosh, you should never be unable to listen to another audio file again no matter what obscure format it might use.

Apple Worldwide Developer's Conference Session Videos Available

In case you weren't able to attend Apple's Worldwide Developer's Conference, you can still get the benefit of the conference by watching the videos for free (developer.apple.com/videos/wwdc/2011/). By watching these videos, you can learn the latest information for creating iOS apps or Mac OS X programs.

WWDC 2011 Session Videos

Welcome, Wallace Wang | [View more videos](#) | [Log out](#)

110 Videos of 110 Total

Description	Technology Track
▶ Adopting Multitasking in Your App	Developer Tools
▶ Advanced HTML5 Media Controllers in Safari	Internet & Web
▶ Advanced ScrollView Techniques	App Frameworks
▶ Advanced Text Processing	App Frameworks
▶ Advances in OpenGL ES for iOS 5	Graphics, Media, & Games
▶ Advances in OpenGL for Mac OS X Lion	Graphics, Media, & Games
▶ AirPlay and External Displays in iOS apps	Graphics, Media, & Games
▶ App Sandbox and the Mac App Store	Core OS
▶ Apple Platforms Kickoff	General
▶ Audio Development for Games	Graphics, Media, & Games
▶ Audio Session Management for iOS	Graphics, Media, & Games
▶ Auto Save and Versions in Mac OS X 10.7 Lion	App Frameworks
▶ Best Practices for OpenGL ES Apps in iOS	Graphics, Media, & Games
▶ Blocks and Grand Central Dispatch in Practice	Developer Tools

Platforms

- ☒ iOS (90)
- ☒ OS X (65)

Technology Tracks

- ☒ Developer Tools (20)
- ☒ Internet & Web (19)
- ☒ App Frameworks (32)
- ☒ Graphics, Media, & Games (24)
- ☒ Core OS (13)
- ☒ General (2)

Reminder: The content presented within the session videos and slides is Apple Confidential Information and is subject to the Registered Apple Developer Agreement.

[View all in iTunes](#)

Figure 5. The WWDC Session Videos cover a variety of technical topics.

While these conferences focus exclusively on Xcode and Objective-C coding, anyone who makes a living off technology can't afford to miss this information if they hope to continue programming in the future. As Mac OS X and iOS grow in popularity, knowing how to program either (or both) operating systems will simply guarantee your programming skills will be relevant in the near future.

A Vision of Irrelevance

In Canada, postal workers are on strike to protest (beta.news.yahoo.com/canada-post-strike-residents-ask-really-postman-191200480.html) cost-cutting measures that Canada Post deems necessary to survive society's shift from relying on paper mail to e-mail. In the old days, a postal strike would bring communication to a standstill, but with the Internet, e-mail, and online billing, the postal system is looking increasingly irrelevant.

As Canadians rely more on the Internet, they'll find even less of a need to rely on the postal system, which defeats the purpose of the strike in the first place. With fewer first class letters to deliver every year, postal services are finding themselves with too many employees and not enough work for them to do, leaving them no choice but to cut costs.

Strangely, the Canada Post union believes the solution to fewer people relying on the postal service is to increase

service to rural areas and stay open longer hours to give postal workers more jobs. This is like complaining that fewer people are relying on horse and buggies so the government needs to hire more buggy whip workers and open more buggy whip stores.

As technology changes, it's curious to see how so many people react by shoving their head in the sand (or in a secretive part of their anatomy) and fighting for solutions that make no sense whatsoever because they depend on stopping or reversing technology. As the Canadian postal workers strike highlights, fighting against technological change can be a losing battle.

Fortunately, many Blackberry developers have learned this lesson and have been abandoning developing Blackberry apps (www.businessweek.com/news/2011-06-27/rim-loses-miami-dolphins-fans-as-software-developers-defect.html) in favor of the more lucrative iOS market.

One problem cited by Blackberry developers has been the difficulty in writing apps for multiple Blackberry devices where some use trackballs and others use touch screens. Even more confusing, screen sizes differ between similar Blackberry devices.

"You have to put your resources where the growth is," Seismic Chief Executive Officer Loic Le Meur said in an interview. "It's coming down to the explosive growth of the iPhone and the Android operating systems."

"As soon as RIM brought in a touchscreen and mixed it with a thumbwheel, a keyboard and shortcut keys, it made it really difficult and expensive to develop across devices," said Purple Forge CEO Brian Hurley. "When we put an application in the field, there was a 20 to 1 difference between Apple and BlackBerry downloads."

With Canadians dealing with a postal strike and now with slow demise of Canadian-based Research in Motion, life isn't looking good for anyone whose financial future relies on the Canadian postal service or Blackberry devices.

* * *

To update your operating system, click on the Apple menu and choose Software Update. If you're currently running Mac OS X 10.6, you can update to the latest version 10.6.8. Besides the usual bug fixes, the main purpose of upgrading to Mac OS X10.6.8 is to prepare your Macintosh to be able to install and update to Mac OS X 10.7 Lion when it becomes available by July.

To make your Macintosh check for updates daily, weekly, or monthly, click the Apple menu and choose System Preferences. When the System Preferences dialog appears, click Software Update under the System category and choose different update options.

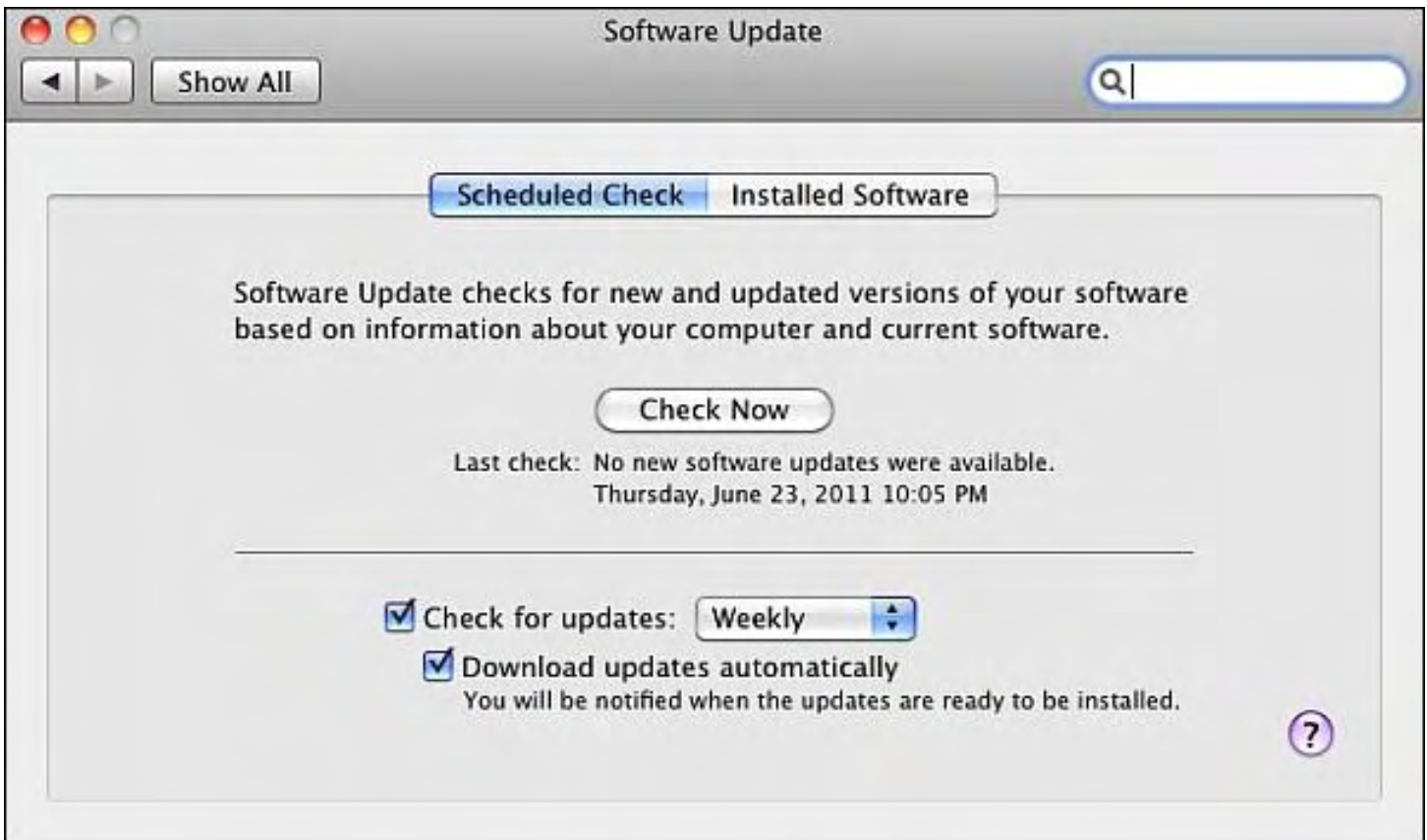


Figure 6. You can modify how often your Macintosh checks for updates.

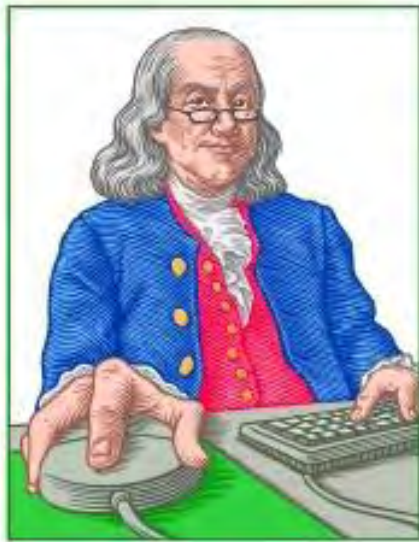
In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around The Byte Buyer dangling particples with Jack Dunning and go to the gym to pump iron with Dan Gookin.

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-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-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-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?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

"FUSER is a simple script for discovering who else is using a Linux file system."

by Tony J. Podrasky

If others are interfering with your Linux work, use FUSER to see what they're up to.

Finding out who else is using a file system.

Filename: FUSER

Use: Query a file system to see who is on it or using its resources.

Do you have multiple file systems on your Linux box? If so, have you ever tried to unmount one and gotten a reply from the system saying that the file system is in use?

First, we'll do a `<df>`:

```
root% df
Filesystem      Type      1K-blocks      Used Available Use% Mounted on
/dev/sda2       ext3      8254272      4524040    3310936   58% /
/dev/sdd1       ext3     24034912    13419612    9394364   59% /maxbackup
root%
```

We see the root disk on `/dev/sda2`. We see the maxbackup disk on `/dev/sdd1`.

Now, we'll try to unmount the maxbackup disk:

```
root% umount /maxbackup
umount: /maxbackup: device is busy
root%
```

To find out who is accessing that file system, we'll use the `<FUSER>` shell file, which is a simple shell script that invokes the system's `<fuser>` utility and adds the option `"-m"` which tells `<fuser>` that the next word on the command line specifies a mounted file system.


```
root% FUSER /maxbackup
/maxbackup:          19035c
root%
```

FUSER responds telling us that process number 19035 is using /maxbackup (I don't recall why there is a "c" at the end. Ignore the "c").

If you've been saving the shell files in this column, to find out who's using the file system, all you need to run is <DOING 19035>.

```
root% DOING 19035
USER      PID %CPU %MEM  SIZE  RSS TTY STAT  START   TIME  COMMAND
tw        19035  0.0  0.1  5204  2032 pts/6   S      13:58   0:00  -tcsh
```

We see that user "tw" is process ID 19035, and he's just "cd'd" to that disk, doing nothing. All we see is the interpreter he is running, which is "tcsh".

If you don't have the <DOING> shell script, you can run <ps -aux | grep 19035 | grep -v grep> and receive the same results.

It is interesting to note that if "tw" runs the above command, this is what we will see:

```
tw% FUSER /maxbackup
/maxbackup:          19035c 19432c
```

We now see a second PID "19432c". If you run <DOING> on 19432, you won't find it. Why is that? Well, because "tw" is on /maxbackup (as 19035), and when he ran the <FUSER> command, the system not only collected the 19035, which is him on the disk, but it also found 19432 which was spawned when "tw" ran the FUSER command. If you repeat the command, the "19432" will change to the next PID number that the system assigns the <FUSER> command he issued.

Now we ask "tw" to sign off the disk so we can do maintenance (or whatever). When "tw" signs off we run the command again:

```
root% FUSER /maxbackup
root%
```

There are no PIDs associated with that device so we try to unmount it again:

```
root% umount /maxbackup
```

(no response except for my user prompt)

Now, we'll run the <df> command again and see what it says:

```
root% df
Filesystem      Type      1K-blocks      Used Available Use% Mounted on
/dev/sda2       ext3      8254272      4524060    3310916   58% /
root%
```

The system was able to unmount the /maxbackup disk.

—————CUT HERE—————

```
#!/bin/csh
/sbin/fuser -m $1
```

—————CUT HERE—————

As always, save the "cut here" stuff to "FUSER" and remember to do a <chmod 755 FUSER>.

Explanation:

```
#!/bin/csh      Use the csh interpreter.
/sbin/fuser -m $1 Tell fuser that the next word ($1) is a mounted file system.
```

You might want to run <man fuser> to read more of the things it can do.

You will have to be "root" for this to work properly. If you do <FUSER> as an unprivileged user, you will only see your own processes, not other users. So if you're not logged onto that disk, you won't see any response from the system.

If you run <FUSER /maxbackup> now, the system will respond with the PIDs using the disk where /maxbackup's mountpoint was located—in this case "/" or the root disk— and you will see all the processes using the root disk.

While writing these last few notes, I was looking at the manpage for <fuser> and saw the "-u" switch. It will print out the user ID for you and you won't have to play with the <DOING> or <ps> commands. Of course, without <DOING> or <ps> you won't see what command he is running.

To try the "-u" option, edit the script (above):

```
From: /sbin/fuser -m $1
To: /sbin/fuser -u -m $1
```

I have not done much testing with the "-u" switch, but you can't hurt anything, so give it a try.

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

“Broken Toilets and Windows 97: Asking the Impossible of Tech Support”
by Marilyn K. Martin

Marilyn shares some anecdotes about impossible to execute requests that Help Desks and Tech Support departments receive.

Help Desks and Tech Support departments spend a lot of time patiently explaining computer concepts and procedures to customers or their company users. Occasionally, however, some user request comes in that is totally impossible to execute.

Maybe Software-from-God could someday help these confused users. Or To-Be-Named Future Hardware. But for now, let's marvel at the patient and quick thinking Techs who had to deal with the following impossible to execute initial requests.

Computer Jobs with Error Messages

There was a college senior in 1988, who was flipping through the ads in a big city newspaper, looking for a job. One ad was for a programmer with "a minimum of five years of Macintosh programming experience." Rather curious, since the Mac had only been on the market since 1984.

In March 1998, someone saw this ad in a storefront in London: "Looking to hire someone with Windows 97 experience."

Then there was another job applicant in 1998, who found this ad: "Applicant must have had five years experience with Windows 95."

Here's another actual job ad from a newspaper: "Office Assistant. Required: Must be familiar with Lotus One, Two and Three."

One young person had a computer job interview with an up and coming company that was working on expanding their local network. After being grilled for half an hour, the nice interviewer told the young person that if he was offered the position, "You'll be working on the client-server side of the network." The young person left wondering how many of "him" they planned to hire.

Please! Guess that I Need Help!

One Help Desk got a call from an older lady, who was furious. "I've been waiting for three days on hold!" she sputtered. The Support Tech was non-pulsed. "Amazing. You've defied sleep and other bodily functions for a full 72 hours?"

Turns out she'd clicked on the "Help" button in Word three days prior, and had been waiting for a return call. Never mind that her computer had no modem, and she wasn't even hooked up to the Internet.

Another Help Desk Tech answered a call, and took the customer's name and information down. When the Tech then proceeded to ask the innocent "So what can I help you with?", the caller became irate. "You should know that by now! You're in my computer looking around, right?"

The Tech patiently explained that no, he didn't have complete and total access to the customer's computer through the Internet. But that only made the customer angrier. "Then what the hell am I paying you for? This is technical support! You're supposed to be able to fix my computer!" And then hung up.

Or how about the office worker who showed up in her System Administrator's office one morning. Her computer had popped up a message the day before, that included the words "See your System Administrator". So there she was, to see what the Sys Admin wanted.

But You're Supposed to Help Me!

One call to Tech Support was not to be believed. So the Tech put the call on Speaker, and motioned to the other Techs to listen. "OK, Sir, let me get this straight. You had a disk in the A: drive, didn't push the Eject button, didn't read the manual or call for help.

"Instead you melted butter and used a turkey baster to put the melted butter in the disk drive. Then you proceeded to pull the buttery disk out with pliers, breaking the disk in the process. And you want us to fix your computer for free?" The user was indignant. "Well, you're Tech Support. You're supposed to help me!"

A customer called Tech Support to say that his computer had crashed, and he needed to recover five years' worth of data on the hard drive. The Tech told him they didn't have any data recovery services, but gave him phone numbers to local data recovery services. A day later the man called back. "Well, I talked to those places. But they're all too expensive. So you have to do it for me."

A customer called up Tech Support to report, "I need help unpacking my new PC. I can't open the box." The Tech took a deep breath, "Well, I'd remove the tape holding the box closed and go from there." The customer was thrilled. "OK. Thanks!"

Another call to a Help Desk had the Tech going in verbal circles with an indignant user. "OK, Sir, let me start at the beginning. What kind of computer do you have? Is it a Dell? Macintosh? Gateway?" The customer was annoyed. "I don't know! You're the Help Desk! You're supposed to know that!"

Repair Disconnect

A customer called up Tech Support to complain that he'd just bought a new computer, and nothing worked when he hooked it up. When the Tech heard the brand name, he sensibly replied: "Sir, we don't sell or service that brand of computer. So why are you calling us for support?"

"Well, you sell computers," continued the customer, "So you should also be able to fix them." The Tech replied, "OK,

so you plan on paying us to fix your computer?" The customer backed down with "Well, no...", then "So who should I be calling?" "Probably your friend, or the manufacturer of your computer," answered the Tech sagely.

A Hong Kong office had a computer infected by a virus that couldn't be cleaned. Tech Support was called to diagnose and fix the computer immediately, because now it wouldn't even turn on. The Tech said "Sure. When do you want me to fly over?"

The user responded, "Can't you fix it from there?" The Tech answered gamely, "Sure. Just ship your computer to me." But the user was insistent. "No, I mean can't you fix it from there right now?" The Tech was confused. "Uh ... How exactly would you like me to do that?" "I don't know," blurted out the user in Hong Kong. "You're the expert!"

Another Tech got a call starting out, "Hi. My manager's computer isn't working, and she asked me to call you." "OK," answered the Tech. "What's happening with it? Is there an error message?" "Oh, I don't know," came the response. "She just said it wasn't working. Can you fix it?"

OK, So Can You Help Me Anyway?

One day, a rather confused user called his ISP Tech Support. "Do you know those 55 gallon drums—the ones that hold oil? Can you tell me why they chose that number? 55?" The Tech said he didn't know, this really wasn't a computer-type question anyway, and why didn't he just look up the answer himself on the Internet?

The guy replied that he wasn't very good at searching the Internet for answers. And, heck, Tech Support was good at answering questions. "Do you think you could look it up for me, and maybe put it on your Web page?" The baffled Tech replied, "Uh, no, Sir. I don't have the time, and we aren't allowed to put stuff like that on our Web page. I'm sorry, there is really nothing I can do for you about that question." The guy seemed disappointed. "Well if you ever happen across an answer about those 55 gallon oil drums, let me know, OK?" Right.

Then there was the Help Desk who got a call one day from a frantic man: "I can't go to the bathroom! The nearest bathroom is broken, and the toilet is overflowing. Send someone up to repair it!" The flabbergasted Tech replied, "Uh, Sir, we only do troubleshooting on computers, not bathrooms and toilets."

But the customer was frantic. "It is too the same thing! It's repairing things! And I've got an emergency! Send someone up right now! *I have to go!*" The Tech took the direct approach. "Sorry, Sir. I fix computers. Not toilets. I really can't help you." The customer ranted a little more, then "Oh gosh! Oh my pants!" (click)

Then there was another customer who called her bank's in-house computer support line one day. "I have carpet people here, and they are stretching my carpet! And the iron they use is making smoke. How do I keep the smoke detectors from going off?" (Did she think smoke detectors were computers?)

Sorry, No Can Do!

A customer called a desktop publishing outfit, wanting to print a poster of her deceased father (in a fishing boat with his buddies) from a color slide. So far so good. "But Dad's face is turned away from the camera. All I can see is the back of his head. So could you flip the negative so I can see his face?" The aghast Tech explained that that was impossible. The user became outraged. "You can take pimples off those glamor girls, but you can't give my father a face?!"

E-mail from a customer: "My birthday is in a few weeks. Could you maybe send me one of your CD-Rewriters as a present? If not, then could you please send me the technical specs on them, so I can decide which one to buy?"

A college Support Tech got a call one day, that a student was having problems with Word Perfect. "I was just typing along, and all of a sudden the words all disappeared." The Tech started to troubleshoot, and ended up asking the student to check the back of the monitor to see if the cords were properly attached, first from the monitor to the power, then from the monitor to the computer.

(Thumping and rustling in the background.) "I can't see very good," came the muffled voice of the student, "Since it's so dark in here." The Tech offered, "Well, why don't you turn the overhead light on."

"Uh, I can't," answered the student. "There's a power outage."

Questions That Defy Logic

"How do I print my voice mail?"

"If I install Quicken on my computer, will it run faster?"

"Can you learn 'Don'ts' in the DOS class?"

(Many of these amusing anecdotes are on multiple computer humor sites. But special thanks to *Rinkworks.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: Tips and Thoughts from Readers

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

"Very Interesting Probably-Missed-It Stories," "Motherboard Failure," "Wireless Router Problem Resolution," "Comment on My Letter on May 13 Digital Dave"

Very Interesting Probably-Missed-It Stories

[Regarding Marilyn K. Martin's June 10 article, "You-Probably-Missed-It Computing Stories":]

Packed with all kinds of interesting information.

-Jan

Motherboard Failure

[Regarding the June 10 Digital Dave column:]

I recently had two motherboard failures. The first was on a dual core AMD setup. I was getting the BSOD (blue screen of death), failure to boot and a lot of random crashing. After swapping parts (originally I thought it was the power supply), I was convinced it was that motherboard, and sure enough after replacement with a new motherboard the system worked fine. But, I have no idea what part failed. The second system had a similar problem, but I traced it to a bad fan cooling on some unknown motherboard chip (not CPU). Without this fan the chip was getting incredibly hot. I rigged up a replacement fan and all is good. I know it doesn't happen often, but I find I am keeping my computers longer these days and motherboards can fail just like any other part.

-Everett, San Diego, CA

What? "MTBF (Mean Time Between Failure) for their board, but it would be unrealistic to expect any one device to see that number."

If *a lot* of sample boards don't make the MTBF the calculation is *bad*!!

Your statement disputes such proven math fundamentals as the law of large numbers, etc. If these kinds of things weren't *real*, *none* of the world's current sophisticated communications systems would work! Ask any Viterbi or Jacobs or Fred Harris!

-Michael, Julian, Ca

Michael, what you say is true. I should have put more emphasis on "any one" device. Mean Time Between Failure means that half of the devices would surpass that number, but half would also never reach it. Therefore the odds of "any one" device lasting that long are fifty-fifty. The object in calculating MTBF is to replace the part before it fails. Therefore, most would be out of service before reaching that amount of operating time.

-Digital Dave

Wireless Router Problem Resolution

[Regarding the June 10 Digital Dave column:]

Things got worse before they got better. The laptop lost connectivity so I decided to RTFM (Read The Friendly Manual). At first this was a problem because the manual on the CD was a link to a Web site that I could not reach. I suspected it was the DSL setup that was not correct in the router and when I used a 3G card I was able to read the manual.

The correct setup procedure was to put the CD into the computer connected directly to the DSL Router so it could pick up all the info it needed with the easy connect wizard. The wizard then instructed you to connect the new router to complete the install. I then created the connection key thumb drive and installed the setup on other computers and all works fine.

I did discover one irritating "feature." If you go in and change even the simplest setting on the router manually the easy setup wizard could not be used. I could not find a way to change any of the settings using the wizard.

-Marcus, Alabama

Comment on My Letter about May 13 Digital Dave

[Regarding the June 10 Editors Letters: Tips and Thoughts from Readers column: regarding the June 10 Digital Dave column:]

Ron, I have a 2.9GHz Athlon dual core with 4GB, 1066 dual channel DDR2 RAM and I haven't had XP Pro on it for long. Besides, I keep a squeaky clean, smooth running computer.

I'll be upgrading it to a Phenom Quad core later this year at which time I'll install Win7 Ultimate 64-bit as my OS. I'll then be able to run 16GB of RAM, which I'll do by installing 2-4GB RAM and adding 2 more later when I can afford it.

When I said "old" I was referring to the fact that this is the third computer I have installed it on. I first had it on an old IBM, P2 with 393 of 333MHz RAM (PC 2100 if I remember correctly). I then ran it on an HP 610Y with a 2.6GHz P4 and 2-512MB, 400 MHz RAM. I hope this clears up my remarks.

-Paula Barefoot, Borrego Springs, Ca

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