



# Quantum Computers

We Make It Personal!

## Tech Tip Newsletter!

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Issue: S0012

Dear Stefanie,

So are you surviving the heat? Whew! Sometimes I wonder what I was thinking when I decided to get married in August. The heat and humidity are brutal here in Michigan. I don't know how you Southern folks survive.

Heat and humidity are not very kind to computers either, so keep that in mind when traveling with your computer or using it in a non-air conditioned space. Make sure you give it plenty of time to acclimate from one temperature to another. And make the small investment in a [laptop cooler](#). A good one is only around \$35 and will really help keep your computer cool.

The main article this month is for all you Windows XP users out there. I did not write this article. I am reposting an article by Fred Langa that was so good we wanted to present it to you almost in it's entirety....but of course Ron had to make a few comments too. Ron's comments are in [BLUE](#).

The "Ask Jon's" this month are questions I hear all the time on the phone. I hope the answers are useful to you.

Enjoy the rest of your summer and savor the heat!

**Ah, summer, what power you have to make us suffer and like it.**

**- Russell Baker**

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### Ask Jon...



Dear Jon,

The electrical input that I use with my biofeedback device seems to ebb and flow. For instance when my A/C kicks on, the lights dim for a moment. Could this be affecting my work with my clients?

Dear Reader,

Good question. If your lights dim when you're A/C turns on in the summer or your Furnace in the winter then you have electrical issues in your home or office. It might not be in the entire electrical system but on certain circuits. However the Ebb and Flow means there are surges going thru your electrical system which may cause damage to your biofeedback system or your computer

All My Best To You And Yours,

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## Preparing Windows XP for the long haul

By Fred Langa

**Microsoft's support for Windows XP may be fading, but a loyal horde of XP users plans to stick with this venerable OS for as long as possible.**

If that's your long-term goal, there are a number of steps you can take now to ensure a finely tuned XP system for months - possibly years - to come.

Windows XP is almost a decade old, which in both computing and dog years makes it very long in the tooth.

Microsoft has officially dropped support and security updates for all XP versions through Service Pack 2. The only version of 32-bit XP that still qualifies for Microsoft's security patches and major bug-fixes is the Service Pack 3 edition. (The relatively rare 64-bit flavor of XP is a special case. See Microsoft's [explanation](#).)

XP has had a long and excellent run, but SP3 is the end of the line.

That said, XP is *not* dead, and it's still the best OS for older hardware designed with XP in mind. (I have XP on several of my older systems.)

If you're still using an XP box by choice (or necessity), there's lots you can do to keep things humming along until you eventually move to new hardware - which will almost assuredly come with the excellent Windows 7 already installed.

Here are some key steps you can take to get - and keep - your XP system running great! And if you move to Windows 7 (or are also running Vista

over time. Time depends upon the circuit. It might take a week or a year.

In this very common situation and as a general rule, we strongly recommend getting a battery backup device with AVR or Auto Voltage Regulation. What the device does is take in the electricity into the batteries and then powers your biofeedback system that is plugged into it with constant, steady, even electricity.

That way when there is an Ebb or a Flow in your electrical system, your investment is protected. This is a very reasonable expense rather than having a lot of electrical work done at your home.

Make sure you do not have your biofeedback system or computer plugged into the same circuit as appliances in your home (ie: fridge, stand-alone freezer, A/C, Furnace, Washer/Dryer, air compressor). Also, do not perform any medical or biofeedback work on

clients (where a client is connected by any means to a computer or any other electrical device) when there is an electrical storm or a thunder storm outside. There really isn't any equipment that will protect you and/or your client if a lightning strike occurs near enough to your home to hit your electrical system.

Be careful if you are near an aquifer or a high water table since those can allow a lightning strike to travel longer distances. Quantum Computers sells different models of these battery backup devices based upon your office layout and/or your specific needs. We have products for basic computer uses as well as Hospital Grade products available for the medical and Biofeedback Practitioners.

**Dear Jon,**

I have a Biofeedback software question...I need a load code for my Clasp32 software. Who do I call?

**Dear Reader,**

If you need to activate your Clasp32, you will need to be registered at the BHO (Budapest Home Office) website to obtain an activation code. If you have never registered at the BHO website, please click this link to setup your profile at their website:

machines), many of these techniques can also help you.

## Start with a thorough XP system checkup

► **Check the hardware.** Hardware? Yes! No operating system can be better than the hardware on which it's installed, and older systems are prone to age-related problems. One often-overlooked problem is dust buildup, which can cause chips and drives to overheat and malfunction. These hardware errors can masquerade as software problems, causing you to waste time troubleshooting the wrong thing.

It's easy to clean your PC. Consult my how-to [article](#), "Getting the grunge out of your PC." (It's a few years old, but still completely apt.) While you have your PC's case open, make sure that all plug-in cards and socketed chips are fully seated and all cables firmly connected.

(Quantum Computers has not critiqued the article he mentions here.)

► **Check your hard drive's "physical" health.** Most new and XP-era drives are equipped with Self-Monitoring, Analysis and Reporting Technology, also known as SMART reporting. SMART data is stored within the hard drive itself and can often alert you to impending problems before they get serious.

It's easy to check the SMART data. Two tools I like are PassMark's DiskCheckup ([info/download page](#)) and Active@ DiskMonitorFree ([download page](#)). Both programs are free for personal use and also come in commercial versions for organizations. (Quantum Computers recommends having a technician do this.)

► **Check your hard drive's "logical" health.** Run chkdsk.exe to check the integrity of your hard drive's files and to repair any errors.

Click Start and Run, then type chkdsk c: /f into the Run dialog box. Hit OK.

Chkdsk may tell you that it can't check the drive because the drive is in use. It will then offer to check the drive at reboot. Type Y (yes) and hit the Enter key.

Repeat for all drives/partitions on your system. (Quantum Computers recommends only performing these functions if you are having a problem, they should not be part of a maintenance routine.)

<http://www.qxsubspace.com/main/register>

If you have already previously registered, then you can go to the main page here: <http://www.qxsubspace.com/> and login. There is a nice tutorial video (although it doesn't have any audio) on how to activate after you installed the latest software. If you have any further questions, it would be best to contact your SCIO broker's tech support team. We can assist you as well, however we do charge a fee for our time. Oh, and one more thing...BHO has recently stated that there will be no activation codes given for any version prior to 7-7-09. The latest 7-7-10 version of the software has many people very happy about their decision to upgrade to the latest software. If you need an installation DVD, go to [www.thequantumcenter.com](http://www.thequantumcenter.com) and select "Clasp32 Software DVD" to view the upgrade options.

**Dear Jon,**

My Biofeedback software activation code seems to have disappeared. What happened?

**Dear Reader,**

If the activation code in your biofeedback software has seemed to disappear, then it would be best to contact your device broker's tech support team. This is not a "computer" problem, rather it is a problem with either your software, your device, or the communication cable. There would need to be many questions asked to determine the cause. If you have the latest software for your iNDIGO, SCIO or Eternale and you seemed to have lost your load code, then you might have made a simple mistake as you opened your software. With the latest software installations you must have your device plugged into your computer, turned on & let it go thru its start up cycle. Once these steps have been completed in order, then you can open your biofeedback software. If this happened to you then you should contact your broker's tech support team so that they can take you thru the steps to get your software reactivated, if possible.

► **Correct driver errors now, while you can.** Just as Microsoft is providing less support for XP, third-party vendors are withdrawing support for older hardware. Someday soon, you may discover that the drivers you need are no longer available. Fix problems now!

Boot XP and right-click My Computer. Select Properties, Hardware, then Device Manager. (Or, click Control Panel/System/Hardware/Device Manager.) Click View and select Show hidden devices to make sure you're seeing everything.

Correct any problem indicated by a yellow exclamation mark or a red X; in most cases, you should get correct or updated drivers from the hardware vendor's site.

It might also be wise to save copies of any special drivers your systems needs; burn 'em to a CD or DVD, and tuck the disc away in a safe place.

### **Review and update your PC's security system**

► **Patch and update XP and apps.** Starting with Windows Update, make sure your operating system is fully up-to-date with all necessary patches, fixes, and updates. Do the same for all your non-Microsoft software, visiting the vendor sites to download any new updates and patches for your applications and utilities. A tool such as Secunia's outstanding, free-for-home-use Personal Software Inspector (PSI) ([download page](#)) can make this step a breeze. (Quantum Computers has not critiqued the software he mentions here; we like using the manual features of Windows updates or Microsoft update. For those of you who have biofeedback devices... unplug your device cable from the computer before manually running these updates, so that you do not affect the device drivers for your biofeedback device. We also do not recommend getting the Windows Live Essentials update unless you want those programs running in your startup menu... just don't check mark that specific option.)

► **Verify system security.** Regardless of the antivirus and anti-malware tool(s) you're using, visit a competing vendor's site and run their free *live* or online scan to verify that nothing slipped past your usual defenses.

Next, check that your firewall is providing the

Special Note: Many times questions are asked of us that are not really in the scope of the support we offer for free to the purchasers of our computers. Even though we sell computers that are used with a variety of medical and other devices, we are not necessarily the best starting point when you have a problem. Usually it is best to start with the Technical Support Team of the attached device, whether it be a medical device, a printer, POS equipment, or any other attached device. We say this because the current rate of issues resulting from the actual computer are usually less than 5%, whereas the problem usually lies with the added software, attached devices and sometimes, as we hate to mention, the user makes errors in the use of the software or making proper connections of those devices. We do love to assist, but we also need to be concerned as to how much time it costs our company to support devices and software that do not financially support our expenses.

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**[SUBMIT YOUR OWN QUESTION HERE!](#)**

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protection it should. There are many good, free, online firewall-test sites, such as [Hackerwatch](#), Gibson Research [ShieldsUP](#), and [AuditMyPC](#). (Quantum Computers has not critiqued the websites he mentions here.)

## Give your computer a thorough file cleaning

► **Take out the trash - *all* of it.** Needless file clutter makes a system harder to use and slower to operate. For example, AV scans and Windows' indexing both take longer when they have many junk files to process.

Start by deleting old \$NtUninstall{xxx}\$ files from XP's C:\Windows folder; these files can occupy a shocking amount of space! You need these files only when a Windows Update fails and you (or the OS) have to roll back your system. If your system is working fine, \$NtUninstall files serve no purpose. (Quantum Computers suggests extreme caution when deleting files in the C:/Windows folder...make sure you know what you are doing here.)

Next, wade through your hard drive, folder by folder, making sure files are where they're supposed to be and that you're not storing needless duplicates or other useless files. (Again, please use caution when moving files and folders, if you move the wrong ones you could be damaging programs that need those files...just be careful.)

Next, uninstall obsolete or unused software. (Quantum Computers recommends uninstalling programs properly by using the control panel and Add/Remove Programs (XP) or Programs section (Vista, Win 7)...please do not just delete folders that contain the program files, you could be doing more damage than good if you remove programs this way.)

Finally, use a tool such as Piriform's free CCleaner ([site](#)) to rid your drive of useless junk files and broken or obsolete Registry data. (Quantum Computers uses CCleaner as well. However we again will suggest using caution as this program has many features that need to be understood by the user. Removing the wrong files can damage some software programs on your computer.)

► **Rein in XP's three worst space-hogs.** System Restore, the Recycle Bin, and browser caches are like black holes for data, and your system can run

better if you limit their voracious appetites.

*System Restore* is at best a limited recovery tool, so I don't feel it's worthwhile to devote vast amounts of disk space to it. The Kellys-Korner [article](#), "System Restore for Windows XP," tells you how to manage it. (Quantum Computers agrees that the System Restore feature is very limited. Many people rely heavily on this function, yet sometimes it creates more problems than are desired. Continuous use without fixing the root of the problem is not recommended at all. We have also not critiqued the article he mentions here.)

Windows' default Recycle Bin can consume hundreds of gigabytes on a large drive. Pare this down to a reasonable size by right-clicking the Recycle Bin and selecting Properties. Reduce the size of the Recycle Bin to a smaller percentage of the total disk space. (Click the disk tab - e.g., Local Disk (C:) - to determine its reserved Recycle Bin space in gigabytes.) I set it to around 500 MB (0.5GB) on large disks and 250MB (0.25GB) on smaller ones. (Some people use the Recycle Bin as a place to file deleted files for future possibly recovery. This is not a good idea. A better suggestion for that type of filing is to create a folder on the C: drive and put a shortcut on the desktop. It is too easy to accidentally clean the recycle bin and lose everything.)

To reduce *Internet Explorer's* cache size, click Tools and Internet Options. Then, under the Browsing History section, click Settings and adjust the cache size downward to, say, 50MB.

For *Firefox*, click Tools/Options and then click Advanced. Under the Network tab, look for the settings box in the Offline Storage section.

*Chrome's* cache-size adjustment uses the command line, as described on a Chrome Help forum [page](#).

► **Defrag.** Once your disk is rid of all unnecessary files and is organized the way you want, run your defragmentation tool to reorder your files for optimal performance. If your disk was badly fragmented, it may take several iterations of defragging to achieve maximum benefit. (Paid subscribers can read an in-depth discussion of defragging in my [Aug. 5 column](#).) (Quantum Computers has always recommended weekly defragmentation of your standard hard drive. SSD Drives do not need defragmenting. We suggest not using the "Analyze" button in the Windows Defragmenter as sometimes it

will allow your computer to get fragmented beyond the 7% limitation. We have seen cases where the Analyze feature allows fragmentation up to 40% or more. Please just defragment whether Windows says it needs it or not. If you defrag regularly, it usually doesn't take very long.)

## **Use disk imaging to preserve your new setup**

Once you've worked through all the above, your XP system should be lean, clean, defragged, and fully up-to-date. Wouldn't it be great if you could somehow preserve your PC's current software state so that, should you ever need to in the future, you can bring it back to this nearly perfect condition in just minutes?

You can! Use a *disk imaging tool* to create a perfect, complete, working copy of your current setup. You'll never again have to rebuild your system and reinstall all your software from scratch!

XP requires third-party disk-imaging software (Win7 has it built in) such as Acronis' U.S. \$30 True Image ([info page](#)), Norton' \$70 Ghost ([site](#)), or - my personal favorite for non-Win7 systems - Terabyte Unlimited's geeky-but-powerful \$35 BootItNG ([info page](#)). (Quantum Computers uses Acronis and Ghost, but it can be tricky if you don't understand Disk Imaging. We suggest using BounceBack Ultimate as the software is extremely easy to use. We charge \$89 for the software, there are additional charges if you need a portable hard drive and/or a remote installation service.)

All three programs make disk images and bootable recovery discs that can be used to restore a complete, everything-installed-and-working setup - even to a raw, unformatted drive.

There's plenty of free disk imaging software available, too. For example, see Freebyte's [page](#) titled "Free disk image software;" TheFreeCountry's [list](#) of "Free hard disk and partition imaging and backup software;" or OptimizingPC's [how-to](#), "Create free bootable Windows XP image disk." (Some of these are very difficult to use; please use caution if you try this option.)

Run through the above steps once or twice a year to keep your system in tip-top shape, and make a fresh disk image from time to time - especially if you make any significant changes to your hardware or

software. Store your disk images in a safe place (off the hard drive), such as on CDs or DVDs stored away from your PC. (Or how about in a different facility or in a fire safe.)

With this kind of routine maintenance, your XP system will most likely run well for as long as you need it. And, should the worst (major crash, hard drive failure, etc.) happen, you can use your disk images to rapidly restore your system to the near-perfect state you just created. (Amen to that! Yes, those who have used a backup system properly as described and have had the need to use it, are always very pleased with being able to quickly recover their data. There are obviously several options to consider here, so give us a call if you need some advice. Take my advice as someone who learned about backing up the hard way...it's better to invest in a backup system and be safe, than to procrastinate and take a chance on losing your important business data, your family pictures, or worse yet...your music! Wow, Fernando will probably hit me for that one! )

You're now set for the long haul!

Please keep in mind that our tech tip newsletters are read by many types of people... Business Owners, College Students, Doctors, Biofeedback Specialists, Astronomers, Celebrities, Computer Shops & Techies as well as some of the technically challenged. Our articles go out to customers in over 40 countries. Some articles will have simple topics and others will get quite detailed like the article above. Please use caution when performing some of the tips we present especially if you do not fully understand the articles. We do encourage you to ask questions if you need to, although we run a busy office and sometimes you may need to leave a message, we will respond to all questions sent our way. We hope you enjoy our newsletters so please feel free to send Stefanie any comments you might have. Thank you for Reading!

Ron Verhaeghe

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