Computer Maintenance Part 2
Troubleshooting your PC

Robert Petrilak

Don't Panic or Overestimate the Magnitude of the Problem

Probably the most important single thing to keep in mind when you find a problem with your PC is not to panic. Being in "panic mode" makes it extremely difficult for you to work on solving the problem, and in many cases the panic will turn out to be unwarranted anyway. Remember that most PC problems do not have to be solved with a clock ticking away in the background; this isn't a time bomb you are dealing with and if it is easier to turn off the PC and deal with the problem later, do so.

In fact, there are many problems with PCs that appear to be very serious but in fact are not. It isn't always possible to tell at the beginning how serious a problem is just by its outward symptoms. For example, there are some problems that can manifest themselves with your hard disk appearing to be crashed and all of its data lost. Sometimes real crashes do occur, but there are other problems that can cause a disk to appear crashed when really the problem is simple and can be fixed in a matter of a few minutes.

Panicking can also lead you to jump to a solution to the perceived problem before you really understand it, which can make matters worse.

The difficulty with jumping quickly to the solution to a problem is that if you don't take enough time to really understand what the problem is, you may end up applying the wrong fix to the situation and making things worse. You will also make it more difficult to figure out what caused the problem so that you can prevent it from recurring. Even if you resolve the situation this time, you may find a similar issue cropping up again in the near future.

The key is to exercise patience. If possible, you want to take enough time to make sure that you understand what you are seeing and what the *root cause* is. (Although with some sorts of intermittent problems you may not be able to explore the root cause easily). Only by addressing the root cause of the problem will you be able to take the most effective corrective steps and ensure that the problem will go away permanently.

Very often the real cause of the problem you are seeing is the *last* thing that you can possibly think would be it; problems simply are not always cause-and-effect. Keep in mind the famous quote of Sherlock Holmes (Sir Arthur Conan Doyle): "When you have eliminated the impossible, whatever remains, however improbable, must be the truth". It is very common for a symptom to be the result of a problem in a completely different part of the PC, which is why you need to make sure that you fully explore the problem before looking for a solution. In addition, bear in mind that changes to a system usually are the cause of problems that arise shortly thereafter, even if they are in unrelated areas.

Starting a troubleshooting session on a difficult problem one half-hour before you have to go away for the weekend is not a great idea. Since you haven't allowed yourself nearly enough time to do a proper job of diagnosing the situation, you are going to feel rushed. It's likely that you

will misdiagnose the problem, have to stop half-way before you are finished, and that you will generally feel uncomfortable during the entire process (even more than usual).

Give yourself a fighting chance to resolve the problem properly by allowing yourself enough time to do the job right.

Let the Vendor Do the Work!

You may not have to use the troubleshooting information on this site at all. If the system is exhibiting strange behavior, especially if it appears that it has any failed or failing components, and you purchased this system recently, you may want to just return it and let the vendor figure out what the problem is. In many cases this is the best thing to do when your PC is still under warranty, since this also eliminates any chance of you voiding the warranty, and saves you time as well. That's what a warranty is for.

Scan For Viruses

If you experience any strange behavior on your system, especially either as it is booting, or shortly after it completes, you should *always* use whatever antivirus software you own to do a full scan of the system before you do anything else.

Do not fall into the "this can't be a virus" trap too easily. Obviously if you turn the power on and nothing happens at all, or if your hard disk won't spin up, or if your system seizes while it is doing the initial BIOS power-on test of your system memory, these are hardware problems that are not caused by a virus. However virtually *any* other symptom that appears to be a hardware issue can be either a hardware problem or simply a virus that is trying to masquerade as a hardware problem. To remove the complicating factor of always having to wonder "is this a virus?", scan your system before you spend a lot of time chasing ghosts.

Read the Documentation

I never cease to be amazed at how people refuse, steadfastly, to read the documentation that comes with their new hardware or software. They are so excited about their new toy, whatever it is, that they are dying to get it running right away--who has time to start reading? So they start installing whatever-it-is and then have problems. Half the time they end up actually taking more time to get the thing running than they would have if they had just read the instructions in the first place. Meanwhile they often waste a lot of their time and others' asking for technical assistance.

Many, if not most problems are a result of hardware or software that has just been installed into the PC. If you are installing something new, read the documentation that came with the product. Look for files called something like "READ.ME" or "README.1ST" on installation or driver disks, and read them thoroughly before you start. Refer back in the event of trouble. You may be surprised to find that the answer to your dilemma is right there, just waiting for you to read it.

Double-Check Any Recent Changes

Ask yourself: when did the problem I am experiencing first start? If you have just made *any* change to your system, and are now having a problem with your PC that was not present before the change, the chances are probably 99% that the change is the cause of the problem. This is true even if the problem *seems* to have absolutely nothing to do with what you changed. If you

hunt around, eventually you will find something that links the problem to the change. While it is certainly possible for something to coincidentally stop working at the same time that you make a change, the odds are greatly against this ever happening to you.

Here's an example of something that happened to me, to illustrate what I mean. I opened up my PC to do some work on my system memory. I removed two SIMMs and replaced them with another pair of higher capacity. When I turned on the system next, my floppy disk drive was malfunctioning. Had my floppy drive failed just then? Almost certainly not. As it turned out, my motherboard has the header for the floppy drive cable located directly adjacent to the SIMM slots. While I was working on the memory I had loosened the floppy drive cable. Loose cables cause a lot of PC troubles.

Sometimes the problems can be even more indirectly related than this. You should in most cases stick to pursuing how the change affected the system, as this is likely to eventually lead you to the cause of the problem.

Simplify, Simplify, Simplify

An absolutely *crucial* rule to keep in mind when troubleshooting PC system problems is that if there are too many unknowns, it is impossible to determine which one is causing the problem. If you have many possible causes for some difficulty with your system, it can be extremely difficult to narrow down the cause of the problem to any one of them. If you are using a just-installed hard disk with an unfamiliar shareware file utility running on an operating system you just upgraded last week, and now your system has problems, how on earth are you ever going to know what is causing them?

In order to have a fighting chance at figuring out what is going on, you must simplify the situation as much as possible so that it becomes much more obvious what is responsible for the difficulty. This means reducing the number of variables to whatever degree possible. One important way of doing this is undoing or double-checking any changes made to the system.

In addition, I have identified the following items as often being responsible for erratic behavior that can complicate troubleshooting. I would recommend that they be eliminated or temporarily disabled when trying to diagnose a system problem:

- **Power Management:** Power management is a great idea in theory but in many ways is just "not ready for prime time". Power management routines can cause symptoms that appear to be hardware malfunctions, such as screens that turn off unexpectedly or hard disks that spin down. They also can cause crashes of software that doesn't know how to deal with them. If you want to use power management, turning it off until the problem is resolved is wise.
- **Overclocked Hardware and Aggressive BIOS Settings:** I do not believe in overclocking. If you insist on doing it, don't be surprised if you have system problems! Scale things back until you can figure out what the problem is. Similarly, if you are "pushing the envelope" in trying to squeeze maximum performance by tuning your BIOS memory timings and other settings very aggressively, try resetting them to more conservative values when troubleshooting. Most BIOS's have an option to reset the BIOS to default or optimum settings.
- **Experimental or Beta Software:** This software is still in the test process and is likely to have bugs--that is why it is labeled as "beta"! For an end application this is usually no big deal, since any crashes or other problems will be limited to that application and therefore somewhat obvious. Running beta operating systems, drivers or other low-level

software however is asking for trouble, and you should try to eliminate these possible sources of confusion when trying to debug your system. Also, consider not installing any software that is labeled version 1.0. Being on the bleeding edge is OK if you don't mind being the one who is doing the bleeding.

- **"Creative" Configurations:** The more "unusual" things that you have going on in your system, the more likely that you are going to have a conflict caused by one of these strange pieces of hardware or software. A system that is loaded with unusual utilities, terminate-and-stay-resident programs, an old network card salvaged from an old PC, etc. will often have more problems than a stock Pentium box with a normal Windows installation. To whatever extent possible, disable these items while troubleshooting. Also try to avoid using unusual low-level software whenever possible.
- **Excessive Connections:** If the PC is on a network or is connected to a large number or variety of peripheral devices, you may want to try to disconnect those and see if there is any impact on the problem. Disconnect all USB devices that are not necessary for the basic operation of the system.

In general you want to avoid the unusual or the unknown when troubleshooting. One way to simplify the software environment during diagnosis is to use a boot the system in save mode. Pressing F8 while the system is booting will bypass your startup files. You want to be especially wary of software that sits in the background and activates without you specifically telling it to, as this can confound your troubleshooting efforts.

To whatever extent possible, disable as much as you can when trying to figure out a problem. The more funky software utilities, screen savers and cute peripherals you disable now, the more chance you have of finding out which one it is that is causing the problem later on.

Be Observant and Look For Evidence

It is sometimes the subtle signs that can provide the triggering piece of information that leads to discovering the source of a problem. In particular, you want to carefully investigate anything that seems "unusual", "wrong" or "surprising". These are often the clues that will get you going down the right track to figuring out what is giving you trouble. If you are observant and careful about what you are doing, you will be much more likely to pick up on these things than if you are in a hurry or you are quick to discount your findings as "unrelated to the problem". If an error message appears, write it down exactly as it appears. Use an internet search engine such as Google to look up the error message. In most cases, this will lead you to a solution of the problem. It will also be helpful if you need to contact a tech support site.

Use the Process of Elimination

Virtually all problems with PCs involve more than one component or subsystem. The difficulty is usually in figuring out which component is responsible for the problem. Using the process of elimination, however, you can usually narrow the problem down rather quickly by making small logical changes and observing the impact on the problem. Your objective is to isolate the cause of the problem so you can correct it.

The key is to make only one change at a time and then see if the problem goes away; if it does, then whatever you changed is likely responsible for the problem (although it could be fixing the problem *indirectly* in some cases.) If you make more than one change at a time, you cannot readily discern which change was responsible for fixing the problem.

You will want to first check the most probable sources of the problem, and also the things that are easiest to change. For example, if you are having a problem with your disk drive being recognized, it's a lot easier and cheaper to explore things like double-checking jumpers and connections or replacing the interface cable, than it is to try replacing the drive itself. That is something you'd only do after you had eliminated all the other possibilities (or if the evidence implicated the hard disk directly).

Here's a simple example. Let's suppose one morning your PC will not turn on. You hit the switch and nothing happens. There could be many different possible causes for this problem: the power to the house could be out; there could be a malfunction in the wall socket; the surge suppressor that the system is plugged into might have blown; the electrical cord may be loose; the power supply could be damaged. To figure out what is going on you need to eliminate these variables by making small changes and seeing what happens. For example:

- Change the wall socket you are using. If the PC now boots, you have isolated the cause to the electrical wiring in the house.
- If the problem persists, examine the surge suppressor. Change it, or temporarily bypass it and plug the PC into the wall directly. If it now works, the surge suppressor is the problem.
- If the problem still isn't fixed, try changing the power cord.
- If the problem persists still, you may then have to open up the box and look at the power supply unit to see if it might need replacing or if a cable is loose.

Realize that the key here is making these changes one at a time. If you approach this problem by changing the wall socket you use, bypassing the surge suppressor, and changing the power cord all at once, your problem may go away but how will you know what caused it? This is a valid way to troubleshoot if you have to get the system back up immediately, however. You can then undo the changes one at a time later on to find out what the cause is, in effect doing the same single-change-at-a-time process, but in reverse.

Do One Upgrade or Assembly Step At a Time

Changes made to the system are the most frequent cause of problems; this is the nature of change. Much the way many problems can be diagnosed by using the process of elimination through making single changes to the system, you can avoid or detect problems with upgrades or new installations by going "one step at a time" in your changes as well. New system installations or major upgrades often can have problems that are very difficult to diagnose simply because there are so many modifications being performed at the same time.

When you build a new PC you will probably be assembling a large number of components that have never been used or tested before. To whatever extent possible, try to go as slowly as possible when assembling the machine. For example, when assembling a new PC from scratch, it is always best to first make sure the basic system is working, with the only expansion card in the system the video card (if applicable). Adding the sound card, network card and other devices should be done later on, and one at a time if possible. Similarly, do not try to do major software or operating system upgrades at the same time that you make hardware changes. Doing this can make it very difficult for you to troubleshoot any system problems.

If you *do* make multiple changes at once, try retracing your steps. Undo the changes you have made one at a time and see if you can identify the change that caused the problem that way.

Determine Repeatability

Most problems with a PC fall into one of two categories: either they are *repeatable* or they are *intermittent*. A repeatable problem is one where the problem occurs all the time, or always in response to a specific user action. For example, a PC that has a problem that prevents it from booting will probably always fail to boot no matter how many times you reset it. Or you may have an application that whenever you try to run, will crash with an error. You may find that your PC hangs, but only when you move the mouse at the same time that you are communicating using your modem.

In contrast, some problems are intermittent and not repeatable. In some cases, you may have a PC that will *usually* boot up fine, but one day a month will fail to boot for some reason. An application may work most of the time but occasionally crash. The PC may lock up at seemingly random intervals. Your mouse may work almost all of the time, but one day out of five or ten may give you trouble.

It is helpful to determine if the problem you are experiencing is repeatable, because intermittent difficulties are much more difficult to resolve than repeatable ones. If a problem is repeatable, and there is a specific set of actions that cause the problem, this gives you at least some initial clues about how to find the cause. In addition, you have a way of testing to see if you have resolved the problem when you are trying different solutions. Intermittent problems are much more difficult to deal with.

Determining if a problem is repeatable is pretty simple: try to duplicate the conditions that caused the problem and see if it happens again.

What do you do if you have lost your Windows key?

Because the product keys are encrypted, you cannot simply go into the registry and retrieve it like you could in earlier versions of Windows. You will need a utility program to extract the product id from your registry. One such tool is the Magical Jelly Bean Keyfinder. I am certain there are others on the market as well but we will focus on the use of this one for the purposes of this article.

The Magical Jelly Bean Keyfinder is a freeware utility that retrieves your Product Key (CD key) used to install Windows or Office from your registry. It has the options to copy the key to clipboard, save it to a text file, or print it for safekeeping. It works on Windows 95, 98, ME, NT4, 2000, XP, Server 2003, Office 97 and Office XP. Unfortunately, it does not appear to support Office 2000. The Magical Jelly Bean Keyfinder is available at: http://www.magicaljellybean.com/keyfinder.shtml.

Is Your Computer Suffering from Terminal Freeze?

"I have a big problem with my computer freezing-up. It just happens whenever and whatever we may be doing - on the Internet or just writing a letter. I run scandisk and defrag on a regular basis and I have removed any programs I did not need. I have plenty of free space on my hard drive."

I have heard this dozens of times over the years. It is one of the more common complaints regarding the DOS based versions of Windows (95,98 and ME) and also, although much more rarely, in Windows 2000 and XP. There are many things that can cause this ranging from a virus to hardware failure. Here is a checklist of possible causes:

1. You could be infected with a virus. Make sure your antivirus program is up to date and run a full scan of your system. Do you need to update your antivirus software?
2. You could possibly have some sort of mal-ware (adware or spyware) on your system hogging system resources.

   Download, install and run AdAware and Spybot-Search and Destroy.

   Your computer could be overheating. Excessive heat buildup is a very common problem especially with the systems that have come out in the last couple of years because they operate at much higher temperatures than the older systems.

   - Unhook your tower from power, remove the cover and check for dust buildup. Even in the cleanest of environments, dust will build up. If you have pets and/or are a smoker, the buildup can be much worse. Especially check the CPU heat sink for packed in dust. Carefully vacuum out any dust that you find. I recommend using the edge tool for your vacuum, it will allow you to get in to some of the more tight spots and is usually made of plastic. DO NOT USE ANY METAL TOOLS WHEN CLEANING YOUR SYSTEM OR COMPONANT DAMAGE COULD RESULT.
   - Check the fans for proper operation. If a fan, especially the CPU fan, is not spinning properly, the amount of heat buildup can be impressive. Replace any that are not operating properly. If you are unsure of the proper way to replace a fan, you should have an experienced friend or a professional do the work for you.
3. You could have a hardware problem. Run a thorough scan disk of your hard drive. This will check the surface of the drive for bad sectors. It is also possible that you could have a hardware failure starting. The hard drive could be simply wearing out or the dust discussed above could have caused overheating that has damaged the CPU, memory, hard drive or other component.
4. Your operating system could have corrupted files. Whether through the normal installing and uninstalling of programs, as a result of a virus or malware infection or as a result of a hardware failure, your operation system could have corrupt files. If all else checks out or you have done all the cleanups and repairs and your system still freezes you may need to reinstall Windows.

How to troubleshoot a Windows PC Hard Disk Drive.

Check the BIOS and see if the hard disk drive is being detected.

- Reset the BIOS (Re-boot and tap the F2 Key, Press F9 (Default Settings), Press F10 (Save and Exit)
- Check for floppy disk in floppy disk drive and remove and reboot. This would be a message stating "NON-SYSTEM DISK FOUND".
- Check for error message - SMART FAILURE - HDD Controller Diagnostics
- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)
- Diagnostics - SCANDISK / CHKDSK

- Defragment your hard drive
- For Notebooks - reseat the hard drive and also try a hard reset
- For Desktops - check the IDE or SCSI wiring to the hard drive
- Check for noises - grinding noise => new hard drive required
- Data Recovery for Notebooks - use a 44 pin to IDE connector and attach to another computer and employ the other computer's operating system to view the damaged hard drive as another drive letter. Copy data onto a good drive. Replace bad drive and then restore data onto good hard drive.
- Data Recovery for Desktops - connect the hard drive to another computer and employ the other computer's operating system to view the damaged hard drive as another drive letter. Copy the data onto good a drive. Replace bad drive and then restore data onto good hard drive.

How to troubleshoot a Windows PC Modem.

Check the telephone cable connectors and cable. It should be 10 feet or less and contain a correct RJ11 cable connector.

- Check to ensure that you are plugged into the correct modem jack. An RJ45 will not fit into an RJ11 but an RJ11 (6 pin) will fit into an RJ45 (8 pin) receptacle. It will be a loose fit. the RJ45 is for your network interface card. RJ11 is your modem (telephone).
- Check to ensure that the wall phone jack is functioning. Plug a phone into the same wall jack and ensure that you get a dial tone on your phone.
- Check for error messages => wrong username or password then contact your ISP for the correct account settings. Check to ensure that your ISP did not disconnect you for violations or failure to pay your bill.
- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)
- Mobile Services - PDA (Personal Digital Assistant) Palm Pilots use COM9 - watch for conflicts.
- Connect to a different test server to determine if you having problems with your ISP.
- Reset the BIOS to the default settings.
- Uninstall and replace the drivers using Device Manager under Administrator Privileges - right click on My Computer / Properties / Hardware / Device Manager - expand Modem line item. Right click on the items and select uninstall drive on the pop-up menu. Re-boot the system and Plug and Play will automatically detect the Modem device and re-install the drivers for you.
- Reseat the modem.
- Use Hyperterminal or another tool to test the modem.

- Perform Modem Diagnostics test.

- Shut down all other applications to avoid conflicts. Remove all other hardware devices.

How to troubleshoot a Windows PC Network Interface Card.

- Check the cable connectors and cable. It should be 343 feet or less and contain a correct RJ45 (8 Pin) cable connector.

- Check to ensure that you are plugged into the correct NIC jack. An RJ45 will not fit into an RJ11 but an RJ11 (6 pin) will fit into an RJ45 (8 pin) receptacle. It will be a loose fit. the RJ45 is for your network interface card. RJ11 is your modem (telephone).

- Are the link lights on?

- Recycle the modem hub/router. If you are running a cable modem or aDSL then you will have a separate hub or router. Disconnect the power for at least 20 seconds and then restart.

- Check the link lights on the router. Are they on?

- Check the cable types. A Crossover is for computer to computer and will NOT work with your cable modem. You cable must be a straight RJ45 type cable. It should state the cable type on the cable sleeve. Check for crimps in the cable and/or try a different cable.

- Check for error messages => wrong username or password then contact your ISP for the correct account settings. Check to ensure that your ISP did not disconnect you for violations or failure to pay your bill.

- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)

- PING 127.0.0.1 - this will test to ensure that your TCP/IP software is working correctly. If it is not then re-install the TCP/IP software.

- PING n.n.n.n - where n.n.n.n is taken from IPCONFIG (WINIPCFG on Windows 98 and Me). Windows assigns default IP addresses starting with 192.168.n.n (for private networks). This will test to ensure that your NIC card is working correctly. If it is not then reseat the NIC card. If problem persists and you cannot PING across the NIC card then the card is bad.

- Perform an IPCONIG /RELEASE and then an IPCONFIG /RENEW in DOS (command prompt) to release the current IP settings and then re-assign the IP settings.

- Will your browser work with IP addresses but not with DNS names? If you cannot type in http://www.google.com and get it to work but you can type in a known IP address http://216.239.51.100 (the IP for Google.com). If the IP address works but the DNS does not work then re-install WinSocks (the DNS lookup software).

- Reset the BIOS to default settings.

- Uninstall and replace the drivers using Device Manager under Administrator Privileges - right click on My Computer / Properties / Hardware / Device Manager - expand Network Interface Card line item. Right click on the items below and select uninstall drive on the pop-up menu. Re-boot the system and Plug and Play will automatically detect the Network Interface Card device and re-install the drivers for you.

- Reseat the Network Interface Card. If your computer beeps (POST codes - Power On Self Test) then one of your cards is not seated correctly.

How to troubleshoot a Windows PC CD Rom Drive.

- Will it boot from a recovery CD? If so then the drive is working and it is a Windows software problem (usually drivers).

- Reset the BIOS to default settings

- Uninstall and replace the drivers using Device Manager under Administrator Privileges - right click on My Computer / Properties / Hardware / Device Manager - expand CD Rom/DVD line item. Right click on the items below and select uninstall drive on the pop-up menu. Re-boot the system and Plug and Play will automatically detect the CD Rom drive and re-install the drivers for you.

- Try a different media - some brands will just not work correctly with a given CD Rom drive.

- Check for noises - ticking noise => check CD ensure that it is not cracked. Check to ensure that the CD is mounted correctly on the spindle. Ensure the drive has enough time to spin up.

- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)

- Check for software updates - check your manufacturer's web site for software updates and drive updates.

Here is another approach to try:

Sometimes drivers get corrupted so the first thing is to delete the drivers and then let Windows automatically re-install them for us.

FOR WINDOWS 95/98/Me you must use SAFE MODE (Press F8 at startup).

Log on as administrator and remove the drivers for the DVD and the controller secondary channel. You must do both. Create a checkpoint, if possible, before performing any updates.

Right click on My Computer / Properties / Hardware / Device Manager

Click on the + to expand DVD / CD Rom Drives - this will show your DVD drive. Right Click and select remove/uninstall.

Click on the + to expand IDE ATA/ATAPI controller - this will show your channels. Select

Secondary Channel and then right click and remove/uninstall. DO NOT DO THE PRIMARY CHANNEL as that is your hard drive.

Shutdown your system and then reboot.

Let Windows detect the NEW HARDWARE and then try the DVD again.

How to troubleshoot a Windows PC Motherboard.

If your system keeps crashing after a recovery then it is probably the motherboard.

- Operating System will not load? Reseat RAM - if multiple SIMMS (single inline memory modules) or DIMMS (dual inline memory modules) then remove them all and replace and test individually. Did you install after market RAM? Is it compatible? Is it sequenced correctly - must be in pairs? Is it the correct amount of RAM?
- POST Codes (Power On Self Test) - Computer Beeps at start up - Reseat the PCI cards. For notebooks then reseat the mini-PCI bus. Reseat the RAM.
- Shut down all other applications to avoid conflicts. Remove all other hardware devices.
- Perform a recovery. Ensure that you backup your data prior to doing a recovery.
- If the problem persists then send in for service.
- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)

How to troubleshoot a Windows PC USB.

Check the connections.

- Installation - Always install the software for your USB device FIRST. Then plug in the USB device and allow Plug and Play to install the drivers.
- Check error messages in Event Viewer. Start / Settings / Control Panel / Administrative Tools / Computer Management (or Event Viewer)
- Check the power consumption - Use a powered hub if you have multiple devices (e.g. printers, scanners).
- Turns off and locks up? Check the USB Version. USB V2.0 is backwards compatible with V1.1 but V1.1 will NOT work with V2.0 USB devices. Windows XP requires Service Pack 1 for USB V2.0.
- Reset the BIOS (Re-boot and tap the F2 Key, Press F9 (Default Settings), Press F10 (Save and Exit). Some BIOS versionos have the default (F9 equivalent on the EXIT menu).

- Uninstall and replace the drivers using Device Manager under Administrator Privileges - right click on My Computer / Properties / Hardware / Device Manager - expand USB line item. Right click on the items below and select uninstall drive on the pop-up menu. Re-boot the system and Plug and Play will automatically detect the USB device and re-install the drivers for you.

- Uninstall the software - Add/Remove Programs/USB Product. Always install the software first before plugging the USB device in for the first time.

- Shut down all other applications to avoid conflicts. Remove all other hardware devices.

How to troubleshoot a Wireless Network 802.11B/G

- What type of connection - Access Point/Infrastructure or computer-to-computer/Ad Hoc ?

- What is the Network Name(SSID) set to ? using encryption?

- What access point/cards are being used?

- Did it ever work ? Do we see the Wireless Configuration Utility icon on the taskbar?

- Is there a Wireless Connection icon in the Network Connections folder? can we view the properties?

- Is the adapter being assigned an IP address? can we ping the address?

- If subnet mask= 255.255.0.0 release & renew, reboot access point

- Look in the Network Connections for a Network Bridge, unless the user is connecting to two access points, it should NOT be in there.

- Is there interference from 2.4 Ghz phones or microwaves? Is it set up as roaming(more than 1 access point)?

- Follow These Procedures To Fix 802.11B or 802.11G Problems:

    1. Reinstall the existing drivers and software
        - Uninstall all network adapters in Device Manager
        - Delete the Network Bridge in the Network Connections folder
        - Uninstall "Wireless LAN software" from the Add/Remove Programs in the Control Panel
        - Shut down and restart, do NOT go through the Network Setup Wizard when XP redetects the NIC's.
        - Run the setup program for your Wireless Lan software e.g. C:\hp\Drivers\Wireless\setup
        - We should now have the Wireless Configuration Utility / 802.11 connection icon on the taskbar
    2. Go through configuration settings
        - Double-click on the Wireless Connection icon on the taskbar
        - Click on the Support tab, check the IP and Subnet Mask addresses
        - On the General tab, click on the Properties Button

- This should open the Wireless Network Connection Properties window
- click on the Advanced tab, uncheck the Firewall and Internet Connection Sharing
- There should not be any need to change settings on the Authenticate tab
- click on the Wireless Networks tab,
- The "Use Windows to configure my wireless network settings" box should be checked
- Under the Available Networks, select the network
- SSID should be "ANY" or same as the Access Point
- Data Encryption (WEP) should be unchecked (on AP as well). You can turn on encryption after you get the network running.
- Network Authentication should be unchecked
- Computer to computer should be unchecked if we are using an Access Point click on the OK - if it says it is already configured, use Properties Button click on the Advanced button on the Wireless Networks tab, set to "ANY", Close
- Click on the General tab, highlight the 802.11 adapter and click the Configure button
- On the Advanced tab, adjust the settings for the connection
- Authentication = open system
    - - Channel = (same as Access Point)
    - - Network Type = (Ad Hoc or Infrastructure)
    - - Powersave Mode = Disabled
    - - SSID = "ANY" or same as Access Point
    - - Transmit Rate = Fully Auto (or if access point has specific settings)
    - - Use WEP = Disabled (can be enabled after the connection is working)
    - - the Driver tab we can check if the newest version is installed

How to troubleshoot Internet Explorer.

Internet Explorer may become corrupted because of spyware or adware or other add-ons. We are just going to dive right in and perform a repair operation on IE. IE is not uninstalled and re-installed like other software, it is simply repaired. There are several methods of repairing Internet Explorer. The method selected depends upon your operating system, the original version and upgrades. Some of these options will not work for your operating system. Choose from one of the following options that will work for you:

- Try This Method First: Go to Start Menu and select Programs, Accessories and on the drop down menu, click on System Tools and click on System Information. On the System Information window, click on Tools and in the drop down box and then click on Internet Explorer Repair Tool.

- If IE Appears in the Add/Remove Programs then:
    - Log in as an Administrator
    - Click start, settings, then click control panel. Next, click add/remove programs.
    - Scroll down to "Microsoft Internet Explorer& Tools..". Highlight it, then click add/remove. Do not worry, this will NOT remove your browser!
    - A dialog box will appear with the option to repair. Select it, and then allow it to run completely. You will then have to restart your computer.

- How to Run Internet Explorer 5 Repair Tool from Command Line When Not Listed in Add/Remove Programs This method will repair IE 5 if the program listing does not appear in the Add/Remove programs.
    - From the Start menu, choose Run.
    - In the input field type rundll32 setupwbv.dll,IE5Maintenance "C:\Program Files\Internet Explorer\Setup\SETUP.EXE" /g "C:\WINDOWS\IE Uninstall Log.Txt"
    - Click the OK button.

- For Windows XP There are two ways to reinstall Windows IE for Win XP:
    - The only way to repair Internet Explorer is to have sfc check the system files by clicking on the Start Menu then select Run and then type in: sfc /scannow and then click on the OK button.
    - Alternative Method (using the registry): # Start the Registry Editor # Go to HKEY_LOCAL_MACHINE \ SOFTWARE \ Microsoft \ Active Setup \ Installed Components \ {89820200-ECBD-11cf-8B85-00AA005B4383} # right-click the IsInstalled value, and then click Modify # Change the value data, from 1 to 0 # Close the registry editor # Download and install Internet Explorer 6. The above will let you reinstall the Internet Explorer 6 browser component. To reinstall Outlook Express 6, change the IsInstalled value from the following registry key: HKEY_LOCAL_MACHINE \ SOFTWARE \ Microsoft \ Active Setup \ Installed Components \ {44BBA840-CC51-11CF-AAFA-00AA00B6015C}

Using MSCONGIF to troubleshoot error in Windows XP

To start the System Configuration utility, click **Start**, click **Run**, type **msconfig** in the **Open** box, and then click **OK**.

When you use the System Configuration utility, you can easily reset or change the configuration settings in Windows to include preferences for the following files and settings:

- The System.ini file
- The Win.ini file
- The Boot.ini file
- Programs that are set to load during the startup process (these programs are specified in the Startup folder and in the registry)
- Environment settings
- International settings

To prevent any one of these items from loading when you restart the computer, use either of the following two methods:

- Click the **General** tab, and then click **Diagnostic Startup - load basic devices and services only**. When you use this option, device drivers and software are loaded interactively when you restart the computer.

  NoteWhen you use this method, Microsoft services such as Networking, Plug and Play, Event Logging, and Error Reporting are temporarily disabled. You also permanently delete all restore points for the System Restore utility. Do not use this method if you want to retain your restore

points for System Restore, or if you have to use a Microsoft service to test a problem.

- Click the **General** tab, and then click **Selective Startup**. You can chose the files and the settings that you want the computer to load when you restart the computer. You can select any of the following options:
  - **Process SYSTEM.INI File**
  - **Process WN.INI file**
  - **Load System Services**
  - **Load Startup Items**

  The following settings apply to these options:
  - If the check box is selected, the configuration file is processed when you restart the computer.
  - If the check box is cleared, the configuration file is not processed when you restart the computer.
  - If the check box is selected, but is unavailable, some items are still loading from that configuration file when you restart the computer.
  - If the check box is not selected, but is unavailable, the configuration file is not present on the computer.
  - You cannot clear the **Use Original BOOT.INI** check box.

  Note When you clear the **Load System Services** check box, you disable Microsoft services such as Networking, Plug and Play, Event Logging, and Error Reporting. You also permanently delete all restore points for the System Restore utility. Do not clear this check box if you want to retain your restore points for System Restore, or if you have to use a Microsoft service to test a problem.

Before you start a troubleshooting session, you can use the System Configuration utility to initiate a System Restore operation. To do this, click the **General** tab, and then click **Launch System Restore**. You can then create a restore point that you can use to restore your computer to a previous state.

To prevent individual items or lines from a specific configuration file from loading when you restart your computer, click the tab for that particular configuration file, and then click to clear the check box for the individual line or item that you do not want to load. Check boxes that are unavailable on the **SYSTEM.INI** and **WIN.INI** tabs indicate that the lines are temporarily removed by the System Configuration utility.

- To change the currently active line or item, click a different line or item or click **Move Up** or **Move Down** to move between items.
- To create a new entry in any one of the configuration files, click **New**.
- To edit a line that is currently selected, click **Edit**.

Note When you click to clear a check box for an item or a line, the **Selective Startup** option on the **General** tab is automatically selected.

After you make the selections that you want, click **OK**, and then restart the computer when you are prompted to initiate the changes.

To extract individual Windows files directly from the cabinet files, click the **General** tab, and then click **Expand File**.

To verify that all the configuration files and all the items that are listed in those files are loaded when you restart your computer, click the **General** tab, and then click **Normal startup**.

How to perform a clean boot in Windows XP

Note You must be logged on as an administrator or a member of the Administrators group to follow these steps. If your computer is connected to a network, network policy settings may also prevent you from follow these steps.

1. Click **Start**, click **Run**, type **msconfig** in the **Open** box, and then click **OK**.
2. On the **General** tab, click **Selective Startup**, and then clear the **Process System.ini File**, **Process WIn.ini File**, and **Load Startup Items** check boxes. You cannot clear the **Use Original Boot.ini** check box.
3. On the **Services** tab, select the **Hide All Microsoft Services** check box, and then click **Disable All**.
4. Click **OK**, and then click **Restart** to restart your computer.
5. After Windows starts, determine whether the symptoms still occur.

Use Device Manager to determine if the problem is related to a device driver

You can use Device Manager to examine and change software-configurable devices. If your hardware device uses jumper pins or dip switches, you must configure the device manually.

Use the System Restore tool to restore the operation of Windows XP

You can use the System Restore tool to return your computer to a previous working state. System Restore takes a "snapshot" of critical system files and some program files and stores this information as restore points. You can use these restore points to return Windows XP to a previous state.

For additional information about System Restore, click **Help and Support** on the **Start** menu. In the **Search** box, type **system restore**, and then click **OK**.

Use the Last Known Good Configuration tool to restore the operation of Windows XP

If Windows does not start, try to restore operation of Windows XP by using the Last Known Good configuration. To do this, follow these steps:

1. Start the computer, and then press the F8 key when Windows begins to start. The **Windows Advanced Options** menu appears.
2. Use the ARROW keys to select **Last Known Good Configuration (your most recent settings that worked)**, and then click **OK**.
3. If a start menu appears, use the ARROW keys to select **Microsoft Windows XP**, and then click **OK**

   Windows XP starts your computer by using the registry information that was saved at the last shutdown.

Acknowledgements:
Much of the information presented in this paper was obtained and edited from the following web sites.

http://www.petri.co.il/recovery_and_troubleshooting_options_in_windows_xp.htm
http://labmice.techtarget.com/windowsxp/TroubleshootingXP/default.htm

http://labmice.techtarget.com/windowsxp/Backup/default.htm
http://www.pcguide.com/ts/
http://www.digitalwebcast.com/articles/viewarticle.jsp?id=8658-1
http://www.michaelstevenstech.com/XPrepairinstall.htm

Prepared by Robert Petrilak January 2006

Restoring Windows XP using the Repair/Install option

Should you do a repair install and is it the best choice?
A Repair Install is not foolproof and should not be considered the cure-all fix for non-boot situations.

You should complete the basic requirements of backing up all files and folders that cannot be restored from other media. This includes passwords, applications purchased and downloaded from the internet without CD support, financial records and folders, digital images that cannot be replaced.....

Backup copies of your registry files (in the %systemroot%\Repair folder) are also replaced after the in-place upgrade is complete. Copy these registry backups to another location before you perform an in-place upgrade/Repair Install. You may need to use them after the in-place upgrade is complete.

If you made unorthodox registry changes with third party software, there is the potential of data loss from a Repair Install. Another consideration of concern would be a power failure during the repair install could render your system unbootable and result in loss of data.

The likelihood of you losing the files and folders is probably of minimal risk, but you have to expect the worst and make sure you are prepared for recovery.

If your system is not bootable and you can't make a copy of import data, consider the recovery procedure titled "Recovering from a Windows XP Crash" located on the VCC Web-site.

If you are sure you have explored all other troubleshooting avenues, then proceed with the repair install.

Repair Install

You can use an OEM XP Pro or Home, "retail" XP Home or Pro full or upgrade version CD of the same version Home or Pro to perform a Repair Install. OEM Restore disks or hidden restore folders on the hard drive will not work for the Repair Install.
A Repair Install will replace the system files with the files on the XP CD used for the Repair Install. It will leave your applications and settings intact, but Windows updates will need to be reapplied.

A Repair Install will replace files altered by adware and malware, but will not fix an adware, malware problem. Always run an anti adware/spyware program before attemping to restore Widows XP.

Boot the computer using the XP CD. You may need to change the boot order in the system BIOS so the CD boots before the hard drive. Check your system documentation for steps to access the BIOS and change the boot order.
When you see the "Welcome To Setup" screen, you will see the options below
This portion of the Setup program prepares Microsoft
Windows XP to run on your computer:

To setup Windows XP now, press ENTER.

To repair a Windows XP installation using Recovery Console, press R.

To quit Setup without installing Windows XP, press F3.

Press Enter to start the Windows Setup. Do not choose "To repair a Windows XP installation using the Recovery Console, press R", (you Do Not want to load Recovery Console). I repeat, do not choose "To repair a Windows XP installation using the Recovery Console, press R".
Accept the License Agreement and Windows will search for existing Windows installations.
Select the XP installation you want to repair from the list and press R to start the repair.

If the option to Repair Install is NOT available and you continue with the install; you will delete your Windows & Documents and Settings folders. All Applications that place keys in the registry will need to be re-installed.

You should exit setup if the repair option is not available and consider using the following or the method detailed in the paper "Recovering from a Windows XP crash" mentioned above.

Possible Fix by reconfiguring boot.ini using Recovery Console.

1.Boot with XP CD or 6 floppy boot disk set.

2. Press R to load the Recovery Console.

3. Type bootcfg.

4. This should fix any boot.ini errors causing setup not to see the XP OS install.

5. Try the repair install.

One more suggestion.

"Reboot, this time taking the immediate R option and if the CD letter is say K: give these commands

copy K:\i386\ntldr C:\
copy K:\i386\ntdetect.com C:\

(two other files needed - just in case)

1. Type: attrib -h -r -s C:\boot.ini del C:\boot.ini

2. Type: BootCfg /Rebuild

which will get rid of any damaged boot.ini, search the disk for systems and make a new one. This might even result in a damaged windows reappearing; but gives another chance of getting at the repair"

Setup will copy the necessary files to the hard drive and reboot. Do not press any key to boot from CD when the message appears. Setup will continue as if it were doing a clean install, but your applications and settings will remain intact.

Reapply updates or service packs applied since initial Windows XP installation. Please note that a Repair Install from the Original install XP CD will remove SP1/SP2 and service packs will need to be reapplied.

Service Pack 2

An option I highly recommend; is creating a Slipstreamed XP CD with SP1, SP2, etc. .

Information to create a Slipstreamed XP CD can be found on the VCC web-site. It is contained in the presentation titled Computer Maintenance Part 1.

Recovering from a Windows XP crash
When all else fails

PC users, you all know what it is: That dreaded Blue Screen of Death. You've installed a seemingly innocent application, restarted your computer, and suddenly you see this horror in front of your eyes: A big blue screen with some cryptic message on it. Try restarting again, same thing. Well, don't let it ruin your day. Remain calm, you fix it. You might want to print this article and squirrel it away for that fateful day when this happens to you

Here's what to do: First, get the Windows XP CD you used to install your operating system. By the way, this routine only works with Windows XP, either Professional or XP Home Edition . If you don't have a bootable XP CD, get one and have it with you at all times, because you never know when the dreaded BSOD might strike. If you have upgraded XP to Service Pack 2, make sure you have made a bootable CD with Service Pack 2 included. The procedure for doing this can be found on the VCC web-site in the presentation Computer Maintenance part 1.

But before you do anything with that CD, try restarting your computer again. Sometimes, for some odd reason, this works. Usually not, though. If you've tried that and everything else you can think of, and you can't even boot into Safe Mode, this is the mission for you.

Put the XP CD in the drive, and restart. When it says "press any key to boot from CD," go ahead, press any key and you're on your way to recovery. The Recovery Console, that is. If it doesn't give you a choice to boot from your CD drive, go into your computer's BIOS and make the adjustment for it to boot from CD. PCs brands and motherboards are too diverse for me to give you specifics on this, so follow the prompts and you can make that CD boot happen without too much trouble. Look at your screen when it boots up, and it always says "hit DEL for BIOS settings" or something similar

It'll look like you're re-installing Windows XP , but don't worry, you're not. This is just a screen showing you that your computer is loading enough files from the CD to actually do something, anything but that awful blue screen. Now when you see the screen that asks you if you want to install Windows, don't! Just hit R for recover, and you'll see the ominous Recovery Console. Don't let that intimidate you; the Recovery Console is your ugly, black-suited friend. It will have a dark, bleak screen, with the following stuff:

Microsoft Windows(R) Recovery Console

The Recovery Console provides system repair and recovery functionality.
Type EXIT to quit the Recovery Console and restart the computer.

1: C:\WINDOWS

Which Windows Installation would you like to log onto
(To cancel, press ENTER)?

Go ahead and hit the number 1 on your keyboard , or whichever number corresponds to the operating system you were using when havoc struck. Enter your administrator password, and then hit enter. You're in! By the way, if you don't know your administrator password, just try hitting the Enter key, and if that doesn't work, well, there's a fix for that, too. Just go to the following site and get the necessary tools to get you in: http://www.petri.co.il/forgot_administrator_password.htm.

If you type the following commands into your computer, it will work magic, akin to going back in time. There are three parts to this process, but believe me, they take much less time than reinstalling Windows XP and all your applications. So follow along with me, and keep in mind that each command must be typed

exactly as you see it here. Please note that this procedure assumes that Windows XP is installed to the C:\Windows folder. Make sure to change C:\Windows to the appropriate windows folder if it's at a different location. The copy commands will answer you with a little "file copied" message. The delete commands just move on to the next line. Because of the way your Web browser displays individual lines, a command might look to you like it's two lines, so I've separated each command by an empty line. But anyway, type the whole command in one line, and when you've finished typing that command, hit the Enter key. Be sure to include the spaces I've included between each word here:

md tmp

copy C:\windows\system32\config\system C:\windows\tmp\system.bak

copy C:\windows\system32\config\software C:\windows\tmp\software.bak

copy C:\windows\system32\config\sam C:\windows\tmp\sam.bak

copy C:\windows\system32\config\security C:\windows\tmp\security.bak

copy C:\windows\system32\config\default C:\windows\tmp\default.bak

delete C:\windows\system32\config\system

delete C:\windows\system32\config\software

delete C:\windows\system32\config\Sam

delete C:\windows\system32\config\security

delete C:\windows\system32\config\default

copy C:\windows\repair\system C:\windows\system32\config\system

copy C:\windows\repair\software C:\windows\system32\config\software

copy C:\windows\repair\sam C:\windows\system32\config\sam

copy C:\windows\repair\security C:\windows\system32\config\security

copy C:\windows\repair\default C:\windows\system32\config\default

Now you can relax for a minute. Now what did you just do? You first made a temporary directory called "tmp" (md tmp), and then into it, you copied all the files that boot up Windows. Then you deleted all those startup files, one of which is the stinker that got you into this mess in the first place. After that, you copied into that same place fresh startup files from a special repair directory. When you reboot, Windows will look for those files where it always does, and there won't be a stinker in the bunch. The only thing is, there won't be all your settings for all those applications you run every day, either. But not to worry. Right now, you're sitting in something like a lifeboat -- it's not the original ship, but it'll get you back to where you need to go. We'll get everything back to that comfortable place, but only after we go through steps 2 and 3.

Now type Exit and watch your computer restart into Windows XP again. Be sure not to tell it to boot from the CD this time. But wait. That's not the way you had XP set up before this disaster struck! That's OK.

We're in a lifeboat right now -- this isn't your comfy cruise ship, not just yet. Hang in there. I'm going to show you how to restore your system to the way it was the moment before you told it to install that errant application, or whatever it was you did, so follow along and we'll go to part 2.

Part 2

Here's where you'll copy the saved registry files from their backed up location by using System Restore. This folder is not available in Recovery Console and is normally not visible -- Microsoft is protecting you from yourself by hiding it from you and locking it away from you. But we have the keys. Before you start this procedure, you'll need to change several settings to make that folder visible:

1. Start Windows Explorer.

2. On the Tools menu, click Folder options.

3. Click the View tab.

4. Under Hidden files and folders, click to select Show hidden files and folders, and then click to clear the "Hide protected operating system files (Recommended)" check box.

5. Click Yes when the dialog box is displayed that confirms that you want to display these files.

6. Double-click the drive where you installed Windows XP to get a list of the folders. It's important to click the correct drive.

7. Open the System Volume Information folder. This folder appears dimmed because it is set as a super-hidden folder. If you're using the FAT32 file system, this will be easy. If you're using NTFS, it won't let you open the folder, but here's how to get around that: Right-click on that system volume information folder and select Sharing and Security. Then click the Security tab. (No security tab? Skip two paragraphs.) Click Add, and then in the box that's labeled "Enter the object names to select," type the name of the user that's at the top of the Start menu -- that's probably you. [Damn it, why do they say object names when it's people's names? I guess that's Microsoft for you.]

Anyway, make sure you type the name the way it's listed there on the Start Menu. Type first and last name if that's how it's written on the top of the Start menu. After you've typed that in, click OK a couple of times and finally that monster will let you in.

But what if you don't see a Security tab? Try this: Click to select the checkboxes in the "Network sharing and security" area -- one is labeled "Share this folder on the network" and the other is labeled "Allow network users to change my files." Change the share name to something short, like sysinfo. Then it'll let you in. After you're done with this entire rescue operation, you might want to go back and change these back to the way they were before, for maximum security.

OK. Now here you are, in the inner sanctum where only the high priests go. Be not afraid, all ye who enter here. As Microsoft so eloquently puts it:

NOTE : This folder contains one or more _restore {GUID} folders such as "_restore{87BD3667-3246-476B-923F-F86E30B3E7F8}".

8. Open a folder that was not created at the current time. You may have to click Details on the View menu to see when these folders were created. There may be one or more folders starting with "RP x under this folder. These are restore points.

9. Open one of these folders to locate a Snapshot subfolder; the following path is an example of a folder path to the Snapshot folder:

C:\System Volume Information_restore{D86480E3-73EF-47BC-A0EB-A81BE6EE3ED8}RP1Snapshot

From the Snapshot folder, copy the following files to the C:\Windows\Tmp folder (you can use your mouse, you're in Windows now, remember?):
_registry_user_.default
_registry_machine_security
_registry_machine_software
_registry_machine_system
_registry_machine_sam

This is how Microsoft explains this: "These files are the backed up registry files from System Restore. Because you used the registry file created by Setup, this registry does not know that these restore points exist and are available. A new folder is created with a new GUID under System Volume Information and a restore point is created that includes a copy of the registry files that were copied during part one. This is why it is important not to use the most current folder, especially if the time stamp on the folder is the same as the current time."

Anyway, you're still not done. Don't worry, the magic is about to begin. Believe me, if you do this in front of your friends, they'll start thinking you're some kind of god. So, heavenly father, get ready to dazzle 'em.

Now it's time to place those files you just made visible to the Recovery Console where they belong. And to do that, we need to get back into the Recovery Console. So, make sure your CD is in the drive, and restart Windows, this time hitting any key when it tells you to do that if you want to boot from CD. Yes, you want to boot from CD, so you can launch your old cryptic pal, the Recovery Console. Type R after it goes through that file-reading routine that looks like an install but isn't. Then you're back into our dark-suited friend with its ominous command line

Part 3
In part three, you delete the existing registry files, and then copy the System Restore Registry files to the C:\Windows\System32\Config folder:

From within Recovery Console, type the following commands:

Del c:\windows\system32\config\sam

Del c:\windows\system32\config\security

Del c:\windows\system32\config\software

Del c:\windows\system32\config\default

Del c:\windows\system32\config\system

copy c:\windows\tmp_registry_machine_software c:\windows\system32\config\software

copy c:\windows\tmp_registry_machine_system c:\windows\system32\config\system

copy c:\windows\tmp_registry_machine_sam c:\windows\system32\config\sam

copy c:\windows\tmp_registry_machine_security c:\windows\system32\config\security

copy c:\windows\tmp_registry_user_.default c:\windows\system32\config\default

Now. You're done! Type exit and your computer will reboot into whichever restore file you chose. But wait. If it's not the right one, that's OK, you can now go into your System Restore area and pick a different restore point if you want. There's a whole calendar full of them in there. It can restore about any state you had on that machine. Here's how to get into that restore area if you're not happy with the current restore point:

1. Click Start, then click All Programs.

2. Click Accessories, and then click System Tools.

3. Click System Restore, and then click Restore to a previous Restore Point.

Thanks to Charlie White, Digital Media Net Executive Producer for the information contained in this paper.