

Troubleshooting Tips for PC Computers

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A handy desktop reference of common problems
and their solutions – things to try
before you call in the professionals

Compliments of:

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What this guide is

This small booklet is designed to be kept near your PC so that you may refer to it should you have problems. The problems and tips are a collection of common problems and remedies that we have collected over the years. In many cases a problem which looks mysterious and daunting can be resolved with relatively little effort and a little knowledge. We hope this booklet will help you keep your Mac running smoothly.

And if it doesn't, we can help. We support PC computers for a living and have seen all these problems and more. Call us if you are stuck - we can help.

Versions and updates

Consider this a "work in progress" it grows daily. If you would like a copy of the latest edition, contact us (telephone, fax, address and email on the front cover) and we would be pleased to send you the latest version at no charge.

Are you a detective?

Determining what the problem is often takes more time than actually resolving the problem. When you are trying to resolve a problem, a couple things can help:

- 1) Stop and relax. When your computer acts up, it is always at the worst time, and it can be very frustrating and annoying. It can be scary. The immediate reaction is to "fix it". Often such ill thought out actions can cause more harm than the original problem. By stopping and thinking for a minute, the solution will often come to you.
- 2) In all cases protect your data. Systems software and applications can be reloaded from master disks. Your data is unique. No one else has it, which is what makes it so valuable. **Make backups**. If you have a crash, your first and primary focus is your data. It must be protected.
- 3) What did you do last that may have changed the system behaviour? Whatever it is, it is your prime suspect.
- 4) Try reading through the problems on the following pages and see if one seems to be similar to yours.

- 5) Whatever you do, think it through before you do it. Do not panic, do not be rushed.

Organisation

This booklet has tips in no particular order. They are listed as we collected them. Later versions will be more organised, and will offer cross reference listings.

We hope soon to have this guide available on the Internet - Check out our WWW Site: <<http://www.compumart.ab.ca/psc>>. Check back with us; new printed or emailed copies are free.

I found a problem you haven't listed and I solved it

Great! Congratulations! Now tell us about it and how you fixed it. We will include it in the next edition. With a credit to you of course. And we will even send you a free copy of the latest version of our guide.

And if you find an error, please let us know as well. We will correct it. We want this guide to be as accurate as possible.

Why are you providing this guide?

A couple reasons. First, we feel that people should be able to handle many of the problems they encounter with their computers themselves. We feel that the better informed a user is, the fewer problems they will have with their machine.

Second, there will always be problems that are beyond your ability or knowledge. When you run in to them, we hope that we will have established enough of a reputation for knowing what we are doing that you will call us for assistance.

Warnings and legal stuff

These tips have proven to be effective in solving problems we have encountered. However, you are on your own if you carry out any of these suggestions. Our tips cannot cover every situation. You use these tips at your own risk. PSC Consulting Ltd. will not be responsible for any loss incurred by using this guide.

While we have taken every effort to ensure that the information provided in this guide is correct, we assume no responsibility for any errors or omissions. If you are hesitant or not sure about doing something, we suggest that you talk to someone who has the knowledge to assist you and knows more what they are doing. Please be careful.

	Activity/Problem	What and Why	How to do it
1	Check the battery	<p>The clock and sometimes other settings are maintained by a small battery when the computer is shut off. When this battery starts to die (anywhere from 2-5 years after the computer is built) the time can reset to an obviously incorrect date (often 1980).</p> <p>Important settings can be lost, such as Disk drive identities, especially on older computers. Often a PC will not boot because there is no valid system disk - it can't find a C: drive. This is usually a software problem, but if you fix it once by going into the BIOS setup, and the problem reoccurs after shutting off, it may be a battery.</p> <p>Timing can be important - this problem often shows itself on Mondays, or after long weekends, etc.</p>	<p>Warning: Computers have high voltage present inside them that can be very dangerous. If you are not comfortable opening up your machine, have a technician do this for you.</p> <p>Shut down the computer. Open it up. Ground yourself with a static strap. Remove the battery (the battery is either held in with a plastic clip, Velcro, or may be a watch type) and replace with an identical new one. Make sure you have the polarity correct. Replace the clip and close the machine up. then restart.</p>
2	Always Save before printing, faxing, transferring to another application, spell-checking, or opening another file.	<p>When you switch to another application, the System software must do a lot of things in background. If anything goes wrong, the whole machine can hang</p>	<p>Select Save under the File menu or press CTRL-S, or press ALT-F, then press S</p> <p>Note that most database packages auto save each time you enter data, so forced saving is not possible.</p>
3	Restart the machine	<p>When an application acts unpredictably, it sometimes messes up other parts of the operating software. Restarting the machine brings everything back to "ground zero".</p> <p>This is most often when 'This Program Has Performed an Illegal Operation...' or for W3.1 users: 'A General Protection Fault in Module HELP@#\$.exe... ...'</p> <p>If the fault continues restart after restart, consider s/w reinstallation.</p> <p>Although developers may cringe at this, I have to say that the occasional Illegal Op is somewhat normal... hmm....</p>	<p>Do a restart in these increasingly drastic steps:</p> <p>Perform a normal restart.</p> <p>If your machine is hung or not responding, press CONTROL-ALT-DELETE to force a restart (often called the Three Finger Salute). You will lose any unsaved information.</p> <p>Press RESET: this is 99.999% of a power down on the computer, but doesn't power down the hard disk (a moving part).</p> <p>Power computer right off, wait 10 (relax), then turn back on. The odd problem needs power OFF to correct.</p>

	Activity/Problem	What and Why	How to do it
4	Watch how you start and stop the things you do on a computer.	<p>Often switching applications, starting and quitting them repeatedly, especially in differing orders throughout the day can cause problems with the system software, which eventually lead to a system slowdown, and then crash.</p> <p>These are bugs in the programs and systems, and often a fact of life.</p>	<p>If you have been opening and closing applications, or switching repeatedly, and you notice any change in the way the computer operates, stop, and restart. Then watch what happens in the next session as you move around from program to program. Try to change your technique.</p>
5	Slow down!	<p>A surprising number of problems occur by being over anxious, not waiting for the computer to finish what it is doing before asking for something else. Often the rush prevents the user from noticing error messages, or extra clicks place a greater burden on the system software</p>	<p>Of course when you're having problems is when its easy to get anxious and start pushing the computer around. Take the time to read all messages, especially error types! When things start going awry, take note of <i>how</i> you are trying to do something, and perhaps <i>change</i> the way you do it.</p> <p>This might be considered practicing 'computer psychology' but its mostly learning to understand the way the computer thinks.</p>
6	Check your cables	<p>Whenever you have a problem, check your cables. One may have been bumped or jostled and you cannot see it is loose. Don't rely on a visual inspection; perform a physical reinsertion.</p>	<p>Power off your computer. un-plug and reconnect every cable.</p> <p>Restart.</p>
7	Remove the last thing you added to your system	<p>When something goes wrong in a computer system, the first suspect should be the last thing you changed.</p>	<p>Undo the last thing you changed (remove it, etc.)</p> <p>You can keep problems like this to a minimum by following two simple rules:</p> <ol style="list-style-type: none"> 1) Keep a log of each change you make 2) Only make one change at a time, then try it out and test it before making another change.
8	Reinstall the application software package or driver software	<p>Application software can sometimes be corrupted for various reasons. Often a complete reinstall will correct the problem.</p>	<p>Follow the installation instructions you received with the package, including any special instructions such as turning off virus protection.</p> <p>If there is an UnInstall program, or the program is listed in the Add/Remove Programs control panel, uninstall the program first.</p>

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9	Replace the printer driver	These files can sometimes get corrupted and cause printing problems.	<p>Delete the printer icon in the Printer control panel. You may be asked if you wish to delete 'no longer needed files' - say yes.</p> <p>Reinstall the printer according to the instructions.</p> <p>When using the Printer Installation Wizard (W95), you may be asked to write over a file that's newer than the one you're trying to install. If you're having problems, answer yes, but when you're installing an additional printer/resource, you may consider keeping the newer one.</p>
10	Run <i>Norton Disk Doctor</i> against the hard disk	The directory structure of a hard disk can be corrupted in many ways. Norton attempts to diagnose and correct these problems.	<p>Follow the instructions that come with the Norton package. Make sure you have a version of Norton that supports your System - older versions for instance cannot recognize larger hard disks properly</p> <p><i>Norton Disk Doctor</i> is a very powerful tool that you can correct many errors on disks with - we use it daily. But like any powerful tool, it can be dangerous to your hard disk if used improperly. The analogy we use is a chainsaw: a powerful and useful tool, but a tool that can be deadly in the hands of an untrained operator.</p>
11	Restart in SAFE MODE (Windows 95)	<p>Sometimes you run into conflicts with hardware, or software that can prevent Windows from starting.</p> <p>If your monitor is all scrambled (Horizontal hold is out) you can reset it in SAFE MODE</p>	<p>When you see the message 'Starting Windows 95...' <i>immediately</i> press F8.</p> <p>Using 'Safe Mode' should start W95 with a standard VGA screen mode, no network, and no peripheral support.</p> <p>In safe mode, you can reset your monitor to an acceptable setting, and you can remove peripheral drivers, or change their settings.</p> <p>Anything you change will not take effect until you reboot.</p>

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12	Record all changes to your system as well as problems on a regular basis	When something goes wrong in a computer system, the first suspect should be the last thing you changed.	Keep a log of each change you make so that you can backtrack as necessary, or so you will have background information as to what has been done to your system if you call PSC in.
13	Reinstall Windows software	<p>If you have a problem that seems to be common to more than one application, Windows, which is common to all applications, may have become corrupted and needs to be replaced.</p> <p>Missing files are reinstalled, completing a partial Windows system.</p> <p>Often corrupt files are NOT reinstalled, see the next item.</p>	<p>Follow the instructions that came with your master disk set or CD-ROM. Apply any available updates in the order recommended in the manual or the ReadMe files.</p> <p>Not all versions of Windows seem to allow this.</p>
14	Perform a clean install of the Windows software	When you re-install Windows, the Installer simply updates what is there. In some cases corruption of the system can still remain. A clean install completely re-installs all components, starting fresh.	<p>Follow the instructions that came with your master disk set or CD-ROM.</p> <p>Following a clean install you will need to re-install or copy back all programs, printers, network connections, etc. The only thing that remains is your data (which really should be backed up before doing this)</p> <p>Try to install programs into the same locations they were before, otherwise, much unnecessary space will be taken on your Hard Disk.</p>
15	Check version numbers. Some applications require certain version numbers of system software to run. Some pieces of system and application software will not run with other pieces of different version number.	These types of conflicts can be very hard to determine. You can try and address it by checking the System requirements of an application before installing.	<p>Device driver information is usually available in the properties menu of the device.</p> <p>The System control panel will let you choose properties of many system devices and determine their version numbers (Properties button - Drivers tab).</p>

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16	If you are having problems using downloaded files.	<p>Sometimes files are placed on the internet for downloading that have damage in them. Or sometimes errors are introduced during downloading.</p> <p>Common errors include: 'This program performed an illegal operation and will be terminated...' when you try to run the downloaded program.</p>	Erase the original file, download again.
17	Do whatever you can to CHANGE (not necessarily fix) the problem. Helps you identify where the problem is.	<p>When something is wrong, and you cannot determine what must be done to correct it, try doing anything you can to change the results you get from the computer. If you can do anything that changes what the computer does, it may give you more data with which to identify and resolve the problem.</p> <p>90% if troubleshooting is diagnosis. The other 10% is fixing it</p>	<p>Try different system settings, Run different applications, Print to a different printer, or print to the same printer from a different application. Use a different computer with same data file. Anything you can think of to force the problem to change. Hint: keep careful notes of what you change so you can both change it back and remember what worked</p>
18	RTFM – Read the Friendly Manual	There really is a lot of useful information in the manuals supplied with current hardware and software.	<p>If you find the manual hard to read or understand, there are several excellent third party manuals and instruction guides available at computer bookstores.</p> <p>Check for any ReadMe files (below) Often ReadMe's have more up-to-date information than can be printed in the manuals.</p>
19	Read the ReadMe files	ReadMe files are often included with software packages on the install disk, or are installed when the software is, and give late-breaking details and information that came up after the manual was printed. Often they will help you address bugs before you get hit	<p>Read them Then try the step above.</p>

	Activity/Problem	What and Why	How to do it
20	Call PSC Consulting	<p>We are computer specialists. We have seen a lot of problems on Macs, PC's, and Networks.</p> <p>We can provide support and expertise for you to ensure that your Computers keep running and run properly.</p> <p>Call us. We can provide the support you need for an affordable price.</p>	<p>E-mail peter@psc-consulting.ca</p> <p>Home page http://www.psc-consulting.ca</p> <p>Telephone/Fax 780/459-9280</p> <p>Real world address 34 Geneva Cr., St. Albert, AB, Canada T8N 0Z4</p>

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