

AllTech PC-Maintenance Guide

Basic Computer Maintenance

How to keep your computer running smoothly

The Most Important Rule:

Make sure your computer has breathing room...good air circulation is important in keeping your computer running.

The Most Important Axiom:

Good training leads to remarkable pay back on computer use.



Tech Tip 1: Never unplug a component while your system is running. If you need to move a printer or monitor or other device you should first exit all programs and shut your computer down. Ignoring this advice can result in damage to your computer or the device you are moving. It's extremely easy to short out a device that has power to it. Be safe and always make sure the power is off before plugging or unplugging devices into your system

Tech Tip 2: Keep the air moving. Your system generates a tremendous amount of heat. To keep components cool, manufacturers have installed internal fans. Many times these fans fail because of dust and dirt that gets sucked into them. Keep your system off the floor. Walking around a computer sitting on the floor stirs up dirt and dust that gets pulled into the system, causing poor performance and premature failure of the fans and other components. Don't push the computer against the wall or pile items around the base of the computer. This restricts the airflow going into the computer causing the system to operate at higher temperatures.

Tech Tip 3: Use a surge protector. These are special power strips with protected outlets designed to absorb power surges. High voltage spikes in a power line can severely damage memory chips and other system components. In addition, consider shutting your system completely down during thunderstorms. Lightning hitting power lines can send huge amounts of power across lines and into your system.

Tech Tip 4: Be careful of what you delete. Many new users cannot resist the temptation to "clean up" their hard drives. In doing so they often delete critical system files resulting in programs not working properly or in some cases the system not starting. If you're not sure whether the file is needed or not you should leave it there.

Rituals

Daily:

1. Empty the Recycle Bin (right-click → select "Empty Recycle Bin")
2. Shutdown Properly (Start → Shut Down → "Shut Down the Computer")
3. Remove diskettes from the diskette drive.
4. Turn off the computer overnight
5. Turn the printer on before turning the computer on.

Weekly:

1. Search for and delete "*.tmp" files using the Start → Find → Files and Folders utility.
2. Remove Temporary Internet Files from your computer.
3. File Management: Organize Files.





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4. Run Disk Cleanup
5. Run Scandisk
6. Back up your critical files

Monthly:

1. Run Defrag
2. "Prune the Tree" (Eliminate outdated files. Remove unused programs)

General:

The following is a list of 5 minor things to check before calling for technology support:

- 1) If the base unit or monitor isn't working, is the power switched on? Are all power cables securely connected?
- 2) **No monitor picture** - is the brightness or contrast turned all the way down? Is the monitor cable securely connected to the PC?
- 3) **No sound** - are the speakers plugged in and switched on? Is the speaker cable securely connected to the PC? Is the volume control turned all the way down?
- 4) **Keyboard error** - is the keyboard cable securely connected to the PC? Is something lying on one of the keys?
- 5) **Printer won't print** - is the printer plugged in and switched on? Is the printer cable securely connected to the PC? Are the correct printer drivers installed? Will the printer print a test page (see owner's manual for instructions)?

Keep your computer clean. Dust and dirt can clog fans, prevent proper ventilation, and in extreme cases cause short circuits.

- ✓ The outside cases of the PC and monitor can be wiped down with a damp clean lint-free cloth.
- ✓ Keyboards can either be cleaned off with a keyboard wipe (available from any good computer/office supplies store), or in the case of a spill soaked in distilled, de-mineralized water.
- ✓ Mouse rollers should be cleaned with a swab soaked in isopropyl alcohol.
- ✓ The internals of the PC should be periodically cleaned with a can of compressed air...do NOT use a vacuum or you may cause electrostatic discharge damage.
- ✓ Make sure that nothing blocks the air vents on the desktop or laptop.
- ✓ Finally always remember to disconnect the power from any component before cleaning it, and never reconnect the power until you are 100% certain that it is dry.

Uninstall unused programs, and do it the right way. With hard drives getting bigger all the time, it's very tempting to install all kinds of programs on your system. Many programs get used a couple of times and then sit hogging space and bloating the registry for no good reason. Don't just delete the program folder though as this is asking for trouble. Use the "**Add/Remove Programs**" applet in the **Control Panel** to remove software cleanly and safely.

How to's

Disk Cleanup (approximately 2 minutes)

1. Left click on Start
2. Programs
3. Accessories
4. System Tools
5. Disk Cleanup
6. Click OK
7. Click OK again
8. Click YES

System Scan (run overnight)

1. First, turn off screen saver (running will halt the scan)
 - a. Left click on Start
 - b. Settings
 - c. Control Panel
 - d. Double click Display icon
 - e. Click second tab "Screensaver"
 - f. Scroll to top and click none
 - g. Click OK
2. Left click on Start
3. Programs
4. Accessories
5. System Tools
6. System Scan
7. Make sure the scan is set for the "C" or primary hard drive
8. Click Thorough
9. Click Automatically Fix Errors
10. Click OK
11. Turn off monitor (optional)

System Defragmentation (run overnight)

1. First, turn off screen saver (running will halt the scan)
 - a. Left click on Start
 - b. Settings
 - c. Control Panel
 - d. Double click Display icon
 - e. Click second tab "Screensaver"
 - f. Scroll to top and click none
 - g. Click OK
2. Left click on Start
3. Programs
4. Accessories
5. System Tools
6. Disk Defragmenter
7. Make sure the Defrag is set for the "C" or primary hard drive
8. Click OK
9. Turn off monitor (optional)

Basic Printer Problem-Solving

- **Make sure all of the connections have power and are connected properly** -- the wire from the computer to the network, the wire from the network to the computer (the port), the wire from the printer to the power socket, etc. Don't just look -- press the connection into its socket to make sure it's secure.
- **Check to see that the printer is connected to the proper port on your computer.** If the printer has been working fine up to this point, then this is probably not the problem. But if this is the first time you've tried to use the printer, then turn everything off, change the port and try again.
- Are you able to print from one program, but not another? Or, are you able to print one document, but not another? If some documents print properly and others don't, the offending file is probably corrupted. Try copying the text into a new document and printing.
- Were you able to print before, but now you can't? If so, what has changed? Did you attach a new printer cable? Change paper or ribbon or ink cartridge? Get a new computer? Move the computer from one room to another? If so, review the changes you made; perhaps something is installed incorrectly. Perhaps something has to be reinstalled.
- **Run a self-test on the printer.** The manual that came with your printer will tell you how to do this; usually it involves a sequence of printer buttons or commands on the printer itself. If the self-test prints out clean, the printer is physically okay and the problem is in its ability to communicate with the computer.
- **FOR MACS:** Restart the machine and re-choose the printer from the chooser, and then see if the problems continue. If you are using a localtalk or other type of network connection to the printer, make sure that AppleTalk is active in the chooser. Next go to the file menu and choose the print window or print desktop command. If this prints, then any further problems you encounter are from the specific software you are using. Try reinstalling the software, and if that still does not work, visit the software manufacturer Web site for further information.
- **FOR MACS:** As System software is upgraded, so are the drivers for the printer. Any time you are having a problem with your printer that seems software related, make sure that you are running the latest version of the printer driver. The manufacturer of the printer should have this software available.
- **FOR MACS:** If you do have the latest drivers, try reinstalling them, slight corruptions in the drivers can cause major problems. It is recommended that you throw away or "hide" any old drivers before reinstalling.
- **FOR MACS:** One common mistake is to use the wrong driver. Many printers will be able to connect either directly with a serial cable or over a network. These printers often come with two drivers, one for each type of connection. Make sure you are using the appropriate driver.
- **FOR MACS:** If replacing or updating the drivers does not solve the problem, then the next step is to reinstall the system software.
- **FOR MACS:** If the printer does not print out anything at all, or the page has some sort of distortion on it, try printing out a test page. the manual that comes with your printer should give you details on how to do this. When you print out the test page the printer should not be connected to any machines or to a network. If the problem persists, then it is the printer; take it to a repair center.
- **FOR PCs:** Can you print from DOS? To test this, you will have to be out of Windows and at the root directory of your C: drive. (The prompt on the screen will look like "C:\>".) Type "dir > lpt1:" without the quotation marks, and press the ENTER key. If you get a printout of the directory of the hard drive, you will know that the connection between the



printer and computer is sound. The problem has to do with your operating software or the way the printer is configured within that software.

- o **FOR PCs:** If you can print from a DOS prompt (Step 4 above) but can't print from Windows, make sure you have at least 3 or 4 MB of free hard disk space. Windows has to create print spool files and may not print if it doesn't have enough free space to do so. If you are low on free hard disk space, free up some space by deleting any unneeded files and try your print job in Windows.
- o **FOR PCs:** If you can print from a DOS prompt but can't print from Windows, type "set" at a C:\ prompt; note the line that says "TEMP=". It may say something like "TEMP=C:\TEMP" or "TEMP=C:\DOS". First, make sure the directory exists. Then, check its directory for any files with the TMP extension. If you find any, delete all the .TMP files; they are Windows print spooling files and should be deleted by Windows each time it closes, but sometimes they are not. Their existence can interfere with the creation of new print spool files. Start Windows and try your print job now.
- o **FOR PCs:** Remove the printer driver in Windows Control Panel Printers. Close Windows and Add Printer to reinstall it; of course, you will need your Windows disks or CD to install the files.
- o If none of the above works, go to the producer's Web site and see if they have tips for you. And if that doesn't work, contact technical support (which you may have to pay for, but because you've done all of the above, it should cut down on the time the support person has to spend solving this).

Delete all .tmp files:

1. On your screen, locate and click the **Start** button. From the **Start** menu, point to **Find**, then click **Files or Folders**.
2. In the **Find: All Files** window, verify that the **Look in:** text box reads: **(volume name) C:.** If you are not sure where the files are located, click **Browse**, then click to select drive C. Click **OK**.
3. In the **Find: All Files** window, in the **Named:** text box, type: *.tmp. Click **Find Now**.
4. If any files appear in the search window, click the **Edit** menu, then click **Select All**. Press the DELETE key. Click **Yes** to confirm the deletion.
5. In the **Find: All Files** window, click **Close**.
6. Grab <http://www.langa.com/reg/cleanup.bat> and let it automate the process.

Empty the Recycle Bin:

1. On your screen, double-click the **Recycle Bin** icon.
2. In the **Recycle Bin** window, click the **File** menu, then click **Empty Recycle Bin**.

Run ScanDisk:

1. On your screen, locate and click the **Start** button. From the **Start** menu, point to **Programs, Accessories, System Tools**, then click **ScanDisk**.
2. In the **ScanDisk** window, verify that the **Type of test** selection is set to **Standard**, and that there is no check in the **Automatically fix errors** check box.
3. In the **ScanDisk** window, click **Start**.
4. If numerous errors are found, restart the ScanDisk with the **Thorough Test** option selected to check for surface issues on the disk.
5. When the scan is finished it reports how many errors were found. In the **ScanDisk** window, click **Close**.
6. Click **Close**.

Run Disk Defragmenter:

1. On your screen, locate and click the **Start** button. From the **Start** menu, point to **Programs, Accessories, System Tools**, and then click **Disk Defragmenter**.
2. You may be prompted to select the drive. If so, click to select drive C, then click **OK**.

Note: With Windows 95 you need to click **Start** to begin the defragmentation. Windows 98 begins the scan as soon as you click **OK**.

3. When the process is finished, click **Yes**.

Verify that Windows 9x is managing the virtual memory instead of specifying a swap file size:

1. On your screen, locate and click the **Start** button. From the **Start** menu, point to **Settings**, and then click **Control Panel**. In **Control Panel**, double-click the **System** icon.
2. In the **System Properties** dialog box, click the **Performance** tab.
3. On the **Performance** tab, click **Virtual Memory**.
4. In the **Virtual Memory** dialog box, verify that the **Let Windows manage my virtual memory settings** option is selected.

Note: If the Swap file size is not large enough, it affects the computer's performance. If the Let Windows manage my virtual memory settings option is already selected, there may not be enough hard disk space.

5. In the **Virtual Memory** dialog box, click **OK**.
6. In the **System Properties** dialog box, click **OK**.

Consolidate Files by using Folders

As simple as it sounds, the best way to keep your PC... and your work... organized is to group things together. Store all of your word processing documents in My Documents so that you can find all of them more easily. You may even want to sub-group documents together by class or department so that you can refer back to some other work you might have done earlier.

Create a Central Download Folder

With all the software out there, keeping track of everything you download can be a headache. Most people already group their MP3s together, so it's a good idea to put all of your program downloads in the same folder. Not only does it keep save you the trouble of looking all over your hard drive for the installation files, but it also lets you know if you've downloaded something already.

Uninstall Programs You Don't Use

It's easy to accumulate software, but having a lot of games and applications on your PC can very quickly fill up your hard drive and make it more difficult to run the programs you use everyday.

Clean Up Your Desktop

Trying to find what you need on a messy desk can be frustrating: the same is true of the Desktop on your PC. Getting rid of Shortcuts and icons that you never use can make your life just a little bit easier.