



Bug-Bytes

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TUNE-UP YOUR COMPUTER!

TIPS TO MAXIMIZE PERFORMANCE



It has been more than a year since I printed tips in Bug-Bytes (December 2003) on ways to improve your computer's performance. Computers need regular tuneups to get rid of an accumulation of internet junk, stranded temporary files, to regain lost hard drive space, to defragment files, and to help you restore something like the pep your computer had when it was new. Left alone, performance of computers degrades over time.

Some computer sluggishness occurs because newly installed programs unnecessarily claim a portion of your available memory at startup, and some default software settings contribute to performance problems.

Here are some steps you can take to maximize the performance of your computer.

Run www.PCPitstop.com

Benchmark your system before and after your performance tuning efforts. PCPitstop provides tips as well as useful benchmarks to quantify your efforts.

SOFTWARE: TURN OFF QUICKFINDER

Windows automatic indexing is a significant resource hog. If searches are only one percent of what you do, don't let QuickFinder interfere with the other 99% of what you do. Click on My Computer. Right click on a drive, select Properties, and **uncheck** the box for Allow Indexing Services. Click Apply for both the drive and its sub folders. Alternatively, set QuickFinder to manual and update only when it is convenient for you to do so. Windows

automatic indexing updates occur at the most inopportune times and can bog down your machine when you need it most.

Repeat this for each physical drive. This step alone should improve performance.

DEFRAGMENT YOU HARD DISK(S)

Defragment you hard disk or disks **often**. If you are a very active computer user, once a day is not too often. The advantage of defragging often is that it takes very little time every time you do it. If you wait a month, it will take literally hours to accomplish the very same thing. When your disk is defragmented, it takes less time to read and write data to and from your hard drive. That's because the hard drive arms don't have to seek all over your disk for fragments scattered around the disk.

RUN SCANDISK, OR ERROR CHECKING (XP)



For Windows versions before XP, click on Start, Programs, Accessories, System Files. Click on ScanDisk and check the box to automatically fix problems. Run the program. Be aware that this can take hours, so plan accordingly.

In Windows XP, Click on My Computer, select a drive, and right click on the icon. Select Properties, Tools, and click on the Check Now button for Error-checking. Alternatively, If you have Norton Utilities (in Norton SystemWorks), use Disk Doctor or

similar third-party products. They are much faster than the Windows version.

REMOVE ADWARE AND SPYWARE

Adware and Spyware can significantly impact performance. They may compete with other programs for your available memory. In addition, they may "phone home" to advertiser web sites with information about your browsing habits.

UPDATE WINDOWS DRIVERS

If you have DSL or Internet Cable, turn on automatic updating. Windows Update will download the latest critical updates. However, you need to click on Custom to search for optional hardware and software driver updates.

DELETE TEMPORARY FILES

Programs that create temporary files do not always do a good job of removing them after they have served their intended purpose. Use Search/Find and search for *.tmp. Delete all the TMP files except for those for the present day.

Sort the files in descending order by date (double click the date column) to make it easy to see the most recent dates. Click the first file that you want to delete and hold down the shift key. Then click the last file that you want to delete. The first to last file will be highlighted. Press the delete key.

To randomly select files to delete, hold down the Ctrl key while you select the files you want.

DELETE INTERNET EXPLORER TEMPORARY FILES

Open Internet Explorer, and click on Tools, Internet Options. Under Temporary Internet Files, click on Delete Files. This will clean out the accumulation of such files. These files include web pages that you may not have viewed in months.

OPTIMIZE YOUR WINDOWS PERFORMANCE SETTINGS

Right click on My Computer. Select Properties, Advanced, Performance, Settings. Select Adjust for Best Performance, or better yet, select Custom, and uncheck all but maybe the last two items – Use drop shadows for icon labels on the desktop, and use visual styles on windows and buttons. The long list of visual effects are overkill. They are nice to have, but you don't really need them. When all of them are enabled, they take up valuable memory resources.

OPTIMIZE VIRTUAL MEMORY

Right Click on My Computer, Properties, Advanced, Settings, Advanced. That is not a typo. You have to select a second advanced tab. Click on Change under Virtual Memory. On the drive that holds your programs and Windows files, click Custom and set the Initial size to 100MB and Maximum size to 1.5 times the amount of RAM you have installed in your computer. That is, if you have 512MB of RAM, set the maximum virtual memory size to 768. Click set, OK, and OK again. This minimizes RAM fragmentation since the size of reserved memory will not change. Set a maximum size of 50MB for any other partition.

REMOVE THE DUST BUILD-UP



Dust bunnies that accumulate inside your computer can severely restrict air flow and produce heat related problems. Heat is a common enemy of computer components.

Be sure to check behind the front panel

of your computer for dust bunnies, and accumulated dust in the vents of your power supply.

FIX BROKEN SHORTCUTS

Orphaned Links are often created when software is removed, and due to changes in the location of programs and files. Unfortunately, Windows does not include a mechanism to correct this problem aside from manually searching for the correct locations for each broken link.

However some third-party utility applications include modules that quickly fix broken links. Two examples include Norton SystemWorks (One-button checkup), and Rose City Software's Registry First Aid

SIMPLIFY YOUR DESKTOP

Minimize the number of icons that load on your desktop. Remove unused icons. For example, remove icons for alternate ISP services that were installed when you first bought your computer.

You might create a utility folder and a photo program folder on your desktop and put related icons in those folders. That way, they are just a click or two away, and the individual icons don't clutter up your desktop and take up resources loading them each time your computer starts.

CLEAN OUT YOUR SENT MESSAGE FOLDER

Periodically review your sent message folder in Outlook Express. The folder can grow to be an enormous size. Keep only those messages that you feel you really need for record purposes.

Start by sorting the folder by size. That is double click on the size column, twice, to sort the files in descending order by the largest size. Then work down the list deleting any unneeded files. That way you will work first with the files that have the most impact on your system.

PURGE DELETED MESSAGE FILES

Deleted messages sit in your OE deleted message folder until you manually purge them. To do so, open Outlook Express, click Edit, Empty 'Deleted Items' folder.

CLEAN OUT YOUR RECYCLE BIN

Right click on the recycle bin and periodically purge files that are stored there. The recycle bin is a temporary storage place for files that you delete giving you the opportunity to restore some of them to your computer if you find the need to so.

If you use Norton SystemWorks, right click on the recycle bin and delete Norton Recycle Bin files and the Windows Recycle Bin files. Norton maintains more files in the Recycle Bin than does Windows as a safety factor.

REMOVE EXCESS FONTS

Windows loads every font included in the Windows font directory. Most users employ only a fraction of the fonts that are installed there. That is because office suites, photo editing software, and other programs frequently install their own set of fonts by default. That is one good reason to select custom install and to review what gets installed.

For instance, do you really need foreign language fonts (Cyrillic, Greek, Hebrew, Japanese, etc.)?

If you have more than three hundred fonts installed, you are a very strong candidate for a thorough font house-cleaning.

In my estimation, the best program for this purpose is PC Magazine's *Fontviewer 2* which is available from their web site. (www.pcmag.com) Now, however, their utilities download service is by paid subscription only. The cost is very nominal, and you can choose from several paid options.

REPLACE WIRELESS KEYBOARD AND MOUSE BATTERIES

If your wireless mouse or keyboard is getting sluggish, replace the batteries.

Review the Mouse settings in the Control Panel to tweak your settings.

CLEAN YOUR MECHANICAL MOUSE

▲ Turn over your mouse and remove the rubber ball by rotating the inset ring counterclockwise. Wipe any lint or crumbs from the ball with a soft cloth.



Remove any lint wrapped around the rollers with an old toothbrush or a rotary brush designed for that purpose.

If lint is wrapped around the ends of the rollers, gently lift off the lint with a pair of tweezers.

DISABLE MEMORY HOGS IN MSCONFIG (ME OR XP) OR MSINFO32 (WIN 98)

Very few programs NEED to open when your computer starts and to stay resident in memory. Those that do are your anti-virus/firewall program, perhaps a pop-up blocker, a print program, and maybe an extended keyboard program and software for a laptop mouse.

Run Msconfig or Msinfo32 and review the list of programs that are loaded at startup. Uncheck all that appear to be unnecessary. Reboot your computer. If needed, you can recheck some of the items if you find that you need them.

Unneeded programs reduce the amount of available memory for other tasks.

UNINSTALL UNUSED APPLICATIONS

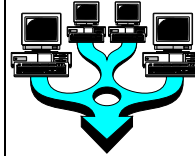
Carefully review the list of applications installed on your computer. If you downloaded something years ago and you never use it, consider uninstalling it with the Add Remove Software application in the Control Panel. To uninstall, do the following to free up space on your hard drive and to get rid of useless stuff from your registry.

- Select the application from the Start program list. If there is an uninstall link for the program, click on that.
- If there is no link there for an uninstall program, click on Start, Control panel, Add or Remove Programs, and look for the application in the list of currently installed programs. Click the remove button. Note that in XP it lists the last date the program was used.
- If you have not located the application and its uninstall program, insert the CD for the application. Most applications come with an uninstall option built into the installation routine, as well as a repair option to correct minor installation problems.

CHECK YOUR NETWORK SETTINGS

Tweak your network settings for faster loading. For instance, you can run

IPConfig /all to list all of the relevant settings for your network. (You have to do that from each computer on the network). Use the information for the following.



If your computers are networked and, you use *ZoneAlarm* as your firewall, add the host name or IP address of your domain host (such as Charter.net or Echoweb.net) to the trusted zone. This will speed Startup. Open ZoneAlarm, Firewall, Zones, Add, Host. Enter your host name and click on Lookup. Then click on OK.

HARDWARE: UPGRADE YOUR RAM

RAM is the most cost effective upgrade option available. Most computers benefit by increasing the amount of RAM on board. Given that RAM is so cheap, why suffer with inadequate RAM?

Download Sandra Lite 2005 (free) www.download.com/3000-2086-10339764.html. Click on Main board to see how many banks of memory you have, how many and which ones are in use, and what memory is installed. Use that information to help you buy additional memory. For example, you should have 256MB for XP, but 512MB is better.

TUNE-UP YOUR MONITOR

Is your CRT monitor looking tired and misaligned?



Change your CRT monitor settings for easier viewing and more vibrant colors. CRT monitors are affected by strong magnetic fields (such as vacuuming near your computer monitor, or perhaps desktop speakers placed close to your monitor). Therefore, many monitors come with a degauss button to demagnetize the monitor. I was about ready to buy a new monitor because my old one displayed strange

colors, and the color was weak. A push of the degauss button gave it a new lease on life.

Monitors come with controls, usually on the front of the monitor, to realign the display image and to expand it to fit your screen horizontally and vertically, and to correct for distortion of the image. Your monitor is a candidate for tweaking if you have a wide

band of black around the borders of your monitor, the image is skewed, or the edges are not straight (pin cushion curvature).

First, degauss your monitor, if your monitor comes with a button for that purpose. Some monitors include an automatic circuit that performs that task every time the monitor is turned on. LCD flat panels are not affected

by magnetic fields. Speaking of which, one user reported a problem with his flat panel monitor. The red color was not showing. He unplugged his monitor from the power outlet, waited, and then plugged in his monitor and the problem went away. Most monitors, if plugged-in, still receive some power even though you turn them off at the switch. This is to facilitate a quick startup.

First, adjust contrast and luminosity (brightness). See <http://www.4p8.com/tune/> and follow their instructions. Some video display cards include display adjustment programs.

Right click on your desktop, Properties, Settings, Advanced, and review the tabs for your display card. Adjust the screen refresh rate for your monitor to eliminate any annoying flicker. Generally a setting of 70-85 Hertz should do the trick. Be sure that to check the box to hide modes that your monitor cannot display. That way, you will pick only from modes that your monitor supports. Failure to do this can lead to an unusable display and/or damage to your hardware.

Explore the monitor menu for controls to adjust brightness, contrast, and gamma. Gamma is used to match the

output of the monitor to a printer or scanner. For instance, Adobe includes a utility with their photo editing products to help make this correction. Ideally, black should be a rich black, white should be bright white and grey would be half way in between. Typically, Windows systems have the gamma value set too low.

Align the image. That is, center the image on your screen. Then, use the monitor controls to expand or contract the image horizontally and vertically to achieve the best fit. There will be a narrow band of black around your image. That is okay.

BETTER INDEXING SOLUTIONS ARE AVAILABLE

SEARCH YOUR COMPUTER AS EASILY AS YOU SEARCH THE WEB



Indexing is a technique used to quickly find answers to disk searches in a fraction of the time that would otherwise be required.

Windows includes an indexer (QuickFinder), but it can bring your computer to its knees because it is slow and updates files at opportune moments.

A new class of indexing tools was recently released by Copernic for NT,2000, and XP, and a somewhat similar beta version is available from Google. They are known as desktop indexers and they quickly index your computer data files in the background.

Copernic Desktop Search (free) indexes your computer by category of

files (email, files, music, pictures, videos, contacts, favorites, history) and/or it will search the web. Download *Copernic Desktop Search* at www.copernic.com.

Copernic Desktop Search provides much greater control when it updates indexes than does Windows QuickFinder, and adds categories not include in QF, including your email and address book among other things. Unlike QF, it immediately stops indexing when you're working and it doesn't resume again until your computer has been idle for more than 30 seconds. Thus, it is not intrusive and it is not a memory hog.

Google Desktop Search (free) is still a

work in progress. Download it at <http://desktop.google.com/>. It searches Outlook email, Outlook Express email, AOL IM, Word, Excel, Powerpoint, Text and other, Web history, and secure pages in web history. You can check and uncheck the various categories to limit or expand its searches. Google's stated goal is to make file searching on your computer as easy as Google searches on the web

Pankhurst Rocket is a good example of a product designed to only index and search specific filenames types. It rapidly creates the index, and once it is created, it is easy to update <http://www.activebits.com/rr.htm>

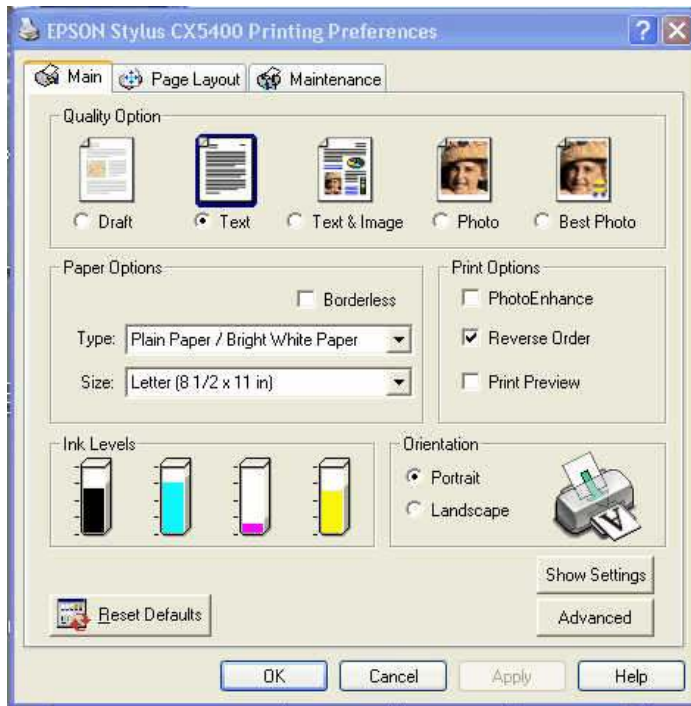
PRINTER FACTS AND TIPS

TEACH YOUR PRINTER TO DO NEAT TRICKS



Chances are that you print using your printer's factory default settings, and that you have never changed them. That is, your printer is setup to print in color on 8 1/2x11 inch plain paper in normal mode. The printer probably is

set to print the first page followed in turn by each succeeding page and is set to print using the RAW mode. That is, your data is spooled and printed without being interpreted. Let's look at the capabilities that are built into your printer



for faster printing, better output, and even less ink usage.

SELECT THE FASTEST PRINT PROCESSOR FOR YOUR PRINTER

Select the print processor for your computer based upon your operating system and printer. By default, most printers

print using the RAW print file format. It works when nothing else will work but it is generally much slower than any of the EMF print options. If your computer supports it, select an EMF (Enhanced Metafile Format) print processor and compare print speeds between RAW and EMF. See the screenshot. Time how long it takes to print using RAW versus EMF. EMF files tend to be smaller than RAW files and thus print faster.

Click on Start, Control Panel, Printer, Properties, Advanced, Print Processor and try one of the NT EMF options. While almost any of them will work, EMF 1.008 is designed to work with Win 2000 and XP.

What printer processors you see listed depends on your operating system version and your particular printer. In addition, as noted in the screenshot, different options may be available for each of the data types.

PRINT OPTIONS: HAVE THEM YOUR WAY

Windows makes some basic assumptions about what users want when they print. However, they provide the means for you to change print settings to best fit how you work. Let's look at some of the available print options and what they mean.

The menus you see and the options they display vary among printer manufacturers. However, they will all have some similar features such as a quality option, paper option, print option, page layout option, and some kind of maintenance option. They may or may not all display the ink level.

To access your printer's preferences, click Start, Control Panel, Printers and Faxes. At this point, right click on Printers and Faxes and create a shortcut and place it on your desktop. Then drag it to the quick launch area of your taskbar for easiest access, or use it from your desktop.

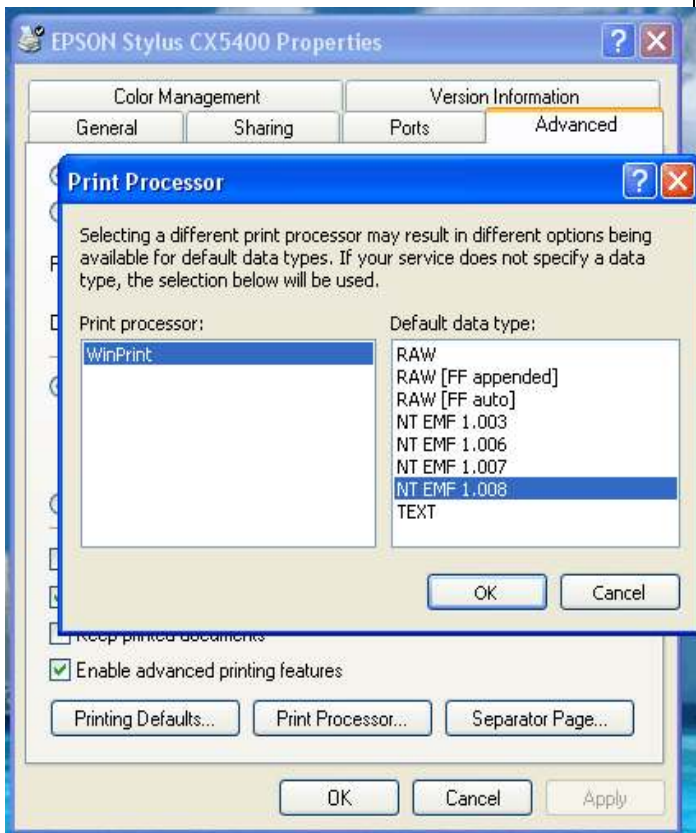
Then double click the Printer and Faxes icon and select your printer. Right click on the printer icon and select Printing Preferences. You may have to click on Properties depending on your operating system. See the screenshot at the left.

QUALITY OPTION

Select the quality option that agrees best with what you intend to print. Best Photo (or something similar) takes longer to print and uses the most ink, but it produces the highest quality output, whereas draft mode uses very little ink and the images are very faint. You might use draft mode to print web pages that you don't intend to keep. Remember, the quality of your output depends both on the quality option setting and the quality of the paper you use to print a particular job.

PAGE OPTIONS

Match your print job with suitable paper. Photos print best on matte or glossy paper designed specifically for photos. Select the paper size that matches the paper or envelopes



inserted in your printer.

Multifunction papers are designed to work well with copiers, faxes, ink jet printers, and laser printers. Look for a brightness (whiteness) rating in the high eighties or low nineties. If your printer offers it, select borderless IF you want your photos to print right to the edge of the photo paper.

PRINT OPTIONS

Select portrait (tall) or landscape (wide) for the print output orientation. Select Reverse Order so that the last page of a job prints first. That way, when you remove the job from the print tray, the pages are in the proper order. When printing multiple copies of the same document, select the Collate option (not shown in this screenshot) to keep each complete set of copies separate. Then you won't have to manually put the sets together.

PRINT WEB PAGES EDGE TO EDGE

If you want to print web pages so that the edges are not cut off, do one of the following:

If your printer manufacturer supports it, download the special web page print driver from their web site. For example, Epson and Canon offer this option for some of their printers. In the case of Epson, the driver adds a toolbar to Outlook Express from which you print web pages.

Alternatively, in Outlook Express, click File, Page Setup, and set the left and right margins to the minimum your printer allows. I have this set to 0.116 inches. If you wish, also reduce the top and bottom margin to something like 0.5 inches. If you use Firefox, it is probably set to print all of a web page. To check, click on File, Page Setup, Format and Options, and check Shrink to Fit Page.

BUG-BYTES WINS HONORABLE MENTION

ASSOCIATION OF PERSONAL COMPUTER USER GROUPS

I entered Bug-Bytes in the 2004 newsletter contest of the Association of Personal Computer User Groups (APCUG).

Bug-Bytes won an honorable mention. Here is the announcement on the www.apcug.net web site for the newsletter contest.

350-2500 MEMBERS CATEGORY

- First Place Indianapolis Computer Society
- Second Place (Tie)
 - Hilton Head Island Computer Club
 - Central Kentucky Computer Society
- Third Place Danbury Area Computer Society
- Honorable Mention
 - Alamo PC Organization
 - Central Kentucky Computer Society

Computerbugs

Synergize-IT

