

IMPROVING PERFORMANCE OF OLDER PCs

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What Causes PCs to Slow Down

- Age of Components
 - Old hardware is marginal for current software
 - Old hardware is slower and becoming worn
 - Needs Maintenance – Hot or dusty
- From Microsoft [Microsoft Article -2004](#)
 - Files become disorganized
 - Unused programs consume resources
 - Unused network drives slow startup
 - Too many programs run at startup
- Also
 - Services and processes run at startup – not all are needed

What To Do – Overview

- **Invest some time to clean up your system!**
 - Can be 8 hrs or more for first time, thorough cleanup ...

1. Easy Fixes (but time consuming)

Clean up hardware

Eliminate unnecessary Start-ups

Delete unused Programs

Run Disk Cleanup

Clean Registry

Clear Desktop

Defrag your Hard drive

Disconnect Network Drives

Updates & security current

2. Hardware Upgrades – do you want to spend money

3. Additional Improvements – more complex

Unneeded Processes/services

Misc others

Cleanup - Hardware

- Over time dust collects on components and slows down moving parts and blocks air circulation. Your system runs hotter and slower.
- Remove the case from your computer and blow or vacuum dust from inside.
 - Be sure to turn off and unplug your pc before doing this
 - Note – more detailed information is included in the

Cleanup – Start-up Programs

- Determine what runs on startup – clean up
 - Use TUT if you have it
 - or
 - Review startups (run msconfig ... startup tab) on one or more of these websites
 - <http://www.answersthatwork.com/> Tasklist
 - <http://www.sysinfo.org/startuplist.php> enter command
 - <http://www.processlibrary.com/directory/files/mim/> enter command
 - <http://www.bleepingcomputer.com/> startups list
- You only need a few programs to run at startup – security – but you may WANT to run more w longer startup

Cleanup – Remove Programs

- We install many programs during the life of our computer ... but do we ever uninstall those we don't use
 - Review and remove the programs you don't use
 - Use **Add/Remove Programs** in Control Panel
 - or
 - Try one of the free alternatives available
 - [ARP++](#), [MyUninstaller](#), [Zsoft Uninstaller](#)

Cleanup – Run Disk Cleanup

- Disk Cleanup is a utility provided by Microsoft to help you clean up unneeded files
 - Start → all programs → accessories → system tools → Disk Cleanup
 - Windows will present you with a list of files that you can delete ... accept defaults or change any you want to ... and click OK.
 - Note the cleanup may take a while – 20-30 min.
 - After you are done, click on the OPTIONS tab on top and repeat for
 - Windows Components, Installed Programs, System Restore

Cleanup - Registry

- Installing programs or changing how Windows works creates entries in the registry.
- Registry Issues that cause system slowdown
 - Gets very large as we add more programs and it can take longer to find needed entries
 - Entries from uninstalled programs are left behind
 - Settings are not reset on program removal
- Clean Registry – use free utility [CCLEANER](#)
 - Use defaults to remove unnecessary entries

Cleanup - Desktop

- Clean up your desktop
 - Files, programs and downloads on the desktop will slow down your PC [Tip#6](#)
 - Move files and downloads to My Documents
 - Shortcuts have minimal effect so it is better to use them

Cleanup – Network Drive

- Unless you have some special need, you probably won't need (and don't have) any Network Drives
- This is a quickie to check and delete ...
 - My Computer → Tools → disconnect network drives

Cleanup - Defrag

- Your hard drive becomes fragmented as you add and remove programs, files, etc. This causes retrieval of data to slow down some.
- Defrag your drive periodically
 - The built in Windows defragmenter
Start → Programs → Accessories → system tools → Disk Defragmenter
is quirky ... it sometimes hangs or restarts
 - Download and use one of these free defragmenters
 - <http://ultradefrag.sourceforge.net/> fast with small footprint
 - <http://www.defraggler.com/> can identify specific files that are defragged ... also available for portable aps (USB)

Cleanup – Schedule

- After the first cleanup, redo it on a regular basis

Clean up hardware	monthly
Eliminate unnecessary Start-up	monthly
Delete unused Programs	monthly
Run Disk Cleanup	monthly
Clean Registry	weekly
Clear Desktop	monthly
Defrag your Hard drive	quarterly
Make sure updates & security are current	continuously

Hardware Upgrades

- Additional RAM memory will have biggest impact on improving the performance of your PC
 - Is the upgrade is worth the money
 - What will it cost
 - [Crucial Memory Scan](#) get the answer here
 - Installation is relatively easy with lots of instructions available on the internet
- New hard disk ?
 - Current hard disk is >75% full
 - If yes, buy an external USB drive
- Evaluate cost and value of any other hardware
 - Buy hardware that can be used on your next PC when you buy it

Additional Steps – Processes

- Many processes and services run behind the scenes
 - **Some are necessary ... some may not be**
- BUT tweaking the registry may be necessary to change them – be careful
- Check out the following links for recommendations:
 - [Tech Republic](#) List of services that you can turn off – you'll have to sign up
 - [Smart Computing](#) List of services that can be turned off
- Also check out processes that are running (ctl-alt- del) and check out which ones are required.
 - [Autoruns](#) Great tool to see what is running on your pc ... Right click on process to check internet for info about it
 - [The Elder Geek](#) List of processes with recommendations

Additional Steps - Misc

- There are other tweaks that will help speed up your old PC. The link below contain additional suggestions
 - [KadaitchaTips](#) many require registry tweaking
 - [Indexing Tips](#) Tweaks from Tech Republic on the Indexing service that catalogs all files on your computer

References

- [Indexing Tips](#) Tweaks from Tech Republic on the Indexing service that catalogs all files on your computer
- [Algonquin College Tips](#) Discussed most of them tonight but worth a peek