

Spring-Clean Your Machine

How and Why to Remove
Unwanted
Files and Programs
and

Maybe Make Your Computer Faster

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Who Thinks Their Computer is SLOW?

Have we morphed from spring-cleaning to speeding?

- Is it slow to boot?
- Slow to open a browser?
- Slow to open a web page?
- Slow to open a Word document
- Slow todo ANYTHING.....

Introductory Note

- The content focus is software with a brief mention of hardware changes that can improve performance
- Slides have rather a lot of text -
 - - so that you can refer to them as your notes
- Tasks are graded - we look at easy ones first, tricky ones later
- This presentation does not include details of removing "difficult" malware (though malware is one of the greatest cause of poor performance IMHO)

Microsoft Solutions

- See Microsoft Support:
 - "Perform a clean startup to determine whether background programs are interfering with your game or program"
 - <http://support.microsoft.com/kb/331796>
- See Microsoft Websites:
 - Optimize Windows 7 for better performance
 - <http://windows.microsoft.com/en-us/windows7/Optimize-Windows-7-for-better-performance>
 - Ways to Improve Your Computer's Performance
 - <http://support.microsoft.com/kb/835638>

Order of Business

1. First - Clean-up

Remove unwanted programs and files

2. Second - Speed-up

Actions that may improve performance

Note: See Microsoft articles

<http://www.microsoft.com/atwork/maintenance/speed.aspx>

<http://www.microsoft.com/athome/setup/maintenance.aspx>

Clean-up Actions

(Story?)

Reasons To Remove Stuff

- **The more obvious reasons**

- You have run out of disk space
- Your machine takes forever to boot up
- Your machine "runs slowly" or seems to respond very slowly to your input

- **Other reasons**

- Reduce your exposure to malware
- Reduce anti-malware scan-times
- Reduce subsequent maintenance tasks
- Reduce the size of (some) backups

Things You Can Do to Cleanup -1

- Remove "Dust Bunnies" using CCleaner
- Remove redundant registry entries using CCleaner
- Remove programs you don't use
- Remove surplus Restore Points
- Remove redundant Windows Uninstal files (Not advised)
- Remove browser "barnacles"
Note on IE 9 !

Things You Can Do to Clean-up - 2

- Deal with the Disk

- Check your disk drive is not FULL
- Disk Cleanup
- Disk Defragmenter (needs 15% free space!)
- Check Disk

For a "HowTo" see the afore mentioned Microsoft At Work article

<http://www.microsoft.com/atwork/maintenance/speed.aspx>

and

<http://www.piriform.com/defraggler> (nicer interface)

- **Note:** Windows 7 and most versions of Windows Vista are preconfigured to automatically run Disk Defragmenter on a weekly basis.

Using CCleaner to Remove "Dust Bunnies"

- CCleaner is a FREE program that is easy to install and use
- Download from: <http://www.ccleaner.com>
- The site provides plenty of help in using the program

- Suggestions:

Beginners - Use only the Cleaner tab (top tab) use both

- Windows and
- Applications sections
- These two are very safe (little risk)

Advanced Users - Use the registry cleaner and be sure to use the built-in backup feature. Then go round this "loop" again until there are no further issues.

Using CCleaner

With this program you may safely accept all the default settings.

OR

You may wish to set the program to not remove some data, for example:

- your cookies
- your saved passwords
- your browsing history

Check both the Windows tab and the Applications tab

Removing Programs You Don't Use

This means removing legitimate (not malware) programs

Go to the Control Panel

(If Vista/W7 switch to Classic view)

- In XP select Add and Remove Programs
- In Vista/W7 select Programs and Features
 - Click selected program then click Uninstall
 - Repete as necessary

 - Advanced: Turn Windows features on or off

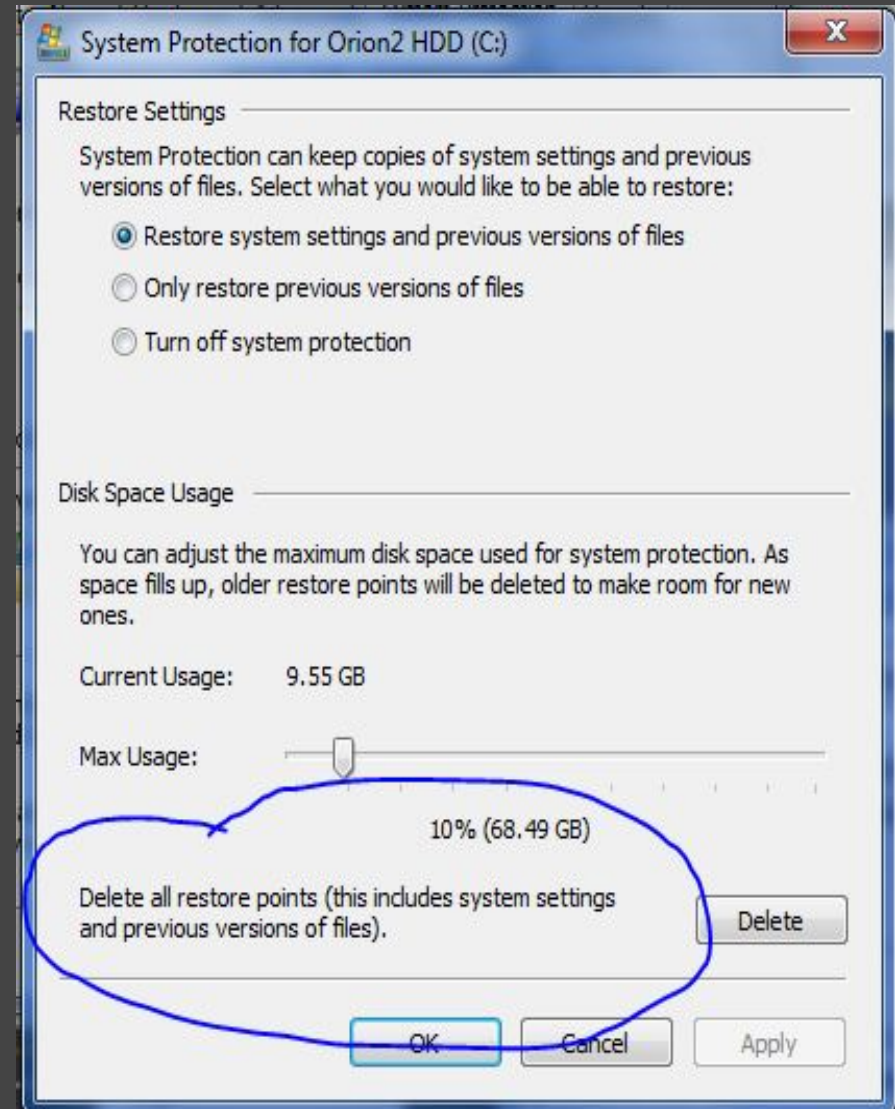
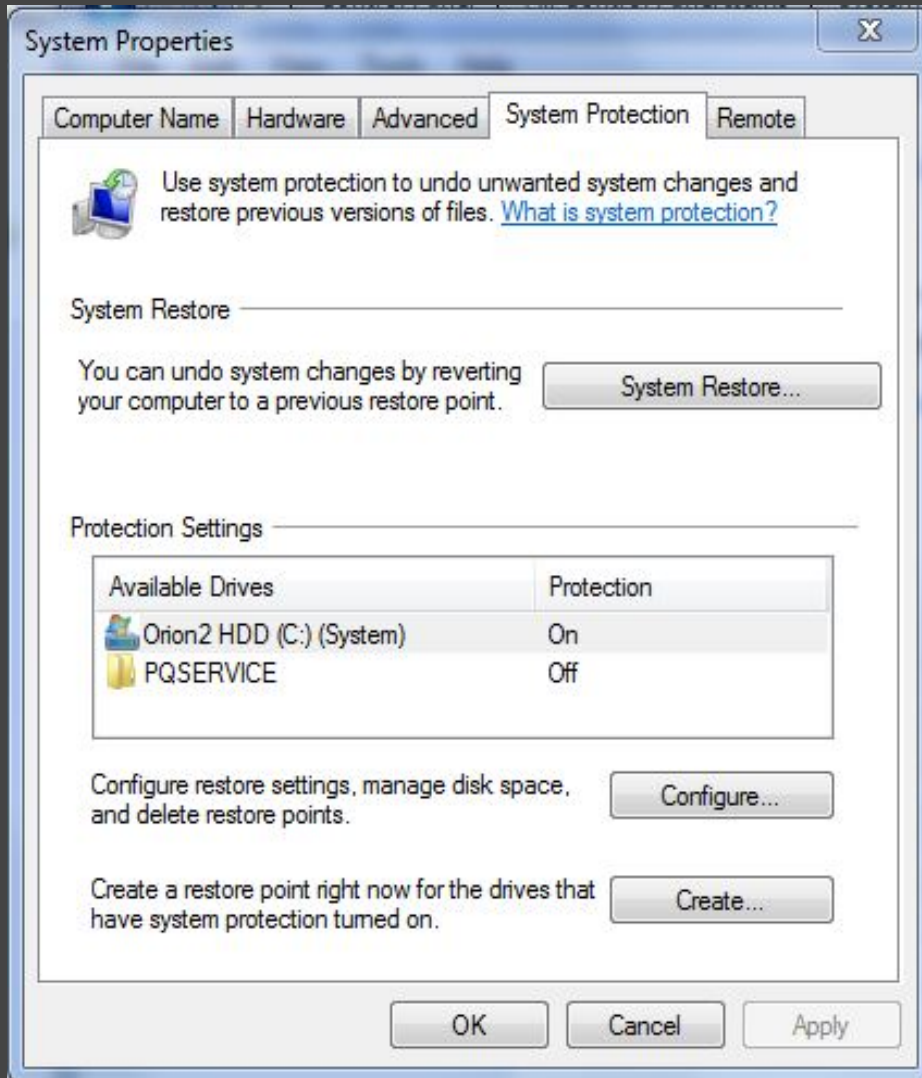
Restore Points Consume Disk Space (settings)

Restore Points (registry and system file backups) can consume up to 12% (XP) 15% (Vista/W7) of your hard disk drive space (Min 300MB Vista)

To change settings:

- XP - Go to Start -> Help and Support -> System Restore -> System Restore Settings
- Vista - Go to Start -. Help and Support -> Security and Maintenance ->Backup and Restore (Backup your files ->"Click to open Backup and Restore Center"
- Win7 - Go -> Control Panel -> System - select System protection then select whatever feature you need, for example "Create a restore Point

Configure Restore Points - Windows 7



Delete Restore Points

You cannot delete an individual restore point, but you can either delete all restore points or all but the most recent restore point. Deleting restore points temporarily frees up disk space. As new restore points are created, disk space will be used again. For information about how to adjust the disk space that is used by restore points, see [How much disk space does System Restore require?](#)

Delete All but the Last Restore Point

Open Disk Cleanup by clicking the Start button . In the search box, type Disk Cleanup, and then, in the list of results, click Disk Cleanup.

If prompted, select the drive that you want to clean up, and then click OK.

In the Disk Cleanup for (drive letter) dialog box, click Clean up system files. If you're prompted for an administrator password or confirmation, type the password or provide confirmation.

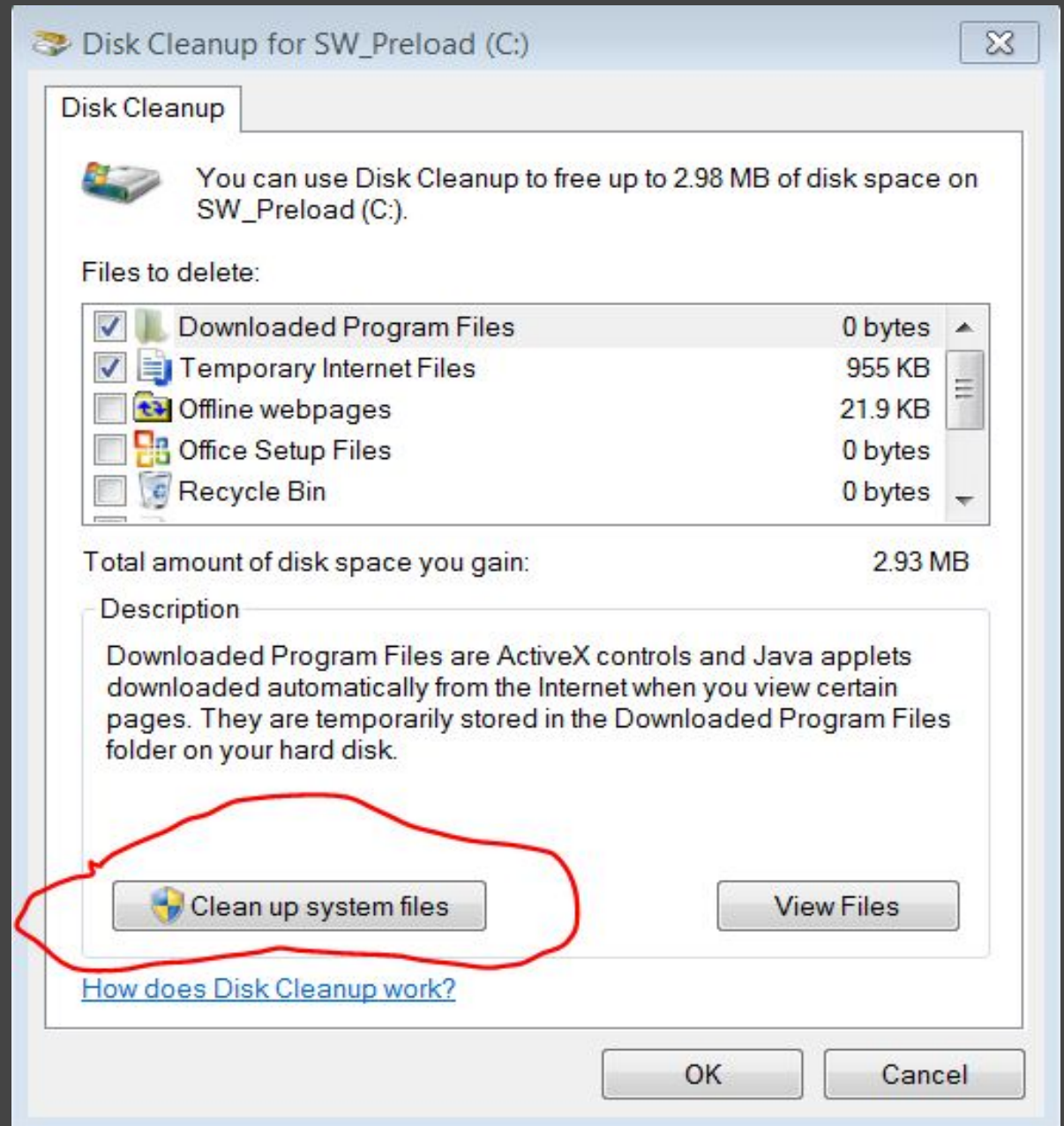
If prompted, select the drive that you want to clean up, and then click OK.

Click the More Options tab, under System Restore and Shadow Copies, click Clean up.

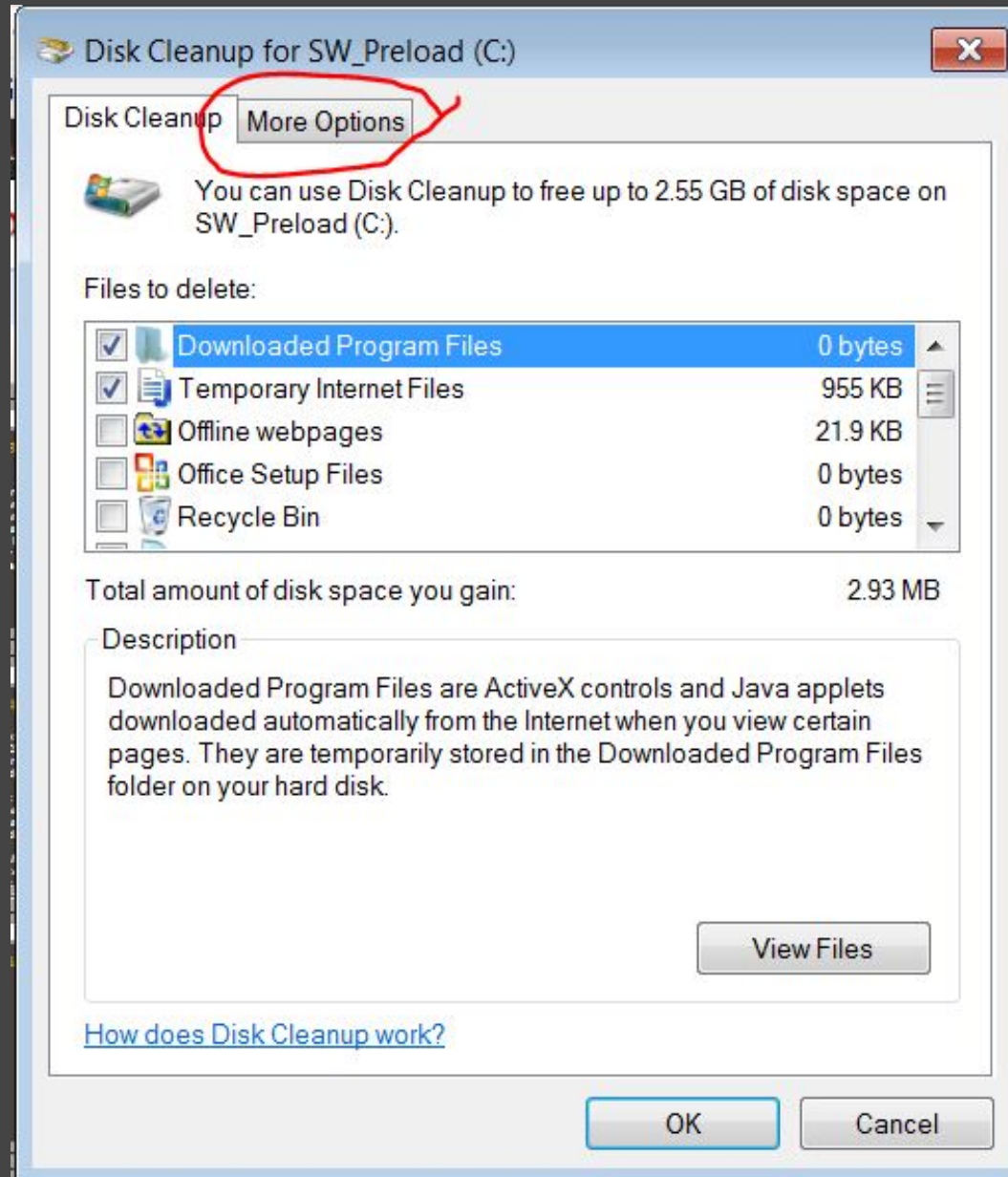
In the Disk Cleanup dialog box, click Delete.

Click Delete Files, and then click OK.

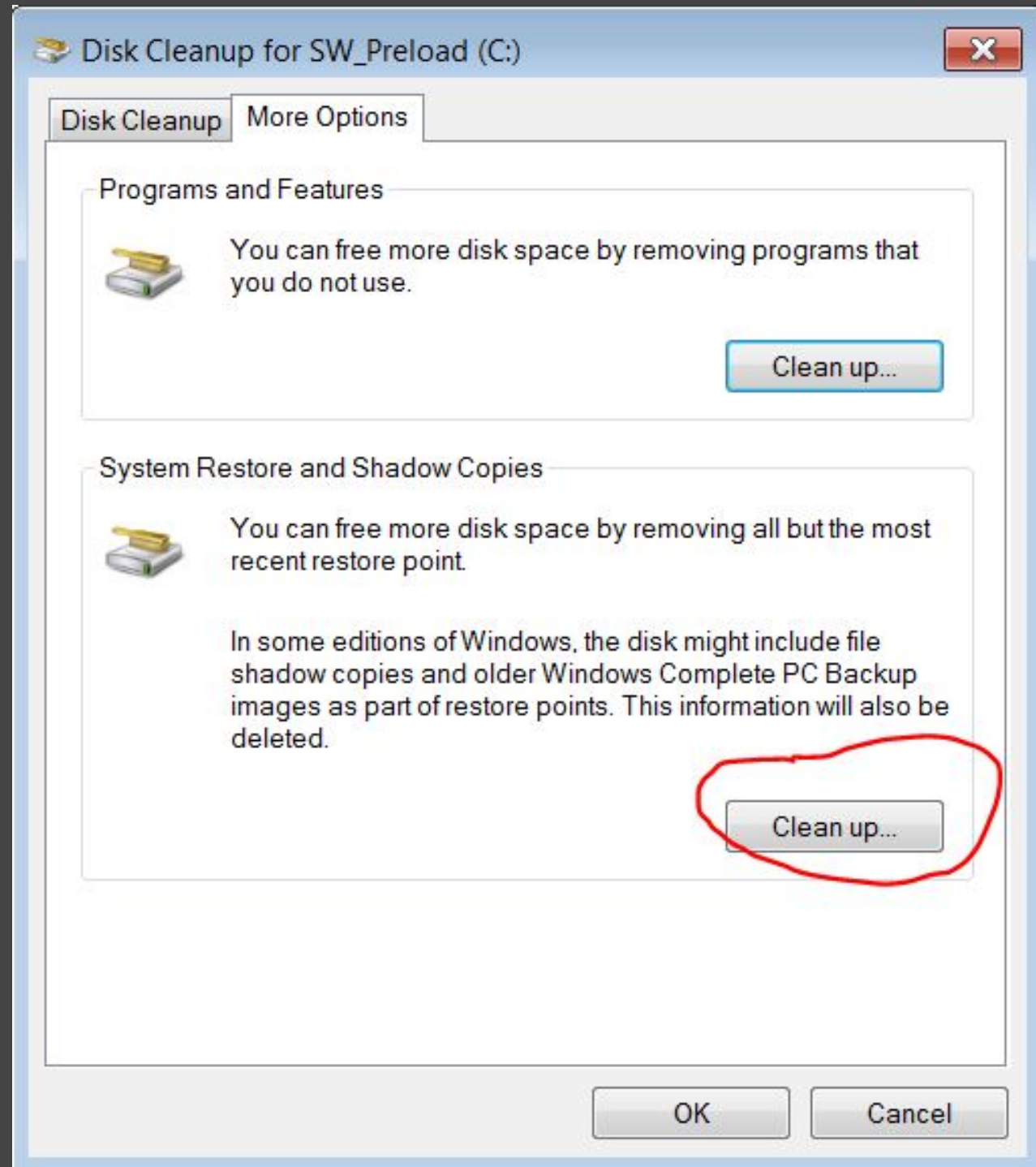
Go to disk Cleanup



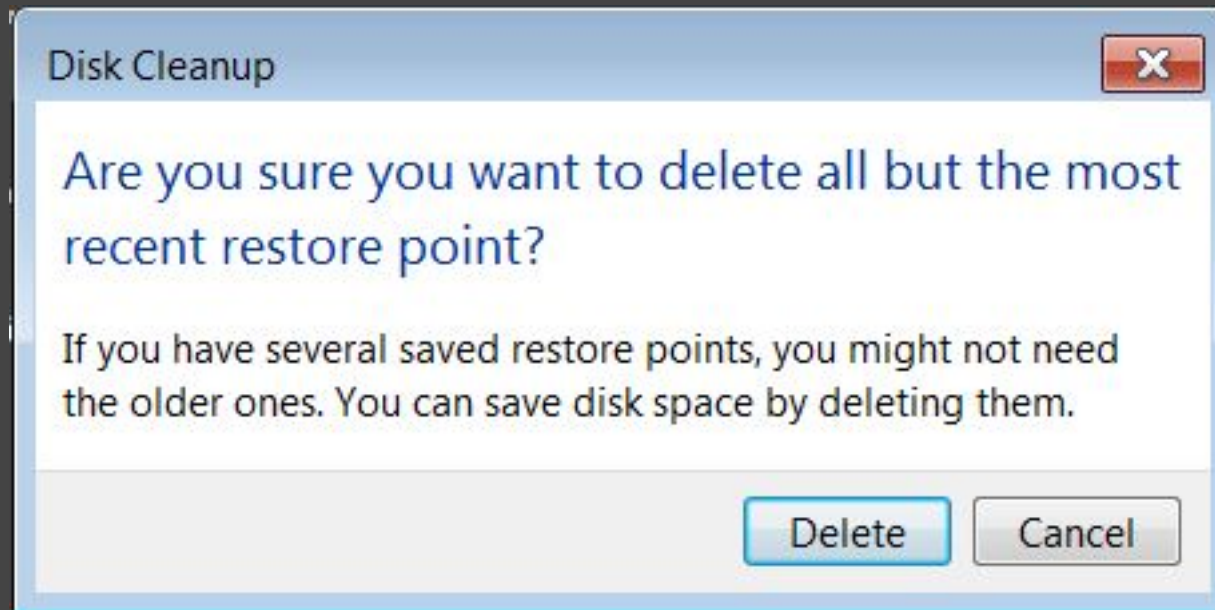
Select Cleanup System Files -More Options



Clean up..



AND FINALLY...



KEEP CLICKING and it will eventually delete all but the last restore point...gasp!

Remove Windows \$ntUninstall{xxx}\$ files ???

If you know that you will not need to uninstall any of the (many) Windows Updates that you have made, you can remove the uninstall files and potentially free-up several GB of disk space.

If you need to do this, "Google it" Then don't do it ;-)

<http://forum.ccleaner.com/index.php?showtopic=4288&>

Speed-up

Maybe

Speed-up

Curing performance issues depends on the cause of the problem

Suggested order of approach:

What are the symptoms - Slow to:

1. boot-up
2. open a browser
3. open a web page
4. open other programs
5. respond to general user-input

Hardware Note: A simple and effective way to improve performance is to increase the amount of physical memory

For XP - 2 GB. For Win 7 - 3GB or more if 64-bit OS

Frequent Reason for Poor Performance *Malware!*

If your computer performance degrades rapidly from one day to the next, it is very likely that your computer is infected by malware.

If you are infected with Malware, it is likely to affect **numerous aspects** of performance and therefore should be the first issue you address.

Note: Removing disk and memory "clutter" may reduce the scan time of your antivirus/antispysware programs. However, a very bad infection will render your computer almost unusable.

If Your Machine is Infected - 1

- *Try* to update your security programs
 - virus definitions (fingerprints)
 - the whole program
- Clean with CCleaner...because....
- Scan with your primary security program
Norton, McAfee, ESET, TrendMicro, (antivirus first -
antispyware next)
- Scan with a second and third program (on-line scan)
- Also try Safe Mode - etc...or a Boot disk with antimalware
program

(Malware removal - Postponed for a future meeting)

If Your Machine is Infected - 2

- If you are unable to perform updates or a scan -
- Malware infection may have:
 - blocked access to your protection program updates
 - disabled
 - Your protection program
 - Task Manager
 - Windows Update
 - Safe Mode

Slow to Boot

Managing Start-up Programs

(Not to be confused with System Services)

Reasons to Be Concerned

- If a machine is "slow to boot" it may indicate:
 - a large number of programs are being loaded
 - some maybe malicious
 - some may just be unnecessary
 - malware is making changes to your machine or "phoning home" to get updates or other instructions
- Loading a large number of startup programs will consume system resources ("clog" the memory and steal processor cycles) and may slow the operation of the computer

Note: If you are impatient, go have a coffee or don't shut-down, just put the computer in sleep mode (Larry's suggestion)

Manage Startup Items (there are lots of them)

- Upon installation, many applications configure themselves to start automatically when you log on. Applications do this so that they can:
 - automatically check for updates
 - use system tray icons to interact with users
 - add functionality to Windows components such as Windows Explorer.
- However, most such applications don't ask permission before inserting themselves in your logon process and almost never provide an interface to let you disable their autostart functionality
- There are numerous free programs to help you manage startup items
- See: Microsoft Support: <http://support.microsoft.com/kb/835638>
- Note "For Troubleshooting purposes...."

Quick-Check - 1

To determine if diddling with your start-up items is going to make a difference in your boot time, try this:

1. Measure your "time to boot" (Show all icons in system tray - observe last icon to appear)
2. Open msconfig:
Run -> type msconfig hit enter
3. Click Startup items
4. Click disable all
5. Restart and measure your new boot time
6. Remember to re-enable the startup items using msconfig

Quick Check - 2

For a comparison of startup modes see:

<http://www.brighthub.com/computing/windows-platform/articles/108407.aspx>

This web page provides a comparison of Windows Boot Options: Safe Mode and Clean Boot

System Configuration



- General
- Boot
- Services
- Startup**
- Tools

Startup Item	Manufacturer	Command	Location	Date Disabled
<input checked="" type="checkbox"/> Synaptics Po...	Synaptics Inco...	%ProgramFiles...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> Intel(R) Com...	Intel Corporation	C:\Windows\sy...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> Intel(R) Com...	Intel Corporation	C:\Windows\sy...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> Intel(R) Com...	Intel Corporation	C:\Windows\sy...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> IDT PC Audio	IDT, Inc.	C:\Program Fil...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> Microsoft Se...	Microsoft Corp...	"c:\Program Fil...	HKLM\SOFTWARE\M...	
<input checked="" type="checkbox"/> InstallShield ...	InstallShield So...	C:\PROGRA~2\...	HKCU\SOFTWARE\M...	
<input checked="" type="checkbox"/> WinPatrol M...	BillP Studios	C:\Program Fil...	HKLM\SOFTWARE\...	
<input checked="" type="checkbox"/> Gmail	Google Inc.	C:\Program Fil...	HKLM\SOFTWARE\...	
<input checked="" type="checkbox"/> HP Wireless ...	Hewlett-Packar...	C:\Program Fil...	HKLM\SOFTWARE\...	
<input checked="" type="checkbox"/> HpqsRmon ...	Hewlett-Packard	C:\Program Fil...	HKLM\SOFTWARE\...	
<input checked="" type="checkbox"/> hpwuSchd A...	Hewlett-Packard	C:\Program Fil...	HKLM\SOFTWARE\...	
<input checked="" type="checkbox"/> Microsoft Off...	Microsoft Corp...	"C:\Program Fil...	HKLM\SOFTWARE\...	

Enable all

Disable all

OK

Cancel

Apply

Help

Some Choices to Manage Startup Items

- **Startup Control Panel (free)

Very popular and has been in use for many years

- **WinPatrol (free and paid-for versions)

Has many other tools in addition to Startup control

(Interesting tutorial: <http://askmaggymae.com/Security/winpatrol.htm>)

- Windows Defender (free download from MS)

This program is recommended by Microsoft

(Displaced by Microsoft Security essentials)

- CCleaner (free)

This popular cleaning tool is/not? recommended for managing startup items

- Autoruns (free) Very full featured. Not for the faint-hearted

- msconfig (build-in Windows tool) Good for diagnosis but Microsoft advises not appropriate for managing start-up programs

- <http://lifehacker.com/#!5425289/five-best-startup-management-tools>

- <http://www.techsupportalert.com/best-free-startup-manager.htm>

Using msconfig CAUTION!

Using System Configuration

System Configuration is a tool that can help identify problems that might prevent Windows from starting correctly. You can start Windows with common services and startup programs turned off and then turn them back on, one at a time. If a problem doesn't occur when a service is turned off, but does occur when that service is turned on, then the service could be the cause of the problem.

System Configuration is intended to find and isolate problems, **but it's not meant as a startup management program.** To permanently remove or turn off programs or services that run at startup, see Uninstall or change a program.

<http://windows.microsoft.com/en-US/windows7/Using-System-Configuration>

(See paragraph 2)

WinPatrol (Free version available)

A more comprehensive and user-friendly tool than Startup Control Panel is **WinPatrol**

- Winpatrol (free) gets very good reviews and provides several tools including the tool to manage startup programs
- WinPatrol PLUS (\$29.99) also includes access to an **online database** that answers many of the questions like:
 - "What does the file **IGFXSRVC.DLL** do?" and do I need it?
 - To compare free and PLUS see:
 - <http://www.winpatrol.com/compare.html?download>

*****Note: Some malware files have names similar or the same as legitimate windows files to trick the unwary - ******

Sources of Information on file purpose

Google.com

ProcessLibrary.com
dllinformation.com

LiUtilities.com

Gratis.com
BleepingComputer.com

WinPatrol (paid version)

For Startup Programs try Autoruns by Sysinternals

<http://technet.microsoft.com/en-us/sysinternals/bb545021>

Pacmans -Portal

**START-UP APPLICATIONS
DO YOU REALLY NEED ALL OF THEM?**

All is revealed!

A gigantic library of Start-up Programs

http://www.pacs-portal.co.uk/startup_content.php

Note of Caution

- If you disable a startup item using the previous tools, some programs will attempt to re-insert themselves into the startup list whenever you next decide to run the program by clicking its icon. (eg. AOL)
- There is a danger of "complications" if you uninstall a program that has had its entry in a startup location disabled or deleted.
This opinion is Web "gossip" ie not exactly an authoritative source.
- If you find files with random /unverifiable file names, it's an *indication* that your machine is infected with malware

For the Easy Solution try Soluto

- Soluto is a semi-automatic way to reduce the number of programs that load into the memory at Boot time.
- This will result in a reduction in the time it takes to boot the machine
- This **may** also improve the responsiveness of the computer to your instructions
- Be aware that if you uninstall SOLUTO the changes that it makes to your machine will be undone

Note: You could run the program to determine which items add the most time to the boot process then insert the changes manually if you have the patience)

Review: <http://dottech.org/freeware-reviews/16736/soluto-a-community-based-solution-to-the-my-computer-boots-very-slowly-problem/>

Browser Slow to Open or Open a Web Page

Browser Slow to Open

Most probable cause (apart from malware)

- Browser Add-ons
 - Extensions
 - Plug-ins
 - Tool Bars
 - Browser-helper Objects
-
- Note: In Windows 7 - try running Internet Explorer without Add-ons (to check if there is a difference in performance)

Go -> Start and Type Internet Explorer into the box ->
Select Internet Explorer (No Add-ons)

Remove Browser "Barnicles"

Barnicles (my term) for extra programs that get added to browsers to make them "better" such as Tool bars.

These add-ons are a common cause of browser slow-downs!

- Internet Explorer calls them: Add-Ons
 - Go to Tools -> Manage Add-ons
 - This opens a window where you can
 - Enable, Disable, or Delete
- Firefox - Chrome calls them: Add-ons, Extensions, Plug-ins
 - Go to Tools -> Add-ons
 - This opens a window where you can select a tab for
 - Get Add-ons, Extensions, Themes or Plugins ->
 - Enable, Disable, or Delete

Chrome - Extensions - Plug-ins - Add-ons

To manage Extensions - Go Tools - Extensions

To Manage Plug-ins - Go Options -> Under the hood -> Plug-ins -> Disable individual Plugins

NOTE: In Internet Explorer 9

Browser feature shows how much time each Add-on adds to the browser-opening time.

Also See:

<http://blogs.msdn.com/b/ie/archive/2010/09/17/add-ons-staying-in-control-of-your-browsing-experience.aspx>



Extensions

Extensions (11)

Developer mode:



[AdBlock](#) - Version: 2.3.27

The most popular Chrome extension, with over 2 million users! Blocks ads all over the web.

ID: gighmmpiobklfepjocnamgkkbiglidom

Inspect active views:

[background.html](#)

To inspect a popup, right-click the page or browser action's icon and choose Inspect popup.

[Disable](#) - [Uninstall](#) - [Options](#) Allow in incognito



[Docs PDF/PowerPoint Viewer \(by Google\)](#) - Version: 3.3

Automatically previews pdfs, powerpoint presentations, and other documents in Google Docs Viewer.

ID: nnbmlagghjjcbdhgmkedmbmedengocbn

Inspect active views:

[background.html](#)

[Disable](#) - [Uninstall](#) - [Options](#) Allow in incognito



[FlashBlock](#) - Version: 0.9.31

FlashBlock for Chrome. Block them all, or be selective with the embedded whitelist manager

ID: gofhjkmkpinhpoiabjplobcaignabnl

Inspect active views:

[background.html](#)

To inspect a popup, right-click the page or browser action's icon and choose Inspect popup.

[Disable](#) - [Uninstall](#) - [Options](#) Allow in incognito



[Google Voice \(by Google\)](#) - Version: 2.2.3.4

Make calls, send SMS, preview Inbox, and get notified of new messages. (US only)



Plug-ins

Plug-ins (17)

Flash (2 files) - Version: 10.2.154.27

Shockwave Flash 10.2 r154

[Disable](#)

QuickTime (7 files) - Version: 7.6.9.1680.9

The QuickTime Plugin allows you to view a wide variety of multimedia content in Web pages. For more information, visit the [Quick](#)

[Disable](#)

Java (2 files) - Version: 6.0.240.7

NPRuntime Script Plug-in Library for Java(TM) Deploy

[Disable](#)

Silverlight - Version: 4.0.60129.0

[Disable](#)

Windows Media Player - Version: 1.0.0.8

np-mswmp

[Disable](#)

Microsoft Office (2 files) - Version: 14.0.4730.1010

Office Authorization plug-in for NPAPI browsers

[Disable](#)

Chrome PDF Viewer

[Disable](#)

Slow to Open a Web Page

Verify if the slow-to-open is:

- Across ALL web sites or pages
- Consistently slow at any time of day
- Check Internet connection speed
- Try another browser IE (No Add-ons) / Firefox / Chrome

Try:

1. Uninstall the browser
2. Run CCleaner BOTH files and registry
3. Re-install the browser

Switch to Verizon FIOS ;-)

Slow to do Anything

If you've done everything prior to this slide

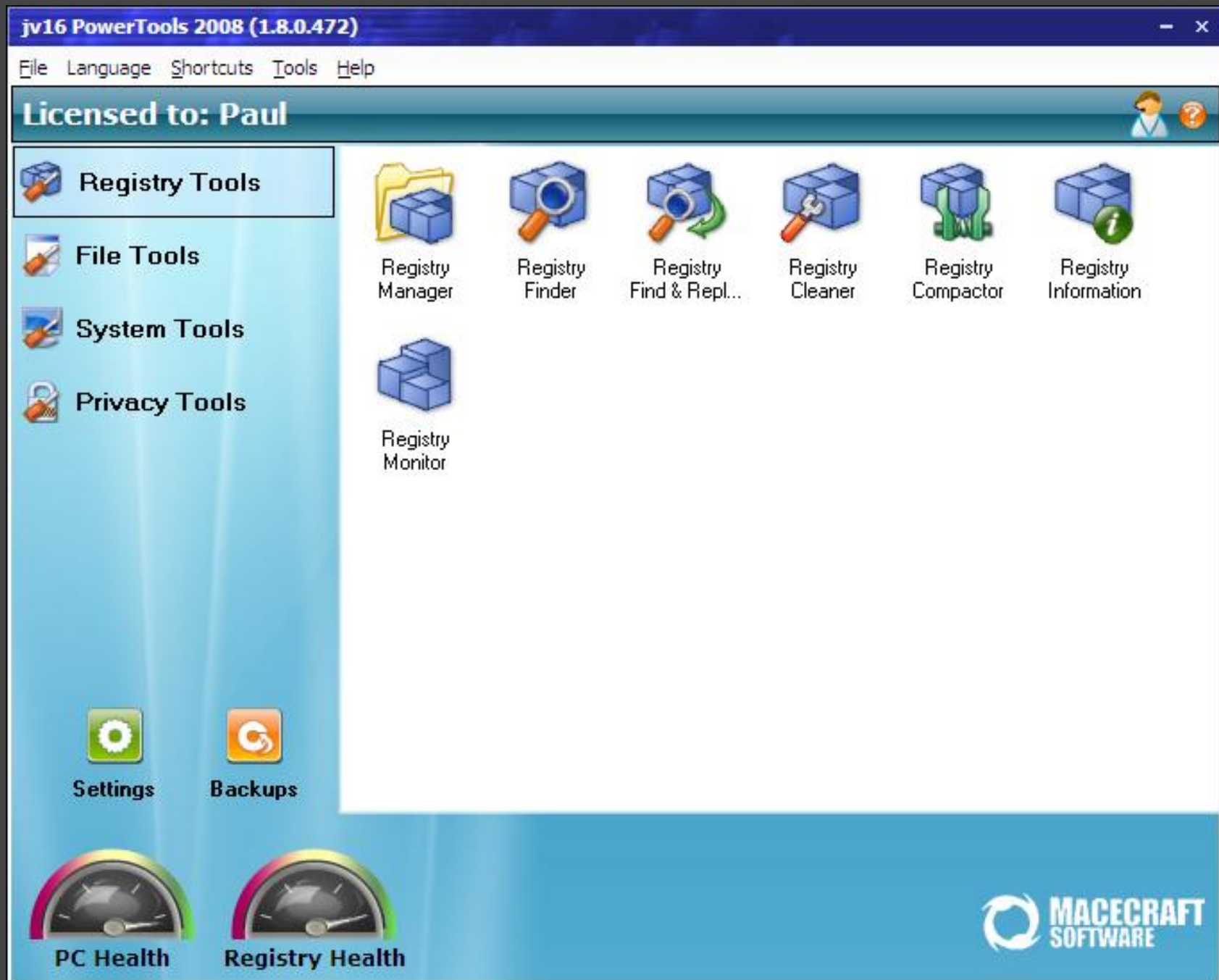
- Go on vacation
- Format the hard drive and reinstall Windows
- Upgrade to Windows 7
- Buy a faster computer
- Buy a Apple Mac and enjoy life ;-)

Meddling with the Registry

The usual advice is "Meddle with the registry at you own risk"
If you want to do this:

- Use the registry section of CCleaner and be sure to use the backup facility built into CCleaner (I've never needed to restore a backup)
- Numerous programs are available to clean and optimise the registry. Seek advice elsewhere ;-)
- Try jv16 Power Tools. This is a full-featured application that I have used occasionally.
- NOTE: The Microsoft tool **Regedit** is "unforgiving" if you make an innapropriate change, there's no "undo" button!
Be warned!

j16 Power Tools by Macecraft



Other Tips and Tools and links for your review:

List of Startup locations: <http://technet.microsoft.com/en-us/magazine/ee851671.aspx>

Decrapifier

TweakHound

Autoruns

HijackThis

Doug Knox Utilities (eg remove Hotfix backups)

<http://www.soluto.com/>

And <http://www.techrepublic.com/blog/10things/10-tips-for-troubleshooting-pc-system-slowdowns/1834>

And if you want to get really serious and disable some of the many **Windows services** try:

<http://www.blackviper.com/2010/12/17/black-vipers-windows-7-service-pack-1-service-configurations/>

OR: <http://www.techknowl.com/disable-unwanted-services-and-speed-up.html>

Optimize Windows 7 for better performance

[:http://windows.microsoft.com/en-us/windows7/Optimize-Windows-7-for-better-performance](http://windows.microsoft.com/en-us/windows7/Optimize-Windows-7-for-better-performance)

The End