

STEP ONE: Debug, De-worm, and Anti-Viruses Oh My!

First, depending on what you do and what you surf, you most likely have some things on your hard drive that you're not suppose to have. If you have an anti-virus program, run it and remove whatever you find.

Next

Install, update, and run Lavasoft's Ad-Aware SE Personal (Free)
<http://www.lavasoftusa.com/software/adaware/>

Next

Install, update, and run Spybot Search and Destroy (Free)
<http://www.spybot.info/en/index.html>

Next

Install, update, and run Windows Defender (Free to registered WINXP users)
<http://www.microsoft.com/athome/security/spyware/software/default.msp>

STEP TWO: Control Your Virtual Memory

Windows XP Professional is quite efficient at handling virtual memory. However, when Windows resizes your pagefile size, you will definitely notice a slowdown in performance so it's best to just handle the size yourself.

(Note: You only have to do this once, unless later on you have more demanding memory requirements.)

Start Button → "Right Click" My Computer → "Left Click" Properties → Advanced Tab → Under Performance, click Settings → Advanced Tab → Under Virtual Memory, and click "Change".

A list of you drive or drives should be present. Single click the drive that has a number in the "Paging File Size" column. Once you click the drive that has the paging file, under "Paging file size for selected drive" click "Custom Size:" and type:

For Initial Size (MB): 1024
For Maximum Size (MB): 1024

Those settings should be more than enough for whatever you need, unless you move into high-resolution games, video editing, or CGI rendering.

After you change your settings, click YES when asked to restart the system.

STEP THREE: Virtual Memory – It's a TRAP!

Virtual memory is initially designed to store memory that is presently used by the system (programs, drivers, and settings) but not presently used by you. This action frees up system memory (RAM) that can be used by you, which is much faster then virtual memory

Remember to have Administrator Privileges

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that is on the hard drive. One drawback on this technology is that virtual memory cannot be emptied automatically, therefore, there is a chance that when you open say... Quicken, and load a fiscal quarter's worth of entries - there is a chance that this information will be saved in virtual memory and not get deleted. There are ways (rumored or true) that this information can be removed by a third party and viewed. Fortunately, there is a way to make Windows clear out your virtual memory so that nothing important will be there should someone nasty try to take a look.

(Note #1: You only have to do this once, unless you wish to turn this off and never clear you virtual memory.)

(Note #2: This change will clear virtual memory ONLY when you shutdown, or restart the computer. Virtual memory WILL NOT clear when logging off.)

(Note #3: This change will increase the amount of time it will take to shutdown or restart, as Windows has to clear the virtual memory file.)

Open the registry editor.

Start button →

Run →

Type: "regedit" and press enter →

Click the "plus sign" next to HKEY_LOCAL_MACHINE →

Click the "plus sign" next to SYSTEM →

Click the "plus sign" next to CONTROLSET001 →

Click the "plus sign" next to CONTROL →

Click the "plus sign" next to SESSION MANAGER →

Click the word MEMORY MANAGEMENT

Now in the right windows pane you should see on the list a selection called:

ClearPageFileAtShutdown. Double click ClearPageFileAtShutdown and under "Value Data:" type 1 and click OK.

You have now updated Windows to clear you virtual memory when shutting down or restarting.

Close the registry editor and restart the system to let the changes take effect.

STEP FOUR: If It's temporary why does it stay?

Windows saves tons of files that are termed "temporary" and are save in a folder for that purpose. However, Windows never clears these files and the more files you have only increases the amount of time it takes to defrag. The temporary folder is a hot spot for some worms to take data that can sensitive information. Windows has "n + 1" amount of places where these "temporary" files are stored, where 1 is for the system and n is for the amount of users.

(Note: DO NOT delete the TEMP folder, it will come back and/or cause some minor cliches.)

Windows Default Temporary Folder:

Open Windows Explorer →

Go to C:\Windows\Temp →

Delete everything there, if some files cannot be deleted, it is because Windows is presently using the file. →
Do not close Windows Explorer yet.

User Specific Temporary Folder:

With Windows Explorer still open →
Before we get to the folder you need to be able to see it. So in Windows Explorer click Tools →
Click Folder Options →
Click View →
Under "Advanced Settings" click the circle next to: "Show hidden files and folders."
Click APPLY then OK.
Do not close Windows Explorer yet.

Now that you can see where you are going.

Go to C:\Documents and Settings\Your Login Name\Local Settings\Temp →
Delete everything there, if some files cannot be deleted, it is because Windows is presently using the file. →
Do not close Windows Explorer yet.

From here you can go to other logins and clear out other "Temp" folders, but if you're done clearing temporary folders don't close Windows Explorer we'll need it for the next step.

STEP FIVE: Prefetch – Here before you need it.

Windows XP likes to speed things up, especially the time it takes to load a program. However, most likely it's been a very long time since you first ran your system and probably have installed/uninstalled tons of software, files, and drivers. Little pieces of all these things get saved into another folder where they get loaded into memory just in case you need that program, file, or driver. The problem here is that most of these files you don't use daily will be loaded into memory, which will cut into your faster RAM, which will eventually SLOW your system down or at least take space. So, since Windows Explorer is already open might as well clean this out.

(Note: DO NOT delete the Prefetch folder, this will cause problems later.)

With Windows Explorer still open →
Go to C:\Windows\Prefetch →
Delete everything there.
Close Windows Explorer.

STEP SIX: The Internet is on your computer - get it off, get it off!

As said somewhere above, Windows loves to try to speed things up, and the Internet is no exception. When you surf the Internet; pages, images, animations, and other things get saved and will add to the amount of time it takes to defragment your system. One big nasty about these saved files is Cookies. Cookies allows a website to view what you're viewing, typing, and selecting. In some cases cookies can be used maliciously and take more information even when you're not surfing that page.

Open Internet Explorer →
Click "Tools" →
Click "Internet Options" →
Under "Temporary Internet Files"
 Click Delete Cookies
 Click Delete Files
Under "History"
 Click Delete History
Click Apply, OK.
Close Internet Explorer.

STEP SEVEN: Defragment – Where everything comes together again.

Now that you have cleared out any viruses, worms, and bugs. Resized your virtual memory and cleaned it out. Dumped prefetch, temporary, and Internet files it is time to put all the remaining files back to one big un-fragmented mass. To do this:

Start button
All Programs →
Accessories →
System Tools →
Disk Defragmenter →
Click the drive you wish to defragment, and then click "Defragment".

(Note: if for some reason you get an error and cannot defragment one or any drive you will have to Error-Check your drive. If this is the case go to Step Seven.2

The error will look like this:
Error Defragmenting Drive C

Windows cannot finish defragmenting this drive because it has encountered a problem. Click Help and carry out the instructions for running Scan Disk, and then try defragmenting again.

ID No:DEFRAG00205)

STEP SEVEN.2: Error Checker – Where zeros and ones collide.

Assuming you cannot defragment or just wish to be on the safe side and check the data integrity of your hard drive or partition you need to run an error check (formerly known as Scan Disk).

(Note #1: This action takes much longer then Disk Defragmenter. You have been warned.)

Start Button →
Open My Computer →
"Right Click" on the drive you wish to check. →
Select Properties →
Click Tools →
Under "Error-checking" click Check Now →

It's best to check both:

"Automatically fix file system errors"

"Scan for and attempt recovery of bad sectors"

(Note #2: when error checking C: a message will appear saying that you can schedule a disk check to start when you restart the system. In this case, select YES and restart the system.)

STEP Eight: Services.

The Windows XP operating system, especially the Professional version contains many services that are mini programs designed to "enhance" your system. Some services in Windows XP Professional are never used by a casual user so this portion is designed to remove those services which are not needed – unless of course you choose to keep these services.

First to get to the Services window:

Start Button →

Run →

Type "services.msc" and press enter.

To disable a service double click the service you wish to disable. Click the box next to Startup Type and select disable.

Suggested Services to Disable:

Clipboard - Default: Manual

"Enables Clipboard Viewer to store information and share it with remote computers. If the service is stopped, Clipboard Viewer will not be able to share information with remote computers. If this service is disabled, any services that explicitly depend on it will fail to start."

Computer Browser - Default: Automatic

"Maintains an updated list of computers on the network and supplies this list to computers designated as browsers."

Distributed Link Tracking Client - Default: Automatic

"Maintains links between NTFS files within a computer or across computers in a network domain."

Error Reporting Service - Default: Automatic

"Allows error reporting for services and applications running in non-standard environments."

Indexing Service - Default: Manual (KNOWN RESOURCE HOG)

"Indexes contents and properties of files on local and remote computers; provides rapid access to files through flexible querying language."

Network Location Awareness (NLA) - Default: Manual

"Collects and stores network configuration and location information, and notifies applications when this information changes."

QoS RSVP - Default: Manual

"Provides network signaling and local traffic control setup functionality for QoS-aware programs and control applets."

Remote Desktop Help Session Manager - Default: Manual

"Manages and controls Remote Assistance. If this service is stopped, Remote Assistance will be unavailable. Before stopping this service, see the Dependencies tab of the Properties dialog box."

Remote Registry - Default: Manual

"Enables remote users to modify registry settings on this computer. If this service is stopped, the registry can be modified only by users on this computer. If this service is disabled, any services that explicitly depend on it will fail to start."

Routing and Remote Access - Default: Manual

"Offers routing services to businesses in local area and wide area network environments."

TCP/IP NetBIOS Helper - Default: Automatic

"Enables support for NetBIOS over TCP/IP (NetBT) service and NetBIOS name resolution."