

CPR for the Sick PC

The irony of technology is the more you use your computer, the more at risk your computer becomes. The good news is there are many ways to keep your computer up-to-date and running well. This guide will explain many of the best ways to accomplish this and will cover the following concerns:

- Spyware and Adware
- Windows updates
- Disk maintenance
- Unwanted programs
- Plugins and Helper Applications

CPR Step#1 - Spyware and Adware

The biggest computer problem of the last few years is the rapid growth of **spyware** and **adware**. When you visit certain web sites or install certain programs, some of those sites and programs will install additional software on your computer without your blessing. These extra programs will then run on your computer, eating up precious memory and processor power. They may also cause pop-up ads to appear on your system, re-direct you to advertisement web sites, and give away personal information about you to other companies.

If left unchecked, spyware and adware can easily cripple a computer, making a powerful system run like it is many years old. Thankfully there are several programs that you can use to remove spyware and adware. We will look at two that you should use. They both do a great job and are free for personal use.

Spybot Search and Destroy

The first program is Spybot Search and Destroy. Below is an explanation on downloading, installing, and using the program.

Downloading Spybot

1. Spybot has its own web site (<http://spybot.safer-networking.de/en/index.html>), but you will need to download the program from a hosting site. I prefer **Download.com**. Begin by going to <http://www.download.com>.
2. Type in “**spybot**” in the “Search” box.
3. When you locate the program (Spybot Search and Destroy), follow the onscreen instructions to download it. I suggest downloading it to your desktop so you can find it easily.

Installing Spybot

1. Now you need to locate the downloaded program on your desktop and double-click it to begin the installation.
2. You should answer affirmatively to any questions it asks you.
3. When the install is done, Spybot will begin running. You can also start up Spybot manually by double-clicking on its icon on your desktop.



Using Spybot – The first time

1. The first time you use Spybot, it will ask you a few questions.
2. When it asks to make a registry backup, you should allow that. It will take a while to do the backup.
3. When it asks if you want to search for updates, allow it to do that.
4. If it finds any available updates, click the download button to get them.
5. Spybot will now restart itself and be ready to use.
6. When it does restart you will want to **“Immunize”** your computer. This protects your computer from many bad web sites. Click on the **“Immunize”** icon of the left and then click the **“Immunize”** option in the main window.
7. Finally you will want to run a full system scan to remove any spyware. This is explained in the section below.

Using Spybot – Routine

1. You should run Spybot every one to two weeks, check for updates, and have it clean your computer.
2. When you start it up, you can check for new updates by clicking the **“Update”** icon on the left and then following the onscreen instructions.
3. To scan for spyware on your computer, click the **“Search and Destroy”** icon on the left.
4. Next click the **“Check for problems”** link in the main window.
5. Spybot will now scan your entire hard drive for adware and spyware. This may take five to ten minutes.
6. If any spyware is found, you can then click the **“Fix selected problems”** link to remove them.
7. In some cases Spybot will need to run again after you reboot your computer to delete particularly nasty spyware.

Ad-Aware

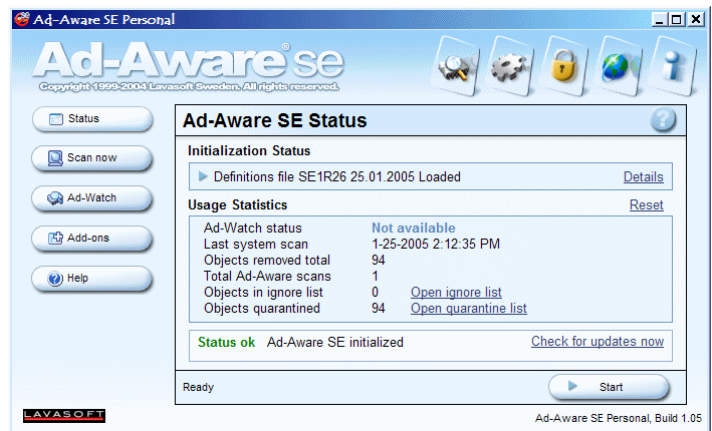
Ad-Aware is another great program for removing spyware. It should be used in addition to Spybot. Below is an explanation on downloading, installing, and using the program.

Downloading Ad-Aware

1. Ad-Aware has its own web site (<http://www.lavasoft.de/>), but you will need to download the program from a hosting site. I prefer **Download.com**. Begin by going to <http://www.download.com>.
2. Type in **“adaware”** in the **“Search”** box.
3. When you locate the program (Ad-Aware SE Personal Edition), follow the onscreen instructions to download it. I suggest downloading it to your desktop so you can find it easily.

Installing Ad-Aware

1. Now you need to locate the downloaded program on your desktop and double-click it to begin the installation.
2. You should answer affirmatively to any questions it asks you.
3. When the install is done, Ad-Aware will begin running. You can also start up Ad-Aware manually by double-clicking on its icon on your desktop.



Using Ad-Aware

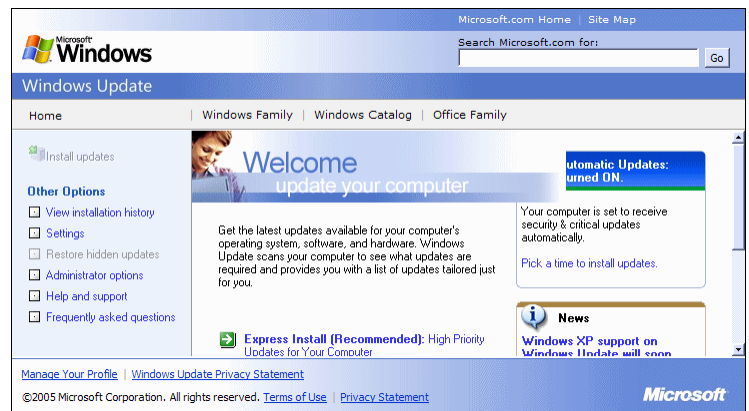
1. You should run Ad-Aware every one to two weeks, check for updates, and have it clean your computer.
2. When you start it up, you can check for new updates by clicking the “**Globe**” icon in the top right and then clicking “**Connect**”.
3. If it finds new updates click “**OK**” to download them and then click “**Finish**” when done.
4. To scan for spyware, click the “**Start**” button in the bottom right corner, then select “**Perform full system scan**”, and then click “**Next**”.
5. Ad-Aware will now scan your entire hard drive for adware and spyware. This may take five to ten minutes.
6. If any spyware is found, you will click the “**Next**” button to view the files.
7. You can then select them by right-clicking on the files and choosing “**Select All Objects**”, or by clicking on individual check-boxes.
8. Click “**Next**” one more time to remove the spyware.
9. In some cases Ad-Aware will need to run again after you reboot your computer to delete particularly nasty spyware.

CPR Step#2 - Windows Updates

Microsoft frequently releases updates for Windows. These updates may fix bugs, add new features, or protect you against security threats. Some are critical updates, some are optional. Either way, they help keep your computer running properly.

You should check for new Windows Updates at least once per month. Below are instructions for doing this:

1. Begin by starting **Microsoft Internet Explorer** (NOTE: You must use Internet Explorer to get Windows Updates. You can not get updates through Netscape or other browsers).
2. In the top menu bar, click “**Tools**” and then “**Windows Update**”.
3. You may be asked for permission to update your computer. If so, answer affirmatively to any questions.
4. Once the site is ready, you will want to search for updates. Depending upon your operating system (Windows XP, Windows 98, etc.) you may see different options. Click whatever link begins the search, such as “**Scan for Updates**” or “**Custom Install**”.
5. When the scan is done you will find results in three categories:
 - a. **Critical or High Priority updates** – These must be installed.
 - b. **Optional updates** – These are often useful. You will need to use your judgment on which ones to install. Common helpful examples in this category include Windows Media Player, DirectX, and Windows Critical Update Notification.
 - c. **Driver or hardware updates** – These help the physical parts of your computer run better.
6. If critical updates are found, you will need to follow the on-screen instructions to install them.
7. You may also choose to select non-critical updates to install.
8. Depending upon the updates, you may have to restart your computer to finish the install.
9. After doing any updates you need to return to the site and scan for new updates. There are some updates that do not show up as available until you have installed earlier ones.



Automatic Windows Updates

To make sure you get critical updates, you do have the option to turn on an automatic notification system from Microsoft. With this turned on, your computer will check for critical updates automatically and then let you know whenever it finds any. How you turn this on depends upon your operating system:

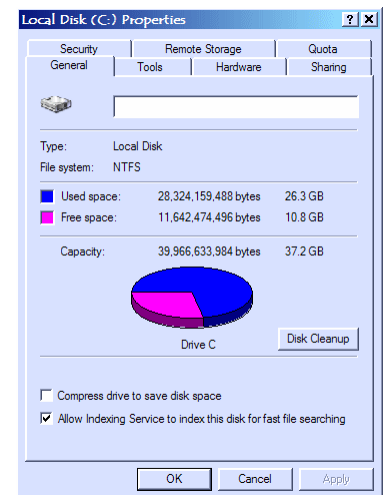
- With Windows XP there is an **Automatic Updates** section on the main **Windows Update** page. You can click on the link there to enable this feature.
- With Windows 98 you need to install an optional update called “**Windows Critical Update Notification**” which will be listed under the category labeled “**Windows 98 and Windows 98SE**”.

Once this feature is turned on you will occasionally get a message that pops up on your computer saying that new Microsoft updates are available. This is a good thing. **Do not ignore this message.** Follow its instructions to install the new critical updates.

CPR Step#3 - Disk Maintenance

Over time your hard drive can get cluttered, develop errors, and begin to function more slowly. In the worst case, a neglected hard drive can crash and lose some or all of your data and programs. A lot of those problems can be prevented with routine disk maintenance. The following items should be done once per month to ensure that your hard drive is healthy:

1. Begin by locating the “**My Computer**” icon on your desktop.
2. Now double-click “**My Computer**” to open it up.
3. Now find the icon for your hard drive (which is the **C:Drive**).
4. Right-click on your hard drive and choose “**Properties**” from the pop-up menu.
5. You will now see a windows with several tabs. We will use these to get to three maintenance utilities.



Disk Cleanup

1. On the “**General**” tab you will find a button labeled “**Disk Cleanup**”.
2. Click that button and Windows will check to see if it can clean up your hard drive of unneeded files. It may take Windows a few minutes to do this check.
3. If Windows finds unneeded files, click the “**OK**” button to allow the files to be removed.

Error-checking

1. Error-checking scans the physical surface of your hard drive and looks for flaws that need fixed.
2. This scan takes a LONG time, possibly several hours. You will want to run this utility at night or a time when you will not be using the computer.
3. Begin by clicking on the “**Tools**” tab.
4. Click the “**Check Now...**” button in the “**Error-checking**” section.
5. Check the option to have problems automatically fixed and click “**Start**”
6. Check back from time to time over the next few hours to monitor the progress and see if any messages have appeared that need attention.

Defragmentation

1. As you load more programs on your computer, they tend to get fragmented. That is, the program data gets saved in different spots on the hard drive so it takes longer for the computer to find all the needed pieces. Defragmentation puts all the separate pieces back together and makes the computer run quicker.
2. This process takes a LONG time, possibly several hours. You will want to run this utility at night or a time when you will not be using the computer.
3. Begin by clicking on the “Tools” tab.
4. Click the “**Defragment Now...**” button in the “**Defragmentation**” section.
5. Check back from time to time over the next few hours to monitor the progress and see if any messages have appeared that need attention.

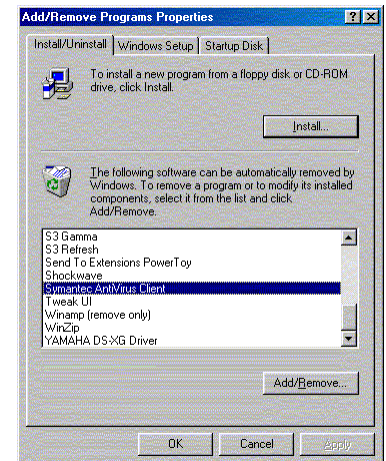
CPR Step#4 - Unwanted Programs

Depending upon how many people use your computer, it is possible that software may get installed that you do not want (teenagers are especially good at doing this). Unwanted games and applications can use up needed hard drive space, and some may even bring in spyware and adware to your system. Thankfully it is usually pretty easy to uninstall unwanted programs. Below are the basic steps for doing this.

*NOTE: If you are unsure about a program, please **contact a tech person before uninstalling** it as it may just be a program you are unfamiliar with, but happens to be needed.*

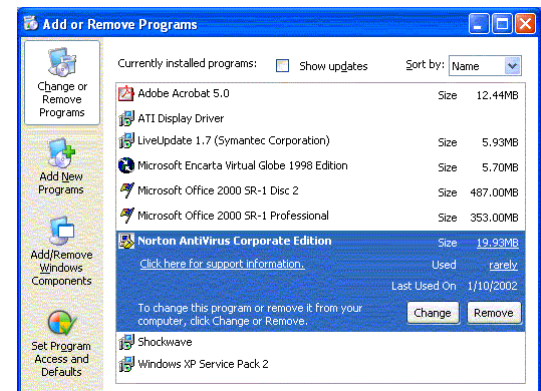
Uninstalling a program with Windows 98

1. Click the “**Start**” button.
2. Click “**Settings**”.
3. Click “**Control Panel**”. This will open up a window with lots of icons.
4. Double-click the “**Add/Remove Programs**” icon. This will open up a window with a list of programs you can uninstall.
5. Scroll down through the list to find a program you wish to remove. Click on that entry to select it.
6. Now click the “**Add/Remove...**” button.
7. Follow the onscreen instruction to complete the uninstall.
8. Depending upon the program, you may need to reboot your computer to finish the process.



Uninstalling a program with Windows XP

1. Click the “**Start**” button.
2. Click “**Control Panel**”. This will open up a window with lots of icons.
3. Double-click the “**Add or Remove Programs**” icon. This will open up a window with a list of programs you can uninstall.
4. Scroll down through the list to find a program you wish to remove. Click on that entry to select it.
5. Now click the “**Remove**” button.
6. Follow the onscreen instruction to complete the uninstall.
7. Depending upon the program, you may need to reboot your computer to finish the process.



CPR Step#5 - Plugins and Helper Applications

Another area to update is your plugins and helper applications. These are useful programs that allow you to view and use special content when on the Internet or when trying to open certain files. The programs are free and easy to install. However, if you do not have them installed, or if their version has gotten too old, you may notice that more advanced web pages no longer work properly.



Below is a listing of the most common plugins and how to get them:

1. Begin by going to the North Canton City School home page at:
<http://www.northcanton.sparcc.org>
2. Next hover your mouse over the “**Technology**” link in the toolbar and choose “**Main Technology Page**” from the drop down menu.
3. Next click on “**Tutorials and help guides**” under the “**Help**” section.
4. Scroll to the bottom and click the link for “**Viewers, Helpers, and Plugins Page**”
5. On this page are links to all the most common plugins. For each one click its link and then follow the onscreen instructions to download and install the program.
6. Programs you should install include:
 - a. **Macromedia Flash Player** - Flash allows web sites to have great animations, sounds, and interactivity.
 - b. **Macromedia Shockwave Player** - Shockwave is even more powerful than Flash, also allowing web sites to have great animations, sounds, and interactivity.
 - c. **Java** - Java is a very common programming language used on web sites for all sorts of interactive activities and games.
 - d. **Adobe Acrobat Reader** - Acrobat is a very popular format for documents. It can be used on both Windows and Mac computers, and allows the document to look just how the author originally designed it to be. Acrobat files usually end with the .pdf extension.

CPR Special Note – Antivirus Protection

In our district we use **Sophos Antivirus** to protect your computers against viruses. You do not need to install anything or run anything or update anything for Sophos to work. All you need to do is check to see that it is in fact running. You can do this by looking for the **Sophos red lightning bolt** in the bottom right corner of your screen, next to the clock. If the lightning bolt is not there, or is grayed out, please let a tech person know.

A great benefit of Sophos is that you are allowed to **install it at home for free**. The instructions for this process are in their own handout and are beyond the scope of this guide. Please contact John Fano (jrf1nc@northcanton.sparcc.org) for more information on installing Sophos at home.

Questions, comments, concerns? Email me at:

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