Analyse and Improve Your PC's Security Settings with these Fantastic Free Tools

With the information in this article you can:

- Fix common security holes that allow hackers to attack your PC
- Analyse the security status of your PC and identify vulnerabilities
- Run these checks on your own security status to locate your PC's personal weak spots

As soon as you connect your PC to the Internet there is a very real possibility that it could become infected with a virus. This could be a virus designed to delete all of the important data on your PC, or give control of your computer to a hacker for them to launch criminal attacks on other companies or individuals. Everyone knows that a good virus checker and firewall program are essential to protect your PC from infection when connected to the Internet. However, as well as these important programs, there are also a great many other tools that can be used to analyse and toughen up the security status of your PC – from disabling unnecessary Windows components that could be used to attack your PC to checking that you have the latest security updates from Microsoft installed. In this article we will look at the best free tools available to improve PC security, giving you the most stable and problem-free PC possible.

Stefan Johnson

"There are a great many free tools that you can use to analyse and improve the security status of your PC to prevent infection. This article will show you some of the best available and how you can use them to make your PC much better protected from online attack."

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Your PC is at risk of many different types of hacker and virus attack.

Analyse and Toughen Up Your PC's Security

Your PC is vulnerable to a great many security threats, from virus and spyware infection, to hacker takeover. A good virus checking program and firewall go some way towards securing your PC, but there are still a great many steps that you can take to prevent infection.

This article looks at some of the great free tools that are available, to help you identify and fix security vulnerabilities in your PC. You will find information on all of these tools included on the CD that accompanies this update.

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You will find a link to the MBSA on the CD that accompanies this update.

The MBSA checks several different aspects of your PC's security.

Check Your PC's Security with the MBSA

The Microsoft Baseline Security Analyzer (MBSA) is a free tool from Microsoft that scans your computer for potential security vulnerabilities. It works with Windows XP/2000, and as well as checking for security problems with Windows, also scans for problems with several other Microsoft applications. The MBSA is a key part of Microsoft's Trustworthy Computing Initiative, and shows how seriously they have started to take PC security issues.

The MBSA checks several different areas of PC security, including:

- Passwords – checks are made to see if blank or easily guessed passwords have been used.
- Services – the background Service programs running on your computer are checked to make sure there are no unnecessary ones running.
- Updates – your PC is checked to make sure that it is up-to-date with the latest Windows updates and security patches.

The Microsoft Baseline Security Analyzer can also be used to scan multiple computers on a network at the same time and display the results on a single controlling PC, so it is useful for people with home or office networks.

Scanning your computer with the MBSA

To scan your computer for security vulnerabilities with the Microsoft Baseline Security Analyzer, first download and install it from the link on the CD accompanying this update. Once installed, proceed as follows:

Scan your PC for security problems.

1. Start the Microsoft Baseline Security Analyzer

2. Click on the link, **Scan a computer**. The details of your PC will be displayed.

3. Unless you have Microsoft IIS or SQL servers installed, untick the options **Check for IIS administrative vulnerabilities** and **Check for SQL administrative vulnerabilities**.

4. Click **Start scan**. The scan will take a few minutes to complete.

5. Once the scan is complete you will see a security report displayed. The MBSA automatically saves this for later reference, if required.

The security report shows you the status of the tests that have been carried out.

Analysing your PC with the Microsoft Baseline Security Analyzer

Understanding the MBSA results

Once the scan is complete a security report is displayed highlighting the problems found with your computer. The

The scan reports back on the status of the tests it has performed.

report is split into two sections. The first deals with the results of the Security Updates check, that is the check of which available updates are missing from your computer. The second section covers the Windows Scan check, which checks your PC for security vulnerabilities such as weak passwords.

Each section contains several separate checks. The security report displays each of the separate checks, along with its result and one of the status icons from the table below.

Symbol	Windows Scan Check	Security Update Checks
✖	A critical check has failed (for example, a password is blank).	There is a critical security problem (for example, an update is missing from the computer).
✖	A non-critical check failed (for example, an account has a password that does not expire).	A warning message (for example, the computer does not have the latest service pack installed).
✔	A check has passed – no problem has been found.	Not used.
ⓘ	The check just provides information about the computer that is being scanned.	Not used.
✳	Not used.	Indicates that an update is not available to the computer because it has not been approved on the Update Services server.

The security report will also display a link telling you what you need to do to repair the error.

When viewing the security report, all of the checks that require fixing will also display a link called **How to correct this**. Clicking on this link displays a page telling you the steps that you need to take in order to correct the problem. Some of the checks also give you a second link called **Result**

details. Clicking on it will show you the exact problem that has been detected.

For example, if the MBSA detects that there are updates for your PC that haven't been installed, click on **Result details** in the Windows Security Updates check section. You will see a list of all of the updates that are available which have not yet been installed. From this list you can click on the **download** button to install any missing updates.

Work through the list in the security report looking at the details of each check, and clicking the **How to correct this link** to see what you need to do to fix the problem. Once fixed, re-run the MBSA to check that the problem really has been fixed.

Plug Security Gaps with Safe XP

Safe XP works with Windows XP/2000/Me/98 and allows you to tweak various settings relating to your PC's security and privacy. It can also improve Windows performance and make your PC run faster. When you load the program, you are presented with a list of various security and privacy options that you can turn on or off. The options are organised into nine categories covering:

- **Services** – allows you to disable unnecessary Services (background Windows programs) that are automatically loaded at system startup.

- **TCP/IP & NetBIOS** – allows you to configure various settings relating to the Internet and Local Area Network.

- **Internet Explorer 6** – configures the security settings relating to the latest version of Internet Explorer.

- **Media Player** – configures the information that Windows Media Player is allowed to send over the Internet.

- **MS Office XP & 2003** – changes the security settings of the latest version of Microsoft Office.

Safe XP allows you to fix many of the security holes in Windows.

Safe XP covers many different security areas.

- **Remove from Start Menu** – controls which options are displayed on the Start Menu.
- **MSN Windows Messenger** – changes the way Messenger is used in Windows.
- **Network** – configures the settings for Windows file sharing.
- **Miscellaneous** – allows you to change various settings not included in the other categories.

To use Safe XP, follow these steps:

1. Start the Safe XP program.

2. Work through each section disabling any security threats that you want to. You can click on the **Recommended Settings** button to choose the programs default settings.

3. Once you have selected the options, click **Apply > Close**.

Tick the options to secure the relevant areas of Windows.

Click here to get the Safe XP defaults.
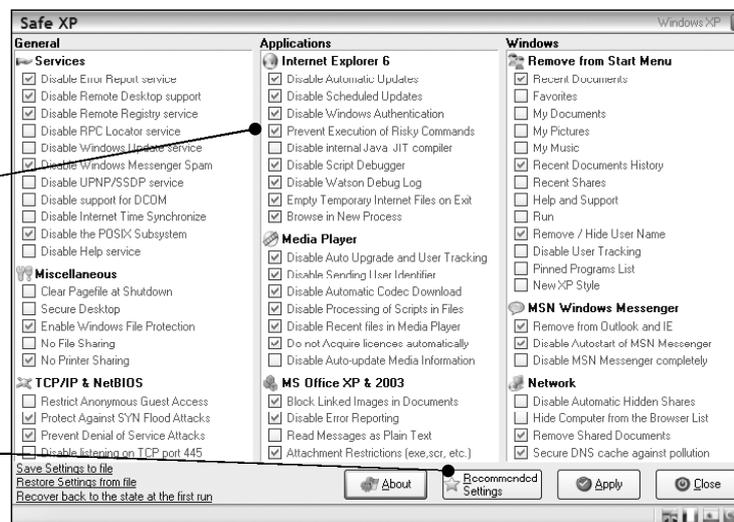
Toughening up your security settings with Safe XP

Protect Your Internet Settings with Harden-It

Harden-It is a tool for securing your Windows network and system settings. It works by toughening the TCP/IP

stack (that is the networking code used for Internet communication) to reduce the number of possible entry points for a virus or hacker to gain entry to your system. It works with Windows XP/2000, and you will find it on the CD accompanying this update.

Secure your PC's Internet code with Harden-It.

When you first run the program, it works you through a setup wizard that allows you configure the TCP/IP security settings on your PC. Each screen of the wizard controls a different setting. Each screen has a recommended setting, which you should choose when working through the wizard. Click **Next** to work through each of the wizard's options.

Work through the wizard to apply the different security settings.
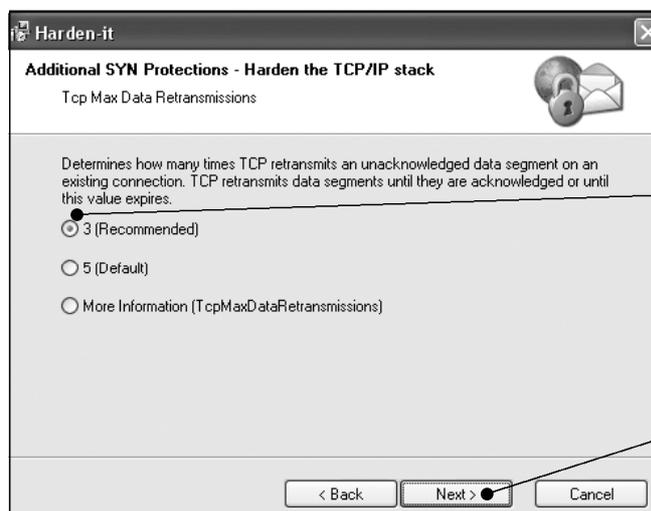
Choose the Recommended settings on each page ...

... then click the Next button.

Configuring Internet security with Harden-it

Harden-It also has a sister program called Secure-It, which allows you to configure various extra security options on your PC. It is also available on the CD that accompanies this update. Again, when you run the program, work through the wizard settings to configure the recommended options. When asked, choose the Beginner version of the wizard.

Use Secure-It to configure extra security options.

Close up Windows Anti-spy Features with XPY

By default when Windows XP is installed it has several security holes that report settings back to Microsoft and

By default, Windows XP has many unsecure settings.

allow for potential spyware or virus infection. XPY is a small tool that automatically closes up these gaps in your Windows XP installation, and improves your PC's privacy settings. You will find XPY on the CD that accompanies this update.

To secure your PC with XPY follow these steps:

1. Start the XPY program.

2. From the drop-down list select **XP Antispy settings**.

3. You can select and security options that have not already been selected by clicking on the **+** symbols and then selecting options from the submenus.

4. Once you have finished altering the settings, click **Apply > Yes**. You will have to restart the computer for the settings to take effect, so click **Yes**.

Revert to your old settings with the Restore button.

If you find that you want to revert to your old security settings, because you are having problems with a program, or a program has stopped working, then restart XPY and click on the **Restore** button.
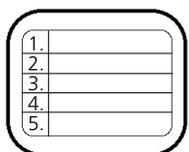
There are many different tools that you need to use to secure your PC. Most people will have an anti-virus and firewall program, but do not realise that there are many other tools available that can be used to identify and repair a great many of the vulnerabilities that exist in your Windows system. The tools in this article will help you to analyse the potential weaknesses that hackers exploit to cause damage to your PC, for the most trouble-free PC possible.