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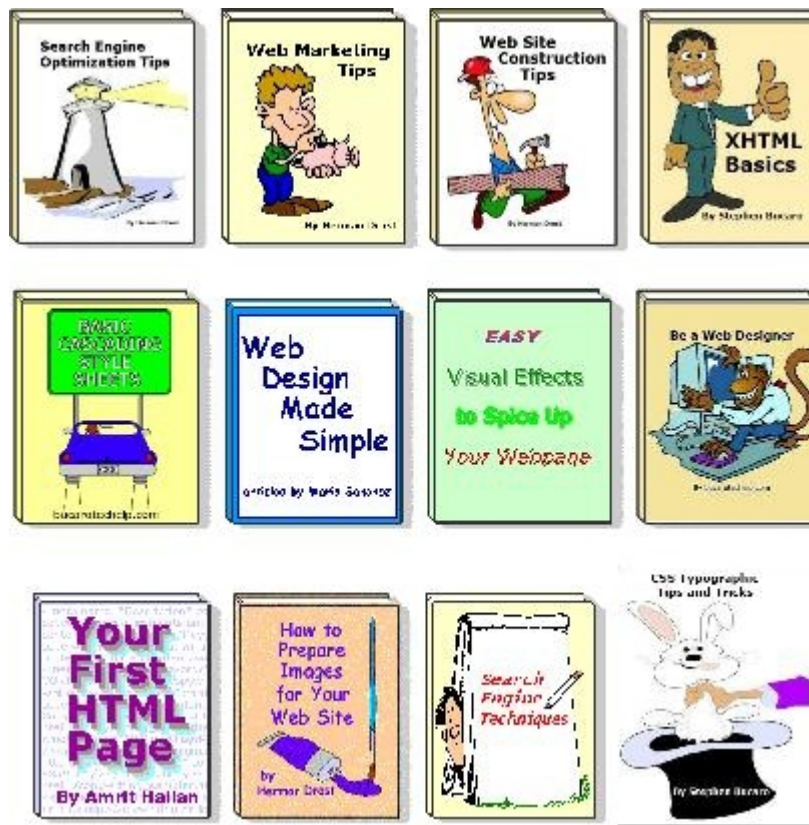
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### Introduction

Microsoft Windows is a very complicated operating system. Unfortunately, over the years, Windows upgrades have consisted of little more than added unnecessary trivia (like the search puppy) and complexity (like the registry).

When you first install Windows, it is NOT configured for optimal performance. Instead it's configured to display all the unnecessary bells and whistles that hog your computers processor and memory causing your system to run slow.

This ebook shows you how to take control of your computer and configure it the way it should be, for optimal performance. Then this ebook show you how to perform critical computer maintenance such as backing up, defragmenting the hard disk, setting up anti-virus, anti-spyware, and firewall protection systems.

Then, because the longer Windows runs, the more corrupt and degraded it becomes, this ebook



shows you how to perform the inevitable task of reloading Windows.

To receive an email notification when new articles, ebooks, clipart, graphics, or other content has been added to Bucaro Techelp, [Click Here](#) to subscribe to Bucaro Techelp News Feed Notification.

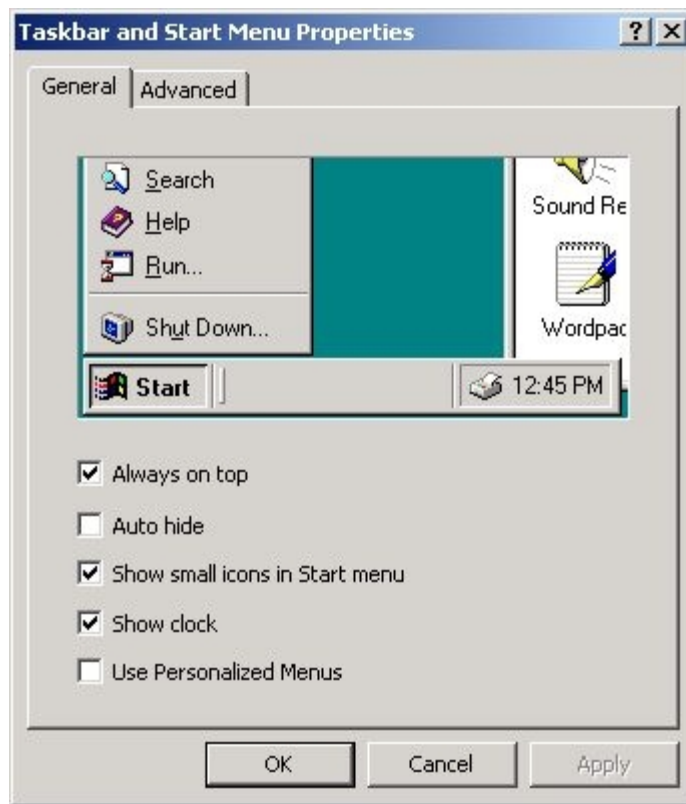
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### Configure the Start Menu

By Stephen Bucaro

Select *Start | Settings | Taskbar & Start Menu settings*. In the *Taskbar & Start Menu settings* dialog box, on the General tab, check and uncheck boxes as shown below.



Checking "Show small icons in Start menu" reduces the size of the icons from 32 x 32 pixels to 16 x 16 pixels. Big icons just make your start menu take up more space on the screen. Unless you need big icons because of poor vision, check "Show small icons in Start menu".

Make sure "Use Personalized Menus" is unchecked. This option hides infrequently used items on the Start Menu. Just because you infrequently use them doesn't mean you want them hidden from you. If an application is hidden from you, it definitely will remain infrequently used! This option is a bad idea. Later in this series of articles, I'll show you how to manage your Start menu without hiding things from yourself.

In the Taskbar & Start Menu settings dialog box, on the Advanced tab, check and uncheck boxes as shown below.

[x] Display Administrative Tools



- ☐ Display Favorites
- ☐ Display Logoff
- ☐ Expand Control Panel
- ☐ Expand My Documents
- ☐ Expand Network and Dial-up Connections
- ☐ Expand Printers
- ☐ Scroll the Programs menu

Note that I have left all except the first item unchecked. Displaying Administrative Tools in the Start menu is just my personal preference. If you are a system administrator, you want as many access points to the Administrative Tools as you can get. The Administrative Tools are also available in My Computer and Control Panel, so you don't really need them on the Start menu too.

Leave "Display Favorites" unchecked. Later in this series of articles, I'll show you a way to access your favorites much quicker than using the Start menu.

Leave "Display Logoff" unchecked. If your computer is a multi-user system, it's better to have users conserve energy by shutting the computer down when they are finished. In certain environments, it might be preferable to leave the system running and let users logoff; this is an administrative preference. If your computer is a single-user system, you don't need to display the Logoff dialog box.

Leave all the "Expand ..." boxes unchecked. These options create cascading menus off the Start menu rather than opening the related folder. Opening the related folder has advantages. Later in this series of articles, I'll show you how to set up Windows to use "classic folders". In that configuration, when you open the related folder, for example Control Panel, the folder provides you with a description of what each utility in control panel does.

Leave "Scroll the Programs menu" unchecked. This option displays the Start menu as a scrolling list rather than expanding columns. It's quicker to navigate expanding columns than to scroll a menu.

## **Windows XP**

The Windows XP Start Menu uses two columns. It puts the most frequently used programs in the left column, with an "All Programs" item at the bottom. It puts links to the "My Documents" folders and some system utilities like "Control Panel" and "Printers" in the right column.

To customize your Start Menu, right-click on the taskbar and select "Properties" in the popup menu that appears. This opens the "Taskbar and Start Menu Properties" dialog box.

If you want to keep the two column Start Menu, make sure the "Start menu" radio button is set, then click on the [Customize...] button. This opens the "Customize Start Menu" dialog box. On the "General" tab, set the "Small icons" radio button to get rid of the screen space wasting large menu icons. Then click on the [OK] button.

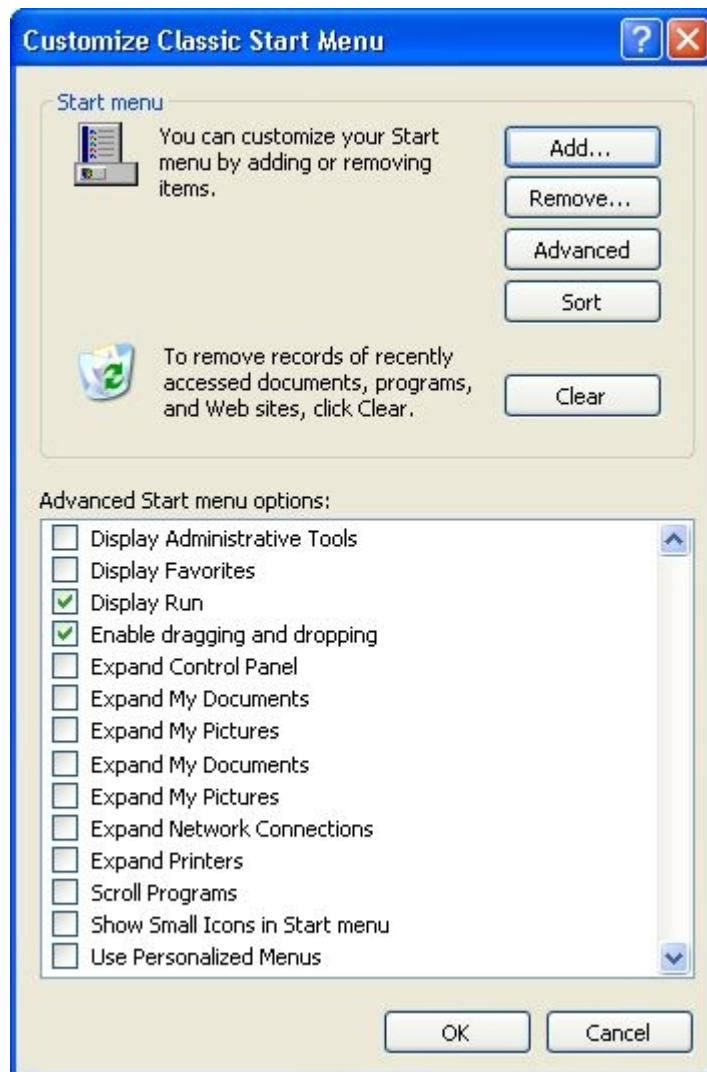




In the *Taskbar and Start Menu Properties* dialog box, it would be smarter to set the "Classic Start menu" radio button to get rid of the two column Start Menu. Then click on the [Customize...] button. This opens the *Customize Classic Start Menu* dialog box.

At the bottom of the dialog box is a list of options. Set and clear the checkboxes as shown below.

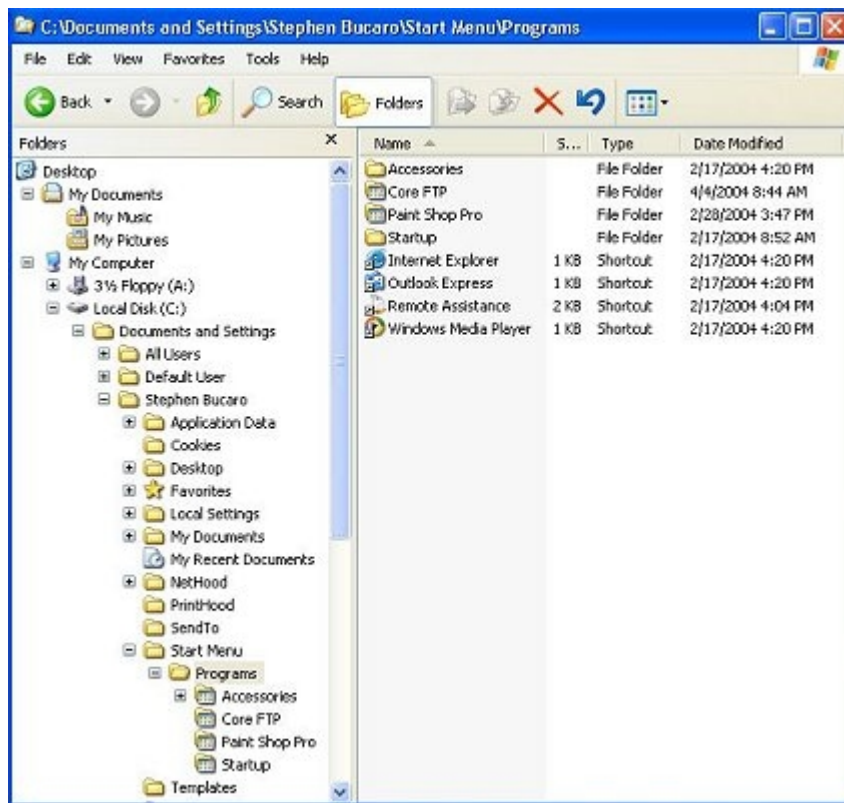




If you click on the "Advanced" button, it opens an Explorer window revealing that the Start menu is actually another view of the folder:

c:\Documents and Settings\Your Name\Start Menu and the "Programs" menu item is simply a list of the "Programs" subfolder contents. All program groups are simply subfolders and all application menu items are simply links stored in the subfolders. (you could actually store a programs executable here too).





The Start Menu is actually a combination of c:\Documents and Settings\Your Name\Start Menu and c:\Documents and Settings\All Users\Start Menu. You can totally control the contents of the Start Menu by arranging the subfolders and links in these two folders.

Note: On a multi-user system you need Administrator rights to make changes to "All Users".

If you have been making the changes as advised, you will be getting quick access to your files and applications through the Quick Launch toolbar and Desktop icons. You will use the Start Menu only to access applications that you rarely use.

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## **Configure Folder Options**

By Stephen Bucaro

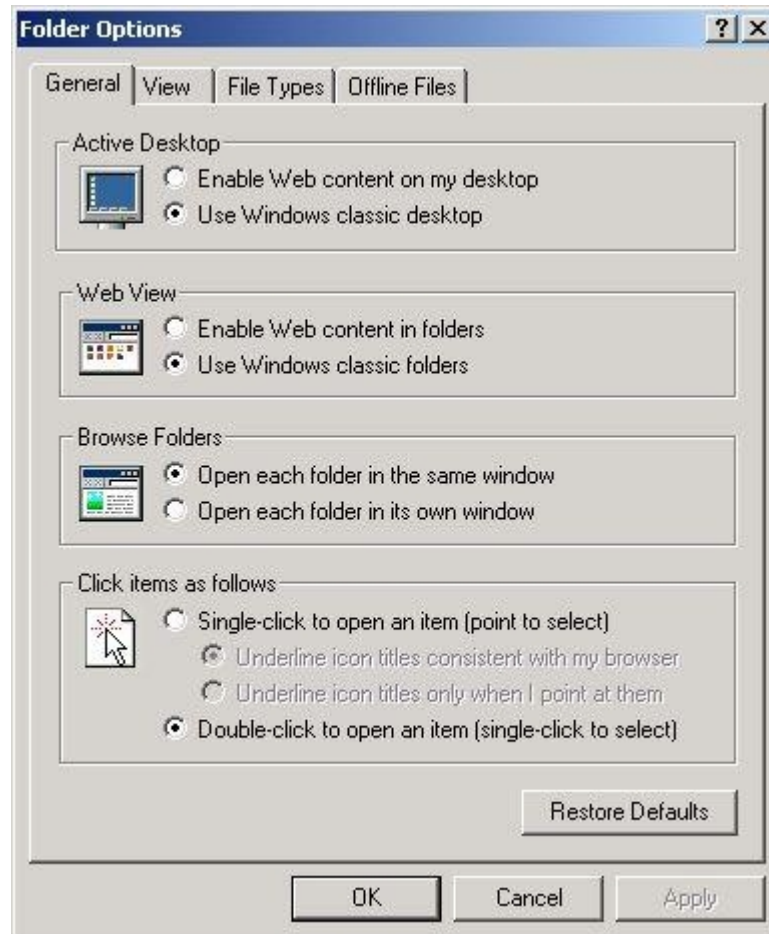
Microsoft ignored the Web for many years because their Windows 3.1 operating system didn't have the power to deal with it. With the release of Windows 95, Microsoft decided that they owned the Web. In order to confuse users into thinking Windows is the Web, Microsoft introduced one of the biggest productivity killers ever created, Active Desktop.

One of the effects of Active Desktop is "Web Style". With this configuration, Windows wastes a big area of screen space displaying a webpage containing useless information on the left side of every window. For example, the left side of the Control Panel informs you "Use the settings in Control panel to personalize your computer".

Web style does provide thumbnail previews of files in a folder. If this is what you need, stick with Web style. But understand that creating these thumbnail previews really slows down your computer. For higher productivity, configure your computer for "Classic style".

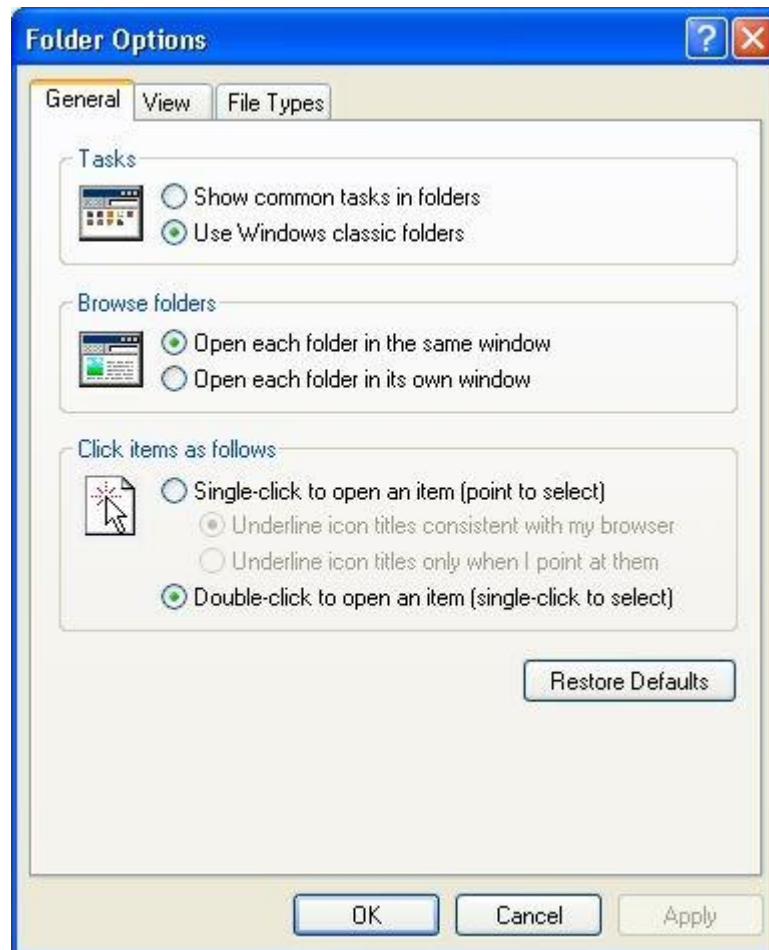


In Control Panel, open the "Folder Options" utility. On the "General" tab, set the radio buttons as shown below.



With Windows XP click on the link "Switch to Classic View". Why this annoying difference between windows XP and all other versions of windows? Because that's what you get When Microsoft releases a new version of windows, just some simple cosmetic changes. That's your "Upgrade".



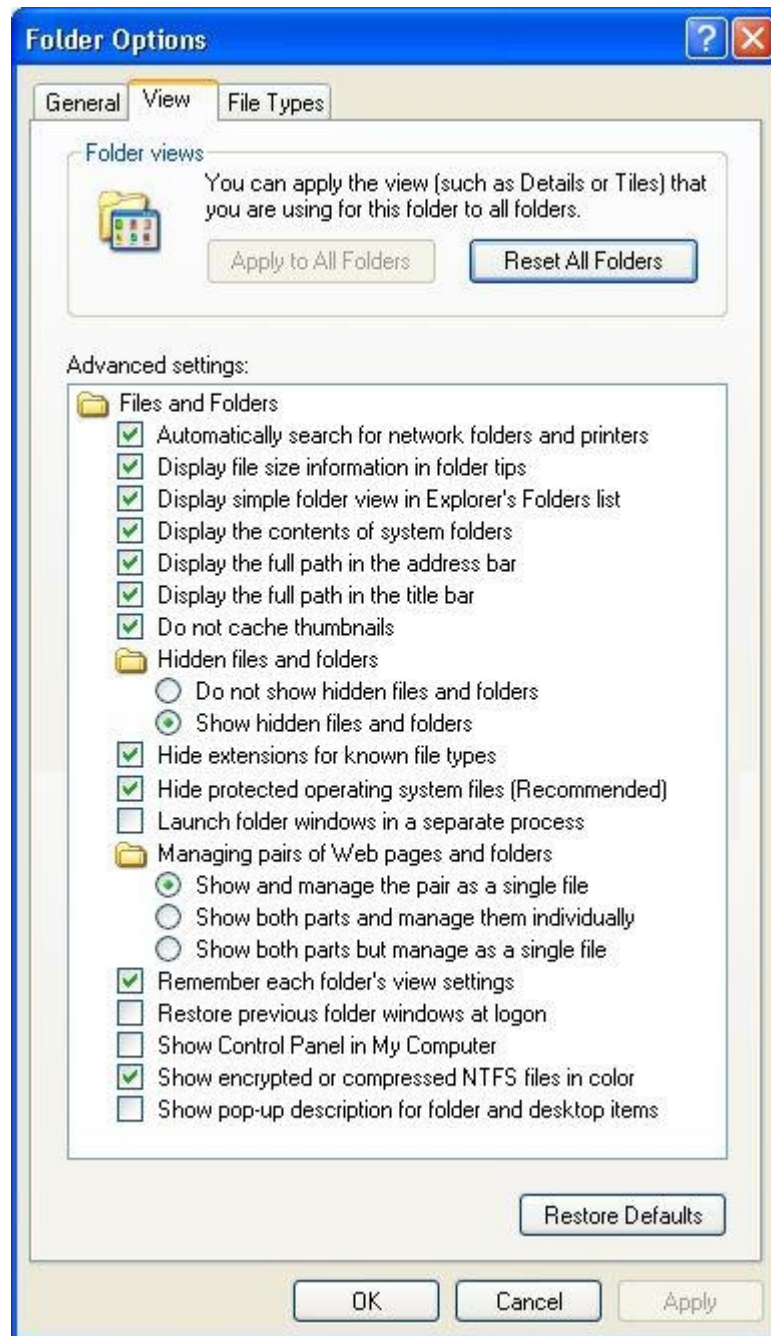


"Open each folder in the same window" prevents the operating system from spawning a new window every time you open a folder. This can rapidly clutter up your screen. If you are accustomed to a new window opening every time you open a folder, you may get confused when opening a folder only changes the contents of the current window. To achieve higher productivity, you should use the "Back" button on the windows tool bar to navigate rather than keeping many windows open on the desktop.

"Double-click to open an item" allows you to single click on an item and edit the file name directly rather than having to right-click to open a menu and then selecting "Rename" in the menu before you can edit the file name.

In the Folder Options "View" tab, check and uncheck boxes so that it looks as shown below.





These settings are selected to make the operating system provide you with as much information as possible, except for the pop-up descriptions which provide mostly useless information and slow down your computer considerably.

By default, Windows hides file extensions. Windows relies heavily on file extensions. Why would you want to hide them? By default, protected operating system files are hidden to prevent new users from accidentally deleting them. You may want to leave this option checked. It's just my preference to not have the computer hide anything from me.

When you have completed these settings, click on the "OK" button.

Despite having 97 percent percent of the desktop operating system market, Microsoft has always been jealous of Apple Computer. That's why they copied those giant screen area wasting icons. To get rid of them, in the "View" menu of any window, select "Details". Details provides you with important information about the file, like its size and when it was last modified.



Then in the "Tools" menu, select "Folder Options...". On the "View" tab, your previous setting should still be in effect. Click on the "Like Current Folder" button (With Windows XP "Apply to All Folders"), then on the "OK" button.

After you get used to these new folder and file settings, you will find that you and your computer can work much faster. Your work will be easier and you will be more productive.

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### **Desktop Shortcuts Give Quick Access to Applications and Folders**

By Stephen Bucaro

The standard method to access applications and folders in Windows is through the *Start menu*. Using the Start menu is slow because you have to open cascading menus to find the entry for the application you want. Desktop shortcuts give you quicker access because you only have to double-click on an icon to launch the application or open the folder.

A shortcut is simply an icon with an associated link. Place shortcuts on your desktop to all applications, folders, and files to which you need quick access. At the same time, remove clutter from your desktop by deleting any shortcuts for applications you don't use regularly.

If you have shortcuts on your desktop for applications that you no longer use. Use the Add/Remove Program Utility in Control Panel to remove those applications. You may have shortcuts on your desktop for applications that you already removed, but the shortcuts remain. To remove these shortcuts, drag them to the Recycle Bin.

You may have shortcuts on your desktop to programs that you use frequently, but you never access through a shortcut or menu. One example is Acrobat Reader. This is a free program from Adobe that allows you to read PDF files. Another example is WinZip, an application used to compress and extract files. These applications are almost always executed automatically via a file association.

Another example is a Firewall application. This type of program usually loads automatically at startup. It is opened manually only rarely when you want to reconfigure the firewall. To reduce clutter, delete the desktop shortcut for these types of applications (but don't delete the programs or their Start menu entries.)

Arrange the remaining icons on your desktop by categories. For this purpose divide the screen into sections. An example with six sections is described below.

Upper-left: Default system shortcuts; My Computer, My Documents, Recycle Bin, etc.

Lower-left: System Maintenance shortcuts; CD Creator, Winzip, etc.

Upper-right: Graphics Applications; Paint Shop Pro, Windows Paint, Scanner, etc.

Lower-right: Word Processing Applications; OpenOffice.org Writer, Windows Wordpad, etc.

Upper-Center: Folders.

Lower-Center: Files.

You can define areas and categories according to your own needs and preferences.

To add a shortcut to the desktop, drag and drop the applications icon or Start menu entry while holding the right mouse button depressed, then select "Create Shortcut Here" in the popup menu. Listed below are some shortcuts you might want to add to the System Maintenance area



of your desktop.

Control Panel: Date/Time

Accessories | System Tools: Disk Cleanup

Accessories | System Tools: Disk Defragmenter

Create desktop shortcuts to files that you open regularly. If you get too many shortcuts, create a folder on your desktop, for example named "Misc Desktop Files". Drag and drop the least frequently used file shortcuts to the folder. You can create several desktop folders for different categories of applications and files.

When you have completed arranging your desktop shortcuts to your satisfaction, right-click on an empty area of the desktop and select "Line Up Icons" in the popup menu that appears.

After you have become accustomed to this new desktop arrangement, you will be able to quickly access all your frequently used applications, folders, and files. This will make your work faster and easier.

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## **Configure Windows Taskbar**

By Stephen Bucaro

The Taskbar is that bar at the bottom your screen. It's your control center for application windows on the desktop. When you start a program, a button appears on the Taskbar that lets you control that program. First I'll show you how to enter settings that will make the Taskbar more friendly. Then I'll explain each setting.

Select *Start | Control panel | Appearance and Themes | Taskbar and Start Menu*. In the Taskbar & Start Menu settings dialog box, on the *General* tab, check and uncheck boxes as shown below.





One of the most annoying problems with the Taskbar is that you can inadvertently cause it to move and dock to a side, or the top, of the screen. When this happens, it's very difficult to get it back to the bottom of the screen. You can eliminate that annoyance by checking "Lock the taskbar".

You want to check "Always on top" so that the Taskbar will not be covered by maximized windows. If you are going to be a productive Windows user, it is going to be very common for you to have several windows maximized at the same time. You will be switching between those windows by clicking on their icons on the Taskbar. Why would you want the Taskbar to keep hiding? Make sure "Auto hide" is unchecked.

Make sure "Show Clock" is checked. Of course, you want a clock on the Taskbar. In another article, I'll show you how to get a Calendar and Calculator on your desktop as well.

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## Customize the Quick Launch Toolbar

By Stephen Bucaro

The standard method to access applications and folders in Windows is through the Start menu. However, there are two other methods that give you quicker access, the *Quick Launch* toolbar and Desktop icons. The quickest access is provided by the Quick Launch toolbar.

The Quick Launch toolbar is located on the taskbar just to the right of the Start menu. Quick Launch is faster than the Start menu because its never covered by an application window (if you've configured the Taskbar to stay on top), and you need only to single-click on an icon in the Quick Launch toolbar to launch the application or open the folder. You don't have to wait for a menu to open and cascade.



Note: On Windows XP, if the Quick Launch toolbar is not visible, right-click on the Taskbar to open the "Taskbar and Start Menu Properties" dialog box. Set the checkbox next to "Show Quick Launch". Click on the OK button.



The drawback to the Quick Launch toolbar is that all of the icons on the toolbar may not be visible. The double right arrows on the right side of the toolbar indicate that it contains more icons than are visible.

Note: The taskbar is extremely flexible. You can relocate it to the top or side of the screen and make it much larger. You can make the Quick Launch toolbar larger by using the mouse to grab and drag the handle on it's right side, but I prefer to leave as much screen space available for application windows as possible, and as much taskbar space available for active application icons as possible. Therefore, the best configuration for the taskbar is the default setting; one row high at the bottom of the screen with four Quick Launch icons visible.

To put an icon on the Quick Launch toolbar, drag and drop the application's icon over the Quick Launch toolbar. To remove an icon from the Quick Launch toolbar drag the icon to the Recycle Bin, or right-click on the icon and select "Delete" in the popup menu.

Which four icons should you place on the Quick Launch toolbar? It depends upon how you work and your own preference. I prefer the following four:

1. Show Desktop. This icon is already on the Quick Launch toolbar by default. Clicking on this icon minimizes all windows, giving you access to the desktop, where you should have icons to access your second most important applications and folders.
2. Internet Explorer, or your favorite Web browser.
3. Windows Explorer. A more sophisticated file management tool than "My Computer".
4. Microsoft Word, or your favorite Word Processing application.

The Quick Launch toolbar gives you quick access to your most commonly used applications because its never covered by an application window and you need only to single-click on an icon in the Quick Launch toolbar to launch the application.

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## **Disable Windows Automatic Update**

By Stephen Bucaro

To make your Windows operating system more reliable, disable automatic Windows Update. I know that sounds counter intuitive and against all the copy-cat advise you read, but it's true. If you don't beleive me, just google the phrase "windows update causes problems" and you'll receive over 50 million results, many of them being Microsoft Service Bulletins.

- Many times an Update will cause more problems than the problem it was supposed to fix.

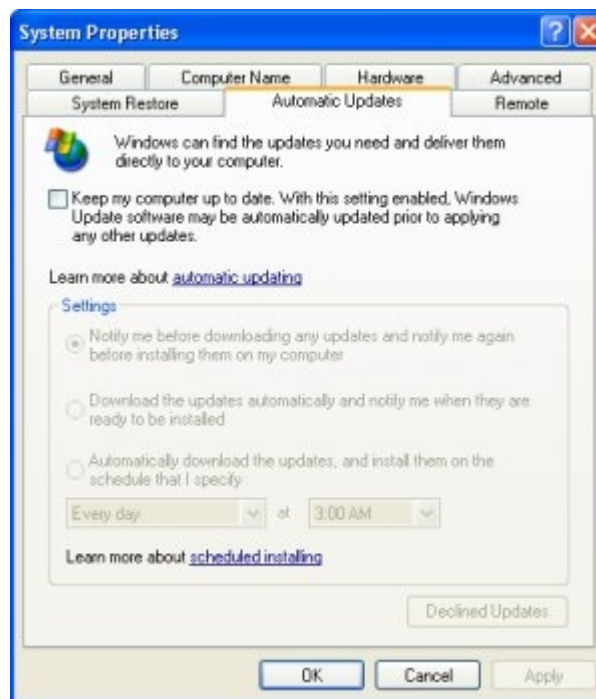


Occasionally Windows Update itself fails, leaving your system in an unstable, if not unbootable state. Frequently, after an update, some applications stop working, including Microsoft's own applications (Microsoft HTML Help Workshop being a recent example). About a week after Windows XP SP2 was released, Microsoft revealed a long list of programs that the update is known to cause problems with.

- The reason Windows needs updates is because Microsoft releases their products before they're finished. So why in the world would you expect, under the publicity of the discovery of another security hole, Microsoft to NOT release an update before it's finished?

Instead of allowing Windows Automatic Update, wait a few weeks after the release of an update to see the results received by early updaters. After the update has shown itself to be safe, or after Microsoft has fixed the update, then (by selecting Windows Update in the Start menu).

- If you have a dial-up internet connection Windows Update, automatic or manual) is an exercise in frustration.



The default setting is to have Windows XP automatically scan for updates. To disable Windows Automatic Update, open Control Panel's System utility. In the "System Properties" dialog box, click on the "Automatic Updates" tab. Uncheck the box next to "Keep my computer up to date...". Then click on the [OK] button.

- Whether you allow automatic updates, or perform manual updates, it's very important to have an up-to-date firewall, anti-virus, and anti-adware applications running on your system. This is your first line of defense.

Don't let your self be unpleasantly suprised when your system automatically install Windows Updates that cause your applications to stop working. Instead, disable Windows Automatic Updates

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## Free TweakUI User Interface Configuration Utility

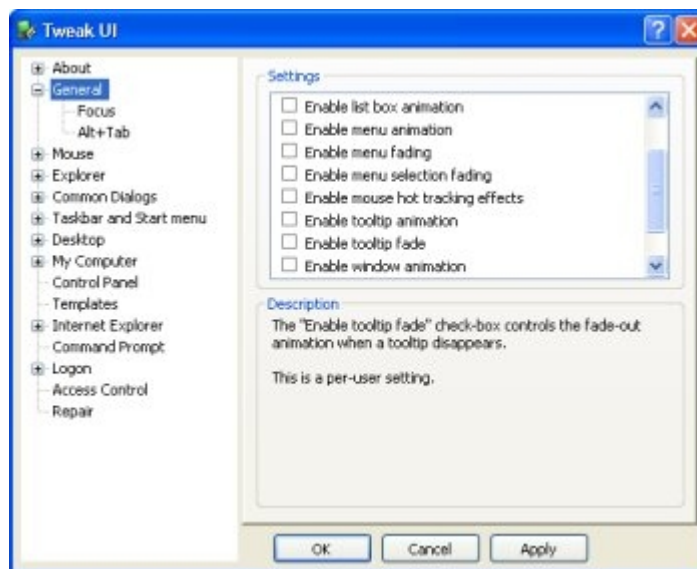
By Stephen Bucaro

Tweak UI is one of a group of utilities called "PowerToys" that you can download from Microsoft's web site for free. TweakUI makes it easy to configure several Windows Interface options that are difficult to find or are not available in Control Panel.

Download from the 147 KB file TweakUiPowertoySetup.exe from [Microsoft Windows XP Downloads](#)

To install Tweak UI, double-click on downloaded file's name to start the setup program. The setup program puts TweakUI.exe in the C:\WINDOWS\system32 folder and puts an item in the Start menu. To run TweakUI, select *Start | Programs | Powertoy for Windows XP | Tweak UI*.

- PowerToys are not supported by Microsoft.



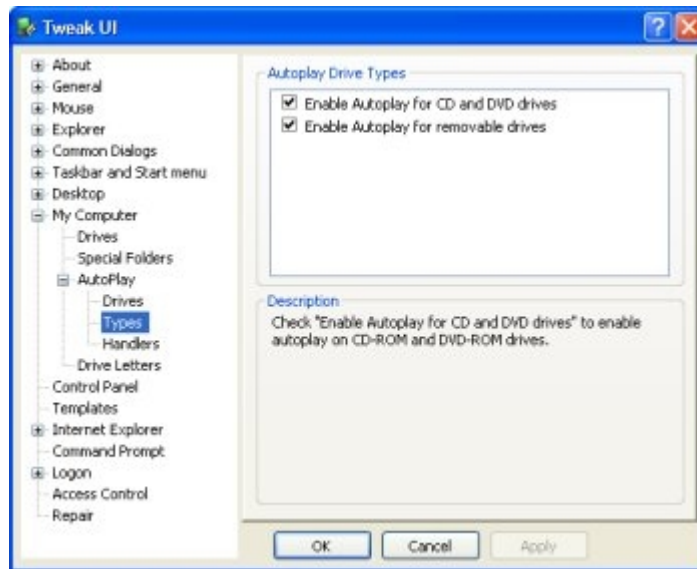
Animation, fading, and tracking are all user interface trivia that slow your system down. If you're not impressed by trivia, and prefer performance instead, in the *General* branch of Tweak UI you can uncheck boxes to disable all animation, fading, and tracking.

In the *Explorer | Thumbnails* branch, you can configure the size of thumbnails. If you have a lot of graphics files in your folders and you use the *View | Thumbnails* folders option, you might want to change the size of thumbnails from the default size of 96 pixels to a higher value, for example 128 pixels.

In the *Taskbar and Start menu* branch you can configure which applications appear in the *Most Frequently Used* section of the *Start* menu.

In the *Desktop* branch you can uncheck boxes to remove unnecessary desktop icons, for example if your computer is not on a network you don't need the *My Network Places* icon.





I generally use my computer's drives for storage, not to play music or video, for that reason it's very annoying to me when Windows automatically starts scanning through a storage device for music or video files to open. In the *My Computer | Autoplay* branch you can uncheck boxes to disable this Autoplay.

Click on [Apply] button to apply a new setting. when finished configuring all settings, click on [OK] button to close TweakUI.

You'll find many more configuration options in TweakUI, and if your operating system is the *Pro* version of Windows XP, you'll find even more options, for example you'll find an *About | Policy* branch where you can set group policy options.

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## Free Registry Cleaner to Speed Up Windows

By Stephen Bucaro

The Windows registry is a database that stores settings and options for the operating system. It contains configuration information and settings for all the hardware, software, and users on the system. Whenever a user makes changes to Control Panel settings, file associations, system policies, installed software, or preference settings, the changes are stored in the registry.

The registry can become bloated with invalid information left behind by uninstalled hardware and software, and by missing files and drivers. The Windows operating system reads the registry each time the system starts and reads it repeatedly during the systems's operation. A bloated registry can cause your PC to operate sluggishly, become unstable, and crash frequently.

Manually maintaining the registry would be a complex and tedious task only for the most skilled technician. However with *TweakNow's* free *RegCleaner* utility, registry maintenance is an easy task for the average PC user. *RegCleaner Standard* edition is free for non-commercial use and is compatible with Windows 98/Me/2000/XP/2003.

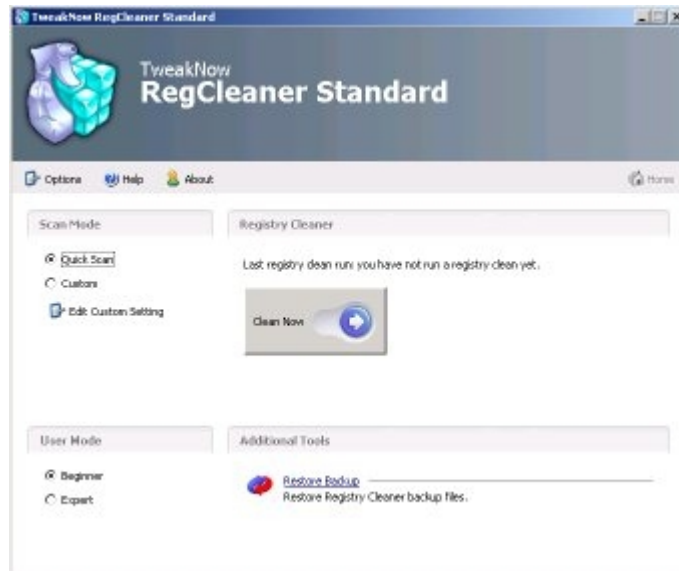
- Microsoft's own registry cleaner (called RegClean) is not supported by Microsoft and in fact it



causes errors with Microsoft Office Products.

RegCleaner finds invalid registry entries related to:

- ActiveX/COM objects
- Device Drivers
- Installed Fonts
- Help Files
- Shared Files
- Startup Files
- Uninstall Files
- Sounds and Application events



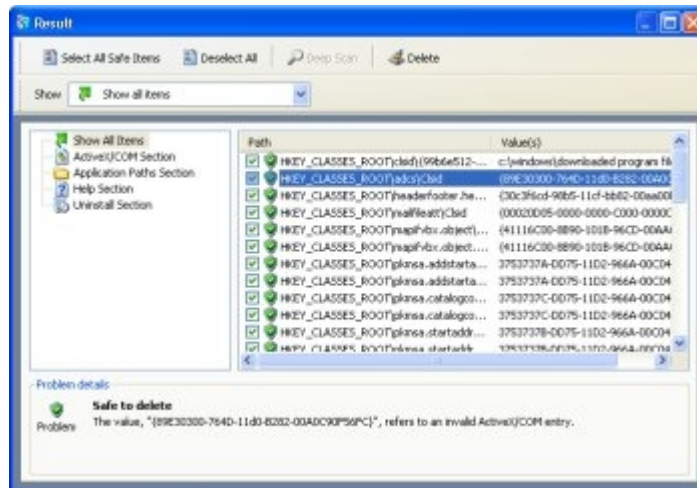
Download the 1.1 MB installation file *RegCleaner2.exe* from [TweakNow](http://www.tweaknow.com). Then double-click on the file name to start the install program.

To use *RegCleaner* double-click on it's Desktop icon to open the program, then click on the [Clean Now] button. *RegCleaner* will scan your system's registry and report the results in three categories: *safe to delete*, *not fully safe to delete*, and *unknown*.





- *RegCleaner* provides two scan modes: *Quick Scan* scans only the most important part of your registry. *Custom* mode allows you to manually select list of registry sections to be scanned.



After *RegCleaner* completes its scan, click on the *View Result* link. The *Result* page displays problem keys and their values. To learn more about a specific problem, click on an item in the results list to highlight it, then view the *Problem Details* information at the bottom of the *Result* page.

- A common problem is that a registry key's value refers to a missing file or folder.

Click on the *Delete* link at the top of the *Result* page to remove the invalid registry entries.

- *RegCleaner* provides two user modes: *Beginner mode* will display only invalid items rated as *safe to delete*. *Expert mode* will display all invalid items.

If you wish to delete an item in the categories *not fully safe to delete* or *unknown*, make sure you understand the purpose of the entry and/or backup that particular registry key before deleting.

- *RegCleaner* comes with a small but adequate help file.

A bloated registry can cause your PC to operate sluggishly, become unstable, and crash frequently. *TweakNow's* free *RegCleaner* utility, registry maintenance is an easy task for the average PC user. Download *RegCleaner* from [TweakNow](#).

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## Disable Cutesy Effects to Speed Up Windows XP

By Stephen Bucaro

There has been no SIGNIFICANT technological advance in Windows since Windows 95 (and I could make a case since Windows 3.0). When Microsoft releases a new version of windows, what you actually get is some simple cosmetic changes, like changing the default system colors, desktop background, and re-arranging of menu items.

They also add cutesy effects like slides, fades, shadows, translucent effects, and animations like



the search puppy. Instead of getting a legitimate version upgrade with a significant technological advance, you get a Microsoft dog and pony show. Unfortunately all these animations, slides, fades, shadows, and translucent effects hog system resources.

- Do you want to be entertained by cutesy effects, or if you want to be productive?

The settings that control many of these cutesy effects can be disabled via the *Control Panel System* utility. On the *System* utility [Advanced] tab, in the *Performance* section, click on the [Settings] button. You'll see four radio buttons. The first two options enable all features and the third option "Adjust for best performance" disables all features.

The fourth radio button allows you to choose individual effects in a list. You'll want to disable any effect involving; *animate*, *fade*, *shadow*, *slide*, and *translucent* effects. However, you may want to enable a few specific effects in the list, depending upon how your system is configured and how you work.

### **[ ] Show window contents while dragging.**

Most people would want to disable this feature. However, some users frequently have multiple windows open and position some of them partially off-screen so that only the area of the window they are interested in is visible. If this describes you, then enable this feature.

### **[ ] Smooth edges of screen fonts**

Smoothing the edges of screen fonts involves a process called antialiasing. A brief explanation of antialiasing is that if you have a black font, certain pixels will be replaced with pixels in shades of gray to make the jagged (pixilated) edges of the font look smooth. If your system has a CRT display or a very high quality LCD display, you might enable this effect. If you have a standard LCD display, having this effect enabled will make text more difficult to read. Disable smooth edges of screen fonts and your text will appear crisp, but pixilated.

### **[ ] Use drop shadows for icon labels on the desktop**

If you display a background image on your desktop, disabling this option will cause ugly rectangles behind desktop icon labels. For best performance, you should NOT display a background image on your desktop. To remove the background image, open the *Control Panel Display* utility and open the [Desktop] tab. In the *background* list, click on "None". Then click on the [Apply] button. However, many people MUST have their favorite background image on their desktop, regardless of any performance sacrifice. If this describes you, then enable this feature.

### **[ ] Use visual styles on windows and buttons**

Disable this option and you'll understand what I mean when I say "new versions of windows are nothing more than simple cosmetic changes". Your windows and dialog boxes will appear exactly as they did back in Windows 95. If you prefer to work under the delusion that you're using a more advanced version of windows, then enable this feature.

You need to decide whether you want to be entertained by Microsoft's dog and pony show, or if you want to be productive. If you choose the latter, disable all the animations, slides, fades, shadows, and translucent effects that hog system resources.

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## **Diable Windows CD/DVD AutoPlay**

By Stephen Bucaro

When you insert a CD/DVD disc into the drive, it begins playing music, running an application, or installing software automatically. This action is provided by a feature called *AutoPlay*. Some experienced Windows users find Autoplay annoying. For example, sometimes I don't know what's on a cd/dvd and I don't want programs executing without my express permission.

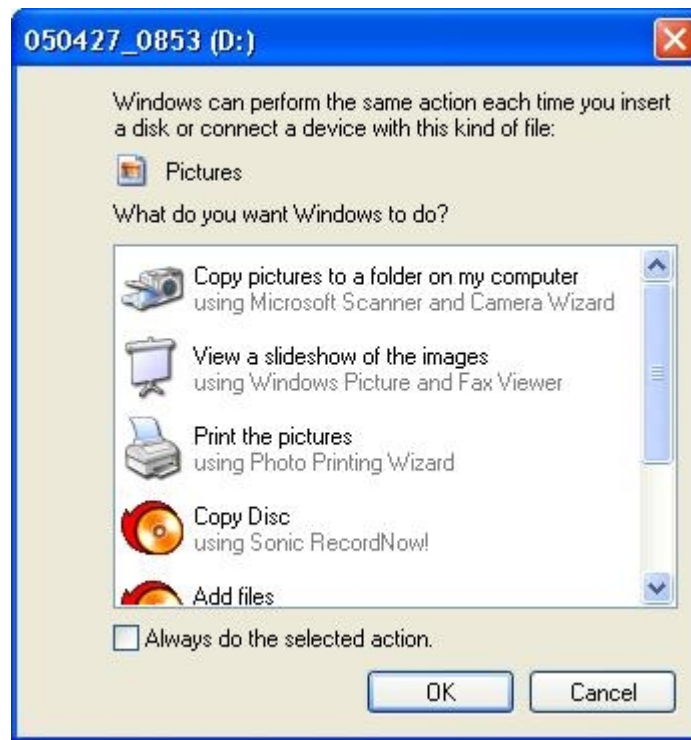
- To stop Windows from automatically running a single CD/DVD disc, press and hold the SHIFT key down while inserting the disc in the drive.

AutoPlay works by polling the CD/DVD drive every few seconds to see if a disk has been inserted. If Windows finds a disc that wasn't there last time it polled that drive, it looks in the root directory of the disc for a file named autorun.inf. Autorun.inf contains the name of an application to run.



If no autorun.inf application is specified, Windows attempts to detect the type of content on the disc and launch the application configured for that type of content. If an application is not configured for the type of content on the disc, Windows will launch a dialog box asking what to do.





In the dialog box you can select an action to take (or to take no action), and if you want this action to occur every time Windows detects that type of content, you can set the "Always do the selected action" checkbox.



To preset what action Windows should take for each type of content, right-click on the CD/DVD drive icon and in the menu that appears select *Properties*. In the drive *Properties* dialog box that



appears, select the *AutoPlay* tab. In the drop-down list select each type of content and set the "Select an action to perform" radio button. Then select an action in the list.

If you're like me and don't want programs executing without your express permission, you can go though and select "Take no action" for each type of content. A better solution is to disable Autorun in the registry because that stops the CD/DVD drive polling. The script shown below will perform this task for you.

```
Dim WshShell, RegKey
Set WshShell = CreateObject("WScript.Shell")

RegKey = "HKLM\SYSTEM\CurrentControlSet\Services\Cdrom\Autorun"
If (WshShell.RegRead(regKey) = 1) Then
    If MsgBox("Autorun Enabled. Disable?", vbQuestion + vbYesNo, "Set Autorun") = vbYes
    Then
        wshShell.regWrite RegKey, 00000000, "REG_DWORD"
    End If
Else
    If MsgBox("Autorun Disabled. Enable?", vbQuestion + vbYesNo, "Set Autorun") = vbYes
    Then
        wshShell.regWrite RegKey, 00000001, "REG_DWORD"
    End If
End If
```

Open a new file in Windows Notepad, paste the code shown above into the file, then save the file with the name "set\_autorun.vbs". When you double-click on the filename to execute the script a dialog box will appear with the Autorun status and request if you want to change it. After disabling Autorun, reboot the computer for the setting to take effect.

The standard script disclaimer: The script in this article is provided AS IS without warranty of any kind. Bucaro TechHelp disclaims all implied warranties including, without limitation, any implied warranties of merchantability or of fitness for a particular purpose. The entire risk arising out of the use of these scripts remains with you. To be safe, you should make a backup copy of your computers registry before using these with scripts. In no event shall Bucaro TechHelp be liable for any damages whatsoever arising out of the use of or inability to use these scripts.

After disabling Autorun, you can insert a cd/dvd in the drive and use Explore to open it's root directory and open any applications the same as you normally would.

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## **How to Create an Emergency Repair Disk**

By Stephen Bucaro

If your operating system is Windows XP Professional or Windows 2000, it isn't bootable with a boot disk. With these operating systems you need an Emergency Repair Disk that works with the systems built-in repair functions.

Note: Windows XP Home Edition doesn't use an Emergency Repair Disk, instead it uses the



Windows Me style System Restore feature.

To create an Emergency Repair Disk, prepare a formatted floppy disk and label it *Emergency Repair Disk* along with the date and specify which computer it was made with. An Emergency Repair Disk is specific to the system that you created it on.

Click *Start | Programs | Accessories | System Tools | Backup*. The Backup utility window will appear. Click on the **Emergency Repair Disk** button. When prompted to, insert the formatted floppy disk that you prepared into the floppy disk drive. Set the check box to also backup the registry. Then click on the **OK** button.

After the Emergency Repair Disk has been written, click the **OK** button and remove the disk.

If your computer fails to start, the Emergency Repair Disk will help you repair your system files. it works with information stored in your computers C:WINNT/repair folder.

To use the Emergency Repair Disk to restore your computer:

1. Make sure your BIOS is configured to boot from the CD-ROM Drive. Then start your computer from your Windows XP Professional or Windows 2000 setup CD. You may be prompted to press a key to boot from the CD-ROM drive.
2. You will be prompted if you want to set up Windows 2000, or if you want to repair a damaged system. To repair a damaged system press **R**.
3. You will be prompted if you want to use the Recovery Console or if you want to use the Emergency Repair Process to repair your system. Press **R** to repair using the Emergency Repair Process.
4. You will be prompted if want to use the manual repair option or the fast repair option. The fast repair option does not require any user interaction. The manual repair option should be used only by experienced users. Press **F** to use the Fast Repair option.
5. You will be asked if you have the Emergency Repair Disk or if you want Windows 2000 to attempt to locate Windows 2000 for you. Press **Enter** if you have the Emergency Repair Disk.
6. You will be prompted to insert the Windows 2000 Emergency Repair Disk. Insert the disk into the floppy drive and press **Enter**.

With a little luck Windows 2000 will be able to repair itself. Most people don't consider creating an Emergency Repair Disk until their computer fails to start - then it's too late. Why not take a minute to make one now?

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## Why Not Defragment Your Hard Disk Today?

By Stephen Bucaro

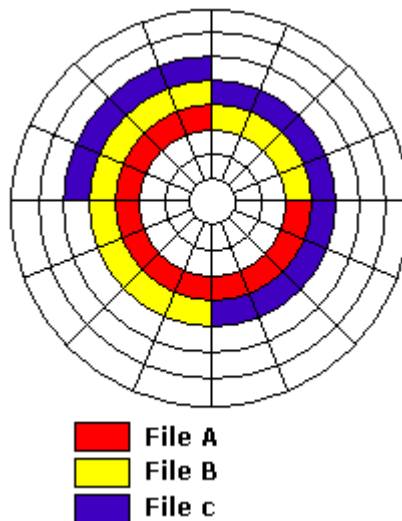
Does your computer run as fast as it did the first day you brought it home from the store? If you have been using it for several months or more, more than likely it has begun to operate more slowly. There can be many causes for this, for example too many processes running



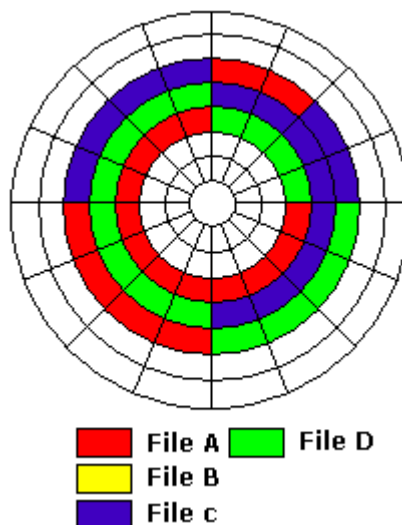
simultaneously, or invasion by spy ware or a virus. But the most common cause is a fragmented hard disk.

First let's understand what disk fragmentation is. A hard disk is constructed of disk shaped platters with a magnetizeable coating their surface. As the platters spin at a very high speed, tiny coils skim over the surface of each platter reading and writing data. Each of the circular paths on a platter is called a "track". An arch section of a track is called a "sector".

When a file is written, it is written to the first unused sector on the disk. When your computer was new and all the software was consecutively written to the hard drive, your hard drive looked similar to that shown below.



While using your computer, you delete file A, write file D, and Enlarge file C and File A. This causes the data on your hard disk to be arranged as shown below.



Now you can see that in order to read file A from the hard disk, the read coil has to search and skip for the scattered bits of the file. As files are written, deleted and rewritten in different size, unused blocks of space become discontiguous. Parts of individual files become scattered across the disk. Your computer takes longer to load applications and data files.

And this is a simplified diagram, image how a real hard disk with hundreds of thousands of files looks after months, or even years of removing and rewriting files. That's why it's important to defragment your hard disk occasionally. Use the following step-by-step plan to defragment your



hard disk today.

1. Use *Control Panel's Add/Remove Programs* utility to uninstall any software applications that you no longer use.
2. Delete any data files that you don't need. If you have a lot of data files that are questionable, archive them to a CD-R.
3. Use *Start | Programs | Accessories | System Tools | Disk Cleanup* to delete any cached Internet files, temporary files, and other junk.
4. In Windows 98/Me, use *Start | Programs | Accessories | System Tools | ScanDisk* to locate and repair any damaged files.
5. If an application writes to the hard disk during defragmentation, Disk Defragmenter will start all over again. You need to shut down any unnecessary running applications. Press *Ctrl-Alt-Delete* to open *Task Manager* and see if any Applications are running.

In Windows 89/Me the only tasks you need running are Systray and Explorer. Windows 2000 doesn't list Systray and Explorer in Task Manager, so you can shut down any applications listed. Select the name of the application and click on the *End Task* button. You are now ready to start Disk Defragmenter.

6. On a large hard disk defragmentation can take a long time, so make sure you start Disk Defragmenter at a convenient time when you will not need to use the computer. Select *Start | Programs | Accessories | System Tools | Disk Defragmenter*.

In Windows 98/Me click on the *Show Details* button to view an amazing graphical display of the defragmentation process in action. While it's not very productive to sit and watch this display, it is very interesting, and you might make up the time by having a faster computer afterwards.

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## Partitioning Your Hard Disk

By Stephen Bucaro

There are several reasons why you might want to divide your hard disk into partitions. For example, you might want to keep your operating system and your data on two different partitions. That way you can re-install the operating system (or a different operating system) without losing your data. Or, you might want to be able to *dual-boot* or *multi-boot* with different operating systems on the same computer.

There are several ways to partition a hard disk. If you already have data on the disk, then you need [Partition Magic](#) or [System Commander](#). Both of these utilities come with a nondestructive partitioner.

If you can lose the data on the hard disk, You can use the fdisk DOS utility. If you are adding a second drive, you can run fdisk from the MS-DOS prompt in Windows. If you are repartitioning your old drive, you can place a copy of fdisk.exe and format.com on a boot disk.



Note: Older hard drives used an overlay driver program to support partitions over 512MB. You can't use fdisk with a drive that uses an overlay driver.

New hard drives usually come with a partitioning utility on a floppy disk. And, most operating systems can partition the hard disk as the first step of setup.

There are two kinds of partitions, *primary* and *extended*. An operating system must be on a primary partition. A hard drive can have up to four primary partitions. If you use fdisk to create partitions, be sure to set the partition you want to boot from as *active*. If you want more than four partitions, you can create three primary partitions, and one extended partition. The extended partition can be divided into *logical drives* until you run out of letters of the alphabet.

If want even more partitions, or more storage space, you can install a second hard drive. Each ATA (EIDE) channel on your motherboard can accommodate two hard drives. One drive will be the *master*, the other will be the *slave*. A jumper on the hard drive is used to set which is the master and which is the slave. Some computers use the drives position on the interface cable to define the master and slave.

Note: You may need to set your computers BIOS to recognize a second drive. This is done by pressing the appropriate key (usually Del, Esc, F1 or F2) during boot-up.

Windows always labels the active primary partition as C:\. Other primary partitions are labeled D:\, E:\...and so on, then logical drives are labeled. If you have more than one hard drive, then the first primary partition on the second drive is always labeled D:\, the first primary partition on the third drive is labeled E:\... and so on. Then the next letter is assigned to the second partition on the first drive ...

If this method of assigning letters to partitions seems confusing - welcome to the world of Microsoft.

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## **How to Use Windows Defender**

By Stephen Bucaro

Windows Defender is a program that helps protect your computer from spyware and other unwanted software. Windows Defender scans your computer for malicious software and provides alerts and default actions such as putting suspicious software into a quarantine area where it can't run. It also uses real-time protection, which detects a malicious or unknown programs attempting to install themselves or run on your computer or attempting to change important Windows settings.

Windows Defender is included with all versions of the Windows Vista operating system and is available to download for Windows XP Service Pack 2 or later, or Windows Server 2003 Service Pack 1 or later.

- If you have an antivirus application like AcAfee, Symantic, or Trend Micro installed on your PC, it may have disabled Windows Defender.

## **The Three Kinds of Programs**

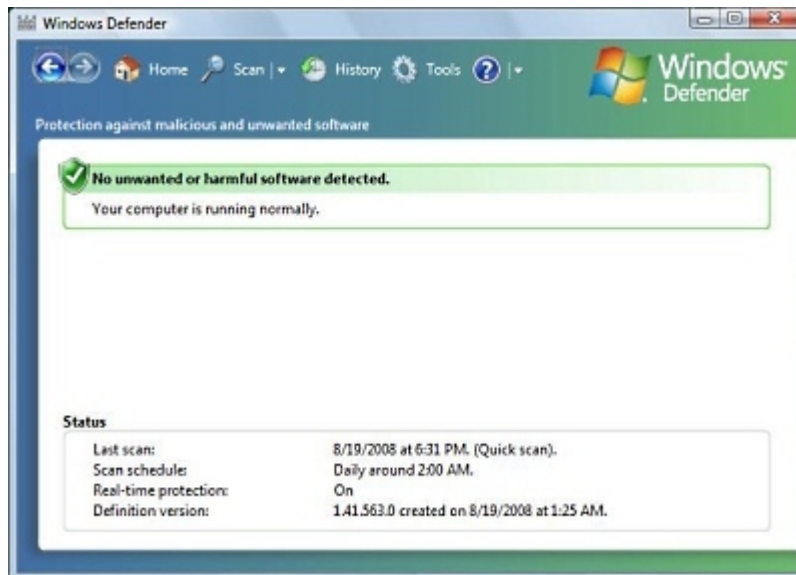


To Windows Defender, there are three kinds of programs:

- Legitimate programs. Windows Defender gives no alert for known legitimate programs, it just lets them run normally.
- Unknown programs. If, in the Options menu under Notification Options, you set the checkbox next to "Software that has not yet been classified for risks", Windows Defender will alert you about programs that it can't identify as being legitimate or being spyware.
- Known malicious programs. Windows Defender does not allow known malicious programs to run. Instead, it generates an alert popup message that asks you if you want to allow the questionable software to execute, or if you want to disable or remove it.

Windows Defender informs you of the alert level of the questionable software, If the alert level is "Severe", "High", or "Medium", you should let Windows Defender remove it. If the alert level is low, read the message details. If you don't recognize the software, tell Windows defender to disable it or remove it.

If the alert level is "Not yet classified", you should search with the program's name in Google to decide whether to let it run.



You can access Windows Defender by selecting *Control Panel | Security | Windows Defender*. Menu selections in Windows Defender are: *Home*, *Scan*, *History*, and *Tools*.

## Scan

Click on the *Scan* menu item to immediately start a scan of your PC for spyware. It will perform either a *Quick Scan* or a *Full Scan*, depending upon the Default action set in the *Options* section of the *Tools* menu.

- A Quick Scan scans only the parts of the PC most likely to be infected by spyware, as well as any running programs.
- A Full Scan scans every file on all of your hard disks, as well as any running programs.

The down arrow just to the right of the Scan menu lets you choose the specific type of scan. When a scan is in progress, the [Stop Scan] button appears. Click on the [Stop Scan] button to



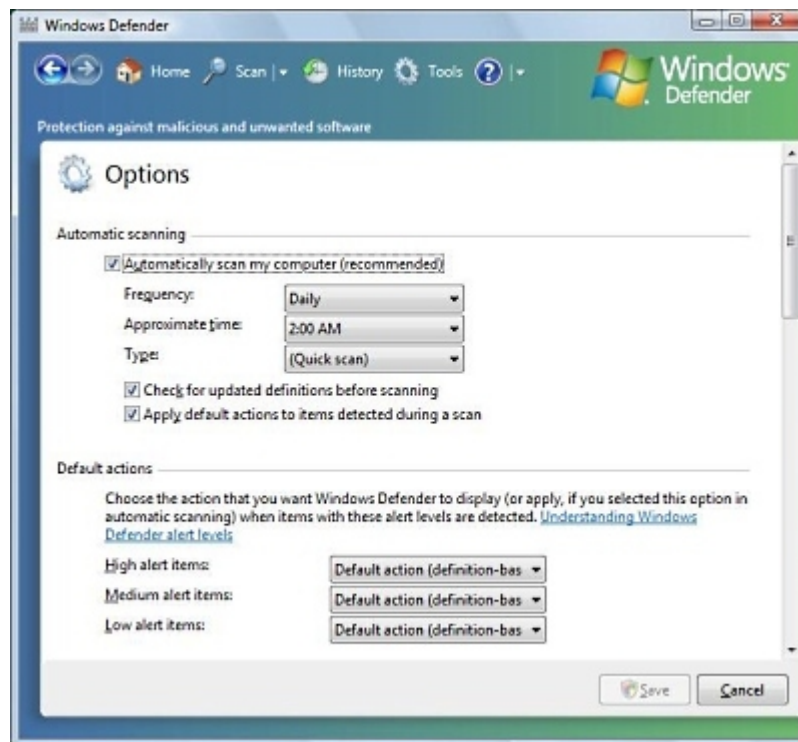
immediately stop the scan.

## History

The *History* menu displays a log of all the actions Windows Defender has taken. For each program it's taken action on, it lists the name, alert level, action it took, the date, and whether the action was successful. clicking on a listing provides more details about it.

## Tools

The *Tools* menu lets you set options for controlling how Windows Defender scans for spyware and what actions it takes when it finds a suspicious program. It also lets you view and control *allowed* items and quarantined items, and provides you with a powerful tool, *Software Explorer* that provides detailed information about the programs running on your computer.



- Options
- Automatic scanning. This section lets you control when Windows Defender performs automatic scans. Here you can set the schedule and whether you want to perform a quick scan or a full scan. You can also choose whether you want Windows Defender to check for updates before each scan and whether to apply default actions to detected items.
- Default actions. This section lets you set what Windows Defender does when it detects a malicious or unknown program. For each alert level, you can set a different action based on the definition for the program, ignore the threat, or remove the program.
- Real-time protection options. This section lets you set what Defender does when it detects a malicious or unknown program attempting to install itself, or run on your computer, or if a program attempts to change important Windows settings.
- Advanced options. This section lets you set several advanced options including whether you want Windows Defender to scan archived files and folders, whether to use heuristics to detect



potentially harmful or unwanted behavior by software (in other words to use strategies other than relying on program signatures), and to prevent Windows Defender from repeatedly flagging files that you know to be safe.

- Administrator options. This section lets you turn Windows Defender off or on, and to set whether non-administrative users can run scans and view potentially sensitive information such as the Windows Defender history.

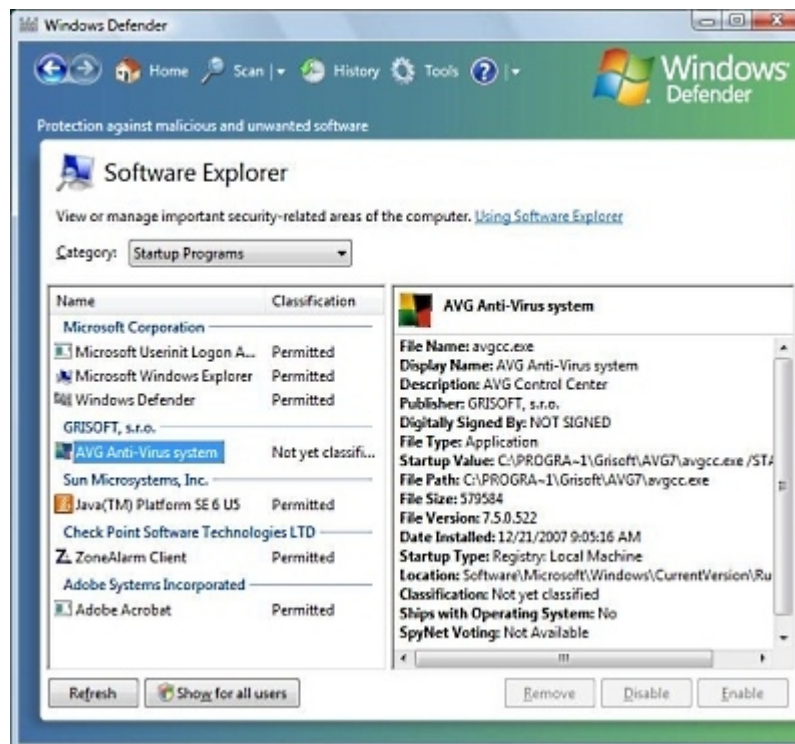
- Quarantined items

When Windows Defender find spyware, it puts into a *quarantine* area where it can't run. If you decide you want to let a Quarantined program run, select the program's name in the Quarantined items list and click on the [Remove] button in the lower-right corner of the Quarantined items window. If you decide that you made a mistake by letting a previously Quarantined program run, select the program's name and click on the [Restore] button.

- Allowed items

An allowed item is a list of programs for which Windows Defender generated an alert, but you chose to allow it to run. Windows Defender will not generated an alert when a program on the allowed items list runs. If you decide you want Windows Defender to generated an alert for a particular program on the list, select the program's name and click on the [Remove from list] button in the lower-right corner of the Allowed items window.

- Software Explorer



*Software Explorer* is a tool that provides detailed information about the programs running on your computer. Software Explorer breaks programs down into four categories which you can choose from the drop down list.

- Startup Programs. Programs that start when Windows starts. You can use Software Explorer to



disable a program from starting with Windows.

- **Currently Running Programs.** Programs that are running in the current session. This includes any startup programs that are still running.
- **Network Connected Programs.** Programs that can connect to the network or the Internet.
- **Winsock Service Providers.** Programs that perform low-level networking functions for programs and services.

When you select a program in a list, Windows Defender shows you a wealth of information about that program so that you might be able to determine whether it's a threat. In the lower-right corner of the Software Explorer window are buttons that allow you to open *Task Manager* or end the currently displayed process. Be careful when ending a running process because that can have unexpected results, such as file corruption. Instead, try to close the program the normal way.

- Microsoft Spynet

When Windows Defender detects software that has not yet been classified as legitimate or malicious, it sends information about the software to its online community, Spynet, to learn how members of Spynet decided to respond to it. It uses that information to classify the software. By default, everyone with a registered copy of Vista is a member of Spynet's basic service.

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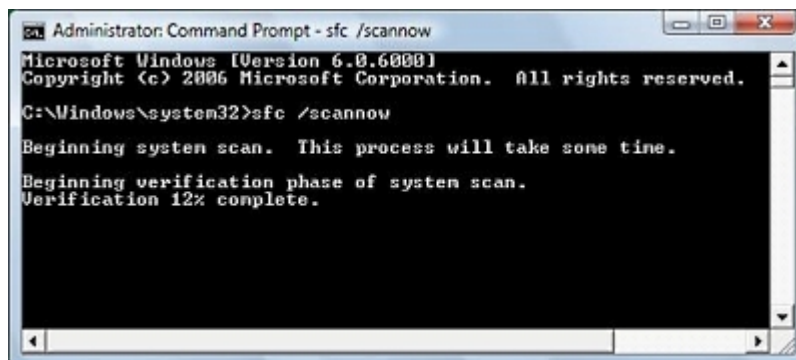
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## Using the System File Checker

By Stephen Bucaro

Windows requires many different system files in order to start and run properly. If your computer is not properly protected, a malicious program like a virus or spyware might modify or delete a system file. Or if your system crashes, system file might get corrupted. You can use Windows built-in "System File Checker" utility to scan your computer's system files.

1. Select *Start | All Programs | Accessories* and right-click on *Command Prompt*.
2. In the popup menu that appears, select *Run as Administrator*. If the *User Account Control* message box appears, click on the [Continue] button.





3. At the command prompt, type *sfc /scannow*.

The message "Beginning System Scan" will appear along with a verification progress report.

The System File Checker scans all system files to verify that they are correct for your version of Windows. If it finds a problem, it will attempt to replace the problematic files from the DLL Cache (%WinDir%\System32\Dllcache\). If the file is not in the DLL Cache or the DLL Cache is corrupted, the user will be prompted to insert the Windows installation DVD.

4. When the System File Checker has completed its report, close the Command window by typing *exit* next to the prompt.

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## **Turn Off Windows XP Service Pack 2 Firewall**

By Stephen Bucaro

Because of Windows XP's vulnerability to attack by viruses such as MyDoom, NetSky, Bagle, and Zafi, Microsoft released the Service Pack 2 (SP2) patch. SP2 added a firewall to the operating system. Actually SP1 had a firewall, but it was not as good as the one in SP2 and it was turned off by default. SP2 turns the firewall on by default.

However, if your PC is running Windows XP Service Pack 2, the first thing you need to do is turn off the firewall. Why? Because a serious firewall blocks unwanted inbound and OUTBOUND connections. SP2's firewall does not block unwanted outbound connections.

Why do you want to block outbound connections? Because spyware collects information from your PC and sends it back to the spyware's creator. You need to block these unwanted outbound connections. Since it's not recommended that you run two firewalls simultaneously, you need to turn off SP2's firewall and install a serious firewall like [ZoneAlarm](#) (free for home users).

Note: If you intend to download ZoneAlarm from the Web, you probably want to download the 6.36 MB self extracting file from ZoneLabs website first before turning off Windows firewall.

The following steps describe how to turn off Windows XP SP2's built-in firewall.

1. Select *Start | Control Panel* to open the Control Panel.



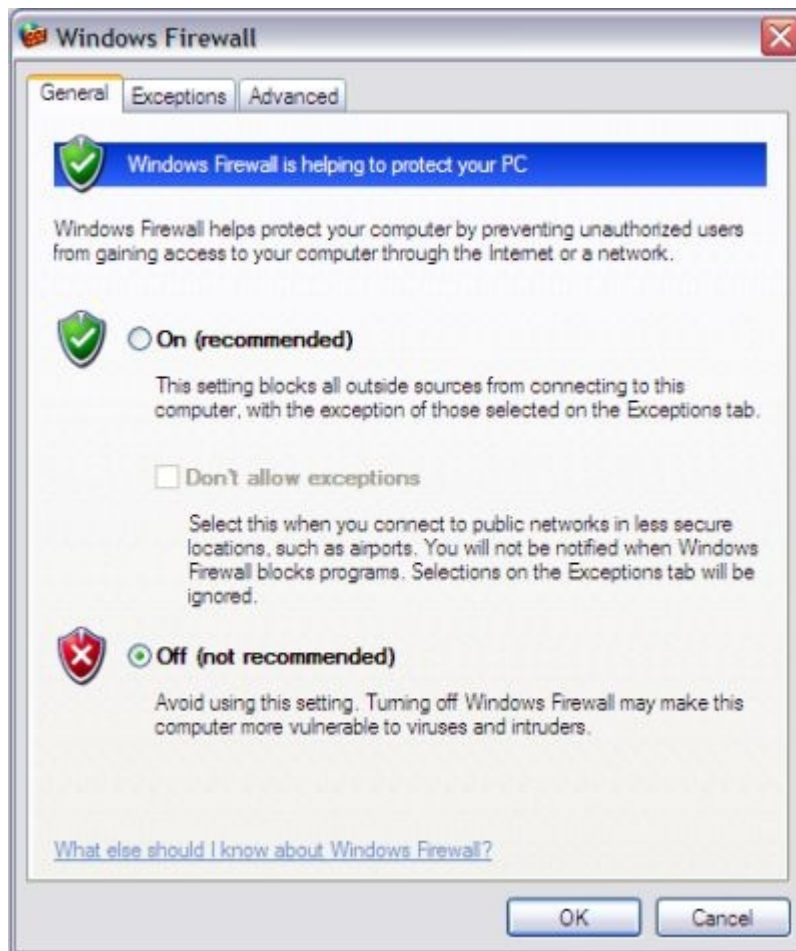


2. On Control Panel's "Pick a category" screen, open the "Security Center".



3. In "Windows Security Center", in the **Manage Security Settings for:** section, click on "Windows Firewall".





4. In the "Windows Firewall" dialog box, on the "General Tab", set the radio button next to **Off (not recommended)**. Click on the **OK** button.



The popup message **Your computer might be at risk** will appear.





5. In "Windows Security Center", in the "Firewall" section, click on the **Recommendations...** button.



6. On the "Recommendation" page, set the checkbox next to **I have a firewall solution that I'll monitor myself**. Click on the **OK** button.





The "Windows Security Center" *Firewall* section displays the message "You've told us you're running a firewall that you will monitor yourself..." Close the "Windows Security Center".

Now you're ready to install a serious firewall on your PC. The most popular firewall is [ZoneAlarm](#) (free for home users).

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## How to Backup Windows XP Home Edition

By Stephen Bucaro

Your computer cost you from hundreds to thousands of dollars, but the computer itself is not the most valuable part. The data on the hard disk is the most valuable part. How many hours of work did you put into creating that data? One little event, like a power line spike from a lightning strike, and all that work could be lost. Unfortunately, backing up with Windows XP Home Edition is not as simple as it should be.

The first step is to choose a backup device. You might choose a tape drive or a DVD drive, but those devices might require drivers to be installed before you could restore from them. The simplest option is to install a second hard drive in your computer.

The second hard drive doesn't have to be equal to your main hard drive. You can use an older, smaller hard drive as the backup device, as long as the backup drive has more "Free Space" than the main hard drive has "Used Space".

## Install a Second Hard Drive

When installing a second hard drive in your computer, it's important to configure the drives



correctly. Your motherboard should have two ATA (sometimes called IDE) connectors. The primary connector should have a cable with two drive connectors. The end connector should go to your main hard drive, the middle connector can be used for a backup hard drive. The second motherboard ATA connector should go to your CD-ROM.

On the back of each hard drive is a jumper. The jumper on your main hard drive should be set to the "Master" position. The jumper on your backup hard drive should be set to "Slave" position. Most modern computers use "Cable Select", so you can set both jumpers to the "Cable Select" position. Don't forget the power connector for the second drive.

When you restart your computer, the second drive should be automatically recognized and be designated with the next drive letter available, usually E: (D: being used for the CD-ROM drive).

## **Format the Second Hard Drive**

Generally, you will want to re-format the second hard drive after installation to remove any previously installed operating system and to remove any previous file access rights. To format the drive, select *Start | Settings | Control Panel | Administration Tools | Computer Management*. In the *Computer Management* window, under *Storage*, click on *Disk Management*.

Right click on the backup disk's drive letter. In the popup menu, select *All Tasks | Format...* In the Warning dialog box that appears, click on the *Yes* button. In the *Format* dialog box, in the *File system* drop-down list, select *NTFS*. Click on the *OK* button. Again, in the Warning dialog box that appears, click on the *Yes* button.

## **Install the Backup Utility**

Windows XP Home Edition doesn't install the Backup utility by default. You'll need to install it manually from your Windows XP CD-ROM.

1. After inserting the CD-ROM, open Control Panel's *Add or Remove Programs* utility. In the *Add or Remove Programs* utility, click on the *Add New Programs* button, then click on the *CD or Floppy* button.

2. In the *Run Installation Program* dialog box that appears, navigate to the VALUEAD/MSFT/NTBACKUP folder on the CD-ROM and select the file NTBACKUP.MSI. Click on the *Finish* button. The Backup utility will be installed.

## **Perform a Full Backup**

To perform a backup, select *Start | Programs | Accessories | System Tools | Backup* to open the Backup Utility.

Note: If you don't find Backup listed in System Tools, double click on the file name ntbackup.exe in the Windows\system32 folder.

In the *Backup or Restore Wizard*, click on the *Advanced Mode* link. In the *Backup Utility* dialog box, select the *Backup* tab and set the checkbox next to the drive to backup (c:) and set the checkbox next to *System State*.

In the *Backup media or file name* text box, enter the path to the file for the backup (example E:\Backup.bkf). Click on the *Start Backup* button.

In the *Backup Job Information* dialog box that appears, set the radio button next to *Replace the data on the media with this backup*. Click on the *Start Backup* button. The *backup Progress*



dialog box will appear.

Even when you backup to relatively fast media like hard disk, the process can take 30 minutes or longer depending upon how much data is on the main drive.

When the backup is complete, turn off the computer and remove the data and power cables from the backup drive. It doesn't make sense to leave the backup drive connected because if the cause of a failure is a power spike, it will take out both drives. Next time you want to backup you'll need to reinstall the cables.

## **Perform a Restore**

In the unfortunate event that your computer crashes and you can't get it back by any other means, you'll need to reinstall Windows XP from the CD-ROM. (Automated System Recovery is not supported in Windows XP Home Edition.) You'll need to re-install the Backup utility. Then you'll need to shut down the computer to install the data and power cables to the backup drive. Restart the computer and use the Backup Utility to restore Windows XP from the backup file.

When using this backup method, it's important to be careful not to break any pins when you are removing and installing the data cable of the hard drive. And if your computer doesn't use *cable Select*, don't forget to change the jumper on the main hard drive back to *Single*.

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## **Reloading Windows XP**

By Bill Nadraszky

If you have been running Windows XP for a couple of years or more you may find that it is not running quite as quickly and smoothly as it was when you did your first install. I am constantly 'evaluating' software and uninstalling and reinstalling beta software on my computer and have always gradually become more and more disappointed after nine months to a year with the performance of my PC. So I regularly do a backup and reinstall all my software, including Windows.

Please note that this is completely different than doing the standard things to troubleshoot and fix individual problems such as system errors or application errors. These things are better fixed by using a system Restore which is a great new feature to Windows XP.

For anyone that has reinstalled their operating system a few times the process seems pretty straightforward as they have found all of the gotchas the first few times. I have lost mail and contacts but not much else over the years by following (or not following) a system to reload my operating system and software. The purpose of this guide is to give you a checklist to follow so that a reloading of Windows goes smoothly the first time.

### **The steps are as follows:**

1. Backup all data
2. Document your current system drivers and software
3. Delete the Windows and profile directories
4. Reload Window
5. Reload software and data



## 6. Get some sleep

### 1. Backup data

There are two methods of the process of reloading your operating system. The first is to just delete the system files and the second is to backup the files to CD or DVD and then format the hard drive completely, my preference is to delete the system folders and work from there as the actual formatting is not needed as much now as it was in the past.

It is very important to be sure to get a backup of all of your data. My current practice is to create a folder in the Root of the C: drive called "backup for reload" and copy all of my files in there.

The first few times that I reloaded my machine I either saved all of the data to another hard drive so I could format my main drive or I would just create a folder to save my data in that was in the root of the C: drive and just deleted the Windows directory.

One thing to be aware of is that a new install of Windows is going to delete your current profile where your data is kept, you will be warned in the install and I am warning you here as well!

First of all Windows likes to keep all of your documents in your "My Documents" folder and even though the icon is on the desktop the folder is actually in the following location: `c:\documents and settings .` The documents and settings folder is quite important as it does have all of the files that are associated with you as a user. Other folders in documents and settings are "Favorites" "Application Data" and "Local Settings".

If you use Outlook Express for your mail you will want to back up its folders. Open up Outlook Express and go to tools to options to maintenance and there is a button called "Store Folder" this will tell you where the folder is that holds all of your mail, usually located in *"c:/documents and settings(logon name)/ local settings/ Application Data/ Identities/ Microsoft/ Outlook Express.* Hard to find spot but important.

If you are using Outlook for your mail and contacts my policy has always been to search for all .pst files on your PC this will give you your main as well as archive folders and maybe even some long lost mail from before.

I also do a search and put the following in the search box *\*.doc;\*.xls;\*.ppt;\*. mdb;\*.pub* this will search for all office documents on the PC, when I get the result I only backup the files that are not in my documents and settings for my name or in the my documents folder.

How big is your "Backup and Reload" folder now that you have all of your data in it? Can you back it up to a CD? Or two, or a DVD? This would be a nice time to do that save to a CD so that in the event of a catastrophic failure of your hard drive you can go back and reload your data later.

### 2. Document your current system drivers and software

So often when I am working on a computer I find that after a format and reload of Windows that I am missing a network card driver or a video driver. Before you turn off the computer to format it or delete the system files make sure that you have a copy of all of the drivers, realistically the only drivers that seem to change are the video drivers.

What other drivers might you need? Well If you have the CD that came with the motherboard then you will probably only need to download the sound card, video, monitor, modem drivers and you can find the type of hardware by right clicking on the my computer and going to properties and then depending on your version of Windows look for the device manager.



I do not tend to format my drive I only delete the Windows directory and the Documents and settings directory when I do a reload so I can then find the files later still sitting on the hard drive. My preference is to create a folder called mydrivers in the root of the C: drive so that after you reload Windows you will have a central place to go to find the drivers. Now just go out and download the drivers that you need.

### **3. Delete the Windows and profile directories**

Now, this is where you have to take a deep breath before you get started as when we delete files we are not going to be able to get them back. When I delete files on the computer before I reinstall Windows I do not delete all of the files or format the drive.

The only way that you can delete what you want is to use some kind of a boot disk that does not load Windows from your hard drive. I use the [Ultimate Windows Boot CD](#) and after I boot the drive up I move some data instead of deleting.

More often than not I will have missed some important file so I create a "backup" folder that contains all of my data. I drop my current "Documents and Settings" folder into this backup folder and then also any applications from the "Program Files" folder that may have some of their own files. This would include databases like Act or Maximiser and Tax software or book keeping software like Quicken. Most of the data files for applications are kept in the "My Documents" folder.

In the install of Windows you will need to have at least 2 gigs of free space so make sure that you have freed up enough space to do the install.

When I am deleting folders I am most interested in deleting the "Documents and Settings" and "Windows" folders, as this is where you will find user settings as well as the registry both good and bad. If you are really aggressive you can also include the "Program Files" folder so that after you have reloaded Windows you can have the default settings for each application. I also delete any files that are sitting in the root of the C: drive.

### **4. Reloading Windows**

Now that you have deleted the unneeded files and directories you will have to give yourself an operating system to reload all of your software into. I prefer Windows XP now although if you have a bit of an older computer Windows 2000 will probably be fine and takes less system resources.

Just a note here, Windows 98 is a bad choice and there are a few reasons why. Windows 98 is not supported anymore by Microsoft so it does not have any new security fixes or drivers being written for it.

One other issue is that the underlying file system that Windows 98 supports is FAT32, if you are loading Windows 2000 or XP you will likely want to take advantage of NTFS but the only good way to do this with a fresh load is to format your machine, this will delete all of the data that you have on your PC now.

If you are moving from Windows 98 there will be a spot in the install asking if you would like to format or convert the drive to NTFS, I would avoid this as you can convert after you have switched your PC to Windows XP in Disk Management from the Computer management application in Windows.

The rest of the install should go smoothly and after you have finished you will have a nice new clean install of Windows with only the recycle bin on the desktop and no applications. Perhaps the desktop is only 256 colors or the size is not quite right but this is where you will fix that



problem by reloading your drivers.

Go to start and right click on the "MY Computer" icon and select properties, go to the hardware tab, now find the device manager and anything with an exclamation point or a red X will need a new driver. Right click on the icon, select update driver and walk through finding your drivers.

If you can not find the driver in the lookup then you may have to go back to the mydrivers folder and run the executables for the drivers which may quicken the process of loading new drivers.

## **5. Reload Software and Data**

Now the slow torturous part of the Windows install begins. I always do this reloading of Windows because my computer has gradually slowed down from all of the software that I have loaded up and pledge never to do again, I have proven time and time again that I don't live up to the pledge.

The only software that I load first is Office XP and setup my personal settings and mail folders from Outlook (check around for this documentation as it varies with your version of Office) and I also install my commonly used utilities. I keep my software install disks close by and just load software as I need it over the next few days.

## **6. Get Some Sleep**

Congratulations. This process is very long and occasionally we do lose data that was missed in the backup but after you are done you have a computer that is at least as good as the day you started using it.

There are fewer errors, less hiccups and the computer is fast and responsive. Although it takes a long time I am more than willing to do it as long as I cleared some time beforehand as the difference in working with the computer for some time after is a real treat.

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Bill Nadraszky is a Computer support specialist that has worked with various versions of Windows for 15 years. You can get up to date information on computer support at [XP.TechSupport.com](http://XP.TechSupport.com)

This is a great article, as are all articles written by Bill Nadraszky. I recommend that you give Bill's Web site a visit. But I want to point out that if you delete the Windows directory you'll lose your Windows XP product activation. You can avoid this by saving the file wpa.dbf located in the *C:\Windows\System32* folder. After reloading Windows XP you'll need to restart your system in *SafeMode* to copy the file back.

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## **Installing an Internal Hard Drive**

By Stephen Bucaro

Installing a new hard drive remains one of the most popular upgrade projects for PC users. And it's easy to see why. Today's drives are bigger than ever and bargain priced, and they offer a performance boost, as well. You need that extra space for the increasingly roomy OS installs and gigabyte-eating applications that are the norm these days. And don't forget graphics, audio and



video files.



**Seagate 200GB HD** The Barracuda 7200.7 200GB hard disc drive delivers 7,200 RPM access speed and an Ultra ATA-100 interface for high-performance desktop applications.

While the 5400 rpm drives are slightly less expensive than the 7200 rpm models, the latter deliver a genuine performance boost in the form of quicker access times and improved data transfers. Still, if you want the best performance out of your new drive. Your PC must have onboard Ultra DMA/100 support.



**Seagate 40GB** The Seagate 40GB hard drive handles the common uses of today's PCs, such as games, photo and video editing, advanced applications & MP3s.

It's interesting how they always show the inside of hard drives. The disc or platter you see in the picture above is actually sealed in an air tight container. Your hard drive will not come sawed open like this!

Because your new hard drive will be bigger and faster than the one your PC currently uses, plan on making the new drive your primary drive the new home for your operating system and applications. You can attach your old drive as a secondary hard disk and use it for archives and less frequently accessed data.

System and hard drive configurations may vary. These instructions are provided for reference only, please refer to the manufacturer's manual or web site for instructions on their specific drives.

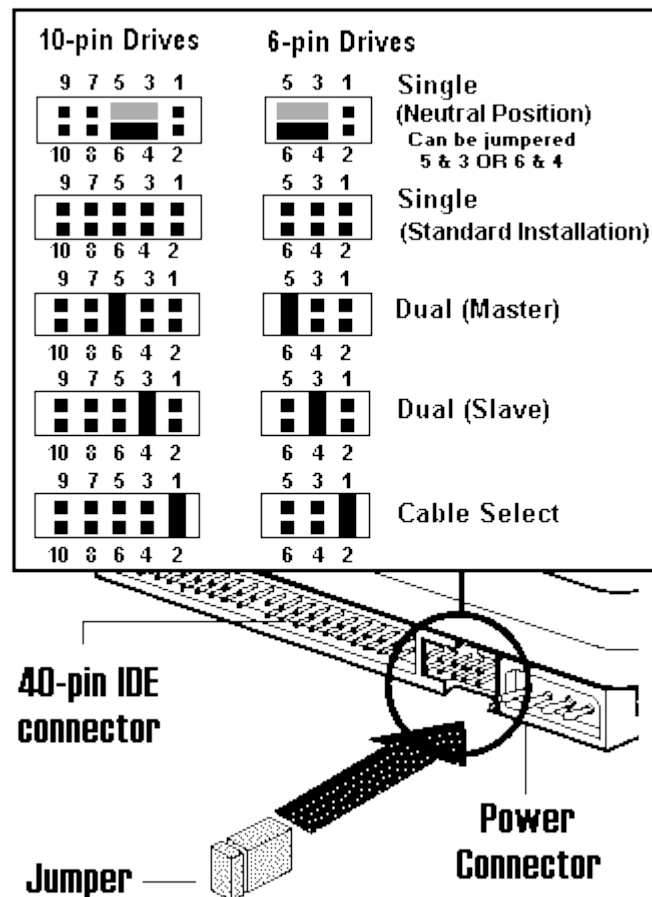
Modern computers have two IDE channels, Primary and Secondary. Each channel can support a Master device and a Slave device. The hard disk should be installed on the Primary channel as the Master device.





In the instructions that came with your hard disk, locate the information about jumper settings. The hard disk should have a jumper on the rear next to the IDE cable connector that sets the drives Master or Slave configuration.

1. Set the jumper setting on the hard drive to primary or master drive (default setting). If it is not, simply move the jumper over to master. If you are using the drive as secondary hard drive move it to the "slave" jumper setting. Refer to the documentation for proper placement of jumper settings.



Newer motherboards have a "cable select" feature that, when used with a special cable, automatically sets the hard disk's Master or Slave configuration. The jumper on newer hard disks may be set to "cable select" by default. If you don't know if your motherboard supports cable select, move the jumper to the position for Single drive (this is the only drive on the cable).

2. Install the hard drive into an open 3.5 drive bay.





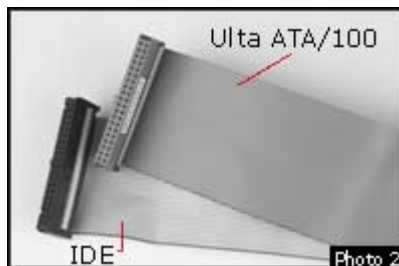
To install the hard disk, use an internal 3.5 inch internal drive bay if your computer has one. An internal bay does not have a removable cover and you don't need to uncover the hard disk because you will not have physical access to the hard disk after the case is closed.

Slide the hard disk into the drive bay with the circuit board facing down and secure it to the side rails with two screws on each side.

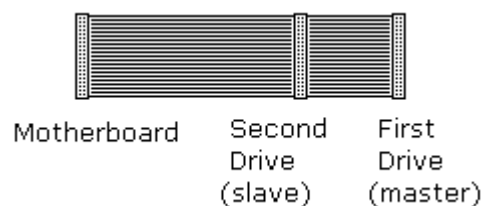
Modern computers have two IDE channels, Primary and Secondary. Each channel can support a Master device and a Slave device. The hard disk should be installed on the Primary channel as the Master device.

The terms IDE, EIDE, and ATA are commonly used interchangeably, although technically they can mean different things.

An ATA/33 IDE cable has 40 conductors and 40 pins. If your motherboard and hard disk are compatible with the ATA/66 or ATA/100 interface, make sure your IDE cable has 80 conductors and 40 pins.

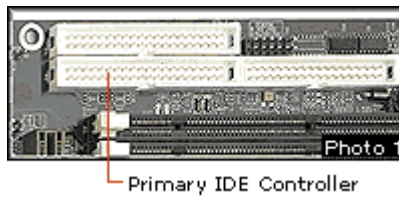


3. Install a 40-pin connector IDE cable from the hard disk to the Primary IDE channel connector on the motherboard. An IDE cable has three connectors. The middle connector is usually closer to the end of the cable that connects to the hard disk. Make sure that you correctly position the connectors pin 1 at both ends of the cable.

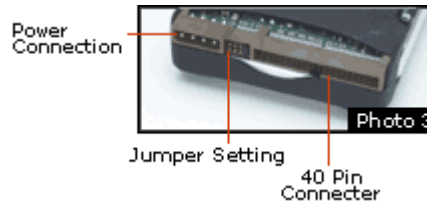


Locate the primary IDE controller (or IDE 1) on your motherboard.





Pin 1 is identified by a red line on the ribbon cable. The red line usually goes towards the inside of the hard disk. Identify pin 1 on the motherboard IDE connector by a label on the motherboard or from the motherboard diagram.



4. Plug a power cable into the hard disk power connector.



You are now ready to install your operating system.



Seagate's ultra-fast 60GB hard disc drive delivers 7,200 RPM access speed and an Ultra ATA/100 interface for mainstream and high-performance desktop applications. This drive features superior performance, quiet acoustics, and Seagate's comprehensive 3D Defense System, for the highest security of your data.

The Seagate 60GB hard drive handles the common uses of today's PC users, such as games, photo and video editing, advanced applications, MP3's and the usual Internet downloads. And with the 8.9ms access time, these functions will be performed swiftly!





Besides delivering a massive 80GB of storage space and 7200 rpm speed, along with ATA/100 interface, this Seagate U Series drive includes Seagate's breakthrough SoftSonic FDB motor for the quietest operation of any 7200 rpm drive made. And Seagate protects your data like no other drive with 350 Gs nonoperating shock and a 3D Defense System that's proven # 1 in reliability testing. A huge 2MB Cache Buffer means fast data rate transfers and the DiscWizard software makes Seagate drives the industry's easiest to install.

### **Free Seagate Utilities**

Packaged with your new hard drive (also available for free download) are special utilities to simplify installation and help achieve the full capacity of the drive by overcoming legacy BIOS limitations.

#### **DiskWizard and Disk Manager**

DiscWizard and Disk Manager Seagate simplifies installation of your new Medalist and Medalist Pro drives with its exclusive Windows-based disc drive installation program. This software overcomes certain system BIOS and operating system limitations that can complicate the installation of higher-capacity ATA (IDE)-interface drives. DiscWizard also includes Disk Manager, a DOS based program, to help achieve the full capacity of your drive by overcoming legacy BIOS limitations.

#### **Ultra ATA/100 Configuration Utility**

Ultra ATA/100 Configuration Utility Seagate Ultra ATA/33/66/100 drives can be configured for Ultra ATA modes up to and including the maximum the drive is capable of. Use this utility to select or to verify a compatible Ultra ATA mode for your drive and system. CAUTION: This is a powerful utility. Improper use could render your drive inoperable, read the UATA100 FAQ before using.

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### **FREE Antivirus Software - Avast!**

By Stephen Bucaro

Avast! Home Edition by the Czechoslovak company Alwil Software is [Vb100](#) and [ICSA](#) certified. This means Avast! 4 will detect 100 percent of all known viruses. Avast! provides both file and email protection that works with any POP3/IMAP4 email client, including Outlook and Outlook



Express.

Avast! Antivirus is provided free of charge for home users. Download the 7.1 MB application from [Alwil Software](#). The only thing they request is that you register online. After you register, you receive an email containing an activation key. The program will work without the activation key, but the activation key allows you to receive automatic virus signature updates for the next 14 months. After that period, it is necessary to re-register.



Avast! performs a scan of memory upon startup, then opens a fancy round-cornered window that is a bit sluggish to move around the screen. Click on the drive icon (top one on right side) to select to scan local disks, then click on the big round button on the left side to begin the scan. Avast! has a simple user interface and Alwil Software provides free support via e-mail.

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## **FREE Antivirus Software - AVG**

By Stephen Bucaro

AVG Free Edition by Grisoft is [Vb100](#) and [ICSA](#) certified. This means AVG will detect 100 percent of all known viruses. AVG provides both file and email protection that works with any POP3/IMAP4 email client, including Outlook and Outlook Express.





AVG Free Edition is free of charge for private, non-commercial, single home computer use. Download the 7.3 MB application from [Grisoft AVG Free](#). After you install the program, the *First Run Wizard* guides you through the following steps;

- Perform AVG Free update
- Create a rescue disk
- Setup personal email scanner
- Scan your computer for viruses
- Register AVG Free

The registration agreement states "The user's personal data ... will be 'processed' for Grisoft's marketing and trade purposes including deleivery of commercial announcements." After registering you will Free Virus Database Updates. AVG Free does not come with free technical support, the only support you can receive is through their forum.





AVG Free cannot be installed on a server, such as Windows Server 2003, nor can it be used for scanning of network drives. Grisoft's AVG Full Edition comes with Free, 24/7 e-mail technical support. You can download a 30 day trial version of the Full Edition.

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## Setting Up Your AntiVirus Software

By Richard Lowe, Jr.

There is far more to antivirus software than just opening the box, inserting the CD and installing software. To be properly protected you may actually want to do a little more than that.

You see, a good antivirus program does a lot more than you might think. In this article we will be discussing features of Norton Antivirus, one of the best and most full featured programs available. Similar functions exist in the other major scanners.

The first thing you must do in this day and age is purchase and install antivirus software. If you don't have this installed you are literally living on borrowed time. Some of the common features are described below.

### Auto Protect

Perhaps the most important feature of all is auto protect. This feature allows the antivirus system to perform it's tasks without manual intervention. This is critical as then you can relax



and do what you need to do, without constantly worrying about checking for viruses. Keep this turned on without fail.

### **Checking for email viruses**

This is one of the most critical features of a modern antivirus program is the ability to scan email messages as they arrive or are sent. Scanning of this nature is relatively new and long overdue. DO NOT TURN THIS FEATURE OFF.

It's very important to remember that the most destructive viruses arrive as attachments in email messages. I know, I know, you would never, ever open anything that even remotely looked like a virus, would you? But how would you know? Do you want to take the chance on destroying your system?

### **Scanning disks for viruses**

Most virus scanners will occasionally scan your disks for anything that looks like a virus. In Norton Antivirus, you can schedule this scan for as often as you like - in fact, many people turn it off entirely. After all, while the scan is running your system will be slower than normal. It can be quite annoying.

Turning off the automatic disks scans is, however, a big mistake. These check your disks for any viruses which may have gotten through the front line defenses. How does this happen? You could copy a virus to your hard drive from a CD ROM, a floppy or perhaps across the network. It will be just sitting there, waiting to explode in your face. Scanning the disks finds these little time bombs and eliminates them.

But wait, if you have your antivirus program running won't it catch and stop any viruses that you happen to open? Yes it will, but you could still copy it to someone else, or another person could grab it over the network (if you are in a company, for example). Or perhaps for some reason you turn off your antivirus program, then you could accidentally open it up and destroy your system.

### **Scanning for viruses in scripts on web pages**

Believe it or not, you can catch a virus from a web page. All you have to do is view the page and bang, you are infected. There are not many of these yet, but you can bet there will be in the near future. These are particularly nasty because, well, you don't have a choice about executing the virus.

These are not like the email viruses, which require you to actually open an attachment. They are not like other viruses, which require you to execute a file. These simply require you to view them. Pretty scary, if you ask me.

Thus, as you can see, it's very important to keep this feature enabled at all times. That way you will catch and destroy these things before you get hurt.

### **Regular updates**

Be sure to subscribe to and use the regular virus updates. You see, new viruses are found all of the time, and if you don't update your definitions you will be vulnerable. In fact, after a few months of no updates your antivirus software becomes virtually worthless.

### **Conclusion**

The features of your antivirus software are put there for a reason. My advice is to enable



everything. Turn it all on. These days you cannot be too careful - or, if you prefer, you can disable something and perhaps lose your data. It's your choice.

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Richard Lowe Jr. is the webmaster of Internet Tips And Secrets at [www.internet-tips.net](http://www.internet-tips.net). Visit our website any time to read over 1,000 complete FREE articles about how to improve your internet profits, enjoyment and knowledge.

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## Free Firewall: ZoneAlarm

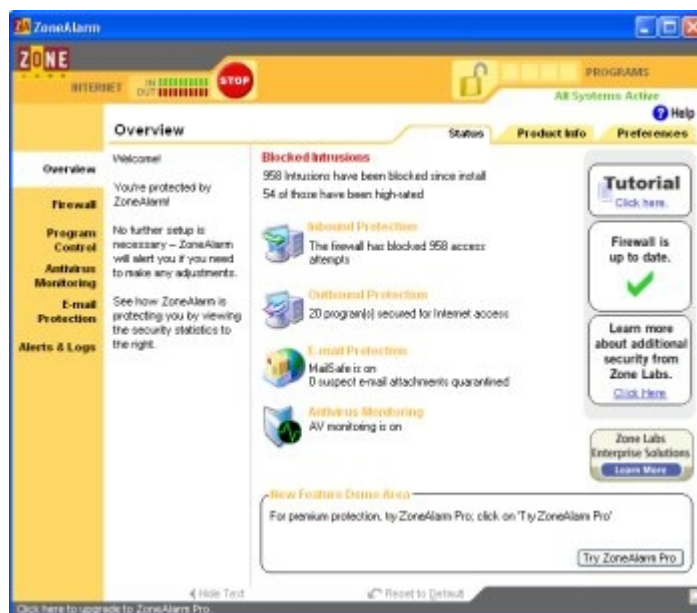
By Stephen Bucaro

There was a time when a firewall was considered necessary only for Internet users with an always-on broadband connection. It was thought that dial up Internet users were connected for such short intervals that the odds of a hacker finding their connection was low. But today, hackers use automated software to continuously probe the Internet for vulnerable computers.

Hackers want to know what operating system you're using, what browser you're using, and what virus protection you have installed. Most importantly, they want to know if your computer has any open ports they can use to take control of your computer. One of the hackers favorite tricks is to install spyware on your computer.

Spyware secretly monitors your Internet activity, logs your keystrokes, accesses your email and other documents, and then uses your Internet connection to send this information back to the hacker. Your only clue to spyware activities is that your computer seems a bit slower than usual.

Spyware can get on your computer through file sharing, instant messaging, clicking on a link in an email message, or just through normal use of your web browser. Once on your computer, spyware can install additional spyware on your computer without your knowledge.



ZoneAlarm is a free (for individual and not-for-profit use), easy-to-use firewall that blocks



hackers. ZoneAlarm gives you a popup alert when someone tries to access your computer. Click on the [Deny] button in the popup alert - unless the program has legitimate need for access to your computer.



At ZoneLabs website, you will be offered the opportunity to scan your computer for spyware before downloading ZoneAlarm. click on the link: "FREE! Scan My PC for Spyware Before Downloading ZoneAlarm", then click on the link "Scan My PC Now".

After a few minutes, a dialog box appears requesting permission to download the *Anonymizer* component. Click on the [OK] button to accept the anonymizer component. The results of the spyware scan appear in the "Spyware Killer Control Center".

After disposing of any spyware, go back to Zone Alarm download page and click on the "Download FREE ZoneAlarm" link. In the "File Download" dialog box, select a folder to save the file, and click on [Save] button. With a 56KB dial-up connection it takes about 30 minutes to download the 6.34 MB file.

Login as Administrator to install ZoneAlarm. You can disconnect from the Internet and click on the name of the downloaded file to install ZoneAlarm. The Installation program requires you to enter an email address to activate the [Next] button. You may experience a few seconds delay after you clicked the [Install] button.



**User survey**

Please take the time to answer these survey questions:

How do you connect to the Internet?

What type of computer did you purchase ZoneAlarm to protect?

Is your PC connected to other computers by a network?

Do you use antivirus software?

All your information is kept confidential. Zone Labs does not sell, trade or exchange your survey information with any organization.

**Finish**

The installation requires you to fill out a user survey. After completing the survey, a message box appears "Setup is complete. Do you want to start ZoneAlarm now?" Click on the [Yes] button.

**Zone Labs Security Options**

Choose one of two options: Try ZoneAlarm Pro FREE for 15 days. If you decide you don't need our advanced firewall and privacy protection, just switch back to free ZoneAlarm with one click and no obligation.

Features	Select ZoneAlarm Pro	Select ZoneAlarm
Automatic Configuration	✓	—
Advanced E-mail Protection	✓	—
Pop-up Ad Blocking	✓	—
Award-winning Firewall	✓	✓
Remove Tracking Cookies	✓	—
Identity and Privacy Protection	✓	—

TIP: Automatic configuration gets you online fast by immediately setting firewall rules and approving programs to access the Internet based on a safe list. Your settings remain should you switch back to free ZoneAlarm.

**Next**

On the Zone Labs Security Options screen, set the "Select Zone Alarm" radio button, then click on [Next] button. click on [Finish] button on next screen, then click on the [Done] button on the next screen. You then need to restart the computer.

**Configuration Wizard**

**Welcome**

**Basic Internet Security**

Welcome! This brief wizard will help you configure a few important settings.

**What happens next?**

- ✓ Review security settings
- ✓ View tutorial

**Click Next to continue.**

Click Finish from any page to save your selections and apply recommended settings to unviewed pages.

**Next**

After the computer restarts, the "Configuration Wizard" appears. The default settings are proper to provide protection for all your Internet activities, so set the "Ask later when I use the



Internet" radio button.

The first time you use ZoneAlarm, the "Getting Started" program displays. You can choose to click through the screens or just close the window. You can also close the main program window. ZoneAlarm stays active in the System Tray.

Hackers are continuously probing the Internet for vulnerable computers. ZoneAlarm is a free easy-to-use firewall that will generate a popup alert when someone tries to access your computer.

[Click here](#) to download ZoneAlarm.

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## **Spyware is Watching You**

By Stephen Bucaro

Advertising is getting far too intrusive and invasive. Advertisers that are weak in ethics, and strong in grabbing for money, don't see a problem with installing spy programs on your computer without your knowledge.

In Internet Explorer's "Tools" menu, select "Internet Options...". On the "Security tab" click on the "Custom level..." button. If you don't have the "Disable" or the "Prompt" radio button set next to "Download ActiveX controls", I can almost guarantee that someone has installed a spy program on your computer and is monitoring your web browsing activities.

Your Web surfing is being tracked and the data is being sold to third parties. These thieves make big money selling your profile to companies who then target you for advertising. Popup advertisements appear even when you visit web sites that don't use popup windows.

The Lavasoft company keeps a reference database of all spy programs and provides a free Windows program that scans your hard drive and registry for spy programs. Their Ad-aware program lets you remove the spy programs from your computer.

At [Lavasoft's website](#), select "Download" in the "Support" menu. On the Download page scroll down to "Full install" and click on a download source, (ie download.com). This will download the 1.45 Mb file aaw6.exe.

Double-click on aaw6.exe to execute the installation program (with Windows 2000, first login as Administrator). The installation program puts an icon for Ad-aware on your desk top.

Double click on the icon to execute Ad-aware. In the Ad-aware program window, click on the [Scan now] button. On the "Preparing system scan" page click on the [Next] button.

Ad-aware takes a few minutes to scan your hard drive and registry for spy programs and data tracking cookies. On my system it returned the results:

44 objects recognized  
1 Registry key identified  
43 files identified



When the scanning is complete, click on the [Next] button. This takes you to the "scanning results page" which displays a list of objects found. One object found on my computer was "Alexa Data Miner". Then click on the [next] button. A dialog box appears asking if you want to remove the objects. Click on the [OK] button to delete the spy objects.

The free Ad-aware Standard Edition removes spy software and data tracking cookies from your system. The \$27.00 Ad-aware Plus Edition adds real-time monitoring and blocking to the program. Not only can you remove spy programs from your computer, but you can also BLOCK them from invading your system in the first place! I found Ad-aware easy to install and use, and very effective.

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## **Installing Memory**

By Stephen Bucaro

The most important part of installing memory is to make sure you are using the correct type of memory for your motherboard. Its important to study the manual that came with your motherboard to determine exactly what type and speed of memory is required.

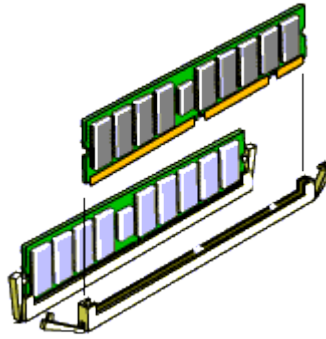
It is also important to avoid creating an Electro-static discharge (ESD) while handling the memory module. ESD is a spark of static electricity that can damage the memory module. The proper way to handle static sensitive eletronic components is to use a grounded wrist strap. If you don't have a wrist strap, you can discharge any static electricity from your body to ground by placing one hand on an unpained part of the metal chasis while you work.



If your motherboard is an older design, it may use Synchronous Dynmaic Random Access Memory (SDRAM) in a 168-pin Dual In-line Memory Module (DIMM). SDRAM comes in two speeds, 100 MHz (PC100) and 133 MHz (PC133). It comes in 3.3 volt and 5.0 volt versions, with Error Checking and Correction (ECC) or non-ECC.

New motherboards usually use Double Data Rate SDRAM (DDR SDRAM) packaged in a 168-pin DIMM. DDR SDRAM comes in two speeds, 266 MHz (PC2100) and 333 MHz (PC2700). If your motherboard has more than one slot, and you have only one memory module, you might be required to install a single DIMM in slot 1.





To install a DIMM, note how the module is keyed. It can be plugged in only one way. Push open the ejector tabs on both ends of the memory socket. Firmly press the module into the socket until the ejector tabs snap into locked position.

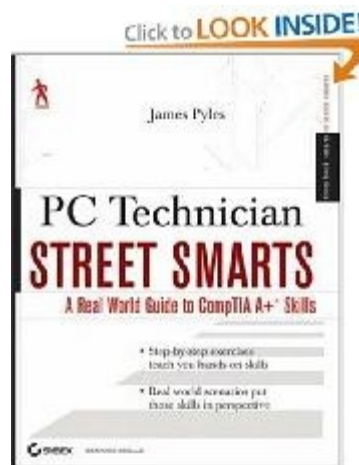
Some Intel motherboards may use RAMBUS packaged in a 184-pin RIMM. RAMBUS comes in speeds from 300 MHz (PC300) to 1.066 MHz (PC10660). It may be ECC or non-ECC. There are two connectors on the motherboard, each must contain either a RIMM or a C-RIMM. A C-RIMM (continuity RIMM) does not contain memory, it is a module that provides a path pass-through for the signal.

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## PC Technician Street Smarts

PC Technician Street Smarts: A Real World Guide to CompTIA A+ Skills



### Develop the skills you need in the real world

Hit the ground running with the street-smart training you'll find in this practical book. Using a "year in the life" approach, it gives you an inside look at the common responsibilities of PC Technicians, with key information organized around the actual day-to-day tasks, scenarios, and challenges you'll face in the field. This valuable training tool is loaded with hands-on, step-by-step exercises covering all phases of a PC Technician's job, including:

- Installing hardware and software
- Maintaining hardware and software
- Installing and upgrading operating systems and networks



- Installing and upgrading security systems

## **An invaluable study tool**

This no-nonsense book also covers the common tasks that CompTIA expects all of its A+ certification candidates to know how to perform. So whether you're preparing for certification or seeking practical skills to break into the field, you'll find the instruction you need, including:

- Installing or replacing a power supply
- Installing or replacing a laptop hard drive
- Upgrading Windows(r) 2000 to Windows(r) XP
- Scanning for and removing viruses
- Installing printer drivers
- Troubleshooting your network

The Street Smarts series is designed to help current or aspiring IT professionals put their certification to work for them. Full of practical, real world scenarios, each book features actual tasks from the field and then offers step-by-step exercises that teach the skills necessary to complete those tasks. And because the exercises are based upon exam objectives from leading technology certifications, each Street Smarts book can be used as a lab manual for certification prep.

Reader Michael D. Aldridge of Spring Hill, TN, says, "If you need some hands-on practice for the A+ exams, you really ought to invest a little in your career and buy this book. After all, most of us learn by doing... and in my opinion, there are no better hands-on practice scenarios than the labs included in this book. The step-by-step directions for each lab are clear, and Pyles' writing style is interesting and easy to understand. The book is also filled with helpful notes, tips, and warnings, many of which are critical for you to know for the A+ exams.

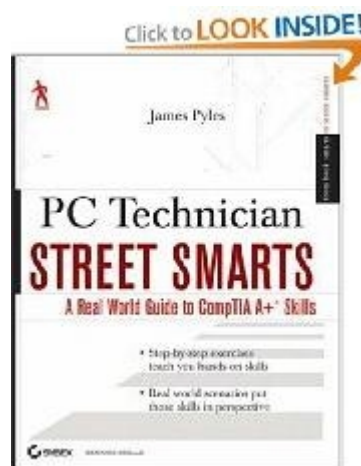
In short, I highly recommend this book to anyone studying for the A+ certification. Not only will it help you pass the exams, but more importantly, it will also make you a much better tech."

The book describes actual tasks that a PC technician might be required to perform, starting with a real world scenario, then defining the scope of the task, the step-by-step procedure to performing the task, and the criteria for completion. Below is a partial list of the tasks described in the book:

- Installing RAM
- Installing a PCI Card
- Installing a CPU
- Installing a Power Supply
- Installing a Hard Drive
- Installing a SCSI Drive
- Installing a CD Drive
- Installing a DVD Drive
- Installing a Motherboard
- Installing a Video card
- Installing a Laptop Keyboard
- Installing So-DIMM in a Laptop
- Installing a Laptop Hard Drive
- Installing a Laptop Optical Drive
- Installing a KVM Switch
- Installing Drivers
- Upgrading an Operating System
- Using Restore Points
- Tweaking an Operating System



- Installing Printer Drivers
- Managing a Swap File
- Imageing a Disk
- Updating Security Patches
- Flashing the BIOS
- Testing Ports
- Mapping Drives
- Creating File Shares
- Making a Crossover cable
- Setting Up a Local User
- Adding a Network Peripheral Port
- Setting Up VPN on a PC
- Troubleshooting a Randomly Rebooting PC
- Troubleshooting a PC that can't Print
- Troubleshooting Error Messages
- Troubleshooting CD Player Not Recognizing CD
- Troubleshooting Audio



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