



# BUG-BYTES

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## HOW INSTALL A NEW OPERATING SYSTEM

If you contemplating updating to a new operating system, and learning how to format (or reformat) a hard drive, these next articles are written for you. There are some facts that you need to know before you begin.

### BACKGROUND INFORMATION BEFORE YOU BEGIN

When you install a new operating system, you will do so based upon one of three major methods. You will do what is called an *in-place upgrade*, or you will do a *clean install* (also called a custom installation). The third option is that someone else does the installation for you, as when you buy a new PC or you hire someone to install the software for you.

If your OS software license allows it, an in-place upgrade replaces your old OS with the new OS. Your data, photos, programs, and shortcuts, are left undisturbed.

However, a clean install erases **EVERYTHING** on your already formatted hard drive on which you plan to install the new OS. That is it erases the whole disk if you have only one partition, or just the partition on which the OS is installed if you have more than one partition. Vista users upgrading from the same version of the OS can do an in-place upgrade. XP users have to do a clean install.

### PREPARE IN ADVANCE FOR THE NEW OPERATING SYSTEM INSTALLATION

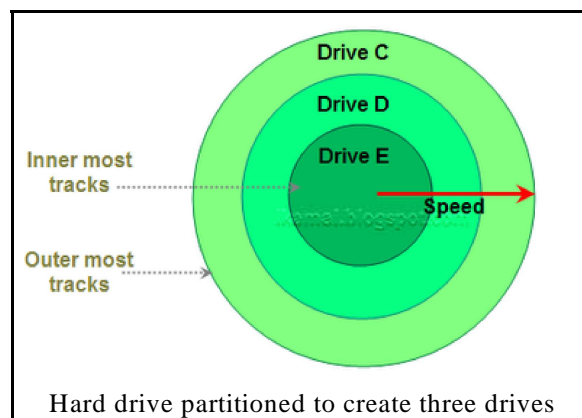
So you do not lose and of your data, backup all of your data to your favorite media, such as a separate hard drive, or DVDs or CDs. Also, backup your e-mail messages and your address book. From your e-mail program, click on File, Export, and export your messages and address book. Save that data, but not to the hard drive, or partition that contains your old operating system if you are doing a clean install. That drive or portion will be reformatted in a clean install wiping out all of the data and programs stored there.

Be sure you record the license numbers and product keys that you will need to reinstall your paid-for software. If you don't, you won't be able to reinstall the software, or you will have to contact each vendor in the hopes that you

can get the numbers you need from them (if you registered your software).

I suggest you download Belarc Advisor from this link:

[www.belarc.com](http://www.belarc.com). The program is free for individual use. Run the program. It will list all the software installed on your computer, and some of the license numbers. Save the resulting file in both HTM and text format so that you can easily refer to the information during your new OS installation.



Partitions are somewhat like the separate tracks on a music CD. You automatically do a clean install when you prepare a new hard drive to accept an operating system.

In the screen shot above, a single hard drive has been partitioned into three parts to create three virtual hard drives.

An extra step is required if you are reformatting the hard drive that contains your operating system. See the section on the next page that deals with reformatting a drive that contains the OS.

See this link for an in depth discussion of how to do a clean install step-by-step.

<http://www.bootstrike.com/WindowsVista/cleaninstallvista.html>

### RUN THE WIN 7 UPGRADE ADVISOR

If you plan to upgrade to Windows 7 download the *Windows 7 Upgrade Advisor* from Microsoft. Run the software to see if your computer meets the requirements for Win 7, and whether or not you have any software issues.

<http://www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx>

### WHAT IS FORMATTING?

When you format a hard drive or a floppy disk, the formatting program creates a file structure system on the disk. The recorded structure tells Windows where to save data on the disk, enables the OS to quickly locate specific data, and lets the operating system know which areas of the drive or floppy disk are empty and available to write new data.

Formatting a disk creates a master boot record (MBR) at the beginning of the disk, and a file system (FAT, FAT32, or NTFS). NTFS is the preferred file system for XP, Vista, and for Windows 7 use. NTFS stands for NT File System, introduced in July 1993 with the Windows NT operating system. NTFS superseded the early FAT and FAT32 file systems (File Allocation Table) as the preferred file system for Windows.

### HOW TO FORMAT A DRIVE OR PARTITION THAT DOES NOT CONTAIN THE OPERATING SYSTEM

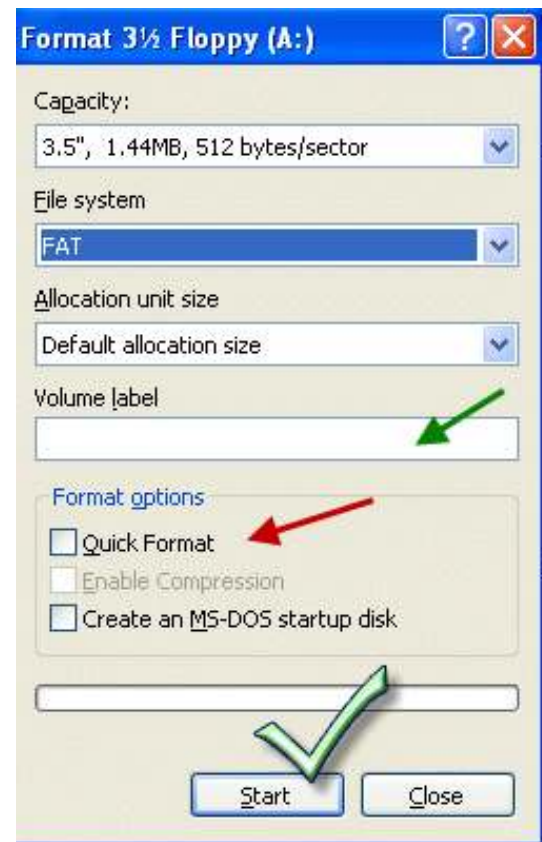
As long as you are not trying to format the partition that holds the operating system, formatting is simple to do. The easiest (and safest) way to try to format a hard drive is to first experiment with a floppy disk. Select a blank floppy disk, or one where you don't want to keep the data on the disk.

Insert the floppy disk in your floppy drive, drive A. Click on My Computer in XP or Computer in Vista and right-click on your A drive. Select Format from the menu. If the disk is blank, select the Full formatting option. If the disk has already been formatted and contains data, select the Quick format option. You can add a volume name if you wish (Like Test). For instance, a volume name enables you to customize the name for the C: drive. Click the OK button and the floppy will be formatted for you.

The process is similar for hard drives. However, for XP, Vista, or Windows 7 you will want to choose NTFS as the file system instead of FAT as shown in blue in the screen shot in the next column.



Note: if you are a laptop user you won't have a floppy drive installed in your computer. Therefore, you may want to experiment on a friend's desktop computer with a floppy drive before you format a hard drive.



### REFORMATTING A DRIVE WITH THE OS

Note: Windows does not allow users to directly format their operating system while it is running (disk or partition). Such an attempt is like trying to lift yourself up by your boot straps.

The way around this dilemma is to use a free CD program such as BartPE for XP and Vista. You create and place the specially prepared CD in your CD drive. Then you start your computer from the bootable CD that you prepared. Thus, the operating system is loaded from the CD rather than from the hard drive you want to format. Run Nu2menu from the BartPE CD. See the page ten screen shots.

(You may need to edit your computer's BIOS using the key combination shown on your screen during computer startup. If so, temporarily set your CD drive to boot first before the hard drive. That way, you can start your computer from the CD to gain access to the formatting tool that is included with BartPE or VistaPE. See [www.ehow.com](http://www.ehow.com) and search for BIOS settings. That will show you the how-to-steps to change your BIOS settings.

You want to set the BIOS so that your CD drive is read first to detect your Win 7 installation disk. You can change the setting back so that the hard drive is the first thing read after you finish installing Win 7.

For XP:

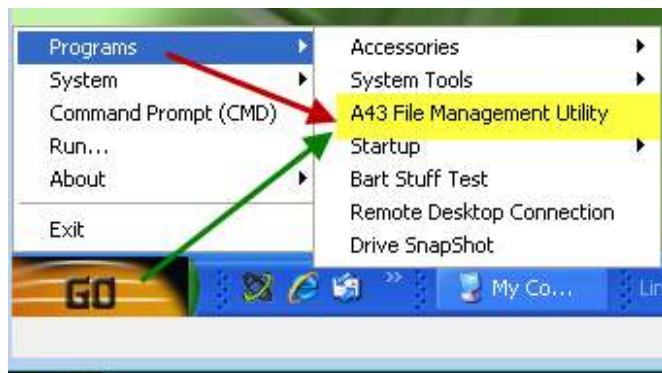
<http://www.snapfiles.com/get/bartpe.html>

For Vista:

[http://www.optimizingpc.com/miscellaneous/manual\\_vista.html](http://www.optimizingpc.com/miscellaneous/manual_vista.html)

The trick is for you to create a bootable CD that includes the tools you need to format your disk, or a specific partition on your disk if one was created to hold your OS.

When you boot your computer from the bootable CD and have BartPE running, click on GO, Programs, A43 File Management Utility. Click format on the drive you want to format which will be C:\ in most cases. (If your OS is installed on that drive).



#### HOW TO INSTALL A HARD DRIVE

One really easy way to do a clean install with a new operating system is to buy a brand new hard drive and to install it in your computer as the primary hard drive. Use your old drive as the secondary hard drive. That way, you will start out fresh and all of your data will still be available on the old hard drive.

See the following link for the how-to-install steps:

<http://www.easeus.com/resource/install-ide-hard-drive>.

If you want to partition your hard drive into separate partitions, you will find a free partitioning tool here:

[www.easeus.com](http://www.easeus.com) .

#### HOW TO MOVE FILES AND PROGRAMS TO WIN 7

You can use the XP Windows File Transfer Wizard to move data files and photos from your old drive to your

new drive, or Vista Easy Transfer program. However, I believe there is only one program that will move your programs AND files and photos to Windows 7 if you are doing a clean install. That program is PCMover. <http://www.laplink.com/pcmover/>. Apparently PCMover can perform an in-place upgrade where Windows Easy Transfer Wizard cannot, at least at this time.

Vista Easy Transfer works on XP and Vista. First, you install Windows 7 (in-place upgrade), then you transfer your files using the program. See this link for the steps to migrate your files.

[http://technet.microsoft.com/en-us/library/dd446674\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd446674(WS.10).aspx)

I purchased PCMover but I have not had a chance to use it yet. That day is approaching very fast as October 22 rolls around.

#### INSTALLING WINDOWS 7

**Run the Windows 7 Upgrade Advisor before you purchase Windows 7!** Thus, you will know whether or not your computer is compatible with Win 7. Ideally, you will identify any software or hardware incompatibilities and resolve them long before you attempt to install Win 7.

If you are doing an in-place upgrade from the same version of Windows, for example Vista Home Premium to Windows 7 Home Premium, **it is a good idea to defragment your hard drive before you begin the installation.** That way, you pull all your program files together to make it easier for Windows to find what it needs during the installation.

For an in-place upgrade, start your computer with the Windows 7 DVD in your DVD drive. Let your computer boot from the DVD rather than from your hard drive by pressing any key as soon as that notice appears on your screen. If you don't press a key, then your computer will boot instead from the hard drive as it always does.

Once your computer boots from the Windows 7 installation DVD, just follow the instructions on the screen. Be aware that your computer may automatically shutdown and then reboot many times to finish the installation. Do not manually shutdown your computer until you are told that the installation is complete.

See this link to review the new features:

[http://en.wikipedia.org/wiki/Features\\_new\\_to\\_Windows\\_7](http://en.wikipedia.org/wiki/Features_new_to_Windows_7)

## CHECK THESE USEFUL WEB LINKS

I suggest that you spend a little time exploring the following links. The time you spend here may save much more time later.

See this link for a video discussion:

<http://technet.microsoft.com/en-us/windows/dd671583.aspx>

See this link for a list of Windows 7 features:

<http://windows.microsoft.com/en-US/windows7/products/features>

See this link for a list of Windows 7 benefits as compared to Vista:

<http://windows.microsoft.com/en-us/windows7/products/why-choose?os=winvista>

Click on the link below for a comparison of XP, Vista, and Windows 7:

<http://www.microsoft.com/downloads/details.aspx?familyid=FA0177CC-7E82-4993-B0D6-FEC84216DD9C&displaylang=en>

PC Mover by Laplink is a program that makes moving your windows programs and data easy from your computer with XP or Vista to Windows 7. See what this site has to say about PC Mover:

<http://www.amitbhawani.com/blog/migrate-windows-xp-vista-windows-7/>

Or, see the Laplink site for more information: Reputedly, XP and Vista have a transfer wizard, but it appears that PC Mover does a more complete job.

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

The built-in XP Files and Transfer Wizard is discussed:

<http://support.microsoft.com/kb/293118>

## WHAT COMES WITH WINDOWS?

## LET'S LOOK AT ACCESSORIES

In the early days of Microsoft's operating system known as DOS (Disk Operating System) few if any useful applications shipped with the OS. For example, there were no text processing programs like today's NotePad or WordPad, or an anti-malware program such as Windows Defender. If you wanted those capabilities, you were expected to purchase third-party programs that provided those capabilities.

Peter Norton developed a set of utilities to enable users to unerase data, to change directories, to rename files, BEEP to cause a sound in the user's speaker, and so on. Later, his *Norton Utilities* added FILEFIND to locate files and SPEEDISK to defragment files. His Norton Utilities became part of Symantec in later years. But in the early days of DOS, users welcomed Peter Norton's common sense approach to everyday tasks—tasks that could not be accomplished by the OS.

The DOS operating system was designed to do very basic stuff, such as reading and writing from a floppy disk, using a keyboard and mouse, and displaying text on a monitor. This was before monitors displayed text and graphics in color. In fact, Microsoft created a language called BASIC so that knowledgeable users could write simple programs, such as a program to change fonts, or to bold or italicize a section of text printed by a dot matrix printer. Today, such capabilities are built into the programs we use, even those that ship with the OS.

So let us look at some of the goodies that ship with today's operating systems and how you locate them. For a start, Click on the Start button, then on All Programs. Move your cursor and select Accessories from the top of the list.

## ACCESSORIES

As shown in the screen shots at the right, Accessories is one of many useful features included under *Start, All Programs*. Accessories includes a long list of useful programs as seen in the top screen shot on the next page.

Take the time to click on the different entries to familiarize yourself with what is there.

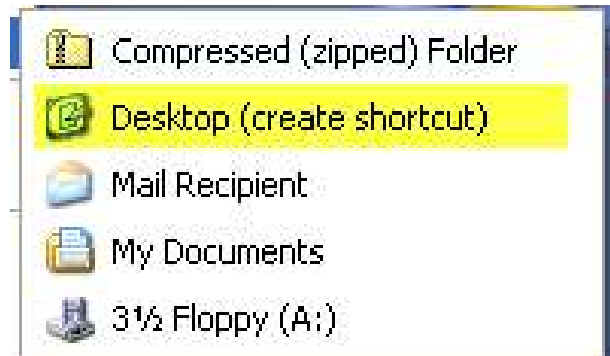
If you want to gain instant access to one or more items, create a desktop shortcut to the item of your choice.



For example, let's say that you would like to create a desktop shortcut to the Address Book.

area on your taskbar at the bottom of the screen, or drag it to the start menu. Try it. You can always delete the icon. Shown is the submenu of the Send To menu. It is handy to have the Address Book where you can quickly refer to it.

Deleting an icon does not delete the program to which the icon relates. It only removes the icon shortcut.



Let's look briefly at each of the accessory options. Vista has even more options than XP:

**ACCESSIBILITY**

Accessibility (Ease of Access in Vista) has to do with capabilities for users with visual enhancement needs. For example, users can choose the *Narrator* mode to have the computer read text passages to them, use a magnifier to better view text, set their monitor in high contrast mode to better distinguish text while reading it, and even use an on-screen keyboard. The user can choose to use their computer without a monitor using the speech capabilities of the program.

The program adapts the keyboard and mouse to better meet the visual needs of some users.

**COMMUNICATIONS**

As seen in the screen shot at the top of the next page, the communication accessory provides a single place to launch different networking applications. I'll briefly familiarize you with what is offered there.

**HYPER TERMINAL**

Hyper Terminal is concerned with setting up and using a dial-up connection. It is seldom used any longer in this age of broadband connections.

**NETWORK CONNECTIONS**



Right-click on Address Book in the Accessories menu (Contacts in Vista). Select Send To, Desktop (create shortcut).

A new shortcut instantly appears on your desktop to open the Address Book. You can leave it there or drag it to the quick launch

This dialog shows the status of your current network connection or connections. It also provides links to the New Connection Wizard (for first-time setup) and the Network Setup Wizard. In other words, there is a little redundancy here. Right-click on Network Connections to see the status of your connection, either to configure your network, or to view the properties of your network.

If you choose you can have an icon show in your system tray to indicate when you are connected, or turn off that feature.

You can click on the **repair** button to try to repair the connection if you cannot connect for some unknown reason.

Look at the lights on your cable modem, especially the Activity light. Know which lights on your modem are normally on. That way, you can tell whether or not your modem is showing a loss of connection. On my cable modem, the Activity light is yellow. The other lights are green.

If you are connect to the internet via a cable modem and you lose your connection, try unplugging the power cable from the back of your cable modem. Leave the power cord disconnected for about 15 seconds. Then, plug the power cord back in. Your cable modem will reinitialize. Often this is all it takes to restore your broadband service.

Similarly, unplug your router (if you have one), wait about 15 seconds and then plug it back in. Do first the modem and then the router is you are having a problem connecting to the internet.

#### NETWORK SETUP WIZARD

The NETWORK SETUP WIZARD is used the first time you create a network to interconnect two or more computers.

*Why would you want to create a network?* You might want to share a single internet connection and printer between the computers you own, or to provide a means to easily backup your computers.

#### WIRELESS CONNECTION WIZARD

This wizard walks you through the steps necessary to setup up a wireless connection to a laptop computer, or to another desktop computer that is not connected via ethernet cable.

#### WINDOWS 7 REDEFINES NETWORKING

It is reputed that Windows 7 makes hooking up a network even easier than XP or Vista because there are fewer steps. Such help will be sincerely welcomed.

#### ENTERTAINMENT

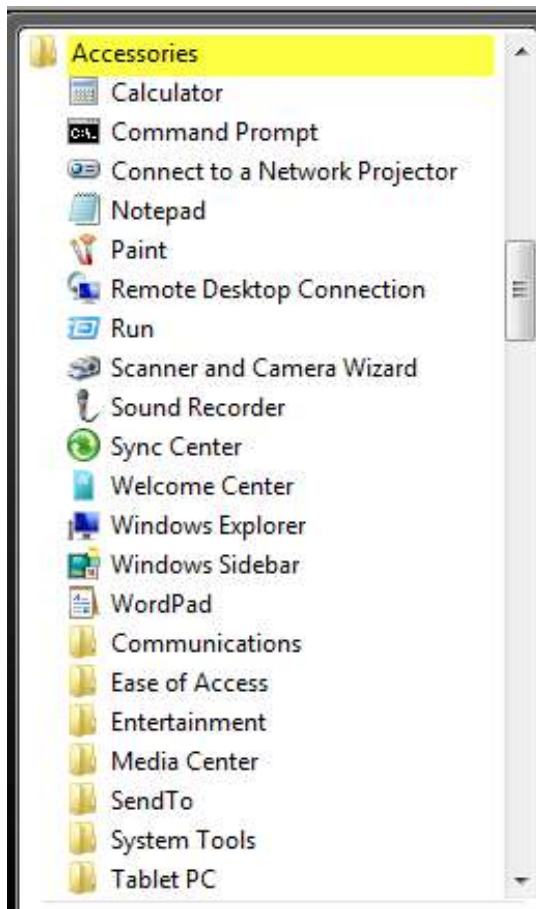
Entertainment pertains to the sound recorder and volume control. Plug in a microphone to the line-in connector on your sound card and use the Windows sound recorder to control how you record sound and to save the resulting sound file to your computer. Use the volume control program to mute the sound from different sources and to raise and lower the volume for each source such as those for Midi and Wav sounds.

#### SYSTEM TOOLS

In one place you will discover many of the system tools that you may already use, and others that will be new to you. For instance in Vista you will discover the following programs:

- ✓✓ Backup status and configuration
- ✓✓ Character Map
- ✓✓ Computer
- ✓✓ Control Panel
- ✓✓ Disk Cleanup
- ✓✓ Disk Defragmenter
- ✓✓ Internet Explorer
- ✓✓ System Information
- ✓✓ System Restore
- ✓✓ Task Scheduler
- ✓✓ Windows Easy Transfer
- ✓✓

Contrast these features in Vista with those shown in the screen shot on the bottom of the first page of this newsletter that are seen in XP. It will be interesting to see how these features compare with those offered in Windows 7.



## Vista Accessories

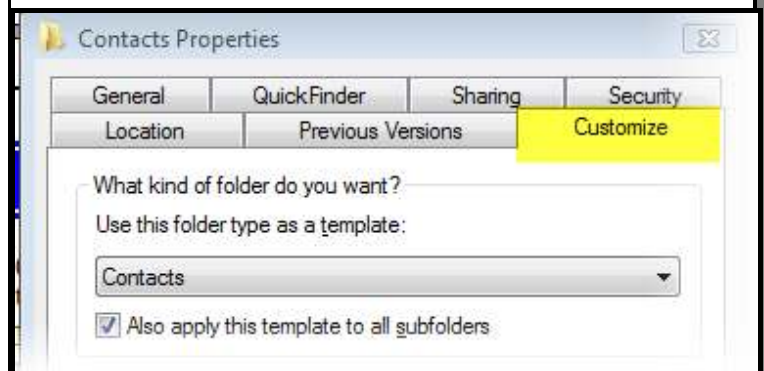
### ADDRESS BOOK (CONTACTS)

This is the executable file for the address book. If you wish, you can right-click on this link and create a shortcut on your desktop to open the address book. Right-click on Address Book, select Send To, Desktop. From the desktop you can drag the shortcut to the Quick Launch area of your taskbar at the bottom of your screen. (Unlock the taskbar if it is locked so that you can add the shortcut).

In Vista, the Address Book is called Contacts. Unfortunately, Contacts is not listed in the Accessories directory. You can create a shortcut to the executable file by searching for wab.exe in the Program Files/Windows Mail directory.

Tip: In Vista, if you don't see an option to create a group contact in your Address Book or Contacts, do the following.

Open the Computer folder on your desktop, or click on the Windows Logo button (formerly Start) and select Computer. Navigate to C:\User\your name\Contacts. Right-click on Contacts and select Properties, Customize, and select Contacts as the template to use. Click OK to make the change. See the screen shot below.



### CALCULATOR

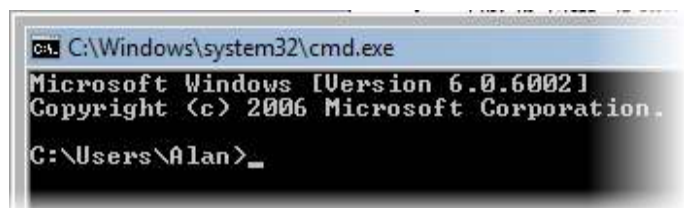
Windows provides a very simple calculator. It is handy when you want to do a series of calculations and you don't want to be bothered to enter the data in a spreadsheet and you do not have a physical calculator.

Some extended keyboards (those with extra keys) include a key to launch the Windows Calculator.

### COMMAND PROMPT

Open the command prompt program to manually bypass Windows and its many open drivers. The Command Prompt is also referred to as the "DOS Prompt."

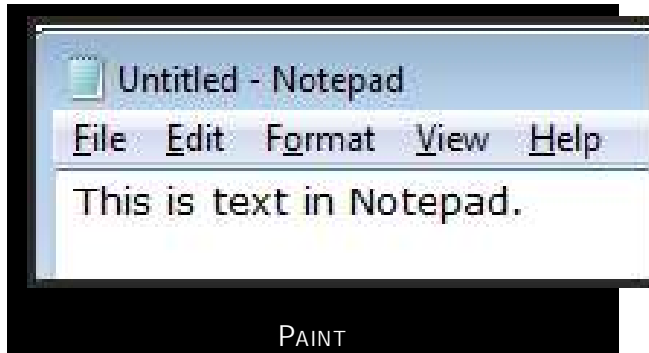
Sometimes it is necessary to launch a program outside of Windows. You can either click on this program, or click on Start, Run, and type in CMD. The prompt looks like the screen shot at the top of the next column.



The prompt is the line that starts out C:\Users\Your name>. A typical DOS type command is DIR for directory.

### NOTEPAD

Notepad is a simple text-only word processor. Think of it as a barebones word processor. It is commonly used to view text files, files that end in .txt.



PAINT

Paint is a basic picture editing program. It can be used to add text to photos, and to create simple graphic designs. From Start, open your Help application and lookup Paint for more information. It is my guess that people who want to edit photos routinely use free or paid programs that are far more functional than Windows Paint. Some of the free programs include Faststone Image Viewer, GIMP, Irfanview, Paint.net and Picasa.

### PROGRAM COMPATIBILITY WIZARD

This program helps older programs—programs designed for earlier versions of the operating system—to run in your current operating system. The run in what is called the compatibility mode. An example would be a Windows 98 program that runs in XP. The program helps you test compatibility settings including graphic card settings.

Note that some programs are designed not to work with later versions of the operating system, such as antivirus programs, CD burners, disk managers, and backup software. You can run into serious problems if you install such programs. In Vista, click Start, Help, and type in Program Compatibility. Press enter.

### REMOTE DESKTOP CONNECTION

This program allows you to invite a knowledgeable friend or others to troubleshoot your computer in real time. With your permission, they gain access to your computer and

can see what you see on your screen. They can move your mouse pointer and run programs on your computer.

Windows offers a built-in capability to connect two users. Sometimes it works and sometime it doesn't. There are also both free and paid software versions that offer capabilities beyond those offered by Microsoft's built-in program. One such free program, Crossloop, was demonstrated at our club's July 22 meeting.

For further information, consult Help in your operating system (XP Professional or Vista) or use your search engine for more detailed information. GoToMyPC, LogMeIn, PCNow, and WebEx are examples of some of the paid software offerings.

### SYNCHRONIZE

*Synchronize* was designed to help users keep their offline files synchronized with the most current files on a network or from a mobile device, such as a laptop. This is especially useful for people who work at home and at an office and who need to work with the most current files, such as with an ongoing report.

### TOUR WINDOWS XP (WELCOME IN VISTA)

If your operating system version is new to you use this program to quickly acquaint yourself with the features and differences of your new operating system. A few minutes spent here may save you're a lot of time later. You can choose to view the program with our without narration.

### WINDOWS EXPLORER

In Accessories, the icon for Windows Explorer opens a program that helps you navigate among your hard drives, folders and files. You are using Windows Explorer if you click on My Computer and view your files and folders. You can also open Windows Explorer by right-clicking the Start button and then and pick Explorer from the menu. Sometimes, Windows Explorer is confused with Internet Explorer. Internet Explorer is used primarily to explore information on the World Wide Web.

### WINDOWS MOVIE MAKER

Windows Movie Maker is used to create or edit video creations with titles, transitions, audio tracks, music, and special effects. Users can capture video from a digital video camera, digital camera, or a scanner, or insert photos to

create a movie-like presentation. The process of creating such a movie is relatively easy to do, and a lot of fun.

### WORDPAD

WordPad formats text and adds many features. Features include font changes, control over paragraphs and tabs, and provides the means to insert bullet styles and outlines.

If you only write simple letters and an occasional report, then WordPad may be all that you need. It comes with Windows so there is nothing else to buy.

### DO YOUR TASKBAR YOUR WAY



Unlock your taskbar. You can drag your taskbar to any of the four sides of your screen and leave it docked there. Pick a blank spot on your taskbar and click about half way between the top and bottom of the taskbar. Then, with the left mouse button depressed, drag the

taskbar to where you want it.

If you want to contract your taskbar, or make it wider, click on the inside edge of the taskbar so that a double-headed arrow shows. You can then drag the edge of the taskbar either toward the center of your screen or toward the outside edge of your screen.

Right-click on the taskbar in an empty spot and select toolbars. For instance, most of you will want to turn on the Quick Launch area of the toolbar. Experiment with the other toolbars to see which of any you would like to add to the taskbar. For instance, the Links feature can be very useful if you have a long list of favorite links. Clicking on the Links icon instantly displays all of your stored links.

### FIREFOX AND OPERA COMPATIBILITY TRICKS

The default versions of Firefox and Opera **cannot** open Windows Update™. Instead, they rely on Internet Explorer to access the Microsoft Windows Update web site to update Windows. However, there is a way to Update Windows from both of those alternative web browsers. Download the WizzdizUpdate program from this link and

install the program. Drag the url address to the Most Visited taskbar in Firefox or My Opera Community in Opera.

<http://windizupdate.com/>

The download and installation will allow you to update Windows without having to use Internet Explorer. The next time you open the link you will see the following screen. Click on the Scan for Updates button.



Another problem for alternate web browsers is the existence of some IE-only designed web sites. Given that about 90% of the world uses IE as their web browser of choice it should not come as a surprise that some sites are coded or optimized to work only with IE. However, there is a workaround for the problem for Firefox.

Download the Agent Switcher from this link:

<http://chrispederick.com/work/user-agent-switcher/>

You can install the switcher in Firefox. Then, drag the url to Most Visited taskbar in Firefox. The Agent tricks IE-only website that IE is your web browser so that you can view the content.



## HIDING OPERA'S IDENTITY FROM CERTAIN SITES

The following is quoted from Opera's knowledge base.

Problem description:



Some sites will block Opera when you visit them. This can be either a page which tells you that Opera is not supported, or it can be done in a way where the user is not informed, but the site might not work properly because Opera is not served the same (working) contents as other browsers.

Solution:

- ✓✓Go to the site in question
- ✓✓From the menu, select Tools>Quick Preferences>Edit Preferences.
- ✓✓Click the "Network" tab
- ✓✓In the "Browser Identification" drop-down, select identify as "Internet Explorer" or as "Firefox."
- ✓✓Click OK
- ✓✓Reload the page

## FIREFOX DOESN'T DO ACTIVE X CONTROLS

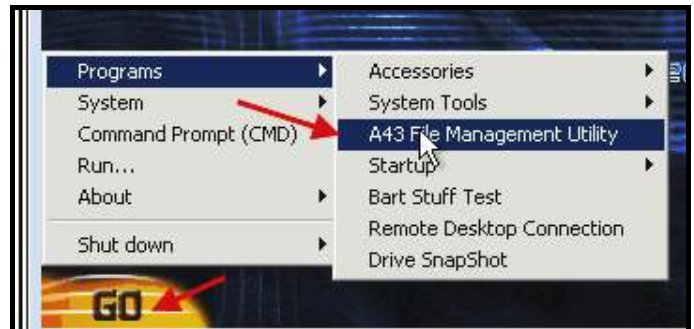


ActiveX (also called add-ons) is the mechanism that Internet Explorer uses to load other applications in its browser.

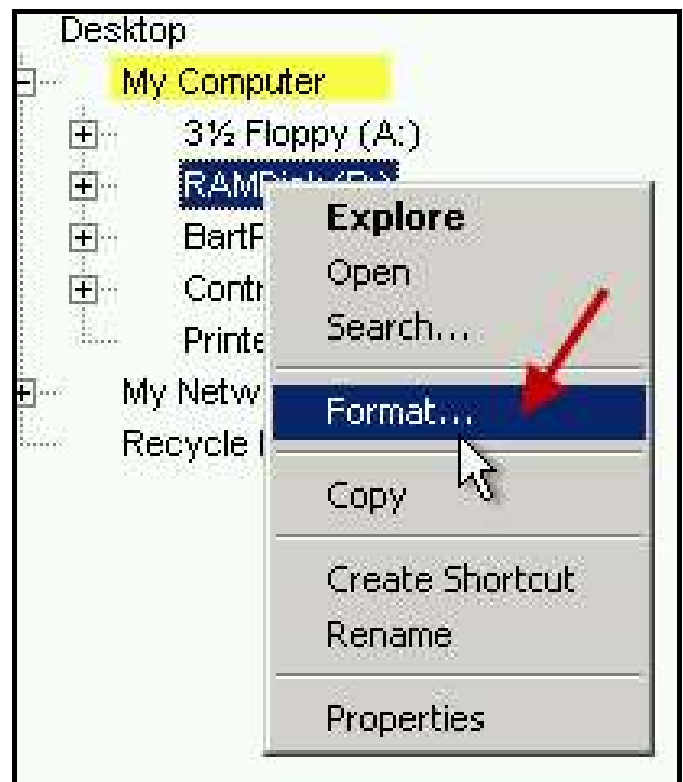
Through ActiveX, IE loads such applications as Windows Media Player, Adobe Flash, and Apple Quicktime that read files embedded in web pages. For example when you click on a WMV audio file on a web page it activates an ActiveX control to download the WMV file and play it.

Approve the installation of ActiveX controls on a need-to basis, and only from trusted sources.

## BARTPE SCREEN SHOTS



The screen shot above is what you see when BartPE is open and you click on the GO icon in the lower left corner (like the Start button in Windows), Programs, and then A43 Management Utility. Only a small part of the screen is shown.



The screen shot immediately above shows what you see after your right-click on the drive you want to format (C:\ in most cases). You select to Format the drive.