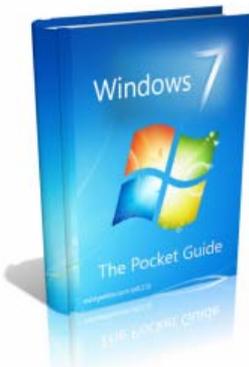


To get the full FREE (seriously, no cost – I just want you to check out my Windows Guides site) version of this book, please head here:

<http://mintywhite.com/tech/books/>



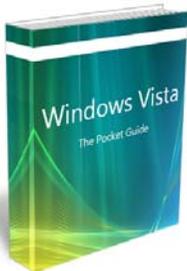
Windows 7

The Pocket Guide



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Customization Manual



Windows Vista

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7



The Pocket Guide

Windows 7 – The Pocket Guide v 0.2.1

Master Microsoft's Newest Operating System

Rich Robinson



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Windows 7 – The Pocket Guide

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*Dedicated to my wife, Mallory—thank you for  
putting up with all the hours I spend writing books,  
writing guides, and getting to know like-minded  
Windows enthusiasts*

*You are very special to me*

~~~

About the Author

Rich Robinson is the author and creator of [Windows Guides](#), [Windows Forums](#), and [MyWindowsPC](#). Rich is a [Microsoft MVP](#) in the Desktop Experience category and authored Windows Vista – The Pocket Guide and Windows Vista – Customization Manual. His hobbies include spending time with family, web design, programming, running, soccer, skiing, and swimming.

See [more books Rich authored](#)

Credits

Proofreader

Larry Schwartz

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I consider all visitors to Windows Guides and Windows Forums contributors to this book. Your questions and advice helped inspire me to compile this book. Many of you take hours of your time helping me improve my work and helping me find errors. Others share the word of this book with their friends, family, and online acquaintances. Many readers of this book are referred by other Windows-themed websites and I thank the respective owners of these sites for their kind words and advice.

Thank you to my wife, Mallory, who works hard as I isolate myself for days on end to complete this book; you are more wonderful than you can ever perceive.

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Introduction

Windows 7 is Microsoft's newest operating system. If you are looking to add a personal touch to your installation of Windows 7, this book will help you get started.

There are thousands of customizations you can apply and this pocket guide only scratches the surface. As always, I've written this book so anyone can pick it up and work through it.

I recommend you begin by reading the chapter; this chapter will give you a good foundation for the rest of the book. A basic knowledge of how Windows works is required to follow most of the sections; however, if you are very new with computers, I am confident you will learn a great amount as you go through this book—taking things one step at a time.

Once you have read the [Get Started](#) section, you're ready to explore the rest of the book and personalize your

machine to match your style. I'm sure there's something here for everyone; take a browse through the [Contents](#) page and see what strikes your interest. You do not need to read this book in order; feel free to explore.

If you have questions or feedback, head to the [Contact Me](#) section at the end of this book and get in touch with me. Is

If this version of the book seems a little dated, head to Windows Guides for an [updated version](#).

I began writing this book as soon as the public beta came out. I felt this was a good time to start getting familiar with the features that would soon be ready with the released version of the operating system. However, as features are updated, some of these sections may no longer work exactly as stated. I will continually update this book and make sure that it's ready for the final release of Windows 7. Please note: This guide is up to date as of Windows 7 RTM (Released August 6, 2009.)

Notational Conventions

In this guide, I have used these notational conventions:

Italic: Text from the current dialogue you are working with.

Bold: the name of a keyboard key.

Italic bold: something you type as shown, e.g., ***regeedit***.

Unless otherwise specified, you can use uppercase or lowercase letter. Note that some URLs extend over multiple lines in this guide; when you type them, do not insert spaces between parts of the URL.

Click: move the cursor to the referenced item and press the left mouse button.

Press: push on a keyboard key.

Select: choose from a list.

[Blue Links](#): Links to external websites

[Green Links](#): Links to navigate within this book

Additional Help

I've organized the following resources to help you use this book and improve your skills with and knowledge of Windows 7:

- [Glossary](#): Common terms are explained here.
- [Appendices](#): Common tasks are taught here.
- [Index](#): Search the book and find relevant information.
- [Windows 7 Forum](#): Meet Windows 7 enthusiasts and get your questions answered.
- [Windows 7 Resources](#): Get the latest tips and guides here.
- [Contact Me](#): Get in touch with me if you have questions.

1 Get Started

Before you get started with this book, there are a few questions you should ask yourself:

- Should I install Windows 7 and still keep Vista or XP on my computer?
- What version of Windows 7 should I use?
- Should I upgrade or do a clean installation?
- Should I use the 32 or 64 bit version of Windows 7?

This chapter addresses these questions and helps you get the answers that best suit your needs.

In the latter half of this chapter, you'll learn about the Windows Registry and Group Policy Editor, which are referenced throughout this book.

Enjoy working through this book and remember: More is less when you customize your system; don't try to change every last thing. Make changes that look good and keep your system clean and tidy.

1.1 Windows 7 System Requirements

The minimum system requirements to run Windows 7 are:

- 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64)
- 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
- 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
- DirectX 9 graphics device with WDDM 1.0 or higher driver

Additional requirements to use certain features:

- Internet access (fees may apply)
- Depending on resolution, video playback may require additional memory and advanced graphics hardware
- For some Windows Media Center functionality a TV tuner and additional hardware may be required
- Windows Touch and Tablet PCs require specific hardware

3 | 1 Get Started

- HomeGroup requires a network and PCs running Windows 7
- DVD/CD authoring requires a compatible optical drive
- BitLocker requires Trusted Platform Module (TPM) 1.2
- BitLocker To Go requires a USB flash drive
- Windows XP Mode requires an additional 1 GB of RAM, an additional 15 GB of available hard disk space, and a processor capable of hardware virtualization with Intel VT or AMD-V turned on
- Music and sound require audio output

Product functionality and graphics may vary based on your system configuration. Some features may require advanced or additional hardware.

I've [tested Windows 7 with 512MB of RAM](#) and found it to work well; however, I do not recommend running with such low memory—unless you really have to.

1.2 Which Version of Windows 7?

Windows 7 is available in four editions. Windows 7 Starter is not sold individually, so I will not explain its features. I personally recommend Windows 7 Home Premium as this is suitable for home use and will provide you with most of the functionality needed to do everything in this book. However, if you want all the features, you'll need Windows 7 Ultimate.

1.2.1 Buy Your Copy of Windows 7



Windows 7
Home Premium

[Upgrade](#)

[Full Version](#)



Windows 7
Professional

[Upgrade](#)

[Full Version](#)



Windows 7
Ultimate

[Upgrade](#)

[Full Version](#)

Microsoft compiled a [feature chart](#), which is included in this guide for your convenience:

Choose the Windows 7 edition that is best for you

Windows 7
Home PremiumWindows 7
ProfessionalWindows 7
Ultimate

Features

Make the things you do every day easier with improved desktop navigation.	✓	✓	✓
Start programs faster and more easily, and quickly find the documents you use most often.	✓	✓	✓
Make your web experience faster, easier and safer than ever with Internet Explorer 8.	✓	✓	✓
Watch, pause, rewind, and record TV on your PC.	✓	✓	✓
Easily create a home network and connect your PCs to a printer with HomeGroup.	✓	✓	✓
Run many Windows XP productivity programs in Windows XP Mode.		✓	✓
Connect to company networks easily and more securely with Domain Join.		✓	✓
In addition to full-system Backup and Restore found in all editions, you can back up to a home or business network.		✓	✓
Help protect data on your PC and portable storage devices against loss or theft with BitLocker.			✓
Work in the language of your choice and switch between any of 35 languages.			✓

1.3 Windows 7 32 or 64-bit?

When deciding to move up to a 64-bit operating system, you should first consider what 64-bit gets you. Knowing what software runs on 64-bit should influence your decision; you will see no advantage if you are running 32-bit software on a 64-bit OS. You also lose the ability to run 16-bit software, which shouldn't be a problem unless you rely on older software, such as old work software or home-made packages you haven't yet updated.

1.3.1 What Does 64-Bit 7 Get Me?

More bits gets you access to more memory; the processor inside your PC communicates with your system memory (RAM) with numeric addressing. Thus, the maximum amount of memory a 32-bit processor can address is 4 gigabytes. Newer 64-bit processors—not to mention the 64-bit operating systems that run on them—can address 17,179,869,184 gigabytes (16 exabytes) of RAM.

Windows NT, released in 1993, was Microsoft's first fully 32-bit operating system; however, it took eight years

before the platform, which had since evolved into Windows 2000 and then XP, became mainstream. (Yes, Windows 9x ran 32-bit applications, but it was a hybrid OS that ran on a 16-bit DOS foundation, which was one of the reasons it was so unstable.) 64-bit Windows became a reality in XP, and Vista was Microsoft's first serious attempt to make 64-bit computing mainstream. I am sure more people will use Windows 7 64 bit because of the increasing demands for more RAM. The question is: how mainstream is 64 bit?

1.3.2 How Mainstream is 64 bit?

While 64-bit Windows 7 can run most 32-bit applications without a problem, it's not compatible with 32-bit hardware drivers or 32-bit utilities like Windows Explorer extensions (e.g., context menu add-ons.) This means you need a native 64-bit driver for every device on your PC; finding support for all your hardware can be a bit of a challenge, at least on older computers

1.3.3 Is there a Performance Increase?

Now, 64-bit software running on 64-bit Windows has been known to run as much as 10% faster, which illustrates the other reason—aside from memory addressing—that people find 64-bit 7 alluring. Just be prepared for lackluster industry support, at least for the next few years until Microsoft releases a 64-bit-only OS.

1.4 Install Windows 7

Now you've decided which version of Windows 7 to use, you should [check your system's compatibility](#) online. If your PC is compatible, you have four options:

1. [Upgrade to 7 from Windows Vista](#)
2. [Install Windows 7 as a Virtual Machine](#)
3. [Dual Boot Windows XP/Vista with Windows](#)
4. [Install Windows from Scratch](#)

You'll learn how to do each of these in this section.

1.4.1 Upgrade to 7 from Windows Vista

Upgrading is the easiest option of the three. However, upgrading can take a long time. To upgrade to Windows 7 from Windows Vista:

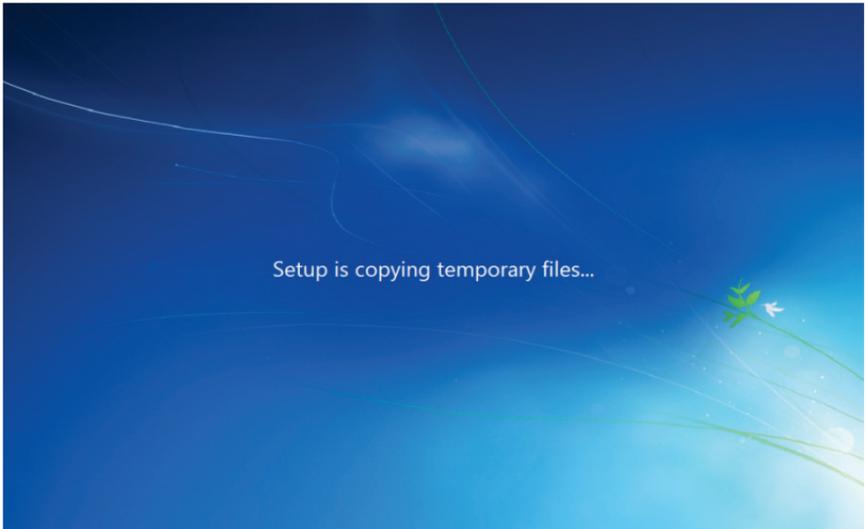
1. Insert the Windows 7 DVD into your DVD-ROM drive.
2. Click *Run setup.exe* from the AutoPlay menu.



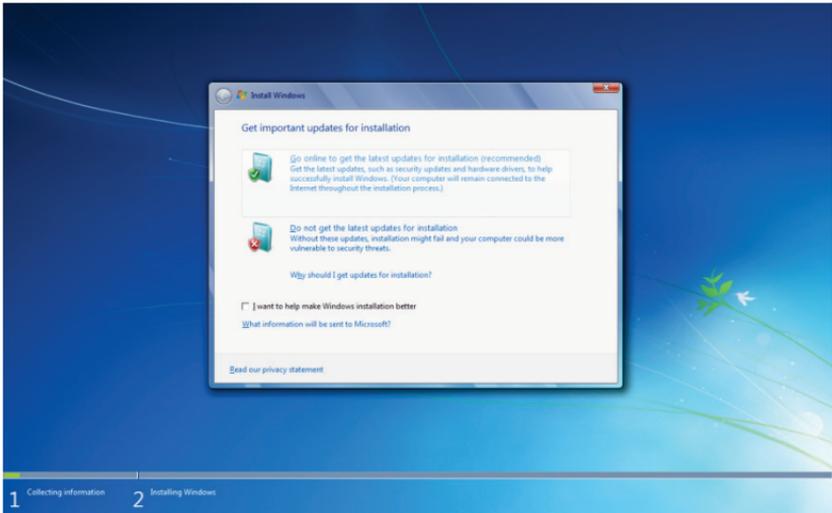
3. Click *Install now* on the Install Windows screen.



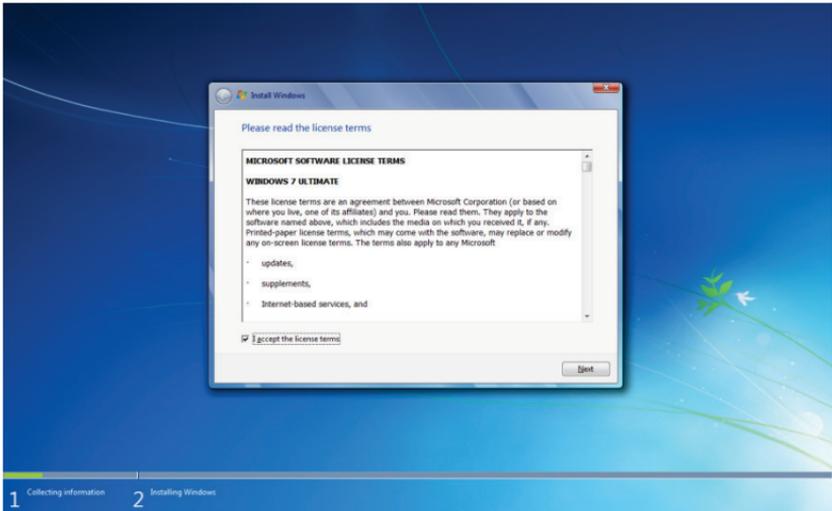
4. Setup will begin by copying files to your computer.



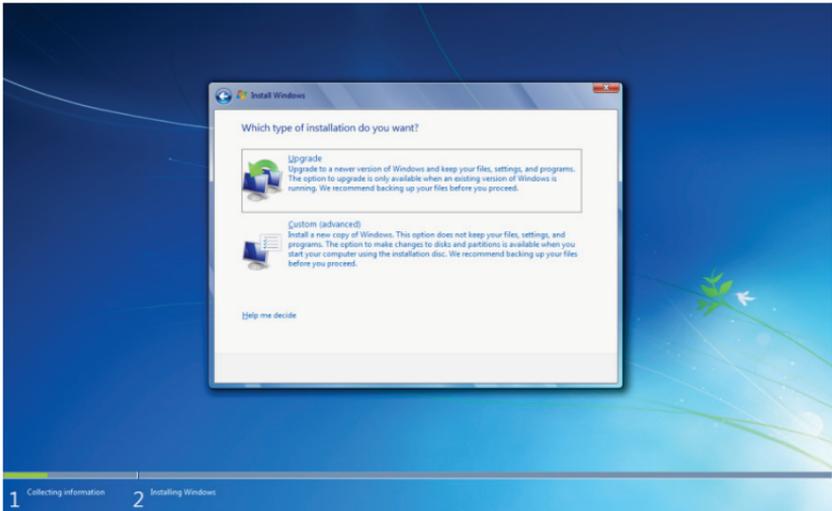
5. I recommend you get Windows updates online before upgrading Windows. This will ensure greater security and compatibility.



6. Accept the license terms and click *Next*.



7. Now click *Upgrade* and follow the instructions. You may get a compatibility report, which will help you determine what may not work properly after the upgrade.



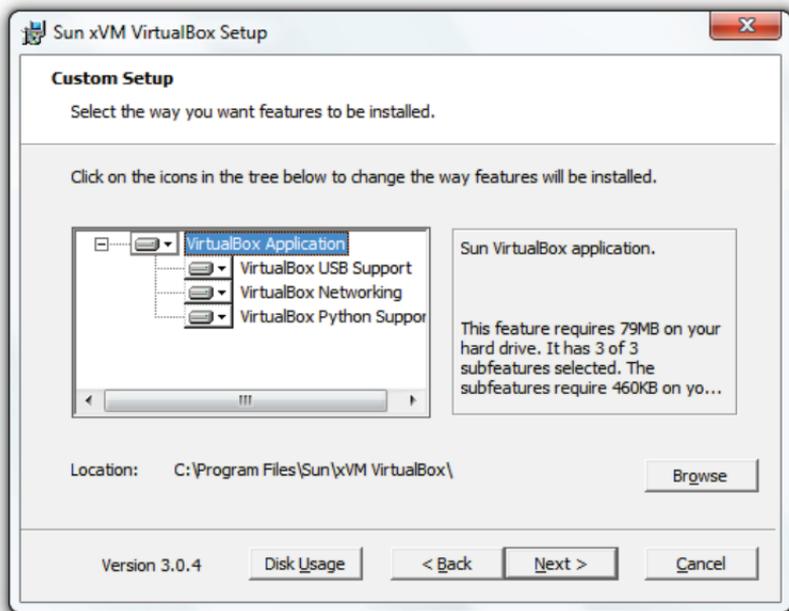
1.4.2 Install Windows 7 as a Virtual Machine

If you would like to use Windows 7 and still use Windows Vista or XP, rebooting your computer every time can be a pain. A virtual machine (VM) can be used to simulate hardware and run Windows (or any operating system) within Windows.

1.4.2.1 Install Virtual Box

Virtual box is a VM host that facilitates in VM creation and deployment. To install virtual box:

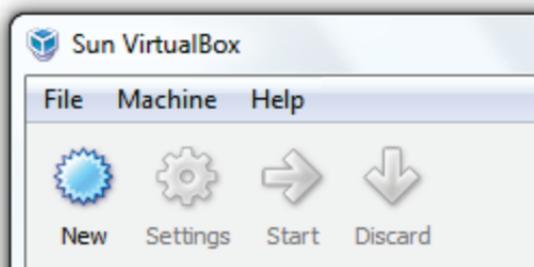
1. Download [Virtual Box](#).
2. Install Virtual Box and ensure all options are selected via the *Custom Setup*.



3. You'll be asked whether you want to install drivers; these are essential and should be installed.



4. Open Virtual Box and click *New*.



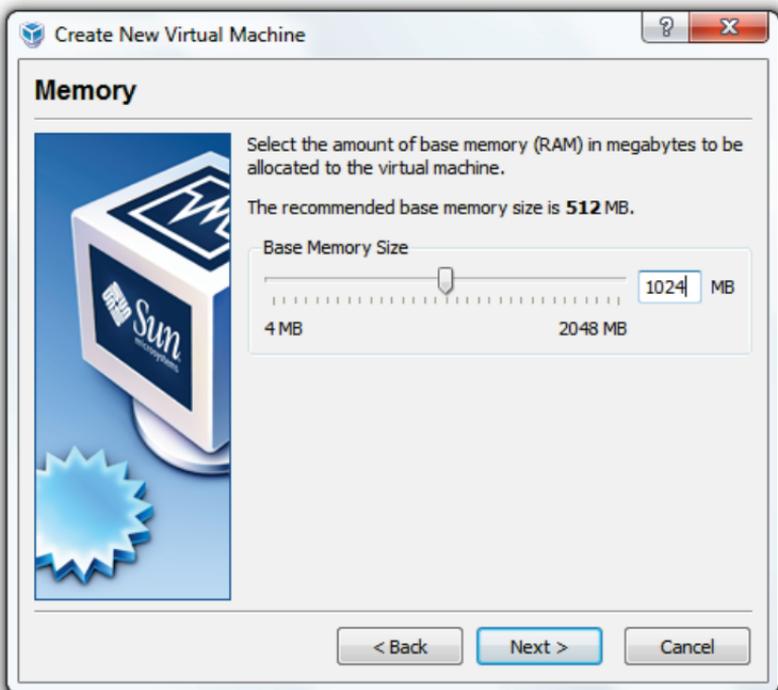
5. On the *Virtual Machine Wizard*, click *Next*.



6. Give the VM a name (*Windows 7* will do) and select *Windows 7* from the *Version* drop down list.



7. Select the amount of memory you want to use (I recommend using no more than half your physical RAM amount i.e., 4GB RAM = 2GB allocated.)



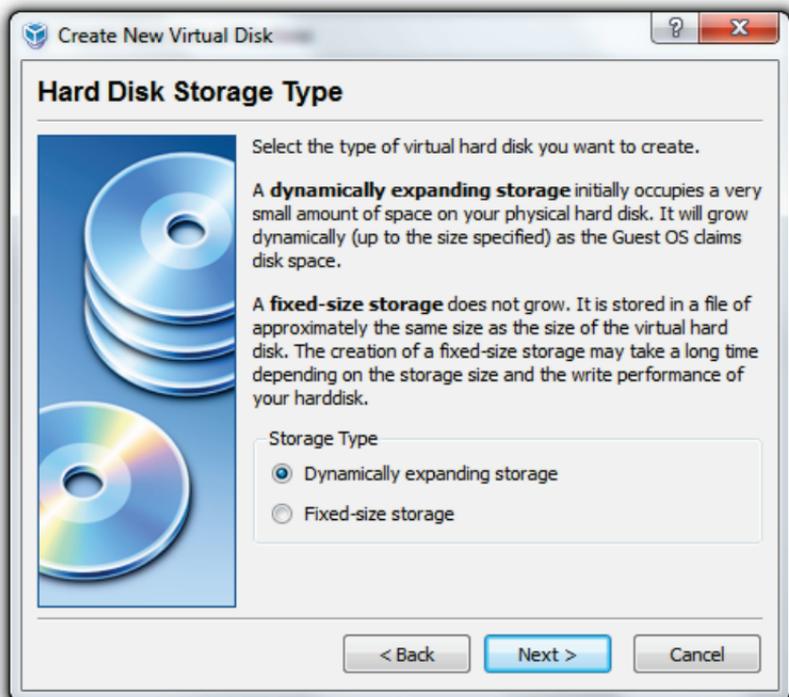
8. Select *Create new hard disk*.



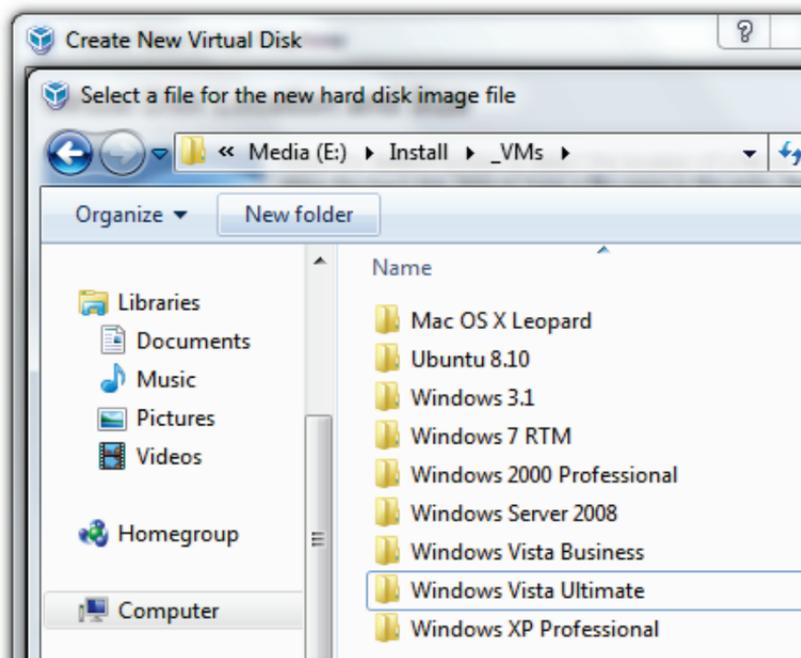
9. Click *Next*.



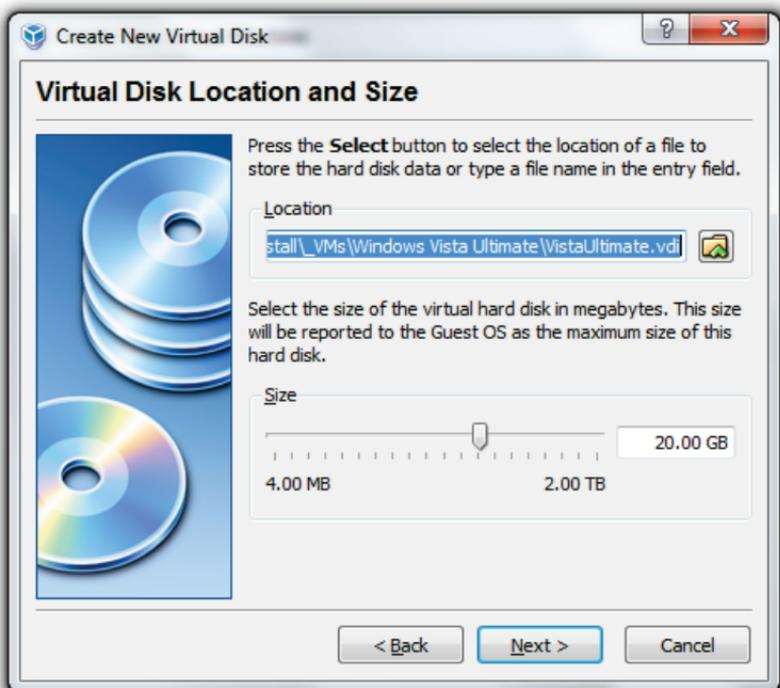
10. Select *Dynamically expanding storage* and click *Next*.



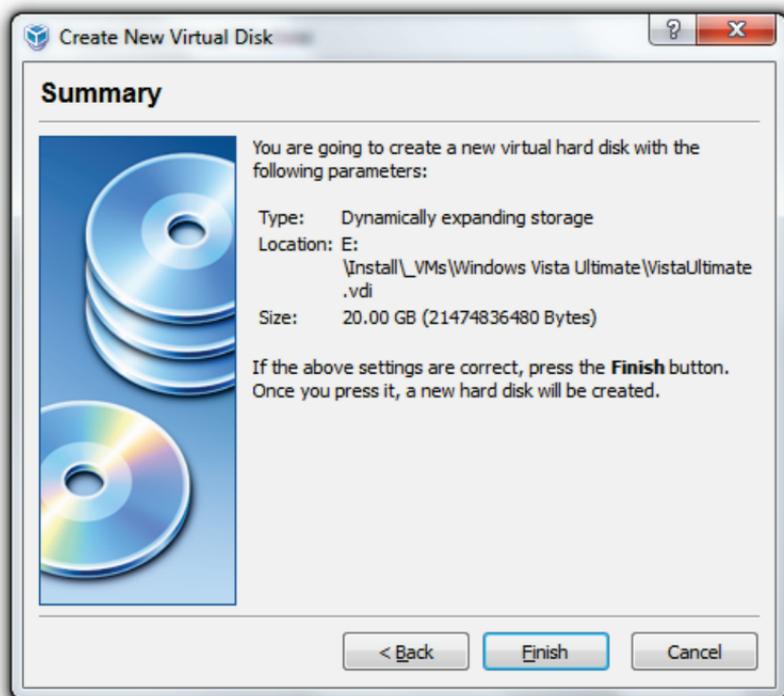
11. Choose where you will save your VM data.



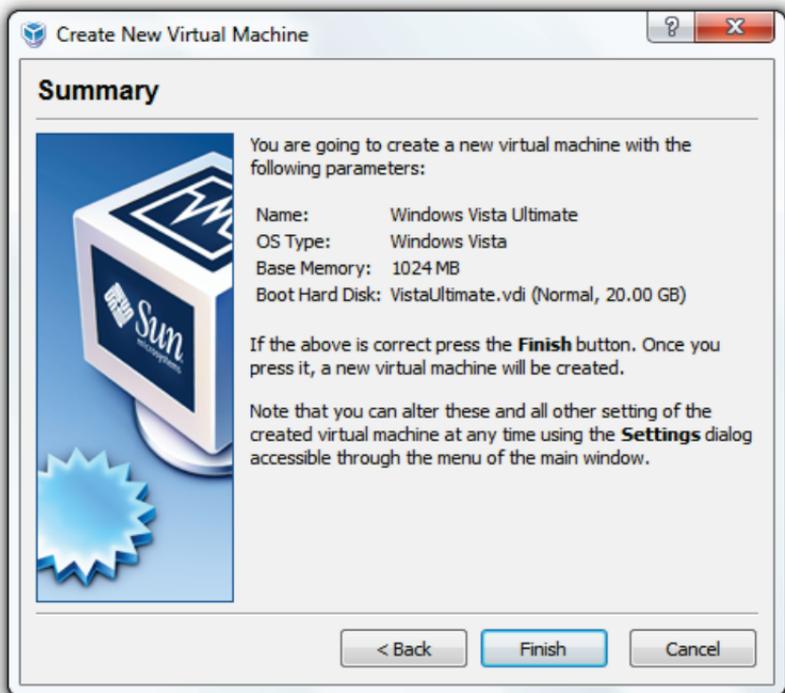
12. Click *Next*.



13. Click *Finish*.



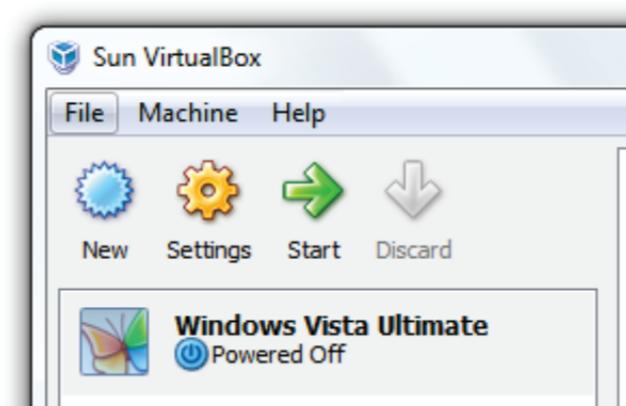
14. Click *Finish* to create your VM.



1.4.2.2 Install Windows 7 as a VM

Now you've created your VM, you'll need to boot it up and install the operating system:

1. Open Virtual Box, click your VM, and click *Start*.



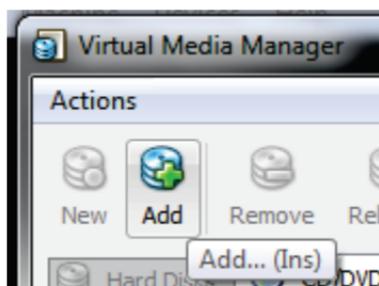
2. Click *Next*.



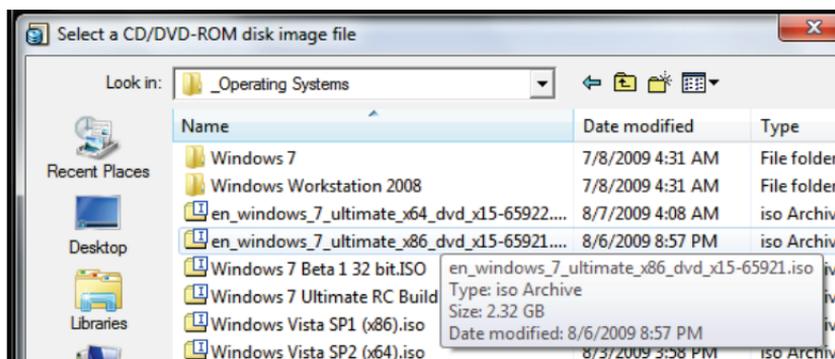
3. Leave *CD/DVD Rom Device* selected. If you are using the Windows 7 DVD (upgrade DVDs won't work for a clean install), click *Next*. If you are using an ISO image, select *Image File* and browse to your ISO.



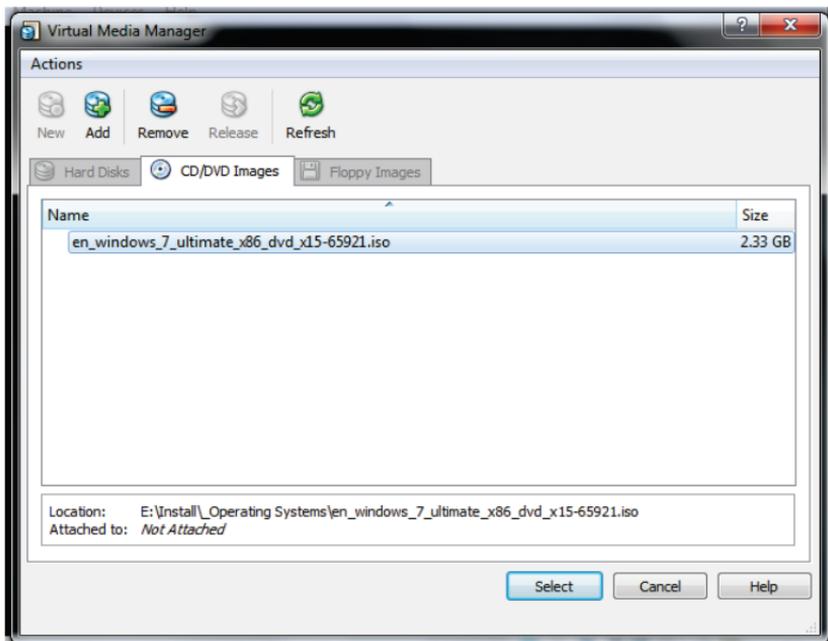
4. ISO Only: Click *Add* to browse to your ISO file.



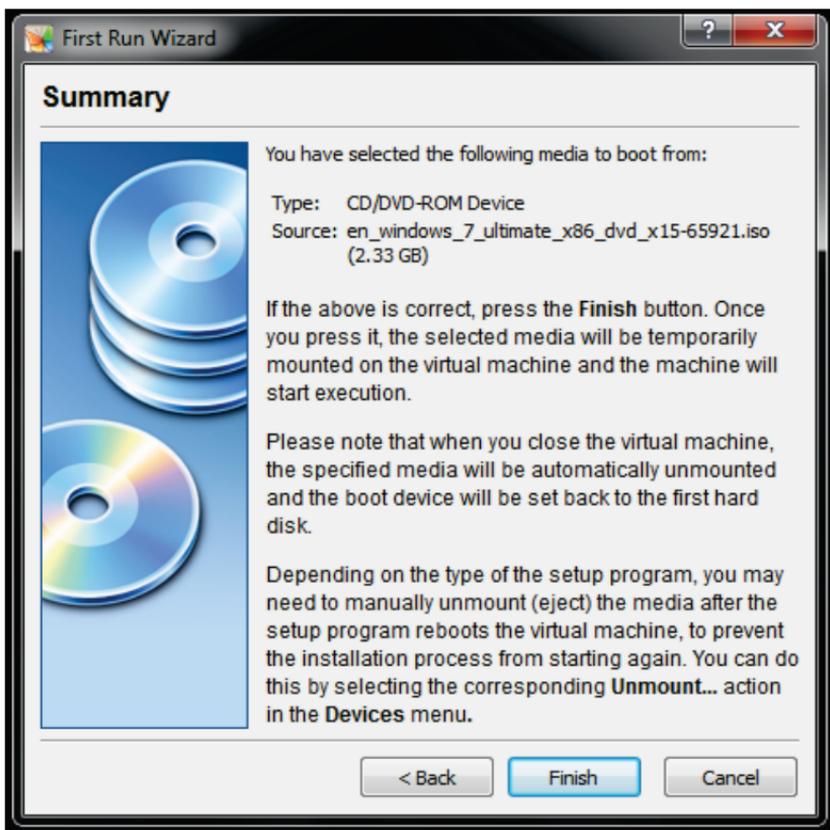
5. ISO Only: Locate your ISO and click *Open*.



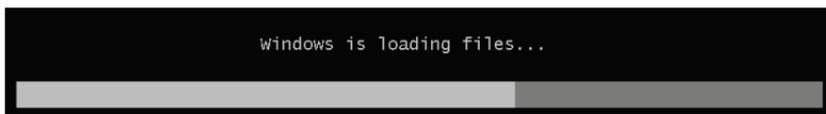
6. ISO Only: Click *Select*.



7. Click *Finish* to begin installation.



8. Windows 7 will now boot.



9. Refer to [Install Windows from Scratch](#) to install Windows 7 as a VM.

1.4.3 Dual Boot Windows XP/Vista with Windows 7

Dual booting Windows is the most challenging of the three options; however, making it work can be very rewarding. The process of creating a dual boot environment differs from Windows Vista to XP. Please follow the instructions according to which version of Windows you are currently using.

To run two operating systems on your computer, you will need to add a second partition. If you are not familiar with adding a partition, you can learn how in this section. Please note: each operating system will be able to see the other partition; thus, you can share files between them.

1.4.3.1 Dual Boot Windows XP with Windows 7

You will need third party software to create a second partition for Windows 7; once you have created the partition, you can install Windows 7 on it.

Create a New Partition (XP)

To create a second partition on your hard drive in Windows XP:

1. Download the GParted live CD [here](#).
2. Burn the image to a CD ([Appendix G: Burn an ISO Image to a Disc](#)), reboot your computer, and boot from the CD ([Appendix H: Boot from a CD or DVD.](#))
3. Once you've booted into GParted, create a partition for Windows 7 (16 GB+ recommended) ([Appendix I: Create a Partition with GParted.](#))

Refer to the [Install Windows from Scratch](#) section of this chapter to learn how to install Windows 7 on your newly created partition.

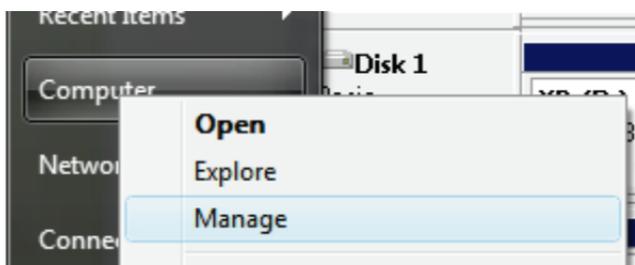
1.4.3.2 Dual Boot Windows Vista with Windows 7

Windows Vista natively manages partitions; you will need to create a second partition for Windows 7. Once you have created the partition, you can install Windows 7 on it.

Create a New Partition (Vista)

To create a second partition on your hard drive in Windows Vista:

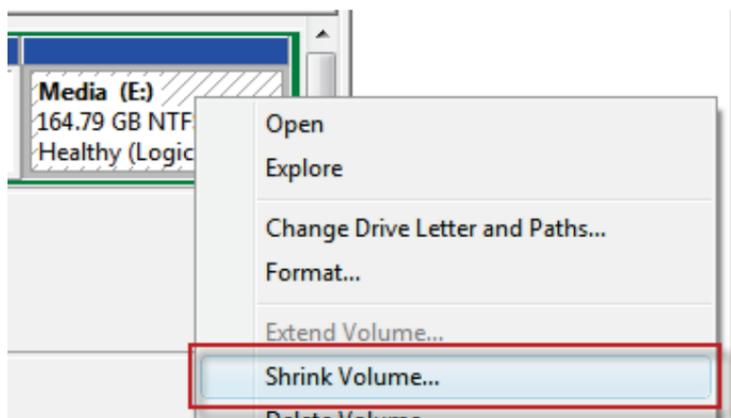
1. Click the Start button, right click *Computer*, and click *Manage*.



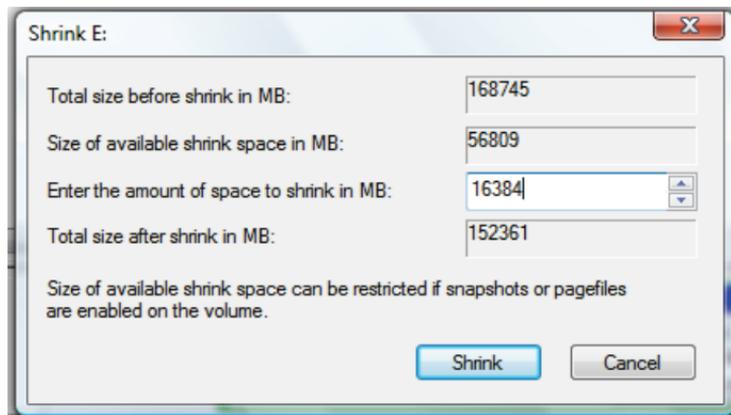
2. In the left pane, click *Disk Management*.



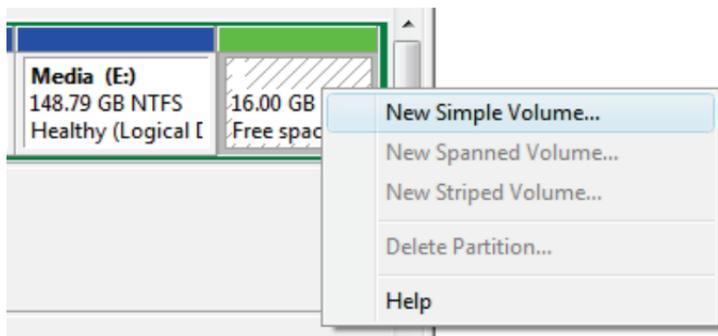
3. Now create a new partition by shrinking a previous volume so you can use the newly created space. Right click on the partition and click *Shrink Volume*.



4. Input the size, in MB, by which you want to shrink the partition. I recommend 32 GB (32,768 MB.) Windows 7 requires a minimum of 16 GB (16,384 MB.)



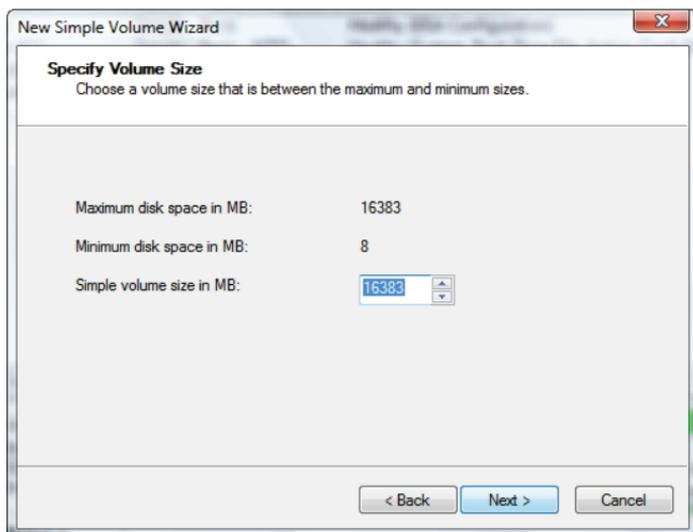
5. Now right click the free space and click *New Simple Volume...*



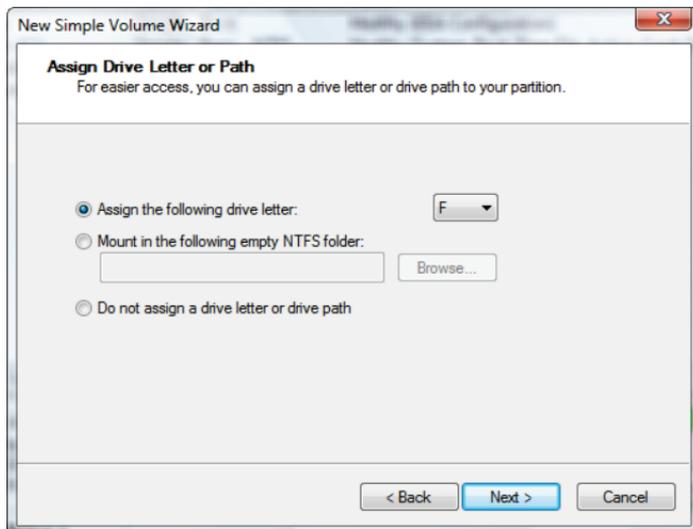
6. Click *Next*.



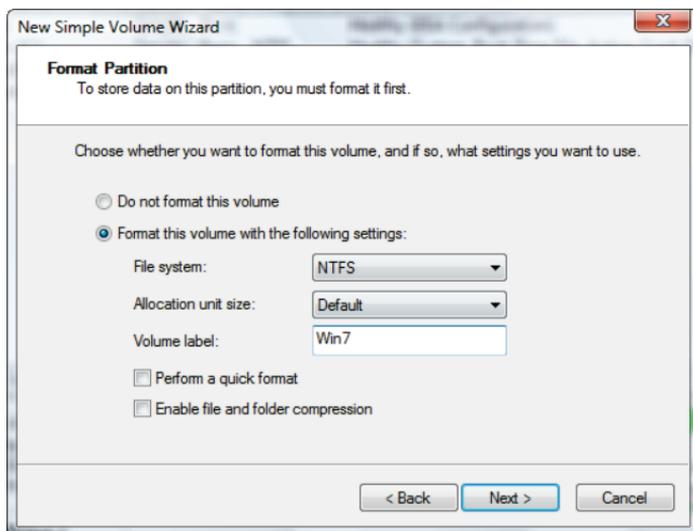
7. Specify the volume size and click *Next*.



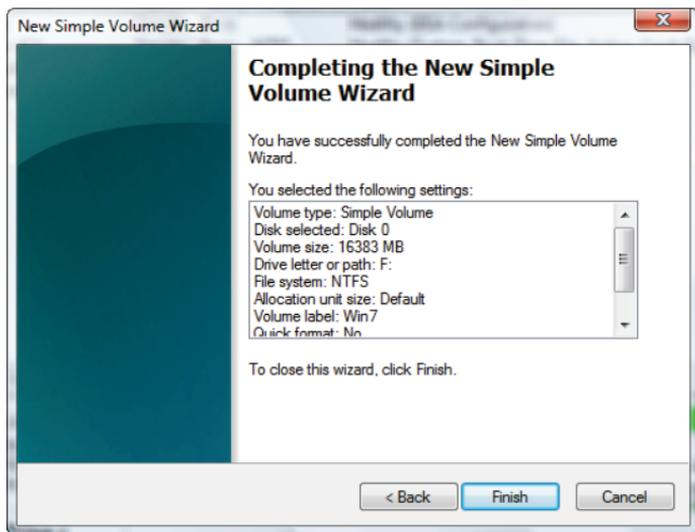
8. Assign an unused letter to the drive and click *Next*.



9. Format the drive as NTFS, give it a label, and click *Next*.



10. Click *Finish*.



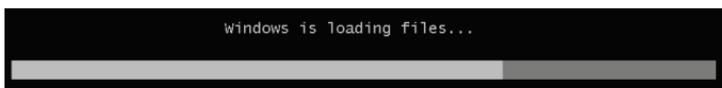
Refer to [Install Windows from Scratch](#) to learn how to install Windows 7 on your newly created partition.

1.4.4 Install Windows from Scratch

Whether you are installing Windows 7 on a blank hard drive or a newly created partition, the procedure is the same.

To install Windows 7 from scratch:

1. Power on your computer, insert the Windows 7 DVD, and restart your computer.
2. Press the necessary key to initiate booting from your DVD (usually Esc or F12.) ([Appendix H: Boot from a CD or DVD.](#))
3. Windows will now load the installation files.



4. Click *Install now*.



5. On the *Get important updates for installation* page, I recommend getting the latest updates to help ensure a successful installation and protect your computer against security threats. You need an Internet connection to get updates.
6. On the *Please read the license terms* page, if you accept the license terms, click *I accept the license terms*. (You must accept to continue the installation.)
7. On the *Which type of installation do you want?* page, click *Custom*.
8. On the *Where do you want to install Windows?* page:
 - a. Click *Next* to begin the installation (unless you want to create a partition.)
 - b. OR If you already have another existing partition with enough free space and want to install Windows 7 on that partition to create a multi-boot configuration, select the partition you want to use, and click *Next* to begin the installation. (Be sure to install Windows 7 on a different partition from

where your current version of Windows is installed.)

Windows will take some time to install, so be patient

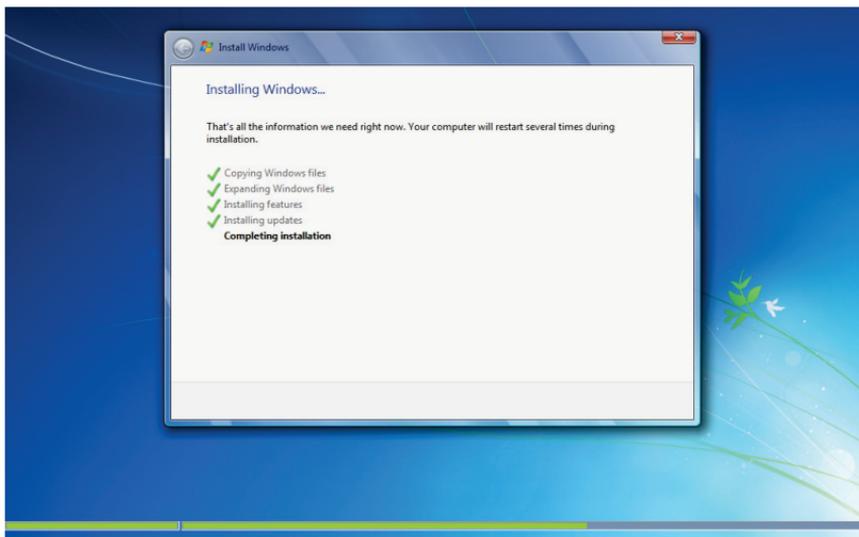


Figure 1: Installing Updates

Your computer will restart several times during the process as it configures itself and installs updates (Figure 1.) Be sure to leave the DVD in the drive and let Windows take care of itself.



Figure 2: Installation Complete

After some time, Windows will now be installed (Figure 2.) If you are running a dual boot, you should have the choice of either version of Windows when you power on your computer.

1.5 Use Virtual XP Mode

Windows 7 comes with built-in support to virtually run Windows XP. This is a great feature for those who are still holding on to XP or have applications that are not compatible with Windows 7 and Vista.

1.5.1 Requirements for XP mode

- Check for compatibility with [SecurAble](#).
- 1 GHz 32-bit / 64-bit processor required.

- Memory (RAM) – 1.25 GB required, 2 GB memory recommended.
- Recommended 15 GB hard disk space per virtual Windows environment.
- **NB:** Windows XP Mode is only available in Windows 7 Enterprise, Windows 7 Professional, and Windows 7 Ultimate.

1.5.2 Windows Virtual PC features for Windows XP Mode

- Once both the Windows Virtual PC and the virtual Windows XP environment are installed, Windows Virtual PC provides a simple wizard to setup the Windows XP Mode with just a few clicks.
- Users can access USB devices attached to Windows 7 directly from Windows XP Mode. These devices include Printers and Scanners, Flash Memory/Sticks and External Hard Disks, Digital Cameras and more.
- Publish and Launch applications installed on Windows XP Mode directly from the Windows 7

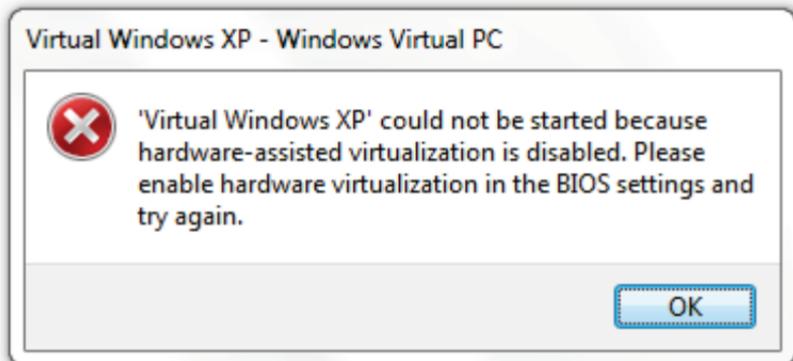
desktop, as if they were installed on the Windows 7 itself.

- Access your Windows 7 Known Folders - My documents, Pictures, Desktop, Music, Video, from inside the virtual windows environment, such as Windows XP Mode.
- Cut and paste between your Windows 7 and Windows XP Mode.
- Print directly to your attached printer from your Windows XP Mode applications either in application mode or desktop mode.

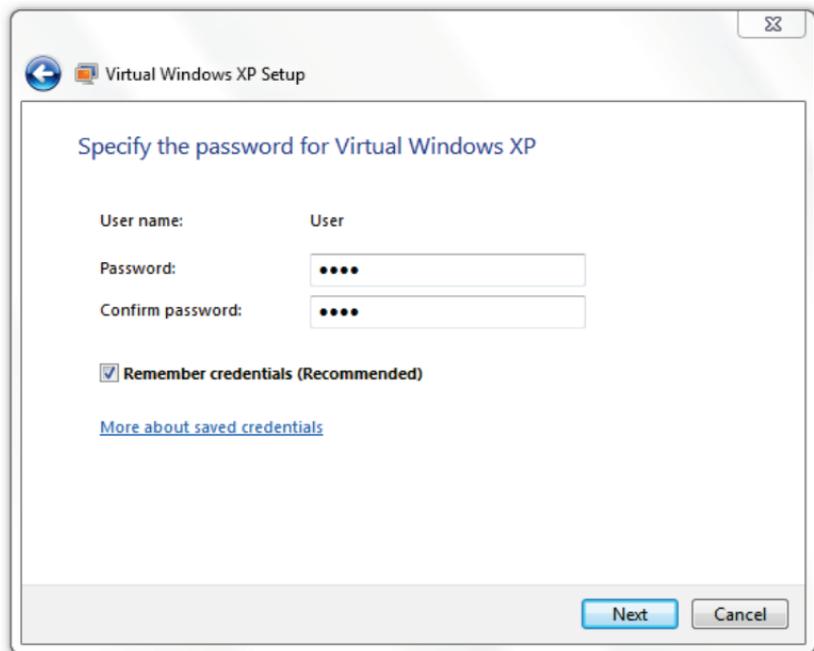
More information available [here](#).

1.5.3 Install and Use Virtual XP Mode

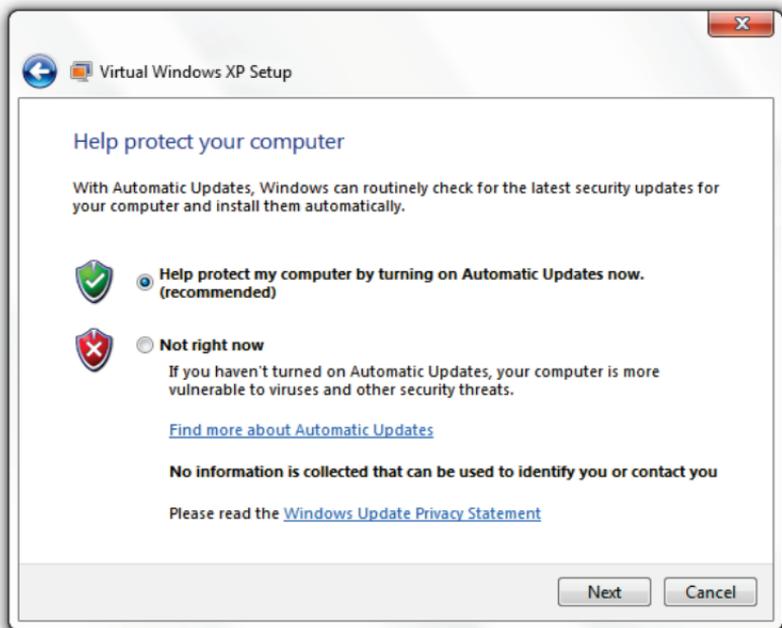
To enable and use Virtual XP mode, first check for compatibility, with [SecurAble](#), or you'll be presented with the error below:



1. Download [Windows XP Mode and Windows Virtual PC](#).
2. Install *Windows6.1-KB958559-x86.msu*.
3. Restart Your Computer.
4. Install *VirtualWindowsXP.msi* and accept the default settings.
5. Set a login Password.



6. I recommend enabling Automatic Updates.



7. Windows XP will now install and be ready to use.

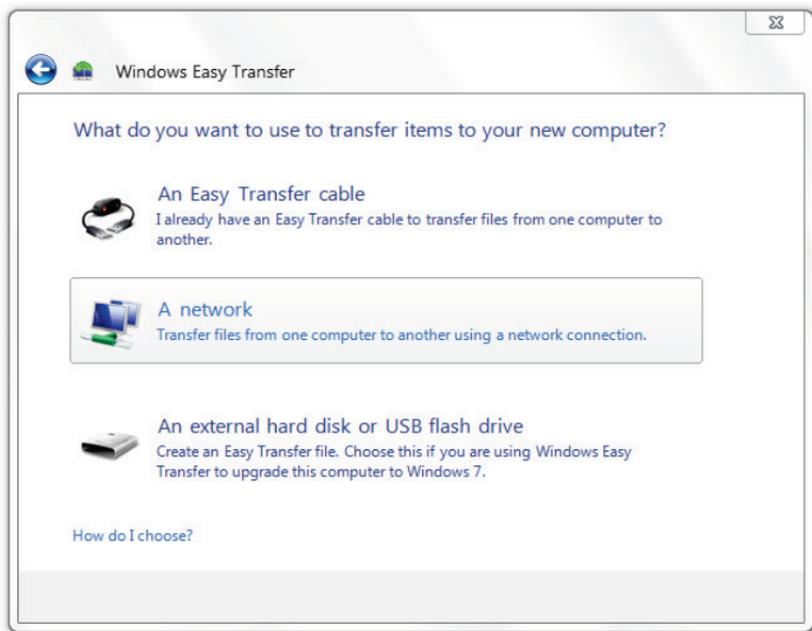
1.6 Transfer Your Files from Your Old PC

Windows Easy Transfer is used to transfer your files from your old PC (Windows XP, Vista, or 7) to your new PC.



You can transfer your files through the following ways:

- An Easy Transfer Cable
- A Network
- An external hard disk or USB flash drive



You can specify which accounts to move to your new PC and everything is pretty simple at straight forward.

To use Windows Easy Transfer: click Start, type *transf* and click *Windows Easy Transfer*. Follow the on-screen instructions to copy your data.

1.7 About the Windows Registry

Throughout this book, some sections require you to access the Windows Registry and make changes. I try to make executable registry hacks in most cases, but it can be fun to script or create your own registry files. Before doing anything with the Windows Registry, you should know what the registry is, how to back it up, how to restore it to a previous state, and how to add keys and values.

1.7.1 What is the Windows Registry?

Think of the Windows registry as a control center for your computer. Windows settings, individual program settings, and other important configuration information are stored here.

The registry is made up of the following components:

- Keys
- Subkeys
- Values

1.7.2 Access the Windows Registry Editor



Figure 3: Starting Registry Editor

Figure 3 shows how to open the registry editor. For more information, see [Appendix D: Launch Windows Registry Editor](#).

1.7.3 Add Keys or Values

In some of the tutorials in this book, you will need to create a new key or value.

1.7.3.1 Add a New Key

To add a new key:

1. Right click on the parent key.
2. Click *New > Key*.

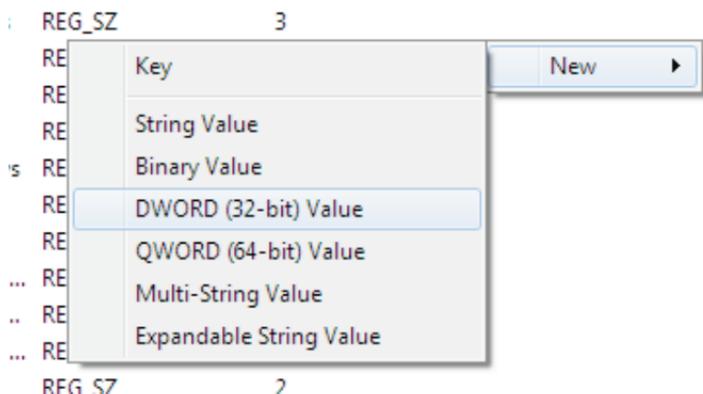


3. Follow the section's instructions for what key name to assign.

1.7.3.2 Add a New Value

To add a new value:

1. Navigate to the key that you want to add a value to.
2. Right click in the blank space of the right pane.
3. Click *New* > *xx* (Where *xx* is the value specified in the section.)



4. Follow the section's instructions for what value to assign.

1.7.4 Back up the Registry

To back up the registry, please refer to [Appendix E: Back up the Windows Registry](#).

1.8 About the Group Policy Editor

Group Policy is a feature of Microsoft Windows that provides centralized management and configuration for your computer or computers in a domain. This tool is mainly used by systems administrators to control a group of PCs; however, you can use it to customize your personal machine.

Please Note: The Group Policy Editor (Figure 5) is not included with every version of Windows 7 and is currently only available in Windows 7 Ultimate.

1.8.1 Access the Group Policy Editor

Click the Start button, type *gpedit.msc*, and press **Enter** (Figure 4.)



Figure 4: Access the Group Policy Editor

1.8.2 Work with the Group Policy Editor

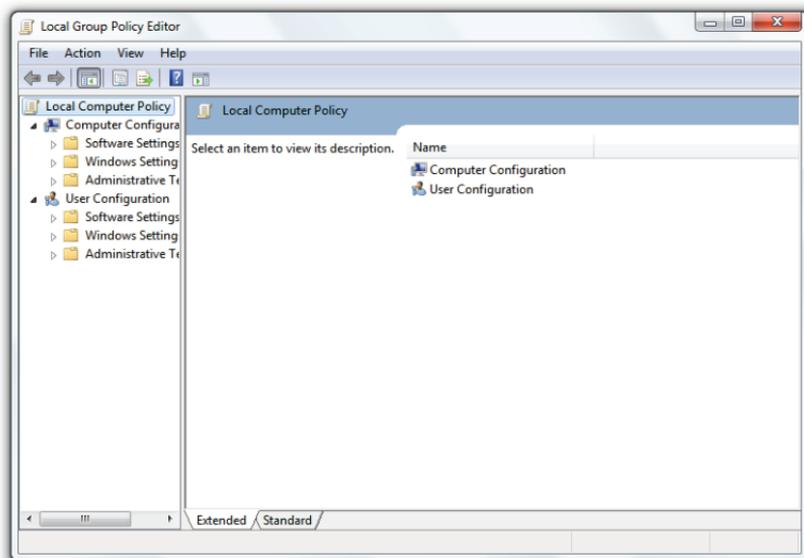


Figure 5: The Group Policy Editor

To enable options, double click on the specified option in the right-hand pane, and change the setting to *Enabled* (Figure 6.)

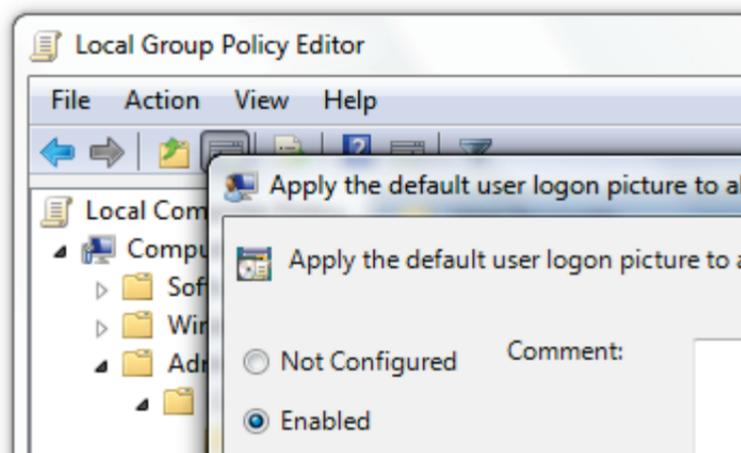


Figure 6: Enabling/Disabling Options in Group Policy Editor

1.9 You Are Ready to Begin

You made it this far and now you are ready to begin. As a brief recap, you learned the requirements of Windows 7, the version to install, and how to install your chosen version. You also learned about the Windows Registry and the Group Policy Editor. I strongly suggest you review the [2 Back up Your Data](#) chapter before proceeding; however, you're welcome to explore and experiment—hopefully you'll learn something new along the way.

2 Back up Your Data

If you are not familiar with data backup or currently choose not to back up your files, please read this chapter. Making changes to your computer brings a certain level of risk. This risk is alleviated greatly when you make backups that are timely, complete, and functional.

If you are one of the lucky people who have never lost a file on your computer, congratulations; however, this chapter is still for you. If you have lost files before—yep that's you—then you should review this chapter too before you begin.

In this chapter, you'll learn how to use *Backup and Restore*, backup and restore your registry, and how to recover lost files.

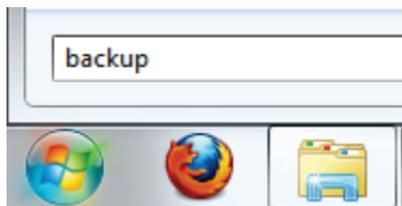
2.1 Backup and Restore

Backup and Restore—bundled with Windows 7—is an excellent tool, which allows you to backup and restore either your files or an image of your operating system.

2.1.1 Launch Backup and Restore

To launch the Backup and Restore Center:

1. Click the Start button and type *Backup*.



2. Click *Backup and Restore*.

2.1.2 Back up Your Files

To back up your files:

1. Click *Set up backup...*

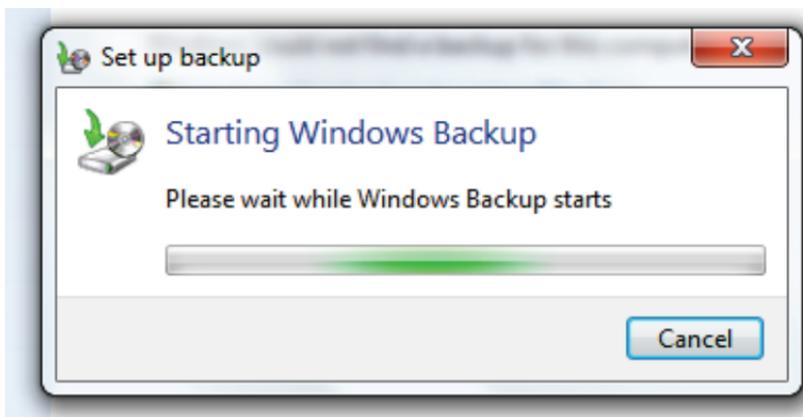
Back up or restore your files

Backup

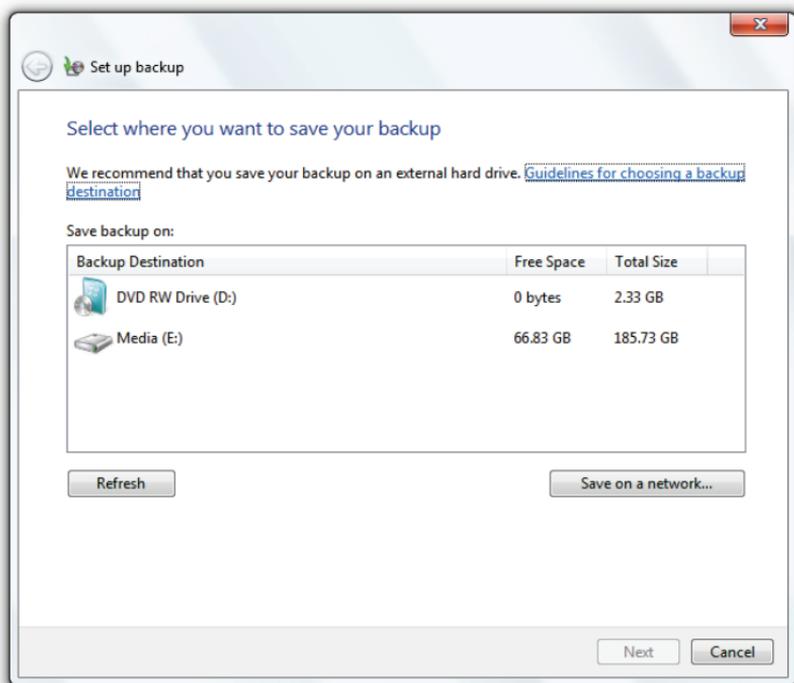
Windows Backup has not been set up.

 Set up backup

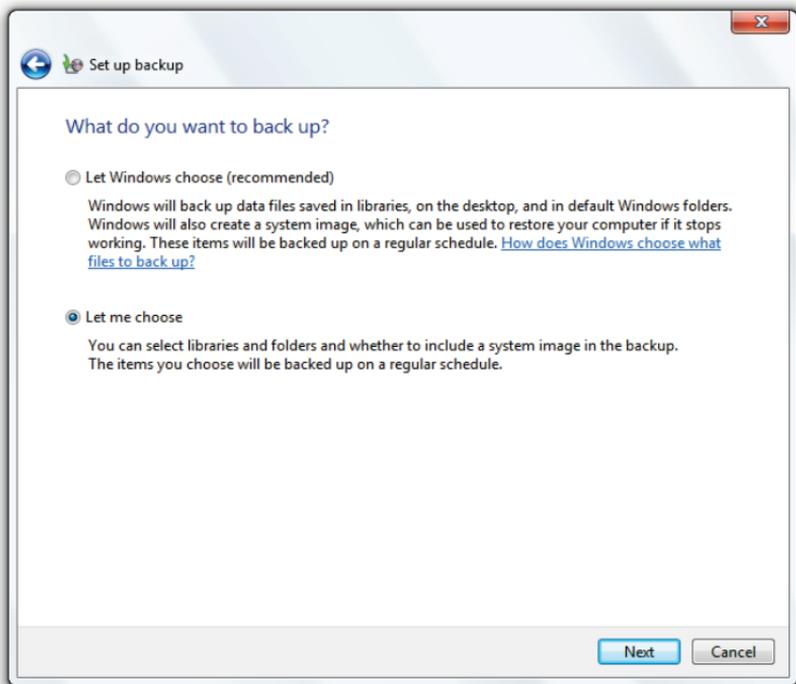
2. Windows will now prepare your system for backup.



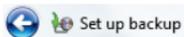
3. Choose a backup destination and click *Next*.



4. I recommend you choose your files to backup.



5. Specify the files you want to backup. You can include a system image, which will save your Windows settings as they are. This can be restored if something goes really wrong.



What do you want to back up?

Select the check box of the items that you want to include in the backup. [What files are excluded by default from the backup?](#)



Include a system image of drives: OS (C:)

A system image is a copy of the drives required for Windows to run. You can use it to restore your computer if it stops working.

Next

Cancel

6. Review your backup settings.
7. Set the frequency of backup.

How often do you want to back up?

Files that have changed and new files that have been created since your last backup will be added to your backup according to the schedule you set below.

Run backup on a schedule (recommended)

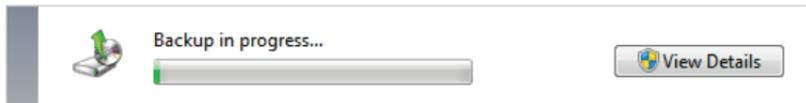
How often:

What day:

What time:

8. Windows will now backup your files.

Back up or restore your files



2.1.3 Restoring Your Files

Launch *Backup and Restore* and click *Restore Files*. Locate your backup files and follow the instructions to get your previously backed up files back.

2.2 Back Up and Restore the Registry

Some sections in this book will require you to change values in your registry. If you make a mistake and don't correct it, you may find your computer is not as functional as it was before. To protect yourself from any mistakes, you need to backup your registry.

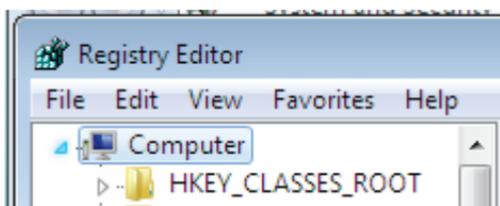
2.2.1 Back up the Registry

See: [Appendix E: Back up the Windows Registry.](#)

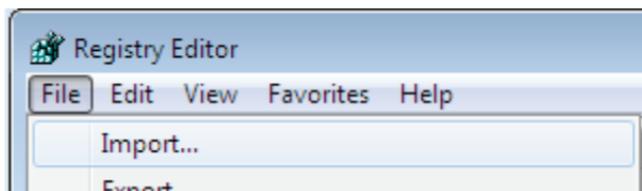
2.2.2 Restore the Registry

Before restoring the registry, [make a back up](#), so you can roll back if anything goes wrong. To restore your registry from a backup:

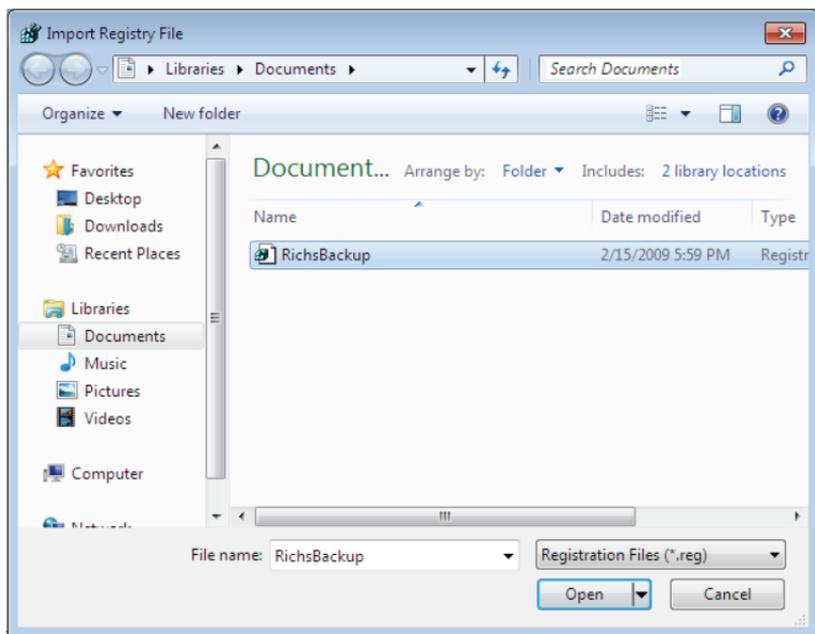
1. Open the Registry Editor ([Appendix D: Launch Windows Registry Editor.](#))
2. Left click *Computer* in the left pane.



3. Go to *File > Import*.



4. Click your backup file and click *Open*.



2.3 Create a System Recovery Disc

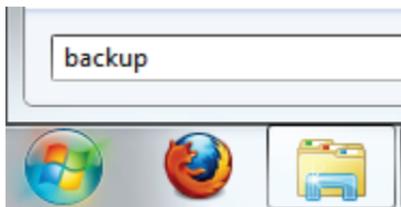
If Windows 7 goes wrong, you can attempt a repair, at boot up, to see if the problem can be fixed. To do this, you will need to create a system recovery disc; if you have the original Windows 7 disc, it will act as a recovery disc.

The system recovery disc cannot be used to install Windows, but it can be used to fix common problems that

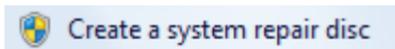
prevent Windows from booting. I recommend you make a system recovery disc before playing with Windows' settings.

To create a system recovery disc:

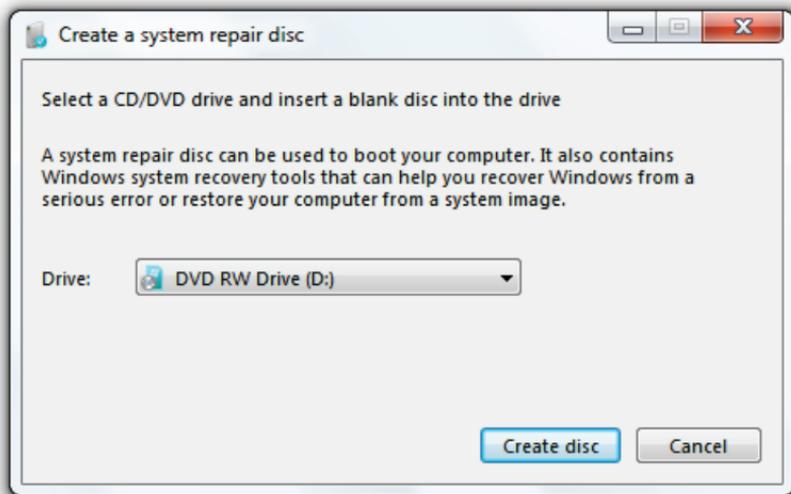
1. Click the Start button.
2. Type ***Backup***.



3. Click ***Backup and Restore***.
4. In the left column, click ***Create a system repair disc***.



5. Select your DVD drive and click ***Create disc***.

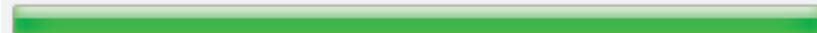


6. Wait for the disc to burn.

Creating disc...



System repair disc complete



7. Test the disc by rebooting your PC with the disc in the drive. Boot from the optical drive ([Appendix H: Boot from a CD or DVD](#)) and ensure the disc works by waiting for the main menu to load; if the menu

loads, you should be good to go in the event of a computer problem.

8. Save the recovery disc in a safe place.

2.4 Recovering Lost Data on Your Drive

If you lose your data, be sure to check the recycle bin first. If there are no files in the recycle bin, there is still hope. Even though your files are deleted, the data may still be recoverable because the reference to the file has simply been deleted and not the data itself. As long as your file has not been overwritten, you have a chance at recovery.

After trying many file recovery programs, I've decided [Recuva](#) is by far the best.

Recuva (pronounced "recover") is a freeware Windows utility to restore files that have been accidentally deleted from your computer. This includes files emptied from the Recycle bin as well as images and other files that have been deleted by user error from digital camera memory cards or MP3 players. It will even bring back files that have been deleted by bugs, crashes and viruses!

3 Security

One of the most important ways to protect yourself, when you are using your computer, is to be in control of security. There are so many threats out there that it is important to be proactive and protect your computer.

In this chapter, you will learn how to choose anti-virus, anti-malware, and firewall software; how to take ownership of your files; how to encrypt your sensitive data; and how to protect your privacy online and in Windows Media Player 11. While there are many PC security options available, this section should give you a good start.

3.1 Choose an Anti-virus Program

To protect yourself, you must have an anti-virus program. A virus is designed to disrupt the normal operation of your PC and can be costly: both in your time and in repairs that need to be made to recover your system.

Microsoft currently supplies a [list of all vendors whose software works with Windows 7](#). Of the current software, I recommend AVG Free, which is free for personal use.

3.2 Anti-spyware Software

Anti-spyware software helps you keep malicious software off your PC. Spyware is malicious programs that often send personal data, passwords and other private personal and financial data to third parties.

As listed above: you can visit Microsoft's [list of compatible security programs](#). AVG comes with a great anti-spyware module that should keep you free of harm.

3.3 Firewalls

A firewall is a hardware or software device that controls access to computers on a Local Area Network (LAN.) It examines all traffic routed between the two networks - inbound and outbound—to see if it meets certain criteria. If it does it is routed between the networks, otherwise it is

stopped. It can also manage public access to private networked resources such as host applications.

Many people got to great lengths to find a good firewall and often pay large sums of money to increase protection. For the average home user, Windows Firewall is sufficient and will protect you from unwanted communications between your computer and the world wide web.

To access Windows Firewall: Click the Start button, type *fire*, and click *Windows Firewall*.

3.4 Add Take Ownership to Context Menu

Many folders in 7 are protected from changes and require administrative approval to change every time. Sometimes this can become tedious, so I've created a registry hack you can use to take ownership of your files.

1. Download [TakeOwnership.zip](#).
2. Unzip the file.

3. Double click InstallTakeOwnership.reg and accept the prompts.
4. You can now take ownership of a file by right clicking it and clicking *Take Ownership*.

Remove Take Ownership from your context menu by merging RemoveTakeOwnership.reg into your registry.

3.5 Encrypt your USB Drive's Data

Please note: I prefer TrueCrypt, which is explained in this section; however, Windows 7 is bundled with USB encryption software: [BitLocker To Go](#).

Do you have data on your USB drive that could be accessed by someone if they found your key drive? Do you have sensitive data that you need to protect, but don't want to pay for expensive software? TrueCrypt was designed for you and in this section you'll learn how to use it. If you would like to protect data on your hard drive, move to the [next section](#) where I show you an easier-to-use program.

This section is written for TrueCrypt 6.2a (currently not compatible with Windows 7, but it works for the desired

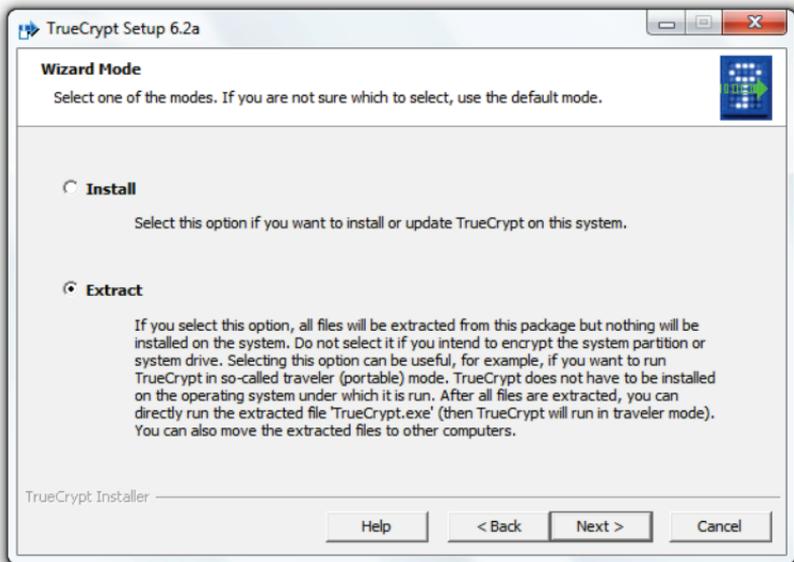
outcome of this section); newer versions should operate in a similar fashion.

I will refer to your USB drive as a “USB key drive” throughout this section. If you are encrypting your hard disk drive, simply replace this phrase with “hard disk drive”—the procedure is identical.

Final word: do not encrypt the entire drive your OS is stored on. You can encrypt parts of the drive, but not system files.

3.5.1 Download TrueCrypt

1. Download [TrueCrypt](#).
2. Run the installer.
3. When prompted, select *Extract* and click *Next*.



4. Extract the files to your USB key drive in a folder named *TrueCrypt*.



TrueCrypt
Format.exe



TrueCrypt.exe



truecrypt.sys



truecrypt-x64.sys

Figure 7: TrueCrypt Files

You can delete other files in the directory if you wish. Ensure you keep the four files as depicted above (Figure 7.)

3.5.2 Encrypt part of your USB drive

1. Run TrueCrypt.exe.
2. Once loaded, specify a drive letter that will become the encrypted volume (the drive letter of your USB drive won't change—but will show as two different drive letters when you complete this tutorial.)
3. Click *Create Volume*. Your USB drive will still keep its letter (e.g., "R"), but it will be split into two virtual drives (so the encrypted data will appear as a "[your chosen letter]" drive in *Computer* after you finish the setup.)
4. Now click *Create a standard TrueCrypt volume* and click *Next*.
5. The next screen will ask you where you want to store the volume. Save a file named ***Container*** in the TrueCrypt folder on your USB thumb drive and click *Next*.

6. Specify the size of the encrypted volume (I suggest you use 1/2 the size of the drive.)
7. Create a secure password.
8. Now click *Format* and your Container will be formatted.
9. After a confirmation message, click *Exit*.

3.5.3 Verify Your Encrypted Drive Works

1. Go to your *Computer* and look for a “W” (or letter you chose) drive. It’s not there; good news!
2. Open TrueCrypt.
3. Click the drive letter you chose in the previous steps.
4. Click *Select File* and find your ***Container*** you created.
5. Click *Mount*.
6. Type in your password and click *OK* and your volume will mount.
7. Go to *Computer* and your drive will be there.

When you are done, go back to TrueCrypt and click *Dismount*. Congratulations, you now have your data encrypted on your USB drive.

3.6 Protect Your Data in a Hidden Container

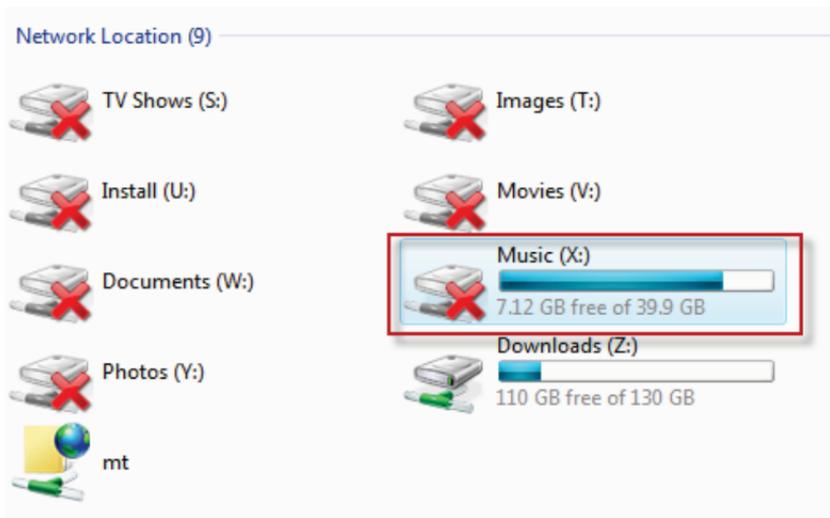
If you want to protect the files on your computer in an easy way, Secret Disk provides a great solution. Please note: if you are trying to protect your files from a customs, or similar, inspection, you may be required to enter your password. Thus, using a program like this is not a solution to hiding illegal information—don't do it!

To set up your secret container:

1. Download [Secret Disk](#).
2. Install Secret Disk on your computer.
3. Start the program and select a password.



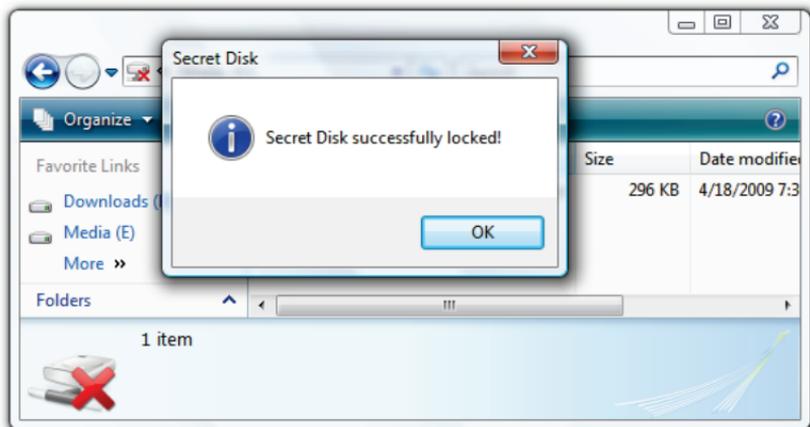
4. Secret Disk creates a partition for your hidden files (note: if you already have the X drive mapped on your network, like I have, Secret Disk will replace this mapping until you close the program.)



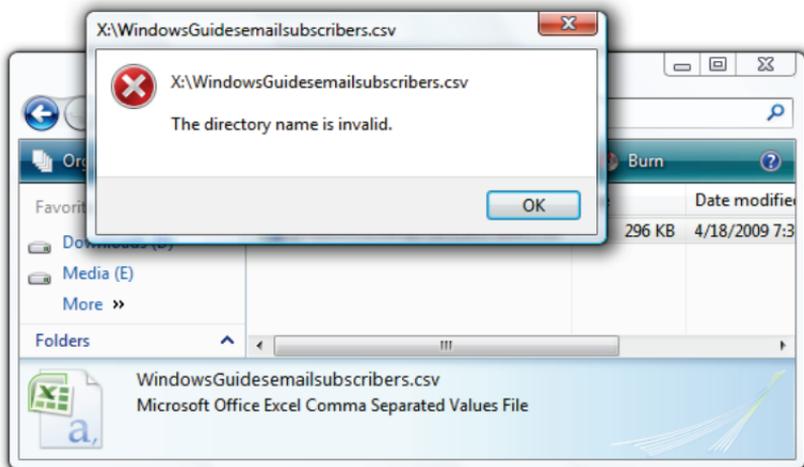
5. Now you can store your files on this partition.



6. Lock your disk when you are finished with it.



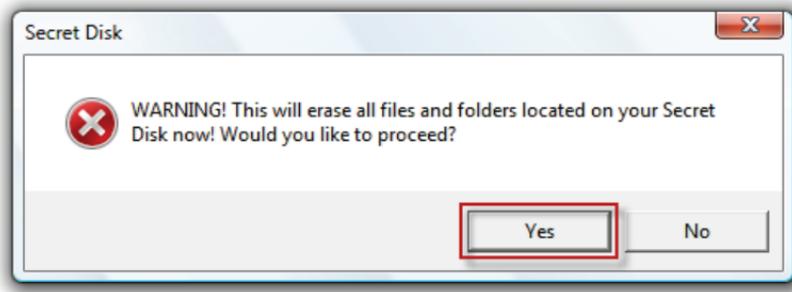
7. Now the disk is locked, it cannot be accessed.



8. To unlock the secret partition, just start the program, click unlock, and type in your password.



9. You can delete your secret disk at any time.



This program is an excellent solution for anyone who is looking to protect sensitive files.

3.7 Maximize Privacy: Browser Ad Blocking

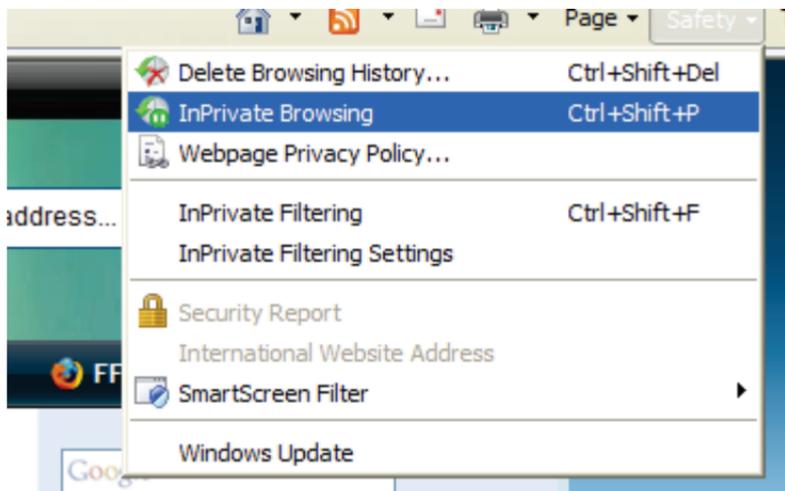
Let me begin by saying: adverts can be very useful and help you find what you are looking for; some ads are unobtrusive and inoffensive. However, I personally don't like seeing ads and I always encourage people to block them. In this section, you'll learn how to block ads in IE8*, Mozilla Firefox, Opera, and Google Chrome.

*IE has no supported extension, and your results will vary.

3.7.1 Internet Explorer 8

To block ads in Internet Explorer:

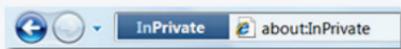
1. If you haven't already, [upgrade to version 8](#).
2. While browsing, click *Safety* > *InPrivate Browsing* (CTRL+SHIFT+P.)



3. You will be notified InPrivate browsing is running.

InPrivate is turned on

When InPrivate Browsing is turned on, you will see this indicator



InPrivate Browsing helps prevent Internet Explorer from storing data about your browsing session. This includes cookies, temporary Internet files, history, and other data. Toolbars and extensions are disabled by default. See Help for more information.

To turn off InPrivate Browsing, close this browser window.

[Learn more about InPrivate Browsing](#) | [Read the Internet Explorer privacy statement online](#)

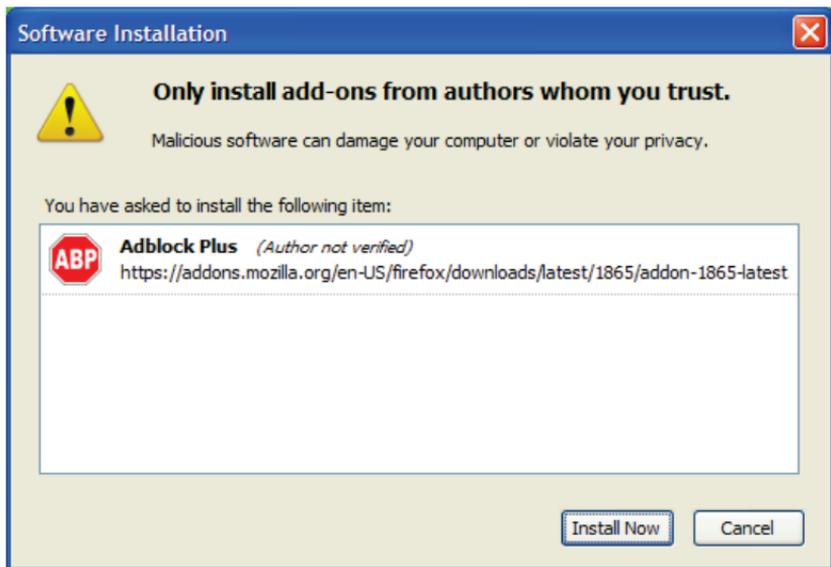
4. Over time, InPrivate will build a list of content that should be blocked and you will see less ads.

If you'd like to speed up the process, see [this discussion](#) on importing Adblock definitions to InPrivate.

3.7.2 Mozilla Firefox

To block ads in Mozilla Firefox:

1. Download [AdBlock Plus](#).



2. When prompted, select EasylistUSA as your subscription
3. Enjoy ad-free browsing!

3.7.3 Google Chrome

To block ads in Google Chrome:

1. Go to the [AdSweep site](#).

2. Follow the instructions for Google Chrome (these are subject to change and better referenced than replicated.)

3.7.4 Opera

To block ads in Opera:

1. Go to the [AdSweep site](#).
2. Follow the instructions for Opera (these are subject to change and better referenced than replicated.)

3.7.5 Safari

To block ads in Safari:

1. Download [Safari AdBlock](#).
2. Install the software and enjoy ad-free web browsing

3.8 Maximize Privacy: Windows Media Player 11

Personally, I like to ensure maximum privacy when using my computer. There are many programs that gather and send data; however, I will focus on Windows Media Player 11 because this is bundled with Windows 7. This section will show you how to ensure maximum privacy in Windows Media Player 11 (WMP11.) Microsoft, in the interest of privacy, allows you to protect your data; this section shows you how to do this.

3.5.1 Configuring Privacy When Setting up WMP11 for the First Time

To configure privacy settings, when setting up WMP11 for the first time:

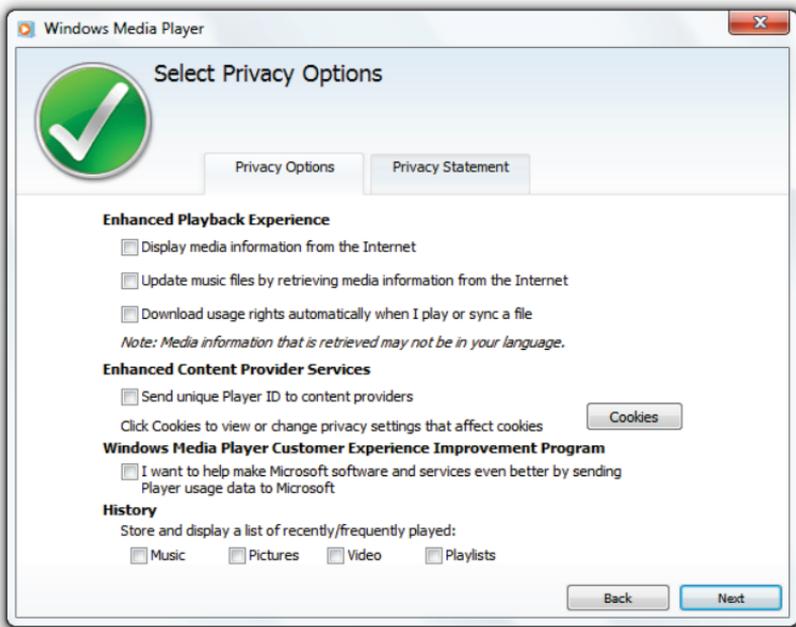
1. a. Click on the Windows Media Player icon on the Taskbar.
b. OR click the Start button, type ***Media***, and click *Windows Media Player.*)



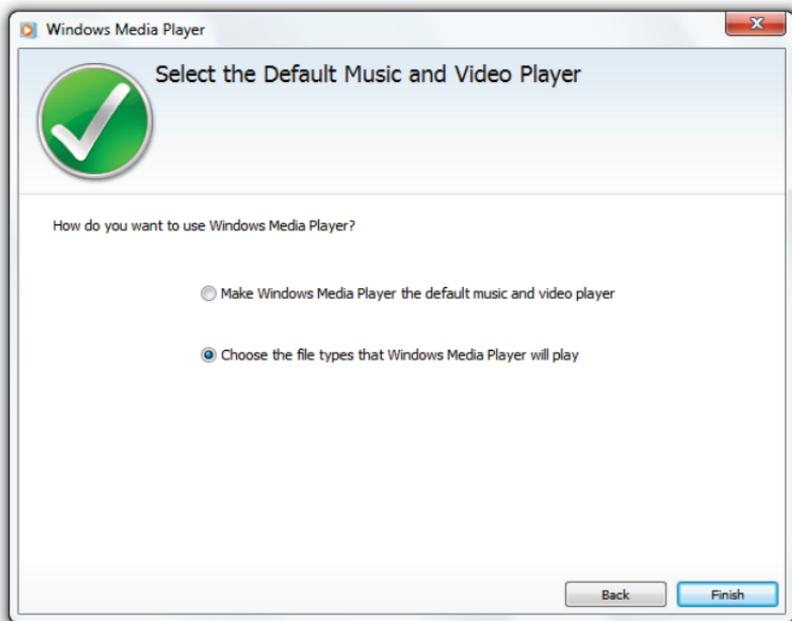
1. Click *Custom Settings* and click *Next*.



2. Adjust the privacy options accordingly. Review the screenshot, below, for my recommendations. Click *Next*.



3. Choose whether or not to make Windows Media Player your default media player. Click *Finish*.



Your privacy is now protected when viewing and listening to media.

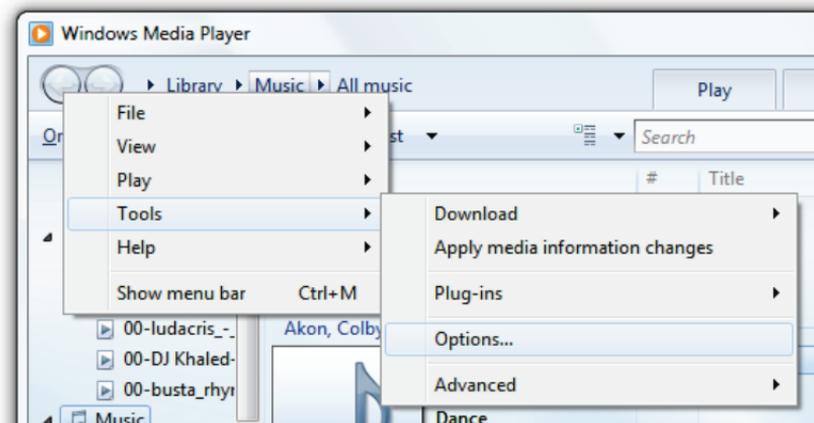
3.5.2 Configuring Privacy after WMP11 is Set Up

To configure privacy settings, after WMP11 is already set up:

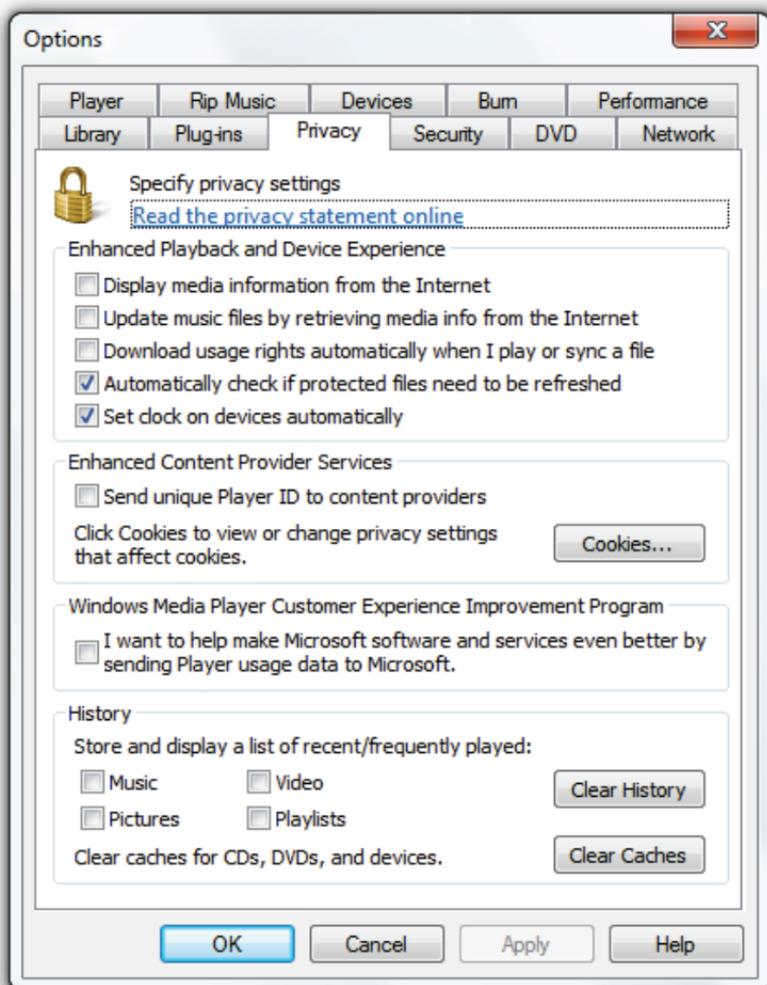
2. a. Click on the Windows Media Player icon on the Taskbar.
b. OR click the Start button, type Media, and click Windows Media Player.)



3. On the Windows Media Player screen, Press the **Alt** key, and click *Tools > Options...*



4. Under the *Privacy* tab, configure your privacy settings. Review the screenshot, below, for my recommendations. Click *OK*.



Your privacy is now protected when viewing and listening to media.

4 Windows 7's New Features

Windows 7 is packed with a whole host of new features. In this chapter, we'll take a look at some of these new features and how they can help you work more efficiently on your computer. While this is not an exhaustive break down of each feature, my hope is to both bring awareness of what Windows 7 has to offer and inspire you to make the most of what is available.

Some of these features are explained in more detail later in this book.

4.1 Libraries

Libraries are special folders, which aggregate your current media folders into one. For example: if you have three video folders (e.g., Movies, TV Shows, and Camera Videos), you can merge them into one, and have quick access to all your files at once. Public folders will also be merged into

your libraries so your whole network can have seamless access to public files. This feature is particularly useful if you have a home media server and want to access the media on the server without navigating to mapped drives.

Figure 8 shows the *Libraries* view, which gives you quick access to your documents, music, pictures, videos, and more.

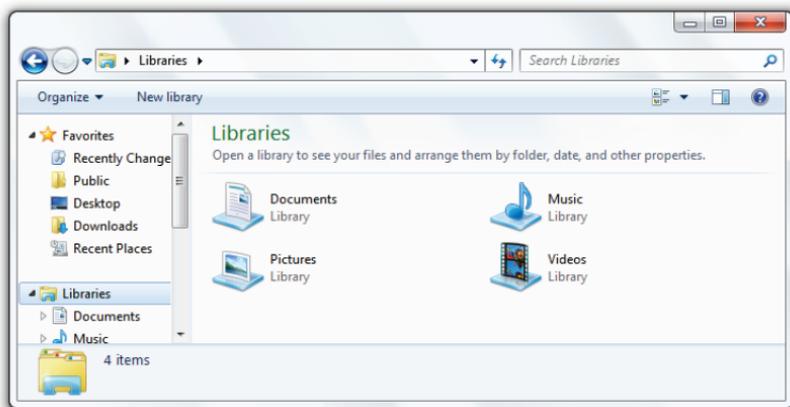
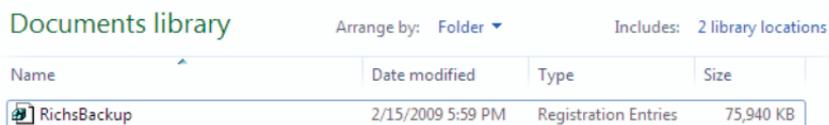


Figure 8: Windows 7's libraries

Figure 9 shows an example of a library, which contains two different folders. A library can contain many folders from different locations including network locations.



The screenshot shows the 'Documents library' window in Windows 7. At the top, it says 'Documents library' in green, 'Arrange by: Folder' with a dropdown arrow, and 'Includes: 2 library locations'. Below this is a table with four columns: 'Name', 'Date modified', 'Type', and 'Size'. The table contains one entry: 'RichsBackup' with a date of '2/15/2009 5:59 PM', a type of 'Registration Entries', and a size of '75,940 KB'. The entry is highlighted with a blue selection bar.

Name	Date modified	Type	Size
 RichsBackup	2/15/2009 5:59 PM	Registration Entries	75,940 KB

Figure 9: Libraries can contain many different folders

4.2 AeroSnap and AeroPeek

AeroSnap and AeroPeek are two features, which help you work more efficiently in Windows 7. Both features work with Aero enabled; however, AeroPeek will not work if Aero is disabled.

4.2.1 AeroSnap

AeroSnap is used to “dock” your windows to a side of the screen. If you’ve ever wanted to compare two windows side by side, this is the feature you’ve been waiting for.

Simply drag the window you are using to the left or right hand side of the screen. The window will then “snap” to that side of the screen, as shown in Figure 10. You can also drag a window to the top of the screen to maximize it.

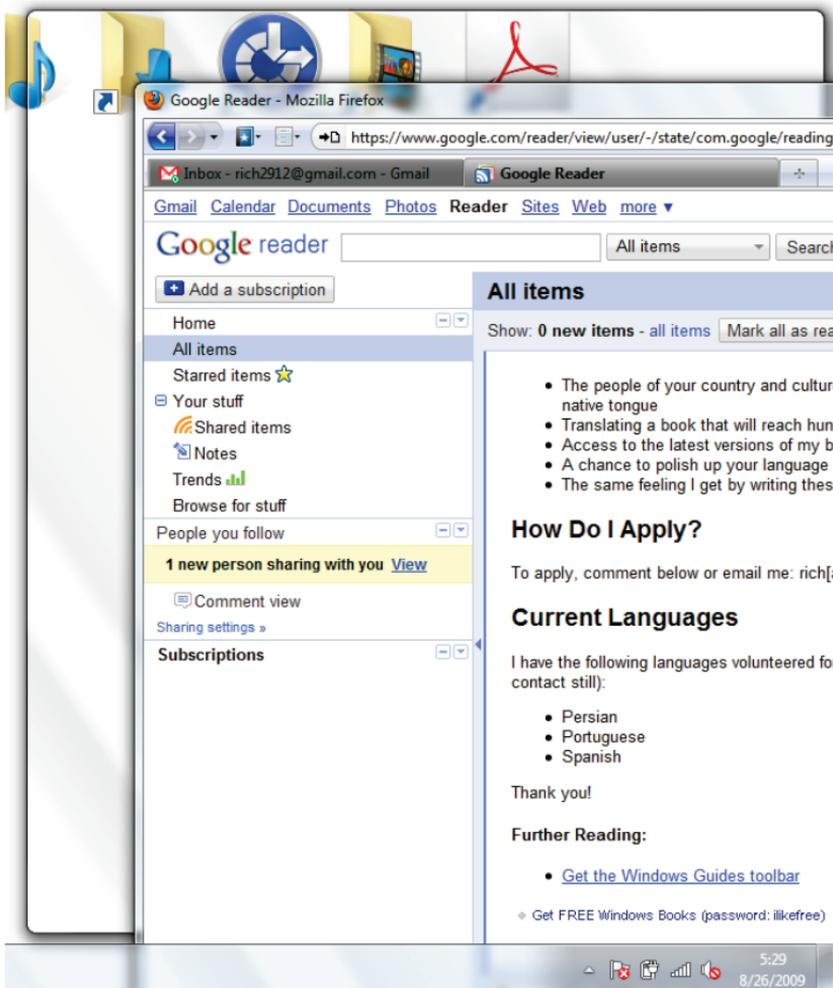


Figure 10: AeroSnap “snaps” your windows to screen edges

4.2.2 AeroPeek

AeroPeek helps you take a “peek” at your desktop by moving the cursor to the bottom, right-hand side of the screen. This feature helps you regain focus. I’ve not found this feature as useful as AeroSnap, but I am sure the idea will grow on me and I will find myself using it more often as I become more familiar with it. Figure 11 shows an example of AeroPeek in action.

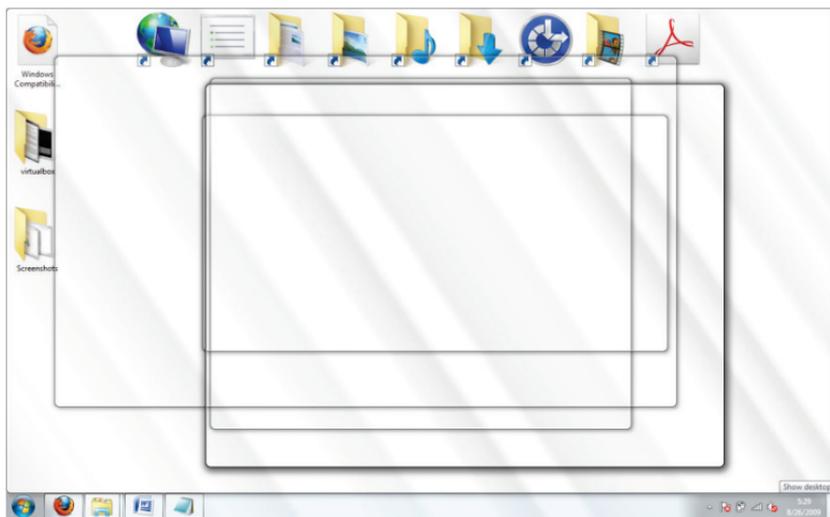


Figure 11: AeroPeek lets you “peek” at your desktop

4.3 Federated Search



Federated search is used to search beyond the scope of your PC. Based upon OpenSearch and RSS, you can search remote repositories. You can create your own connectors, which is very easy because of the standard format used by OpenSearch. Figure 12 shows the Live Search connector after installation; you can now use Live Search directly from Windows Explorer.

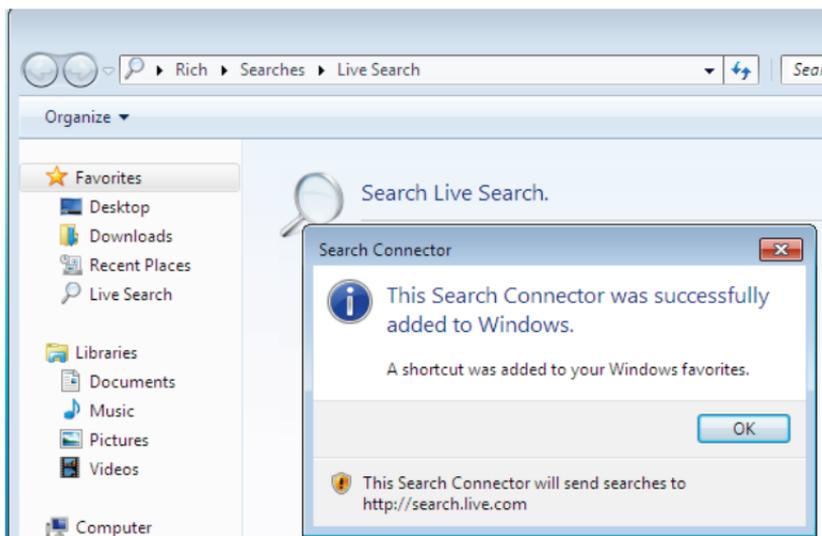


Figure 12: Use Federated Search connectors

4.4 Improvements in User Account Control

One of Windows Vista's most criticized features is User Account Control (UAC.) Things need to be simple when using your computer and UAC seemingly added a new level of complexity that rarely helped the average user. Yes, asking a user if they want to take a specific action does add a level of security; however, if the user is clicking

yes to everything, then this level of security becomes more of a stumbling block.

Microsoft listened to users and has greatly improved UAC. For example, the default user in Windows 7 (the one you set up when you installed Windows) has the setting enabled whereby self-made changes to Windows settings do not need a prompt. However, changes made by programs still need approval. Figure 13 shows the details of this setting. With this setting, only warnings are given when changes to the computer are requested by software.

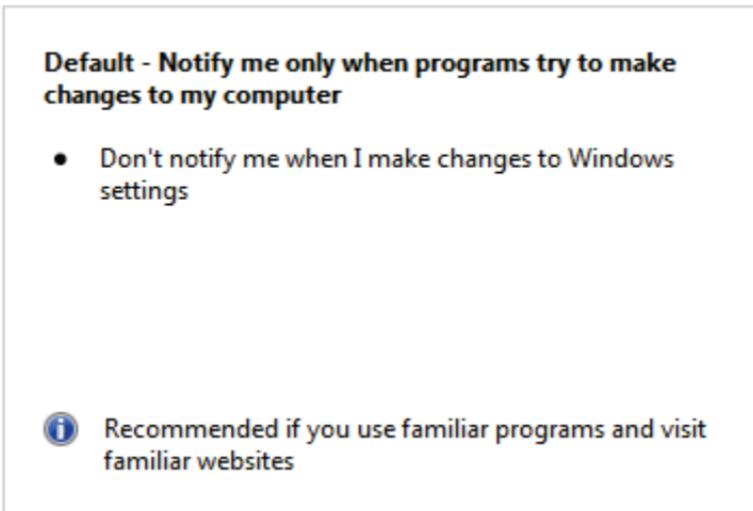


Figure 13: Default UAC Setting

To access UAC settings:

1. Click the Start button, type **UAC**, and click on *Change User Account Control Settings*.
2. Currently, there are four options are offered when deciding on the level of security set by UAC. These options are range from *Never notify* to *Always notify*.

Microsoft isn't the only one that made changes; other companies have built their software to work with UAC so there will be fewer compatibility issues as Windows 7 matures as an operating system.

4.5 BitLocker To Go and Biometric

BitLocker encrypts your drives so others cannot access them without a password. Two new and exciting features in Windows 7 are BitLocker To Go and BitLocker Biometric. The following is an explanation of both of these features:

4.5.1 BitLocker To Go

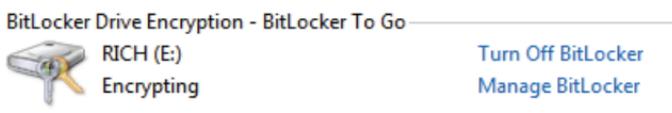
BitLocker To Go encrypts the data on your portable media. With an increasing number of key drives at our disposal, loss of sensitive data is becoming more of a threat. In this section, you'll learn how to encrypt your thumb (flash) drive with BitLocker To Go (Alternative: [Encrypt your USB Drive's Data](#)), how to verify that the data is encrypted, and how to remove encryption from your drive.

4.5.1.1 Encrypting Your Thumb Drive

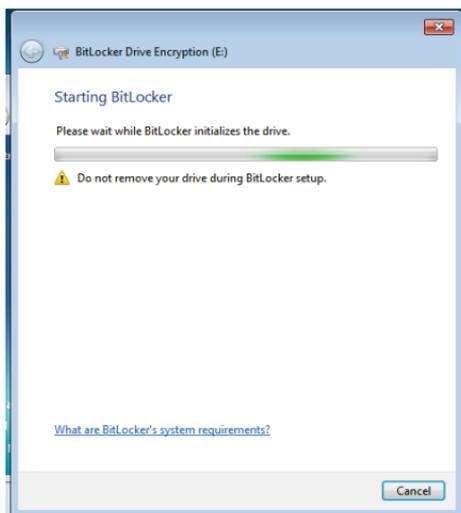
To encrypt your thumb drive:

1. Plug your thumb drive into a USB port.
2. Click the Start button, type ***BitLocker***, and click on *BitLocker Drive Encryption*.

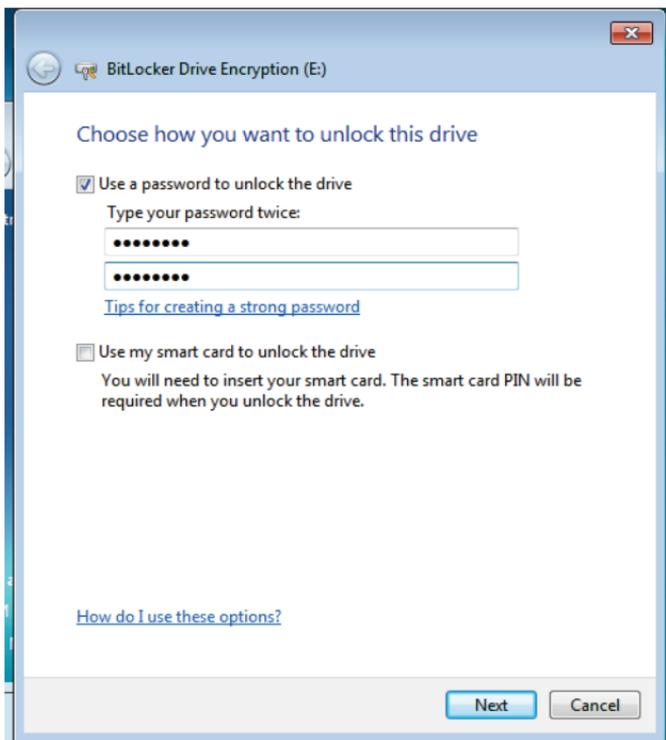
3. Next to your thumb drive icon, *click Turn on BitLocker*.



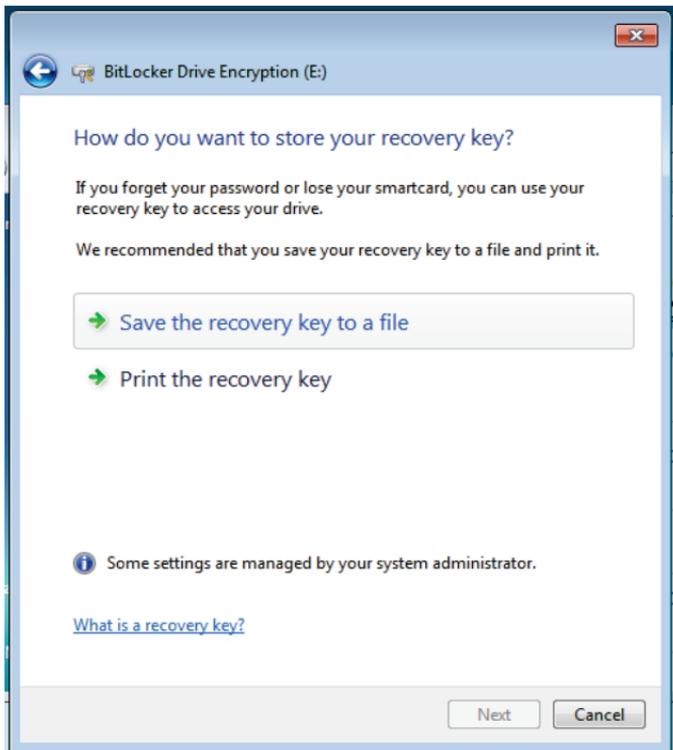
4. If your thumb drive is compatible, BitLocker will prepare it for encryption.



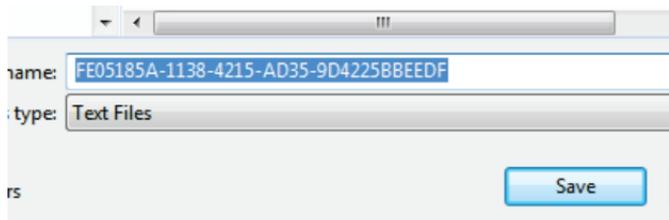
5. Choose a password and click *Continue*.



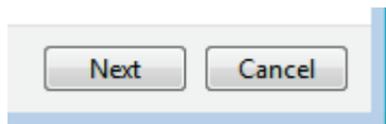
6. Either save your recovery key (used if you forget your password) or print a copy of it.



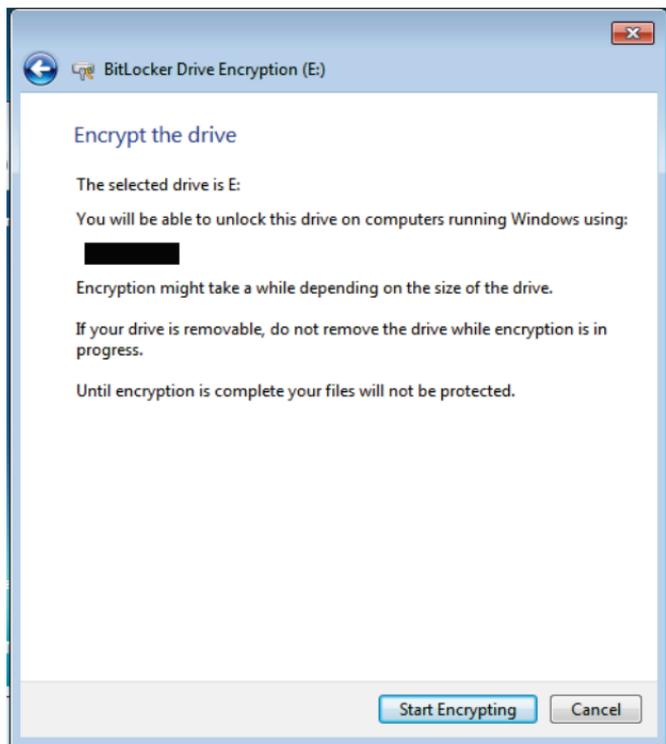
7. If you save the file, ensure the file is stored somewhere safe.



8. Click *Next*.



9. Confirm your chosen settings and password and click *Start Encrypting*.



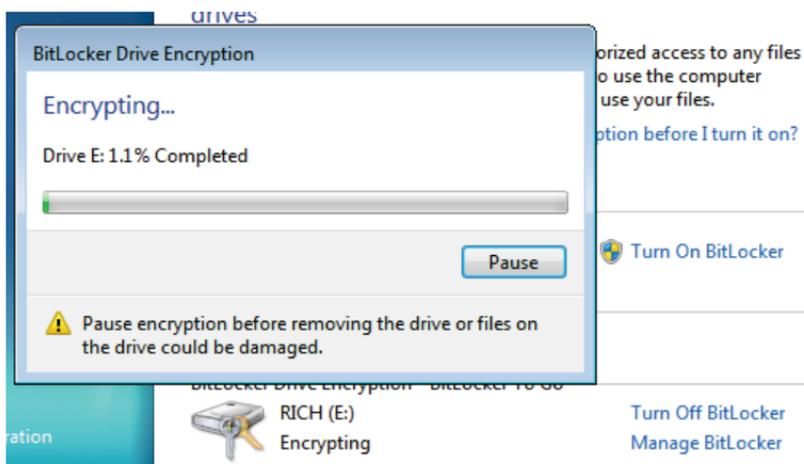
10. Your drive will now be encrypted.

Starting encryption



 Do not remove your drive until encryption begins.

If you have a large thumb drive, this can take a long time.



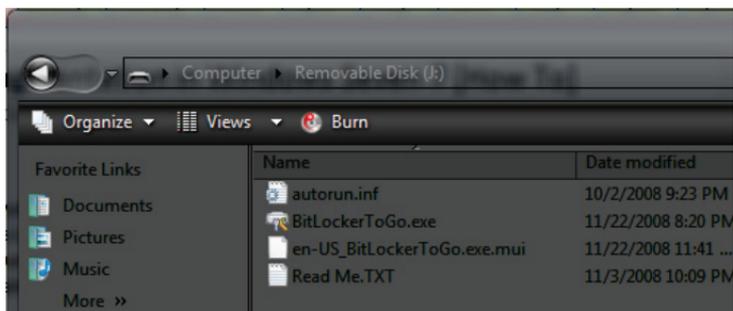
4.5.1.2 Verifying That Your Data is Encrypted

When protecting your data or anything you own, it is important to ensure the protection actually works. I took my thumb drive out of the Windows 7 machine and put it in a Vista machine. You should do the following too, to ensure your data is protected.

Please note: If you check the drive in an older version of Windows, you will need either XP SP3 or Vista SP1 (or above) to read the encrypted drive. Other operating systems will recognize the drive as an unformatted drive.

To verify that your data is protected:

1. Put your thumb drive in another PC and try to open the files. You should see a *BitLocker* setup file, which shows BitLocker is not installed on the computer you're testing on. If you have BitLocker installed on the machine, you will be prompted for a password (see the next step.)



2. If you have BitLocker installed on the PC you are testing on, you will be prompted for your password. If it's not installed, go ahead and install it.



3. Enter your password to get to your data.

4.5.1.3 Removing BitLocker Encryption

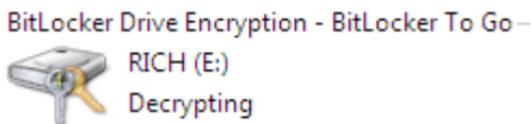
If you would like to decrypt your drive:

1. Plug your thumb drive into a USB port.
2. Click the Start button, type **BitLocker**, and click on *BitLocker Drive Encryption*.

3. Next to your thumb drive, click *Turn Off BitLocker*, and click *Decrypt Drive*.



4. You should be notified your data is decrypting (this will take some time.)



5. Your drive is no longer encrypted.

Now you are familiar with Windows 7's built-in feature, BitLocker To Go, which helps you protect your data.

4.5.2 BitLocker Biometric

BitLocker Biometric protects your computer by fingerprint credentials. If you don't have a fingerprint scanner on your laptop, I am sure, by now, you've seen someone with a laptop that has this functionality. BitLocker Biometric provides native support for logon authentication for Windows and also comes with an API software vendors can use to protect access to programs. Expect to see more and more programs using this feature. Figure 14 shows a list of biometric devices attached to your computer.

Manage biometric devices

You can use a fingerprint reader to log on to Windows. Some programs also offer features that work with biometrics.

Biometric Devices



UPEK
TouchChip Fingerprint Coprocessor ...
[Properties](#)

Enrolled

[Manage your fingerprint data](#)

Figure 14: List of Biometric devices

You can assign any finger when enrolling a biometric device as shown in Figure 15.

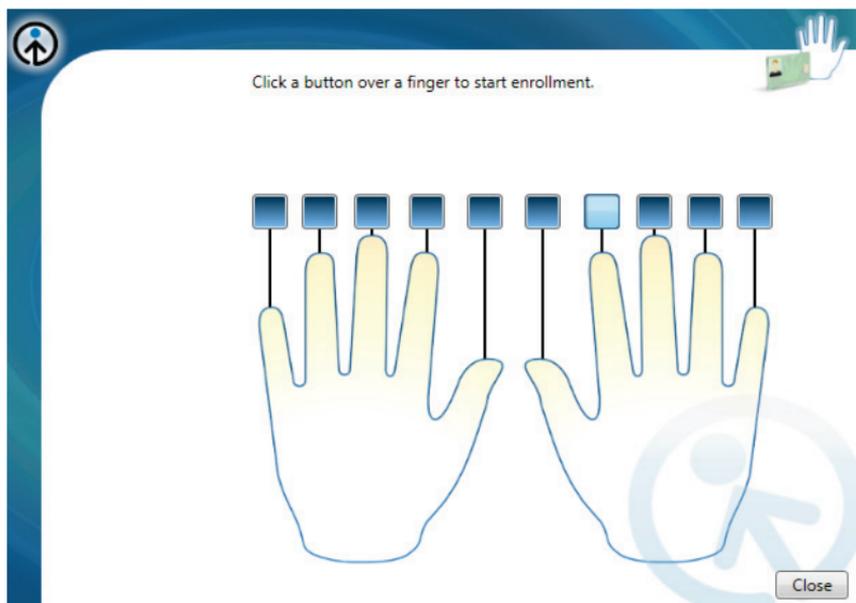


Figure 15: Assign a finger to your biometric device

BitLocker biometric looks to be an exciting feature that will become more integral to our computing habits in the near future.

4.6 The Windows HomeGroup

Setting up a home network can, at times, be complicated. In the past, Windows XP and Vista haven't done a great job

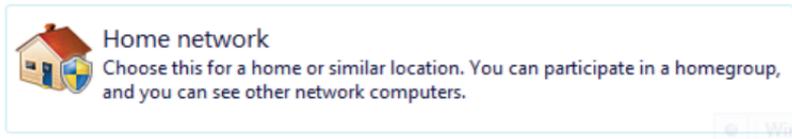
at guiding you through the setup process. As the average household has more than one computer these days (no source, but I'm just assuming this is the case), home networking is becoming more of a mainstream need. With PCs running Windows 7, a home network is easier to setup and a lot more useful. HomeGroup makes it easier to connect to other computers and devices on a wireless home network, so you can share files, photos, music, printers, and more throughout your home network. HomeGroup is strictly a feature of Windows 7, so you'll need to have at least two PCs running Windows 7. Once you've set up a HomeGroup, you can use the *Network and Sharing Center* to choose what you share with other HomeGroup members.

4.6.1 Set up Your HomeGroup

Figure 16 shows the location specification of the current network you are connected to. When you select *Home* as your network locationn (after connecting to your network), Windows will start modifying settings to enable resource sharing.

Select a location for the [redacted] network

This computer is connected to a network. Windows will automatically apply the correct network settings based on the network's location.



Connecting to your network and applying settings...



Figure 16: Selecting the location of your network

After Windows prepares your network, you will be asked to decide what you want to share on the network. Choose from Pictures, Documents, Printers, Music, and Videos (Figure 16.) When you click *Create Now*, your network will be set up with the choices you made (Figure 17.)



Figure 17: Selecting shared items for your HomeGroup

Now your HomeGroup is nearly set up. All you need is the password, which allows other computers, running Windows 7, to connect to your HomeGroup. Figure 18 shows the screen where you are given your password. You can view this password whenever you need by going to the *Network and Sharing Center*.

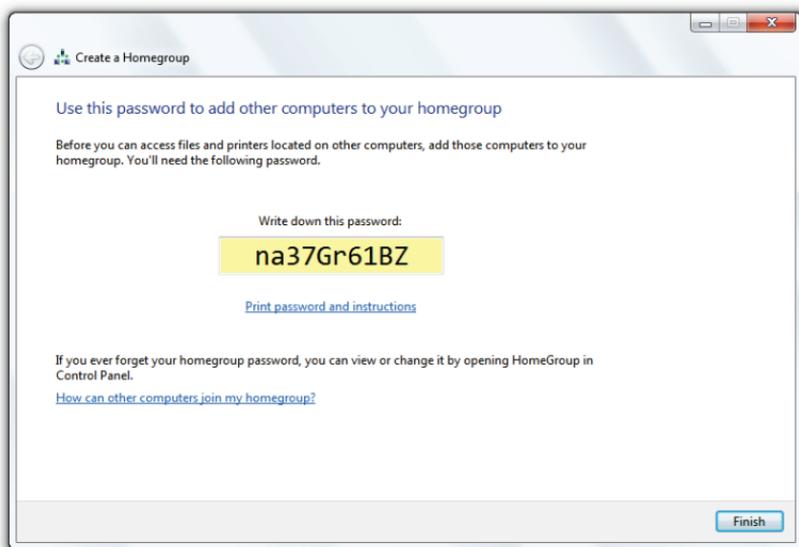


Figure 18: Your HomeGroup password

4.6.2 Joining Your HomeGroup with Another PC

Now you've set up your HomeGroup, you can join other computers to it. To join your current HomeGroup, go to your second PC and:

1. Connect to the same network (wireless or wired) on which the current Windows 7, HomeGroup-enabled PC is connected.

2. You will be prompted to join the HomeGroup. Click *Join Now*.

Do you want to join a homegroup?



██████████ has created a homegroup on your network.

A homegroup links computers on your home network so that you can share pictures, music, videos, documents, and printers. The homegroup is protected with a password, and you'll always be able to choose what you share with the group.

[Tell me more about homegroups](#)

[Change advanced sharing settings](#)



Join now

Cancel

3. Type in your HomeGroup password

Type your homegroup password

A password helps prevent unauthorized access to homegroup files and printers. You can get the password from the person who set up your homegroup.

[Where can I find the homegroup password?](#)

Type the password:

4. Now you can decide what you would like to share, from your PC, on the HomeGroup

██████████ has created a homegroup that you can join

A homegroup links computers on your home network so that you can share pictures, music, videos, documents, and printers. The homegroup is protected with a password, and you'll always be able to choose what you share with the group.

[Tell me more about homegroups](#)

Select the libraries and devices you want to share with your homegroup:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Pictures | <input type="checkbox"/> Documents |
| <input checked="" type="checkbox"/> Music | <input checked="" type="checkbox"/> Printers |
| <input checked="" type="checkbox"/> Videos | |



Join now

Cancel

5. After sharing your files, your PC is now part of the HomeGroup.

You have joined the homegroup

You can begin accessing files and printers shared by other people in the homegroup.

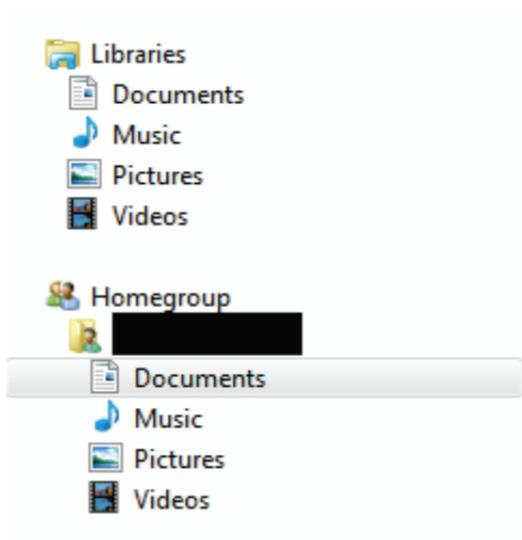
[How can I access files and printers on other computers?](#)

Finish

4.6.3 Accessing Files Shared on the HomeGroup

To access files shared on your HomeGroup:

1. Open Windows Explorer (⊞+E.)
2. In the left-hand pane, you should now see your HomeGroup files. Click on the links to access the shared data.



4.7 Device Stage

Device Stage is a new technology that helps you interact with any compatible device connected to your computer. Device Stage lets you see device status and run common tasks. This a [current list of products that take advantage of Device Stage](#).

Device stage is designed to take the pain out of adding new devices to your computer and have them working almost instantly. Many people wonder why it is so hard to recognize a device plugged into a machine. Simply put, Windows cannot interact with all these devices instantly because they all work differently; Windows needs drivers for these devices to communicate with them properly. Device stage will install drivers when you plug a new device in or go out to Windows Update to get the necessary files. I am very impressed with Device stage. I plugged in my LG TV and not only did it recognize it as such, but it changed my PC's resolution to the TV's native resolution of 1920 x 1080 without me clicking the mouse once.

Essentially, device stage should alleviate the need for bulky third-party applications that were required, in the past, to access your devices.

4.8 Action Center

Windows Action Center is an improved version of Vista's Security Center. The action center alerts you to problems with your PC and lets you know how you can resolve them. Notifications are delivered through the notification area (Figure 19.)

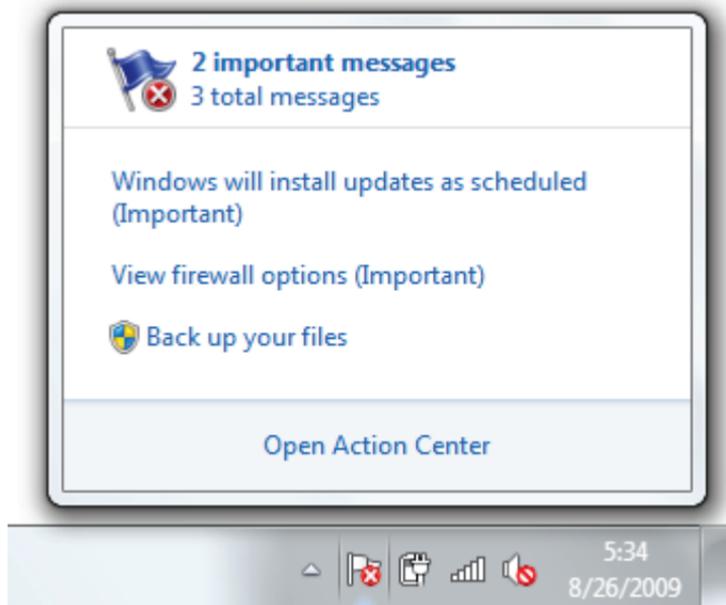


Figure 19: Action Center notifications

Figure 20 shows the action center, which gives you alerts about virus protection settings, Windows update, and more.

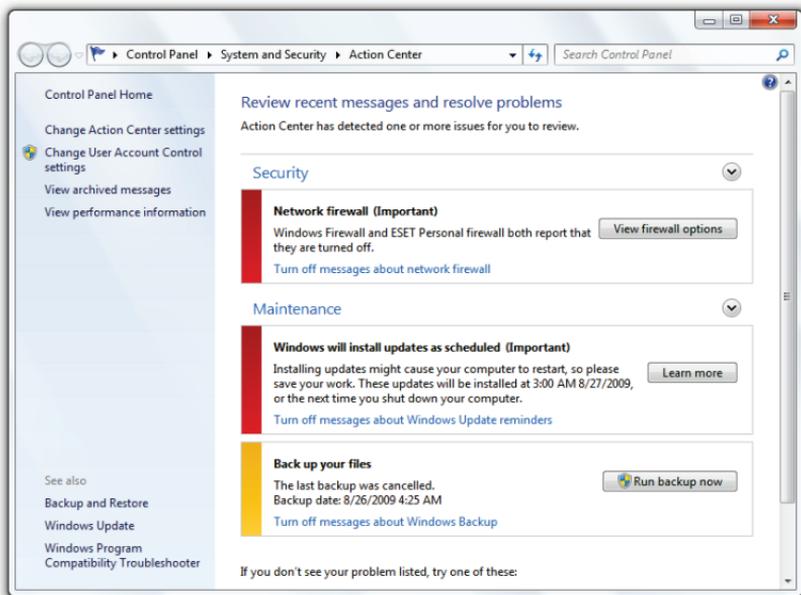


Figure 20: The Windows Action Center

The Action Center deals with both security and maintenance.

4.8.1 Action Center – Security

The security section of the Action Center deals with [anti-virus software](#) and [spyware protection](#), [firewall settings](#), [UAC](#), and more. This is your one-stop solution to ensuring

your computer is secure. Figure 21 shows the settings that are monitored.

Network firewall	On
 Windows Firewall is actively protecting your computer.	
Windows Update	Not automatic
Windows Update is set to check with you before downloading and installing updates.	
Virus protection	Not found
Windows did not find antivirus software on this computer.	
Spyware and unwanted software protection	On
 Windows Defender is actively protecting your computer.	
Internet security settings	OK
All Internet security settings are set to their recommended levels.	
User Account Control	On
UAC will notify when programs try to make changes to the computer. Adjust UAC settings	
Network Access Protection	Off
Network Access Protection Agent service is not running What is Network Access Protection?	

Figure 21: Action Center – Security alerts

4.8.2 Action Center – Maintenance

In a similar fashion to the [security section](#), the Action Center also ensures your computer is maintained and

deals with backup, updates, and more. Figure 22 shows the areas the Maintenance section is responsible for.

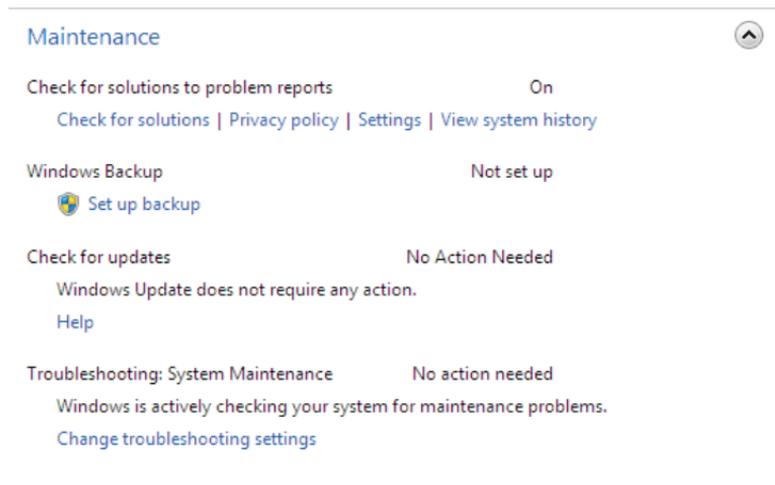


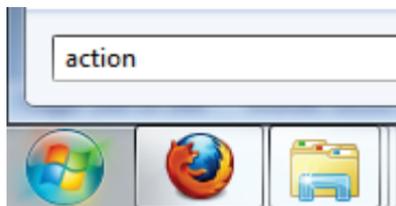
Figure 22: Action Center – Maintenance alerts

4.8.3 Action Center – Troubleshooting

One great feature bundled with the Action Center is troubleshooting. If you are having problems with your computer, open the troubleshooting component and Windows will run tests to determine why the problem exists and how it can be fixed.

To test the troubleshooter, I decided to let Windows find out why I cannot run Aero in a [virtual environment](#). To troubleshoot a problem:

1. Click the Start button, type *action*, and click on *Action Center*.

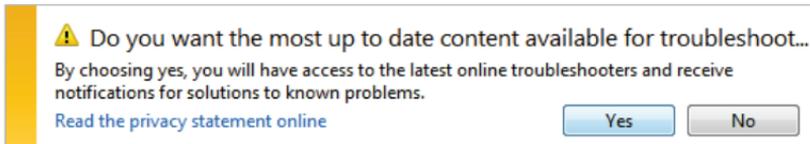


2. Scroll down and click on *Troubleshooting*.



[Troubleshooting](#)
Find and fix problems

3. Click *Yes* if you would like to get the latest troubleshooting updates.



4. Locate the issue you are having (in this case:
Display Aero desktop effects.)

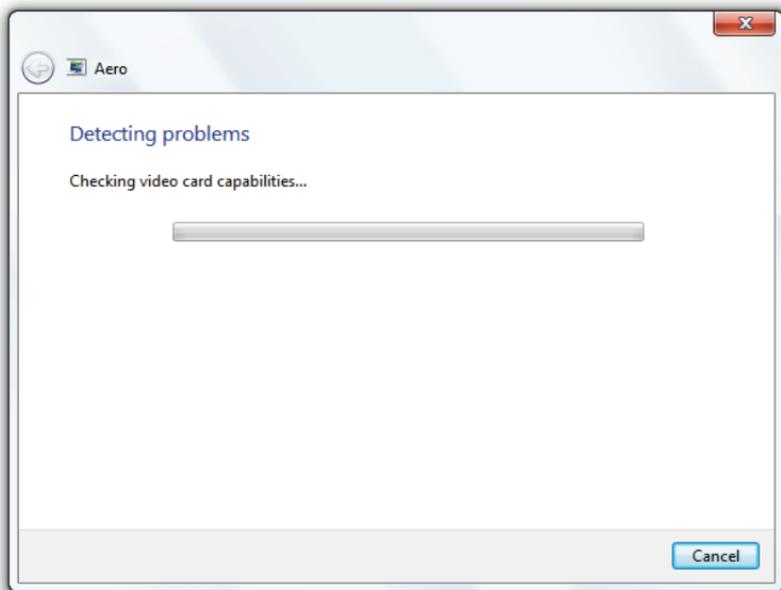


Appearance and Personalization

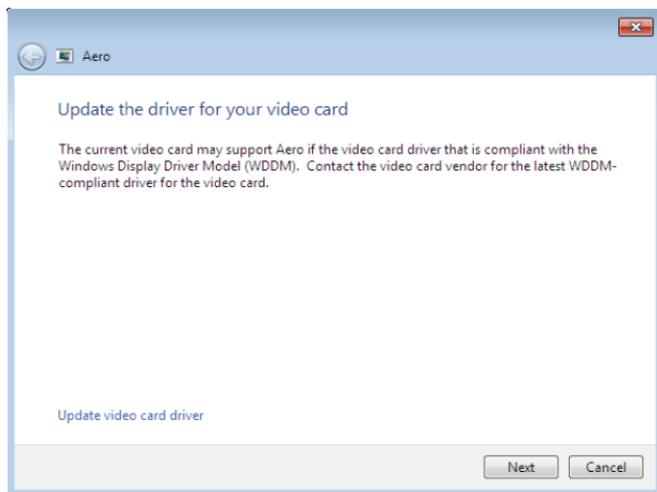


Display Aero desktop effects

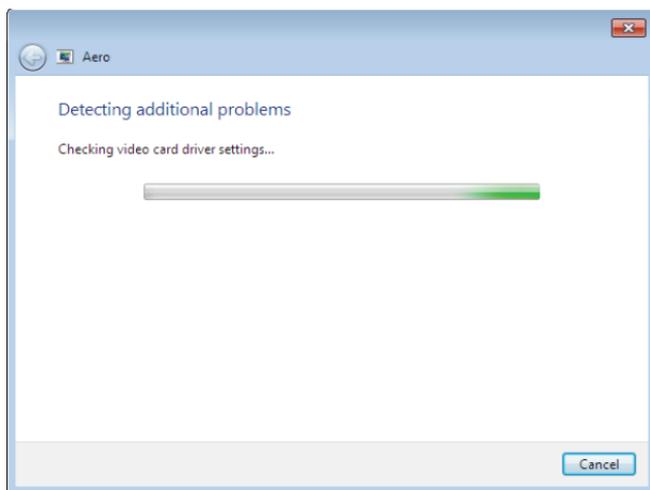
5. Windows will now determine why you are having the problem.



6. In this case, Windows determined I need to update my drivers.

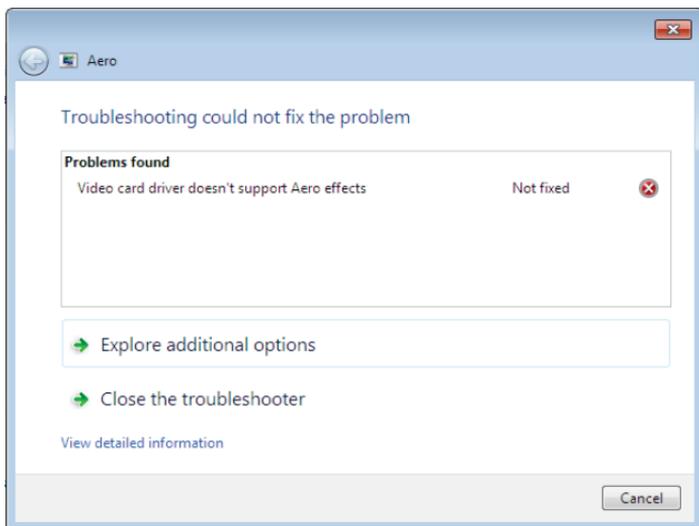


7. Windows may continue to detect problems.



8. Windows has found the exact problem: my graphics card (a generic VMware card) is not compatible with

Aero.



The Action Center is great and a move in the right direction. Computers will never completely fix themselves, but letting you know what the problem is helps greatly.

4.9 Internet Explorer 8

Internet Explorer 8 is Microsoft's latest web browser, which comes packed with many new features. Below is an explanation of how to get IE8 up and running and a breakdown of some of the best features.

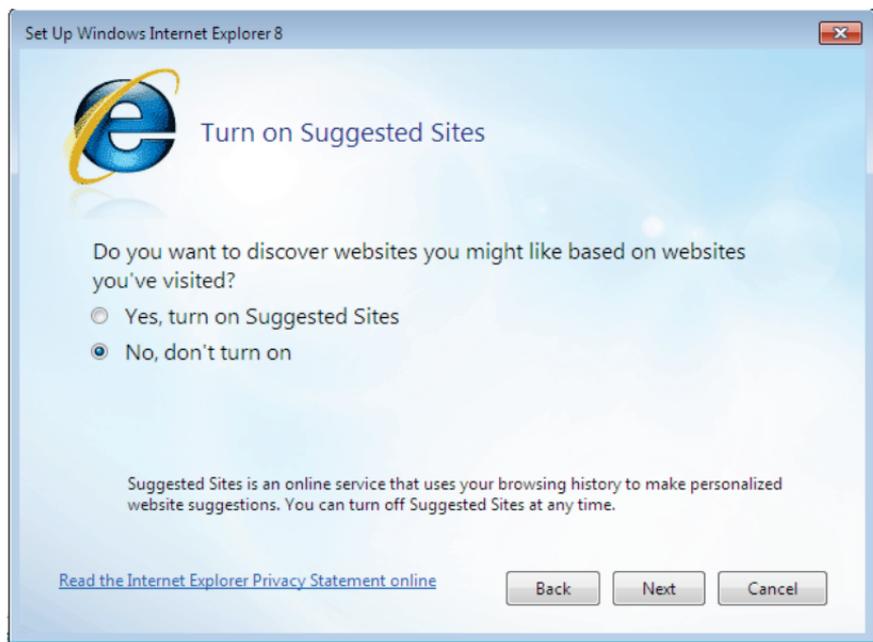
4.9.1 Configuring IE8 for the First Time

When you first launch IE8, you are presented with some questions. I've put together a simple step by step and explanation of the initial setup:

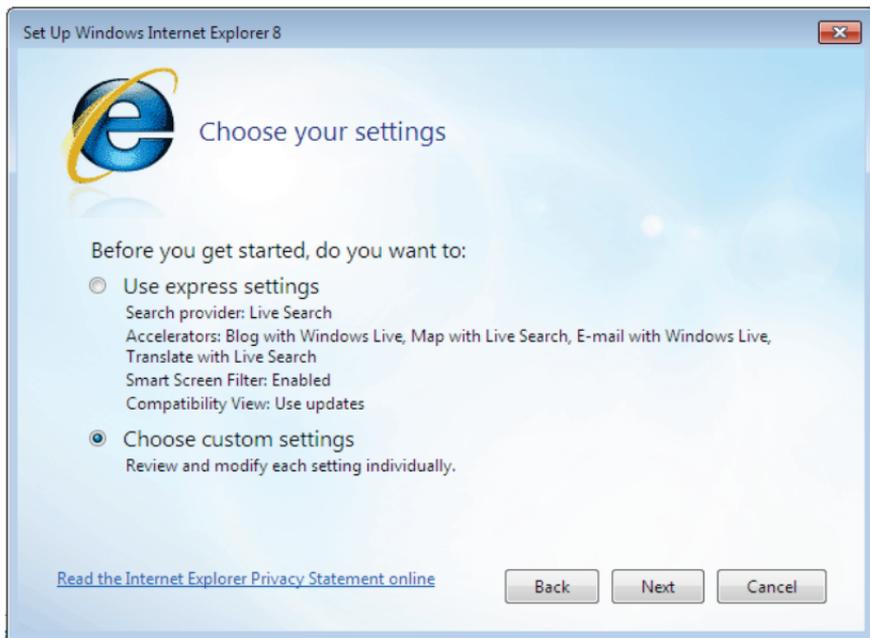
1. Click on the IE8 icon on the Taskbar.
2. You will see the initial setup screen. Click *Next*.



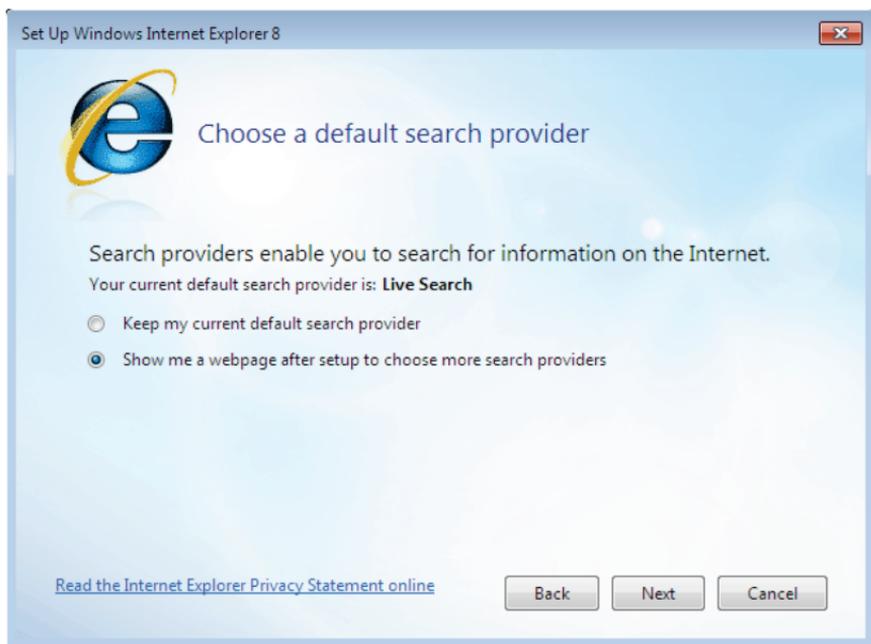
3. Choose whether you want suggested sites or not.



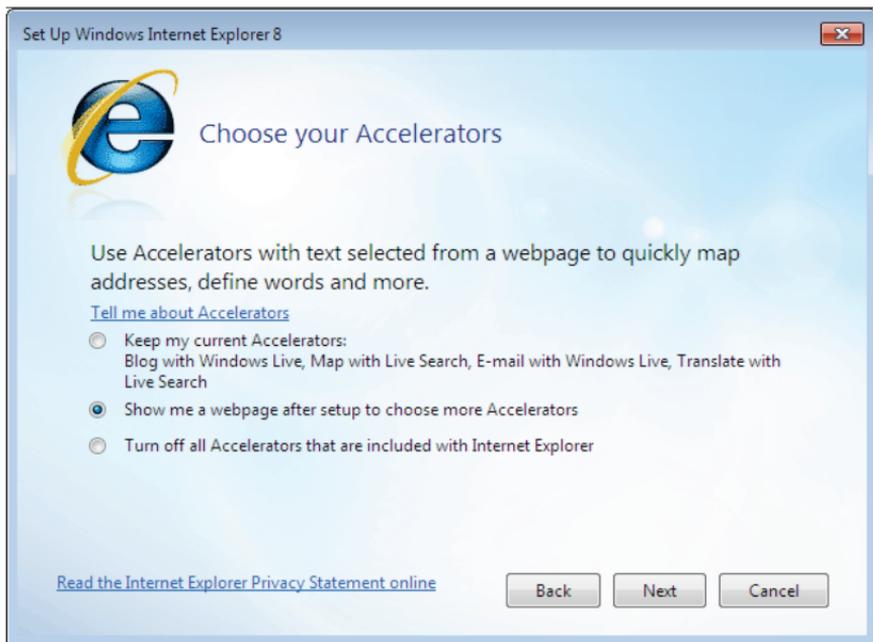
4. I recommend choosing *Custom Settings*.



5. If you want a custom provider, *click Show me a webpage after setup to choose more search providers.*



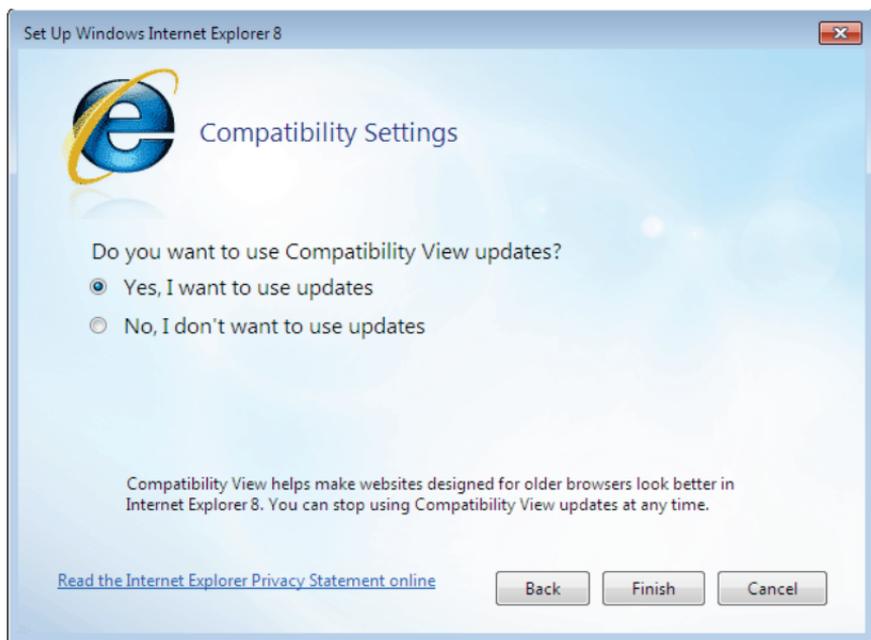
6. If you want to set up more accelerators, *click Show me a webpage after setup to choose more Accelerators.*



7. *Smart Screen Filter* helps protect you from malicious websites.



8. You can choose to use compatibility updates. These updates make websites, designed for older browsers, look better.

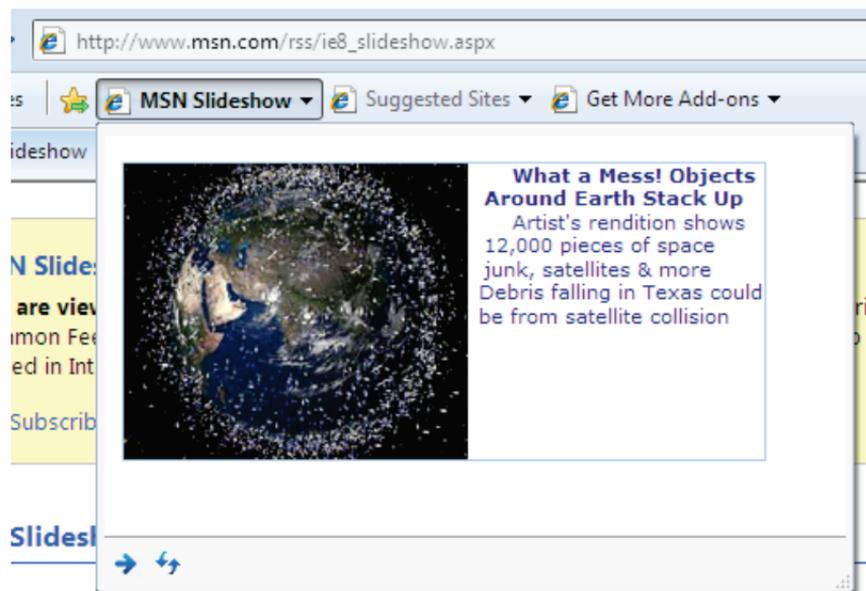


9. Click Finish and you are ready to go.

4.9.2 Web Slices

Web slices are used to save 'snippets' of your favorite web pages and show you just the parts you want to see. These can be really useful when you follow some websites that are updated frequently. See the [selection of Web Slices here](#).

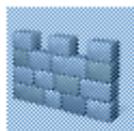
An example of a Webslice: MSN News Slideshow:



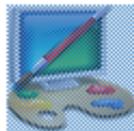
4.9.3 Accelerators

Accelerators help you perform common tasks, such as online search and mapping, with ease. [Download accelerators here](#) and install the ones you want to use.

Then, when you are browsing, simply highlight some text and click the accelerator arrow to perform a task.



Stop Windows Defender Running in



- Blog with Windows Live
- E-mail with Windows Live
- Map with Live Search
- Search with Live Search
- Translate with Live Search
- All Accelerators ▶

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Adding new accelerators is easy; click the accelerator you want and click *Add*.



4.9.4 Quick Tabs

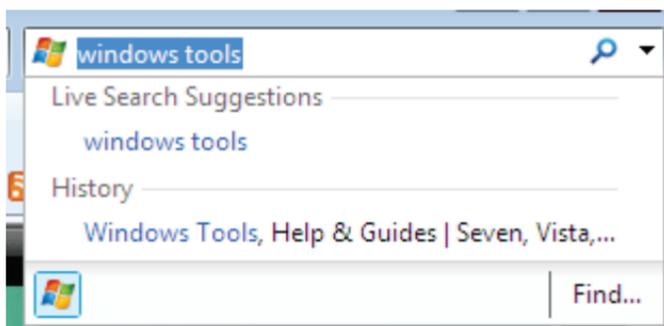
Quick tabs show you all currently open tabs at a glance to help you select the page you need.



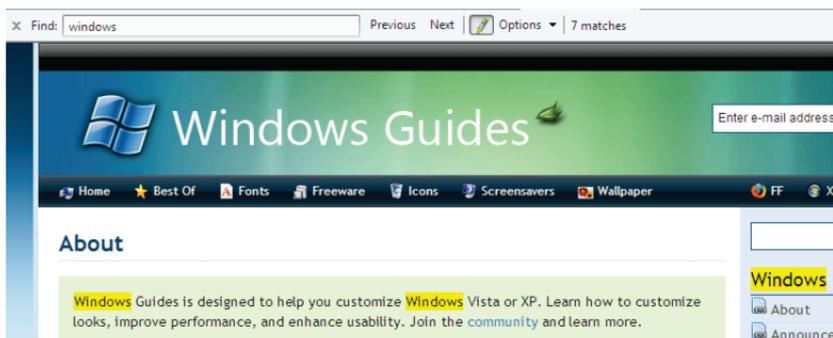
4.9.5 Improved Search

Search has been greatly improved, with smart suggestions and even inline search (absence of a pop-up search window)—a feature I’ve taken for granted in Firefox.

Enter your query in the search bar and receive customized results and suggestions depending on the current search engine in use.



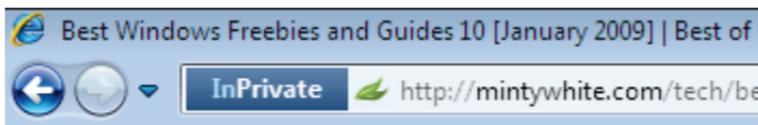
Inline search helps you find the key phrases you are looking for, without the hassle of a pop-up search box.



4.9.6 InPrivate Browsing

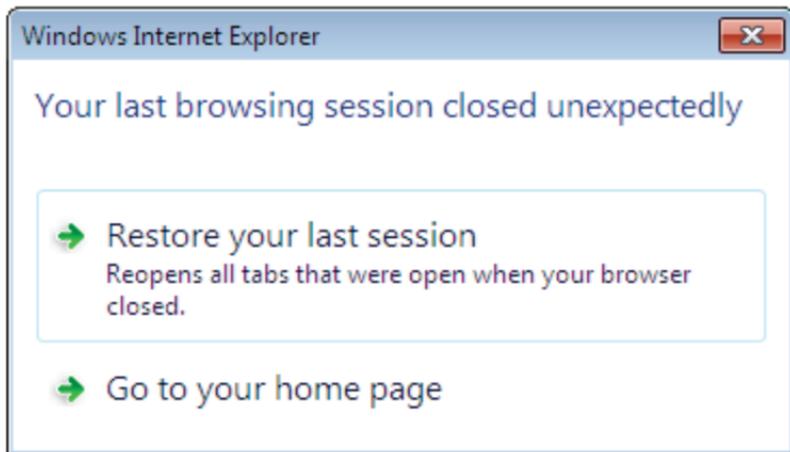
InPrivate Browsing helps prevent Internet Explorer from storing data about your browsing session. This includes cookies, temporary Internet files, history, and other data.

Toolbars and extensions are disabled by default.



4.9.7 Automatic Crash Recovery

If IE8 crashes while you are using it, you won't lose your current tabs; IE8 recovers your browsing session automatically.

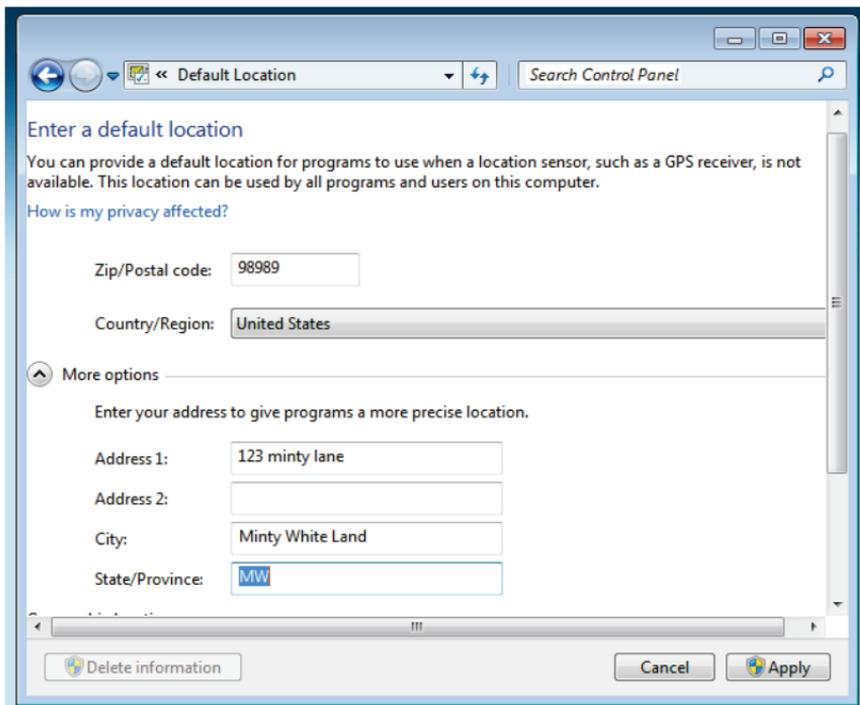


4.10 Geographic Location

Many programs in Windows 7, such as Firefox, will utilize your geographic location. This location will be used in a variety of ways including letting people know where you are when you send emails and take pictures, etc.

To set your default geographic location:

1. Click the Start button, type *loc*, and click on *Default Location*.
2. From this screen, you can set your default location settings.



The screenshot shows the Windows 7 Control Panel window titled "Enter a default location". The window has a search bar at the top right with the text "Search Control Panel". Below the title bar, there is a navigation breadcrumb "Default Location" and a refresh icon. The main content area contains the following text and form fields:

Enter a default location

You can provide a default location for programs to use when a location sensor, such as a GPS receiver, is not available. This location can be used by all programs and users on this computer.

[How is my privacy affected?](#)

Zip/Postal code:

Country/Region:

More options

Enter your address to give programs a more precise location.

Address 1:

Address 2:

City:

State/Province:

At the bottom of the window, there are three buttons: "Delete information" (with a trash icon), "Cancel", and "Apply" (with a checkmark icon).

3. When you are done, click Apply.

Now you are ready for maximum utilization as more location-aware programs and services are released.

4.11 Conclusion

Windows 7 has some excellent new features. Yes, there are even more new features than I previously listed in this chapter; however, I feel ones I've covered are the most exciting and useful.

Windows 7 is Microsoft's best operating system to date; I am in no doubt about this statement. The future is bright.

Appendix A: Version History

Version	Date	Revisions
0.1	14 Feb '09	First edition prepared
0.1.1	28 Feb '09	Grammatical changes
0.1.2	24 March '09	Finalized "RC1" Edition for preview by readers
0.1.3	25 March '09	Fixed some consistency issues
0.1.4	30 June '09	Updated for Windows 7 RC Consistency
0.2	17 July '09	Major rework of book: New guides, formatting, grammatical changes, style changes etc.
0.2.1	24 August '09	<ul style="list-style-type: none">• Updated book for consistency with Windows 7 RTM• Added more guides• Added appendicies• New cover page

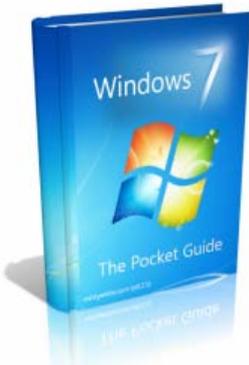
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To get the full FREE (seriously, no cost – I just want you to check out my Windows Guides site) version of this book, please head here:

<http://mintywhite.com/tech/books/>



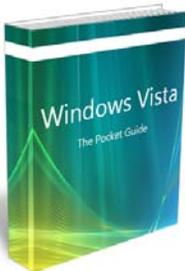
Windows 7

The Pocket Guide



Windows Vista

Customization Manual



Windows Vista

The Pocket Guide