

Windows® 7 Step by Step

by Joan Preppernau and Joyce Cox

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Windows 7 Step by Step

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1 Explore Windows 7

Excerpted from *Windows 7 Step by Step* (ISBN 978-0-7356-2667-6)
by Joan Preppernau and Joyce Cox

In this chapter, you will learn to

- ✓ Log on to Windows 7.
- ✓ Explore the Windows desktop.
- ✓ Use the Start menu.
- ✓ Use the Windows Taskbar.
- ✓ Explore Windows 7 programs.
- ✓ Explore Control Panel.
- ✓ Find information about your computer system.
- ✓ Update Windows system files.
- ✓ End a computing session.

Whether you have purchased a new computer with the Windows 7 operating system already installed on it or upgraded your computer's operating system from an earlier version of Windows, this chapter will help you quickly become familiar with the Windows 7 user interface and the tools you will use to interact with your computer's operating system.

Each time you turn on your computer, it goes through a startup process during which it loads the system files necessary for you to interact with your computer and for your computer to interact with other devices. After the startup process is complete, you log on to Windows 7 by providing identification information that uniquely identifies you to Windows 7. After you log on, Windows 7 presents a working environment individually

tailored to your preferences. The process might sound somewhat complicated, but in actual practice, it is quite simple.

When you first set up your computer, or if it's been a while since you used it, it is a very good idea to check for and install any updates released by Microsoft to keep your system running smoothly. You can configure Windows 7 to update itself whenever updates are available (provided the computer is turned on). By setting up automatic updating, you can be sure that your computer system always includes the most current features and security tools.

When you finish working with your computer, you can either shut down the computer entirely or leave it in running in various ways. For example, you can log off from Windows 7, lock the computer, or put the computer into Sleep mode to conserve resources.

In this chapter, you'll learn the basic skills needed to work on a Windows 7 computer and to complete the exercises in this book. You'll learn about logging on to and off from Windows 7 and explore the tools you'll frequently use to give commands to the computer. You'll practice using these tools to locate your computer's hardware and operating system specifications, and then ensure that your installation of Windows 7 is absolutely up to date.

Practice Makes Perfect! You won't need any practice files to complete the exercises in this chapter. See "Using the Practice Files" at the beginning of this book for information about practice files.

Before working through the exercises in this book, Windows 7 must already be installed on your computer and you must know your user account name and password (if your user account requires one).

Logging On to Windows 7

The process of starting a computing session is called *logging on*. After you turn on the computer and it goes through its startup processes, the Windows 7 Welcome screen appears. The appearance of the screen and the exact process to log on to Windows depends on whether more than one user account has been created on your computer, and whether your account is protected by a password.

- If there is only one account, and it is not protected by a password, the Welcome screen displays your user account name and picture. You click the picture to log on to Windows.
- If there is only one account, and it is protected by a password, the Welcome screen displays your user account name and picture and a password box. You enter your password and then press Enter or click the Go button to log on to Windows.
- If there are multiple accounts, the Welcome screen displays the user account names and pictures for all the active user account. You click your user account picture and, if your account is password protected, enter your password to log on to Windows.

Tip When you assign a password to a user account, you can specify a password hint. Then if you enter your user account password incorrectly, Windows displays the password hint to help you correct your error.

Resetting Your Windows Password

When you protect your Windows 7 user account by assigning a password to it, you have the option of creating a password hint. Windows 7 displays the password hint if you enter an incorrect password. If you didn't save a password hint, or if you can't remember the password even with the help of the hint, you can reset your password—but only if you have created a password reset disk. You can create this disk on either a USB flash drive or a floppy disk, but not on a CD.

Don't think you will ever lose or forget your password? It might sound unlikely, but it can happen, especially in an environment that requires you to change your password on a regular basis. Creating a password reset disk is a simple precaution that might save you a lot of grief.

To create a password reset disk:

1. Connect a USB flash drive, or insert a disk into your computer's floppy disk drive.
2. In **Control Panel**, click **User Accounts and Family Safety**, and then click **User Accounts**. Then in the **Tasks** list, click **Create a password reset disk**.

or

In the **Start** menu **Search** box, type **reset password**, and then, in the search results list, click **Create a password reset disk**.

The Forgotten Password wizard starts.

3. On the **Welcome** page, click **Next**.
4. On the **Create a Password Reset Disk** page, select the USB flash drive or floppy disk drive you want to use, and then click **Next**.
5. On the **Current User Account Password** page, enter the password you use to log on to Windows 7, and then click **Next**.
6. When the progress bar displays *100% complete*, click **Next**. Then on the **Completing the Forgotten Password Wizard** page, click **Finish**.

To reset your password by using a password reset disk:

1. On the Windows 7 **Welcome** screen, enter a blank password into the password box, and then press **Enter** or click the **Go** button.
Windows informs you that the user account name or password is incorrect.
2. Click **OK** to return to the **Welcome** screen, and then click the **Reset password** link that appears below the password box.

The Password Reset wizard starts.

3. On the **Welcome** page, click **Next**.
4. On the **Insert the Password Reset Disk** page, select the USB flash drive or floppy disk drive you want to use. Insert the password reset disk into the drive, and then click **Next**.
5. On the **Reset the User Account Password** page, enter a new password and password hint, and then click **Next**.
6. On the **Completing the Forgotten Password Wizard** page, click **Finish**.

Be sure to store the password reset disk in a safe place, because anyone can use it to reset your password and gain access to your computer.

After you log on, Windows 7 loads your user profile and then displays your working environment. Known as the *desktop*, this environment reflects settings you make to personalize Windows. The first time you log on to a computer, Windows also sets up a file structure specific to your user account, which might take a few extra seconds.

See Also If you are new to computing, refer to the topic “Information for New Computer Users” in the “Introducing Windows 7” section at the beginning of this book for an explanation of basic terminology you will encounter throughout this book.

So what exactly are user accounts and how might they affect you? Your computer might be used by only you, or it might be used by several people. If more than one person uses the same computer, each person should log on with his or her own user account. By using separate accounts, each person can set up the Windows 7 environment to look and work the way he or she wants it, without interfering with another person’s computing experience. Each user account is associated with a user profile that describes the way the computer environment looks and operates (the user interface) for that particular user. This information includes simple things such as the color scheme and fonts used in windows and dialog boxes, the desktop background, and program shortcuts, as well as personal information that you want to keep confidential, such as saved passwords and your Internet browsing history. Each user profile includes a personal folder not accessible by other people using the computer, in which you can store documents, pictures, media, and other files you want to keep private.

See Also For information about making files accessible to other computer users, see “Sharing Files by Using Public Folders” in Chapter 14, “Local and Remote Resources.”

Tip In the high-tech world, people who use computers are referred to collectively as computer users, or simply users. Although we use that rather impersonal term throughout this book, we are well aware that users are people too!

Each user account is designated as either an administrator account or a standard user account. The first user account created on a computer is automatically an administrator account—every computer must have at least one—so if you are the first or only person using the computer, you are probably operating as an administrator.

Important If a malicious person or program infiltrates your computer while you're logged on as an administrator, your computer has a much higher risk of serious damage to its system than if you're logged on as a standard user. Through an administrator account, the person or program has access to all system files and settings, whereas a standard user doesn't have access to certain functions that can permanently damage the system. For this reason, it is recommended that you create a standard user account and log on with that account for everyday use. Then if you try to do something that requires administrator permission, Windows 7 prompts you to enter administrator credentials that are valid for only that operation. If you don't know the administrator credentials, you can't perform the operation, effectively preventing outsiders from making changes you haven't authorized.

Exploring the Windows Desktop

Windows 7 presents its tools, commands, and structure through a graphical user interface (GUI). Graphical user interfaces include the following types of components:

- **Desktop** The basic display area against which you can manipulate icons representing programs, folders, and files.
- **Icon** A visual representation of a program, folder, file, or other object or function.
- **Pointing device** A device such as a mouse that controls a pointer with which you can select objects displayed on the screen.
- **Window** A frame, usually resizable, within which the computer runs a program or displays a folder or file.
- **Menu** A list from which you can give an instruction by clicking a command.
- **Dialog box** A fixed-size window in which you refine instructions by typing information or selecting from the available options.

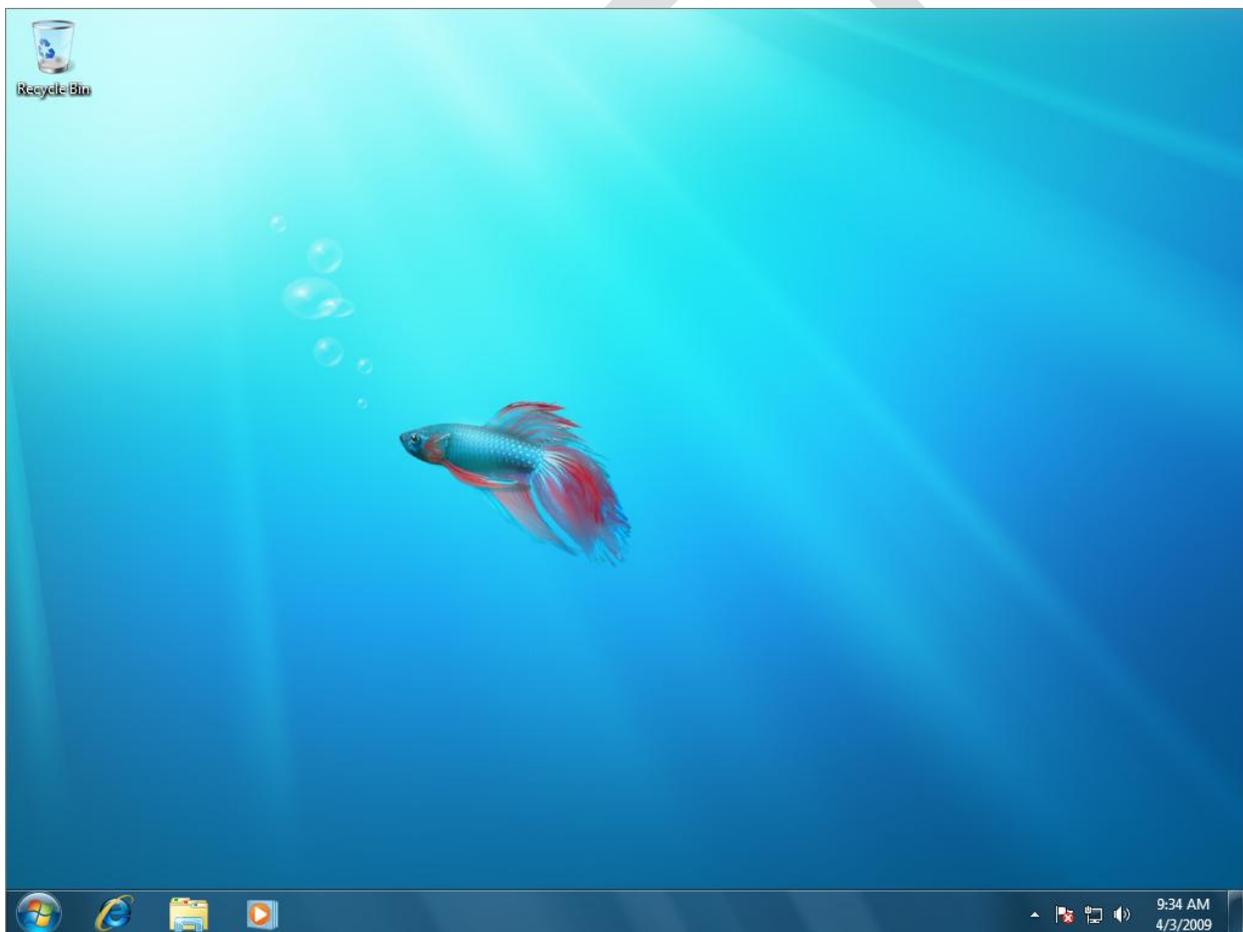
See Also For information about how to work with windows and dialog boxes, refer to the topic [“Information for New Computer Users”](#) in the [“Introducing Windows 7”](#) section at the beginning of this book.

The desktop background you see when you log on to Windows for the first time might be one of the photographic backgrounds that comes with Windows 7 or, if you purchased your computer with Windows 7 already installed, the original equipment manufacturer (OEM) might have specified a brand-specific desktop background. The

default Windows 7 desktop background depicts a fish underwater, with the sun's rays shining down through the surface of the water above. In either case, you can change the background to one of the many beautiful photographs or artistic renderings that come with Windows 7, to a solid-colored background, or to one of your own photos or graphics. With any background other than a solid color, you can have the background switch to a different image as often as every 10 seconds.

Tip Most of the graphics in this book were captured against a plain white desktop background so as to not detract from the screen element we're showing you.

See Also For more information about desktop background options, see "Changing the Desktop Background" in Chapter 3, "Visual Appearance."



A typical Windows 7 desktop, with the default background.

Depending on your Windows 7 settings and the programs installed on your computer, you might have one or more icons on your desktop. Windows 7 assigns an icon to every item you see on your computer to make it easier to identify files, storage locations, and programs. The icon might represent a file type (such as a document, a text file, or a database) or storage component (such as a folder, hard disk drive, or CD drive); or it might indicate the default program for opening a file. This visual representation can make it easier to find a file or program you're looking for. When an icon represents a link, or shortcut, to an item stored somewhere else, an arrow appears in its lower-left corner.

Below each icon on the desktop is the name of the item it represents. If the name is too long to fit onto two lines, it is truncated by an ellipsis (...) when not selected and displayed in full when you click it. When you point to an icon, a ScreenTip containing identifying information appears. Pointing to a program shortcut, for example, displays the location of the file that starts the program. Pointing to a file displays the file name, type, size, and modification date. You can start a program, open a folder or file, or jump to a network location or Web site by double-clicking the associated icon or shortcut.

One of the icons Windows places on the desktop is a link to the *Recycle Bin*, which is where Windows temporarily stores files you delete. When the Recycle Bin is empty, the icon depicts an empty trash can; after you delete items (and until you empty the Recycle Bin), the icon depicts pieces of paper in the trash can. You can recover deleted files from the Recycle Bin, or you can empty the Recycle Bin and permanently delete the files to free up space on your hard disk.

See Also For information about managing the Recycle Bin, see “Deleting and Recovering Folders and Files” in Chapter 4, “Folder and File Management.”

When you purchase a new computer, the OEM might have installed programs—either trial or full versions—on it. So that you know that these programs are available, the OEM might have placed shortcuts to them on the desktop, along with links to “offers” (advertisements) for products and services you can purchase. It's not unusual to purchase a new computer and find 20 shortcuts already on its desktop the first time you start it up.

Another way icons might appear on your desktop is if you save or move files or folders there. For example, if you download a program or other file from the Internet that you will need to use only once, you might save it on your desktop so that you can quickly find it, use it, and then delete it. When you install a program on your computer, you often have the option of creating a shortcut to it on the desktop. (Some installation programs automatically create a desktop shortcut, but others give you the courtesy of choice.) If you created desktop shortcuts in a previous version of Windows, your existing desktop shortcuts are still available after you upgrade to Windows 7.

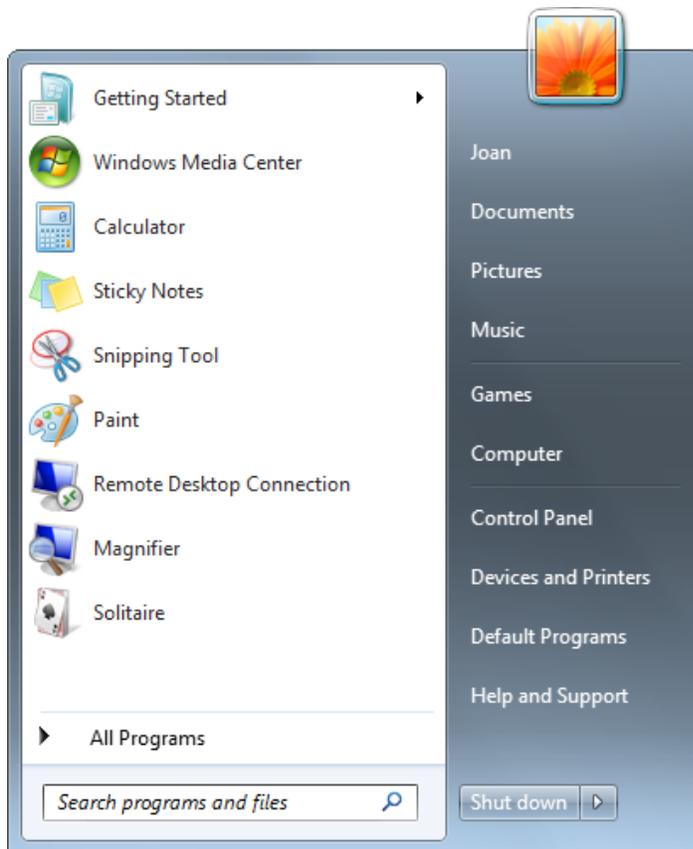
Tip You can create your own shortcuts to programs, to specific folders or files, to other computers, or to Web sites, on the desktop or in any other folder.

See Also For information about creating your own shortcuts to folders and files, see [Chapter 4, “Folder and File Management.”](#)

Tip You can delete an item from the desktop as you would from any folder. When you delete a shortcut, however, you aren't actually deleting the linked program, folder, or file—only the link to that item.

Using the Start Menu

The Start menu is your central link to your computer's programs, management tools, and file storage structure. You open the Start menu by clicking the Start button at the left end of the Windows Taskbar, or by pressing the Windows logo key found to the left of the Spacebar on most keyboards. The Windows 7 Start menu looks similar to earlier versions and features the vertical folder expansion introduced in Windows Vista.



The Windows 7 Start menu.

See Also For information about customizing the Start menu, see "Modifying the Start Menu" in Chapter 7, "System Settings and Behavior."

Exploring the Left Pane of the Start Menu

The left pane of the Start menu provides efficient access to programs and other items installed on your computer.

Pinned Items Area

You can quickly access specific programs, folders, or files by inserting links to them in the pinned items area at the top of the left side of the Start menu. This area is not visible until the first time you pin an item to it.

See Also For information about pinning and unpinning Start menu links, see "Modifying the Start Menu" in Chapter 7, "System Settings and Behavior."

Recently Opened Programs List

The recently opened programs list displays links to the last 10 programs you started. You can adjust that number, or remove the list entirely.

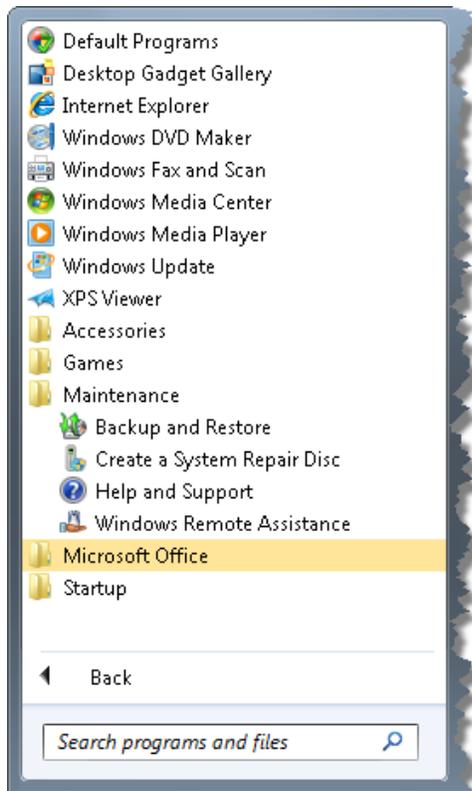
The first time you log on to Windows 7, the list displays links to some of the new and improved programs that come with Windows 7, including Windows Media Center, Sticky Notes, the Desktop Gadget Gallery, the Calculator, the Math Input Panel, and Paint. The programs that appear here might vary depending on the edition of Windows 7 running on your computer and any programs installed by the OEM.

See Also For information about the different editions of Windows 7 and how they are addressed in this book, see "Introducing Windows 7" at the beginning of this book.

All Programs Menu

The All Programs menu provides access to most of the programs and utilities installed on your computer. These include programs installed as part of Windows 7, programs installed by the OEM, and programs you have installed. (Most program setup utilities add a link to the program to the Start menu.)

You display the All Programs menu by pointing to or clicking *All Programs* at the bottom of the left pane of the Start menu. Some programs are available from the menu itself, and some are grouped in folders. Clicking a folder expands it to make its programs accessible. Newly installed programs or folders are highlighted to make them easy to find. If you want to close the All Programs menu without starting a program, you can point to or click Back to return to the standard Start menu.



The All Programs menu.

The Windows 7 programs and utilities that are not available from the root of the All Programs menu are grouped in these folders:

- **Accessories** This folder includes links to the following programs and utilities: Calculator, Command Prompt, Connect to a Network Projector, Getting Started, Math Input Panel, Notepad, Paint, Remote Desktop Connection, Run, Snipping Tool, Sound Recorder, Sticky Notes, Sync Center, Windows Explorer, and WordPad. Also included are the *Ease of Access*, *System Tools*, *Tablet PC*, and *Windows PowerShell* subfolders.

On a desktop PC, the *Tablet PC* folder is a subfolder of the *Accessories* folder, and contains links to the Math Input Panel, the Tablet PC Input Panel, and Windows Journal.

On a tablet PC:

- The *Tablet PC* folder is on the All Programs menu, and contains the Pen Flicks Training and Personalized Handwriting Recognition tools.
- The *Accessories* folder contains the link to the Math Input Panel and to an additional tool—Windows Mobility Center.
- The Windows Journal link is directly on the All Programs menu rather than in a subfolder.
- The Tablet PC Input Panel is available as a toolbar from the Windows Taskbar shortcut menu.
- **Administrative Tools** This folder includes links to the following system management tools: Component Services, Computer Management, Data Sources, Event Viewer, iSCSI Initiator, Local Security Policy, Performance Monitor, Print Management, Services, System Configuration, Task Scheduler, Windows Firewall with Advanced Security, and Windows Memory Diagnostic.
- **Extras and Upgrades** This folder, which might not be available in some editions of Windows 7, includes links to online resources where you can download additional features as they are made available.
- **Games** This folder includes links to the games that come preinstalled with Windows 7, to the Games Explorer window, and to the Game Providers page of the Microsoft Web site, from which you can download additional games.
- **Maintenance** This folder contains links to the following preventive maintenance tools: Backup and Restore, Create a System Repair Disc, Help and Support, and Windows Remote Assistance.
- **Startup** This folder contains links to programs that you want to start automatically with Windows 7.

We'll explore most of these programs and utilities in this book.

Jump Lists

In earlier versions of Windows, a right-pointing arrow next to a link or menu item indicated that additional options for that entry were available. This functionality has been expanded in Windows 7 to create a very useful feature of the Start menu called *jump lists*.

On the Windows 7 Start menu, pointing to (not clicking) a right-pointing arrow associated with an item in the recently opened programs list or the pinned programs area might display a jump list of files recently opened with that program, of related tasks, or of common actions you can perform within that program. For example, pointing to WordPad in the recently opened programs list displays a list of the WordPad documents you've recently been working with.

Start Menu Search Box

In the lower-left corner of the Start menu, you'll find one of the greatest treasures of Windows 7—the Start menu Search box. This feature made our Top 3 Favorite Features list when it was introduced in Windows Vista, and it's still right up there—the time savings it provides are just amazing.

The first thing to note about Start menu Search is that it's immediately available regardless of what you're currently doing on your computer. Simply click the Start button—or press the Windows logo key if your keyboard has one—and the Start menu expands with the insertion point already active in the Search box. Then type any characters in the Search box, and Windows immediately displays a list of programs, Control Panel items, documents, music, videos, and e-mail messages containing that string of characters, grouped by category. As you type more characters, Windows refines the search results almost instantly.

You can open any item that appears in the search results by clicking it, or you can open the folder containing that item by right-clicking the item and then clicking Open File Location. To view more information about the search results, click See More Results to open the Search Results In Indexed Locations window. This window displays the file type icon (or for certain types of graphics, a thumbnail of the actual graphic), name, location, date, and size of each item in the search results. For documents and HTML files, the first

150 or so characters of the file's content are displayed. The search results remain available in the Search Results In Indexed Locations window until you close it.

See Also For more information about Start menu Search, see the sidebar “Different Ways of Opening Control Panel Items” later in this chapter. For information about efficient search techniques, see “Finding Specific Information” in Chapter 3, “Window and Folder Navigation.”

Exploring the Right Pane of the Start Menu

The right pane of the Start menu is divided into three sections whose contents can vary depending on the Start menu properties you specify. The possible options are as follows:

- The top section displays your user account picture and name and links to your personal folders. These can include the *Documents*, *Pictures*, *Music*, and *Recorded TV* folders associated with your user account.
- The middle section can display links to games installed with Windows 7, to your Internet Explorer Favorites menu, to a list of the 15 files you have most recently worked with, to a window that displays the contents of your computer, and to a window that displays the computers, programs, folders, and files you can access on your network.
- The bottom section can display links to existing network connections, to the Control Panel window from which you can access all the Windows 7 system settings, to the default settings for opening various types of files and media, to the Devices And Printers window, and to the Windows Help And Support center.

At the bottom of the right pane of the Start menu, the Power button and Shut-down Options menu provide options for ending your computing session.

See Also For more information about the Windows 7 shut-down options, see “Ending a Computing Session” later in this chapter.

Using the Windows Taskbar

The taskbar that appears, by default, across the bottom of your screen is your link to current information about what is happening on your Windows 7 computer. In Windows 7, the taskbar functionality has been significantly upgraded. The default taskbar is twice the height that it was in previous versions of Windows, so you can more clearly see its contents. The Start button still appears at the left end of the taskbar, and the clock and date still appear toward the right end. However, what appears between them has undergone a transformation. Larger icons, improved grouping, grouped thumbnail window previews with built-in controls (using a technology called *Aero Peek*), and control over the location of taskbar items all contribute to the increased usefulness of this feature.

See Also For information about changing the size of the taskbar and the taskbar buttons, see “Modifying the Taskbar” in Chapter 7, “System Settings and Behavior.”

Tip The Quick Launch toolbar that was available on the taskbar in previous versions of Windows is, by default, not displayed in Windows 7 because you can now pin programs directly to the taskbar. If you miss this feature, you can display the Quick Launch toolbar by adding the *Microsoft\Internet Explorer\Quick Launch* folder located in your personal Roaming profile to the taskbar.

For information about adding toolbars to the Windows Taskbar, see “Modifying the Taskbar” in Chapter 7, “System Settings and Behavior.”

Taskbar Buttons

In addition to the Start button, buttons for starting Internet Explorer, Windows Explorer, and Windows Media Player are pinned to the left end of the Windows Taskbar by default. In addition to these pinned buttons, almost any action, such as starting a program or opening a file, dialog box, or Control Panel window, adds a corresponding, temporary button to the taskbar. These new, larger buttons are identified by their program icons. When multiple files or windows of the same type are open, they are stacked under one taskbar button.

Tip Windows Explorer windows stack under the pinned Windows Explorer button, and Web pages stack under the pinned Internet Explorer button.



The default Windows 7 taskbar.

See Also For information about pinning and unpinning taskbar buttons, see “[Modifying the Taskbar](#)” in [Chapter 7, “System Settings and Behavior.”](#)

The maximum number of buttons that can fit on the taskbar varies depending on your monitor and display settings. When you exceed the maximum, Windows displays a scroll bar so that you can display hidden buttons.

The number of taskbar buttons you can fit on each row of the Windows 7 taskbar varies depending on your screen resolution and whether you are displaying the standard large icons or have switched to small icons. The following table provides examples of the taskbar capacity:

Screen resolution	Large icons	Small icons
800×600	10	15
1024×768	15	22
1280×1024	20	29
1600×1200	26	39

Pointing to a taskbar button displays large thumbnails of each open window of that type. The currently active window is indicated by a blue background. You can switch to a window by clicking its thumbnail. Pointing to a thumbnail temporarily displays that window and makes all other windows transparent, so you see only the selected window and the desktop. (If the window was minimized, it appears in its most recent location.) Pointing to a thumbnail also causes a Close button to appear in its upper-right corner, so you can close the window without making it active.



Large, grouped thumbnails make it easier to manage multiple open windows.

Tip You can use keyboard shortcuts to minimize, maximize, close, and switch between windows. For more information, see “Keyboard Shortcuts” in the Quick Reference section at the beginning of this book.

Right-clicking a taskbar button displays a shortcut menu of related files and commands. The list varies depending on the type of item the taskbar button represents. For example:

- Right-clicking the Internet Explorer taskbar button displays your Internet Explorer browsing history so that you can access a recently visited Web site directly from the taskbar.
- Right-clicking the Windows Explorer taskbar button displays a list of windows you frequently open.
- Right-clicking the Windows Media Player button displays a list of tasks related to the media that is currently accessible on your computer.
- Right-clicking a running program’s taskbar button displays a list of files recently opened with that program, and gives you the options of pinning that program to the taskbar and closing all the open program windows.

The shortcut menu for every taskbar button includes links to start the associated program and to remove the button from the taskbar.

Tip You can rearrange buttons on the taskbar by dragging them.

Notification Area

The notification area at the right end of the taskbar displays information about the status of programs, including those running in the background (programs you don't need to interact with), as well as links to certain system commands. Some notification icons and system icons are hidden by default, and you can choose to hide others that you don't actively want to monitor.



The notification area displays information and links concerning programs and your computer system.

See Also For information about displaying and hiding icons, see the sidebar “System Icons and Notification Area Icons” in Chapter 7, “System Settings and Behavior.”

The Show Desktop button appears at the far right end of the taskbar. (If you've used previous versions of Windows, you'll notice that the button appearance has changed significantly.) Clicking the Show Desktop button minimizes all currently open windows so that you can access your desktop icons and shortcuts. (Pointing to the button makes all the open windows transparent so that you can see the desktop.) Clicking the button again redisplay the open windows.

Exploring Windows 7 Programs

Each release of Windows has brought with it new and improved features, tools, and a variety of programs. Windows 7 includes many programs, some familiar and some new, but if you're an experienced Windows user, you might also notice that several programs available in previous versions of Windows are missing. Microsoft has removed some of the less operating system–centric programs from Windows. (But don't worry, all the games are still here!)

Absent Programs

Specific programs that were available in earlier versions of Windows and are not in Windows 7 include:

- Windows Live Messenger (formerly Windows Messenger)
- Windows Mail (formerly Microsoft Outlook Express)
- Windows Contacts
- Windows Calendar
- Windows Meeting Space

Some of the programs that are no longer part of Windows are among those you can download, free of charge, from the Windows Live Web site located at *home.live.com*.

See Also For more information about the programs and services available through Windows Live, see “Exploring Windows Live Programs and Services” in Chapter 5, “Programs.”

Windows Essentials

A fresh installation of Windows 7 includes many programs through which you can manage your Windows computing experience, create things, or communicate. The programs that you are most likely to use are:

- Windows Internet Explorer 8 The latest version of Internet Explorer introduces many new features, some of which were borrowed from other popular Web browsers. Internet Explorer still holds the lead in worldwide browser usage, but the popularity of Firefox seems to have encouraged Microsoft to reach higher. The winners in this competition are Internet Explorer users, who can now enjoy an expanded feature set as well as seamless interaction between their Web browser and common information-management programs, such as Microsoft Office Word, Microsoft Office OneNote, Windows Live Mail, and Windows Live Writer.

See Also For information about using and managing Internet Explorer 8, see Chapter 6, “Internet Access.”

- Desktop Gadget Gallery This new feature replaces the Windows Sidebar introduced with Windows Vista. From the Desktop Gadget Gallery, you can place gadgets that display a variety of information directly onto your desktop. You can move the gadgets to any location on the desktop, and tailor the information each gadget displays to suit your needs—you can even have multiple instances of one gadget, each displaying different aspects of the same type of information.



You can display the current weather in your home town and in your favorite vacation spots.

See Also For information about managing desktop gadgets, see “Using and Modifying Desktop Gadgets” in Chapter 5, “Programs.”

- Windows Update This essential tool monitors the Microsoft Update site and alerts you to updates available for your operating system, for programs installed on your computer, and for device drivers that interact with the devices connected to your computer.

See Also For step by step Windows Update instructions, see “Updating Windows System Files” later in this chapter.

Media Management

Digital media is now available to the average consumer in somewhat overwhelming quantities. Many devices are available for recording, playing, and processing still photos, video and audio clips, and streaming media.

- **Windows Media Center** Originally, Microsoft offered a separate Media Center edition of the Windows operating system for people who wanted to run a dedicated in-home media server, but now Media Center is built right into Windows 7 so that anyone with the interest and know-how can take advantage of it. Using Media Center, you can view movies, recorded television programs, and photo slideshows on your computer screen just as you would by hooking a playback device to your television. If your computer has an internal or external TV tuner, you can stream network television directly from your television service provider to your computer and record your favorite shows. And many televisions available now have built-in computer input ports, so you can play audio and video through that nice new 50-inch flat-screen TV. You can listen to live radio programs, music from your personal music library, and music from online sources, all on one machine (and watch a slideshow of your vacation photos at the same time). This is not nearly as difficult as it might sound, and with the rapidly dropping price of computers featuring 500 gigabytes (GB) or more of storage space, you can take the opportunity to store all your music and digital media in one place and then enjoy it with ease.
- **Windows Media Player** A simpler option for playing recorded music and videos from your personal library, including content that you access or purchase online.
- **Windows DVD Maker** A simple means by which you can create professional-looking DVDs of your photos, videos, and music, complete with chapters, titles, and special effects. This is a great way to preserve baby photos and videos and share them with family and friends.

Communication Tools

Windows 7 comes with two free word-processing programs and a simple graphics program, as well as several other programs with which you can convey information.

- Notepad You can use this simple text editor to edit unformatted documents or HTML files.
- WordPad This more sophisticated word-processing program supports rich text formatting and character and paragraph styles.
- Paint You can use this simple graphics program to produce drawings in a variety of graphics formats (including .bmp, .gif, .jpg, .png, and .tif) and to save screen images captured by using the Print Screen utility.

Tip WordPad and Paint have been updated with a Windows Ribbon command interface similar to the Microsoft Office Fluent Ribbon introduced with many of the Office 2007 programs.

- Windows Journal This electronic note-taking program resembles a simplified version of Microsoft Office OneNote, which is distributed with Office 2007 Home and Student Edition and is also available as a freestanding program. Using Journal, you can record handwritten and typed notes and import existing notes and pictures from other files.
- Windows Fax and Scan Using this program, you can send and receive faxes through an analog phone line and a modem, or through a fax server. Received faxes appear in your Inbox in the Windows Fax And Scan window and can be viewed in much the same way as an e-mail message in an e-mail program. If a scanner is connected to your computer, you can also use Windows Fax And Scan to scan text documents and graphics to your computer as digital files that you can then send as faxes or e-mail message attachments. Most modern scanners are plug-and-play devices that you can simply plug into an appropriate port on your computer.

Games

For those who enjoy the distraction of simple computer games, Windows 7 comes with many preinstalled games: Chess Titans, FreeCell, Hearts, Internet Backgammon, Internet Checkers, Internet Spades, Mahjong Titans, Minesweeper, Purble Place, Solitaire, and Spider Solitaire. There's also a link for downloading more games from Microsoft.

Utilities

Finally, we get to the fun stuff, the handy little tools that you might find yourself using quite frequently. These programs and many others are available from the *Accessories* folder of the All Programs menu.

- **Calculator** An essential program for many Windows users—it's always at your fingertips when you need it! In Windows 7, the Calculator has been transformed into a multidimensional tool that can meet a variety of specialized calculating needs.

See Also For information about different ways to use the Calculator, see ["Using Windows 7 Accessory Programs" in Chapter 5, "Programs."](#)

- **Math Input Panel** Designed for tablet PC users, this is a new utility in which you can convert simple and complex mathematic equations to text. Math Input Panel supports algebra, calculus, analytic geometry, statistics, and many other types of math.
- **Sticky Notes** You can use this program to attach electronic note-taking areas to your computer desktop in the same way you'd stick the paper version of a sticky note to your physical desktop.
- **Snipping Tool** Using this nifty program, you can capture images of screen areas. You can annotate an image with handwritten notes, save it as an HTML, PNG, GIF, or JPEG file, and send it by e-mail from within the Snipping Tool program window.

Exploring Control Panel

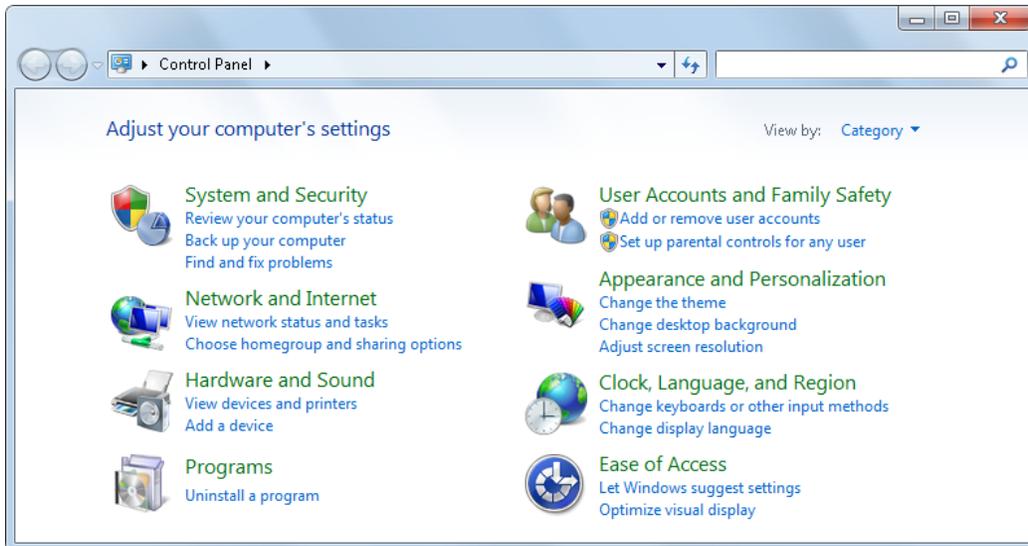
Control Panel is the central location from which you can manage all the aspects of your Windows 7 operating system: how it looks, how it works, how it communicates, and so on. When you open Control Panel, it's displayed in a unique instance of Windows Explorer; the taskbar button representing Control Panel and the various Control Panel windows appears on the taskbar independent of the Windows Explorer taskbar button.

Control Panel Categories

In Windows Vista and Windows XP, Control Panel offered two views: category view and classic view. To help guide users to the correct Control Panel item, category view described the tasks you might want to perform. Classic view provided direct access to the Control Panel items, and retained the look and feel of the Windows 2000 Control Panel. (In classic view, you had to know or guess which item to use.)

In Windows 7, the Control Panel window—its home page—can be displayed only in category view, which provides access to these eight categories of items:

Appearance and Personalization	Network and Internet
Clock, Language, and Region	Programs
Ease of Access	System and Security
Hardware and Sound	User Accounts and Family Safety

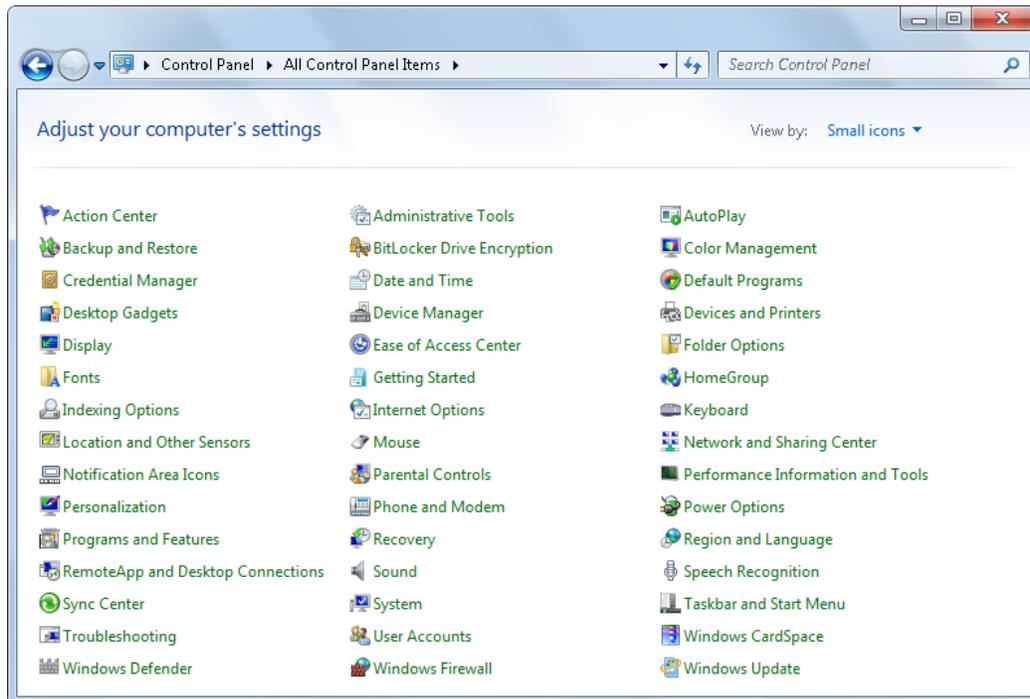


On the Control Panel home page, the Control Panel items are divided into eight categories. Links to the most common tasks are available under the category name.

The most common tasks performed within each category are listed below the category name so that you can go directly to the window or dialog box in which to perform that task. Alternatively, you can browse through a category to the windows, dialog boxes, and tasks related to that category.

Accessing Individual Control Panel Items

From Control Panel, you can access more than 60 individual Control Panel items—windows and dialog boxes—in which you manage specific aspects of your computer system. Clicking All Control Panel Items on the home page effectively displays the items in “classic” view.



The All Control Panel Items window displays links to every Control Panel window or dialog box.

Tip If you are accustomed to setting classic view as the default, you will be disappointed that you can no longer do this. However, you can accomplish the same thing in perhaps an even more convenient manner by pinning the All Control Panel Items window to the Start menu.

The All Control Panel Items window displays the following items, which are common to all Windows 7 installations:

Action Center	Getting Started	Recovery
Administrative Tools	HomeGroup	Region and Language
AutoPlay	Indexing Options	RemoteApp and Desktop Connections
Backup and Restore	Internet Options	Sound
BitLocker Drive Encryption	Keyboard	Speech Recognition
Color Management	Location and Other Sensors	Sync Center
Credential Manager	Mouse	System
Date and Time	Network and Sharing Center	Taskbar and Start Menu
Default Programs	Notification Area Icons	Troubleshooting
Desktop Gadgets	Parental Controls	User Accounts
Device Manager	Performance Information and Tools	Windows CardSpace
Devices and Printers	Personalization	Windows Defender
Display	Phone and Modem	Windows Firewall
Ease of Access Center	Power Options	Windows Update
Folder Options	Programs and Features	
Fonts		

Other Control Panel items might also be available, including items through which you manage specific hardware components, software programs, and peripheral devices. Throughout this book, we will discuss many of these Control Panel items and how you can appropriately use them to manage your computer.

Different Ways of Opening Control Panel Items

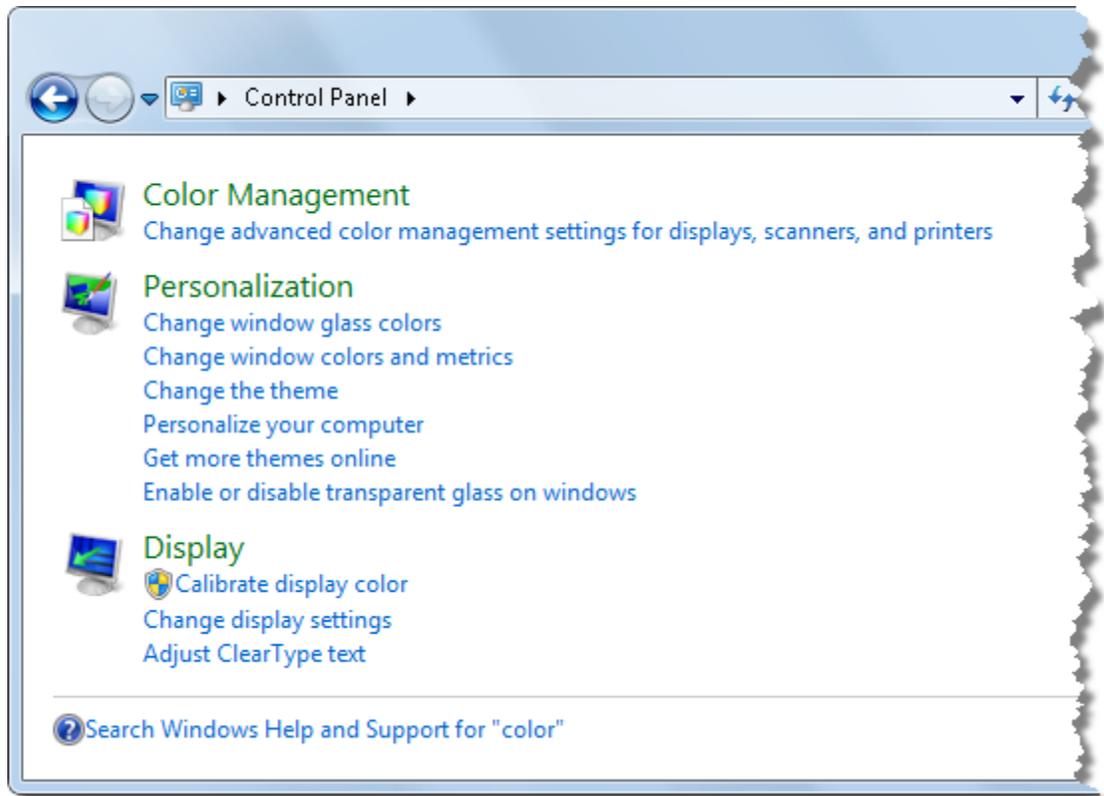
As you gain experience with Windows 7, you'll learn the Control Panel items to use to perform common management tasks. To access an item, you can use more efficient ways than navigating through the Control Panel categories, such as the following.

- If you're not certain of the specific name of a Control Panel item, you can browse a list of all the items in the All Control Panel Items window to locate the one you want.

To open the All Control Panel Items window, click Control Panel on the Start menu and then click All Control Panel Items. Then simply double-click the Control Panel item you want to open.

Tip You can return to the Control Panel home page by clicking the Control Panel Home button at the top of the left pane of the All Control Panel Items window.

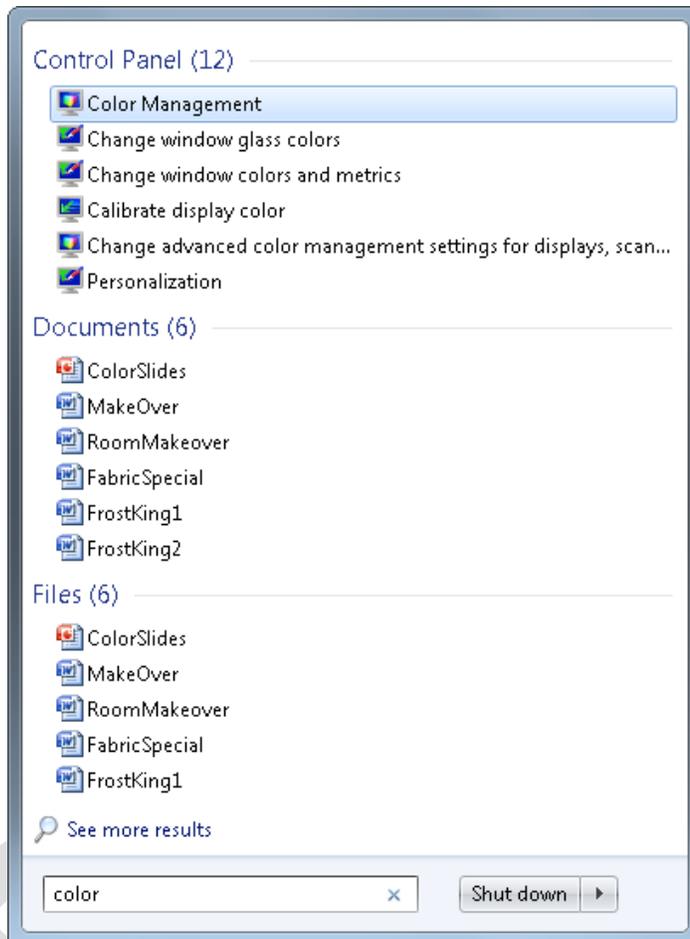
- If you know part of the name of the Control Panel item you want to open, you can locate it from the Control Panel home page by entering it in the Search box in the upper-right corner of the Control Panel window.



Typing part of an item name in the Control Panel Search box displays items matching your entry so that you can choose the one you want.

Then in the Control Panel window, click the item you want to open.

- The simplest method of opening a Control Panel item is directly from the Start menu, by clicking the Start button and then typing part of the name of the item into the Start menu Search box.



As you type in the Start menu Search box, the Start menu displays a list of matching items.

Then in the Control Panel section of the search results, click the item you want to open.

See Also For more information about searching, see “Finding Specific Information” in Chapter 2, “Window and Folder Navigation.”

Understanding User Account Control

User Account Control (UAC) is a security feature first introduced with Windows Vista. The intention of UAC is to enable you to log on and operate the computer with a more secure standard user account. When you want to perform an operation that could pose a security risk, UAC requires that you enter an administrator account password before it proceeds. This system offers a greatly increased level of security, especially to computers that are not protected as part of a network domain.

Important We'll talk about UAC in depth in Chapter 9, "Computer and Internet Security." What you need to know at this point in the book, before you begin working through exercises, is that your Windows 7 computer will respond differently to commands marked with a security icon, depending on whether you are logged on with an administrator or standard user account and on which UAC security level is currently selected.

When UAC is turned on, as it is by default, clicking a command that requires administrator approval at that UAC security level opens the User Account Control message box. When you're logged on as an administrator, Windows requests only that you acknowledge the security prompt; you don't need to enter your password.

To continue with the restricted operation:

- If you're logged on as a standard user, click one of the administrator accounts, enter its password, and then click Yes.
- If you're logged on as an administrator, click Yes.

Important In this book, we assume that you are logged on as a standard user and that User Account Control is set to Default. Under these conditions, the User Account Control message box appears only when a program tries to make changes to your computer, and not when you make changes to Windows settings, as you will be doing when working through the exercises. If User Account Control is set to Always Notify and a User Account Control message box appears, you will need to provide the requested credentials or acknowledgment.

Finding Information About Your Computer System

Sometimes you will want or need to locate information about your computer system, such as the processor speed, amount of memory, or version of Windows. The System window of Control Panel displays information about your computer hardware and operating system, in the following categories:

- **Windows edition** This section contains information about your operating system including the edition (such as Windows 7), version (such as Home Premium), the most recently installed service pack (if a service pack for the operating system has been released) and, depending on the installed version, a link to the section of the Microsoft Web site from which you can upgrade your version of Windows.
- **System** This section provides the computer's Windows Experience Index base score (a number from 1.0 to 7.9), the processor type (such as Intel Pentium 4) and speed (such as 2.80 GHz), the amount of onboard random access memory (RAM) that is available, and the system type (32-bit or 64-bit). This section might also provide information about the manufacturer and model of the computer.
- **Computer name, domain, and workgroup settings** This section displays the computer name (and a description if one exists) and the network domain, workgroup, or homegroup the computer belongs to.
- **Windows activation** The section displays the Windows activation status and product ID, or if Windows hasn't yet been activated, provides an online activation link.

The OEM may provide additional information, such as support contact information, in the System window.

The Windows Experience Index base score shown in the System window is not a cumulative rating; it is the lowest of the individual ratings scored by the following five system components:

- Processor speed
- Installed RAM
- General desktop graphics capabilities
- Three-dimensional gaming graphics capabilities
- Primary hard disk data transfer rate

The highest score available for a Windows 7 computer is 7.9 (updated from 5.9 in Windows Vista, to take advantage of improvements in available processor, graphics, and hard disk technologies). Higher scores may be introduced as necessary to keep up with hardware advances.

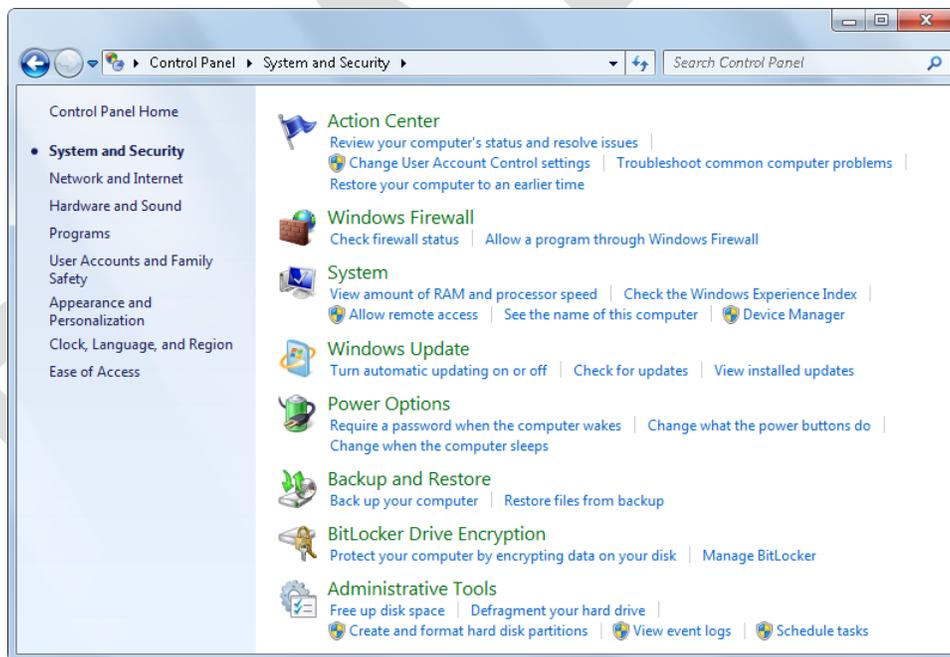
See Also For more information about the Windows Experience Index, see [“Improving Your Computer’s Performance” in Chapter 10, “Computer Performance.”](#)

In this exercise, you'll open Control Panel and locate information about your computer system. In the process, you'll learn different methods of accessing Control Panel items.

SET UP Log on to your Windows 7 computer before beginning this exercise. No practice files are necessary to complete this exercise.

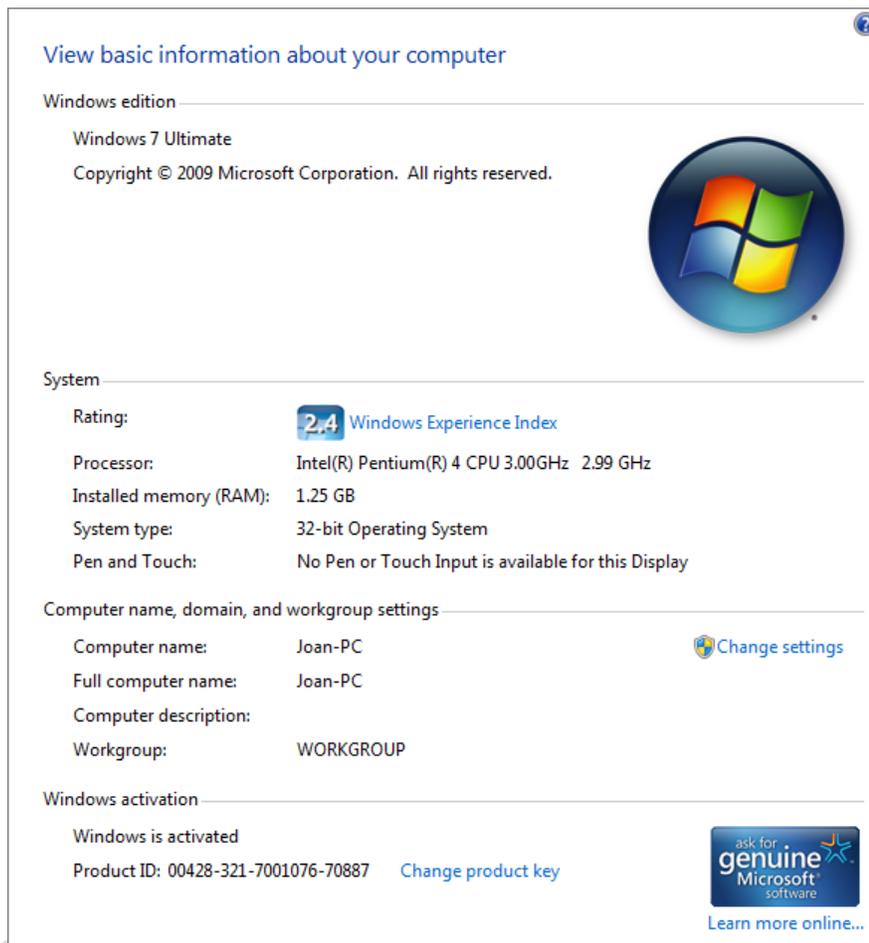


1. At the left end of the Windows Taskbar, click the **Start** button.
The Start menu expands.
2. On the right side of the **Start** menu, click **Control Panel**.
The Control Panel window opens.
3. Click the **System and Security** category.



Within a Control Panel category, clicking a green item opens that item's window; clicking a blue link jumps to a specific command center available from the item's window.

4. In the **System and Security** window, click the **System** item.



In the System window, you can view information about your computer.

5. View the information about your computer that is displayed in the right pane of the System window.

The left pane each Control Panel window contains links to related tools at the top, and to related Control Panel items at the bottom. You can return to Control Panel by clicking the Control Panel Home link at the top of the left pane, but for the purpose of learning how to navigate through Control Panel, we'll use a different method, which involves working with the path displayed in the Address Bar above the panes. This path shows the route you have taken to get to the displayed window—in this case, the System window.

6. In the **Address Bar**, click the arrow to the right of **System and Security**.

A list of the Control Panel items available from the System And Security window appears, with System (the current item) displayed in bold. You can open any item by clicking it in the list.

7. In the list, click **Action Center**.

The path in the Address Bar changes, the window now displays the Action Center item.

8. In the **Address Bar**, click **System and Security**.

You return to the System And Security window.



9. If **Control Panel** appears at the left end of the path shown in the **Address Bar**, click **Control Panel**. Otherwise, click the left-pointing chevron to the left of the first item in the path, and then in the list that appears, click **Control Panel**.

You return to the Control Panel home page.

10. In the lower-right corner of the **Control Panel** window, click **All Control Panel Items**.

11. Scroll the **All Control Panel Items** window to locate the **System** item, and then click the **System** item.

The System window opens. Note that although this is the same window that opened in step 4, the path in the Address Bar reflects that you accessed the window from the All Control Panel Items window.

12. In the **Address Bar**, click the arrow to the right of **All Control Panel Items**.

An alphabetical list of the items appears.

13. Without clicking away from the list to close it, point to the arrow to the right of **Control Panel**.

The list of Control Panel categories appears.

14. In the **Address Bar**, click **Control Panel**.

You return to the Control Panel home page.

CLEAN UP Click the Close button to close the Control Panel window before continuing to the next exercise.

Updating Windows System Files

When you upgrade to Windows 7 or purchase a Windows 7 computer, the operating system files are the ones available when your Windows 7 installation media was created or when Windows was installed. Whenever necessary, Microsoft releases updates to Windows (and to other products), either to provide additional functionality or to protect your computer from new security threats. It's important to install these updates as soon after their release as possible.

Windows Update is a utility that scans your computer, confers with the Microsoft Update online database, and recommends or installs any updates that are available for your operating system, your software programs, or your hardware. Quite apart from knowing that you have the "latest and greatest," by using Windows Update, you can be sure that your computer is updated whenever necessary.

Types of Updates

During the Windows 7 installation process, your computer is automatically configured to install updates. (If you upgraded to Windows 7 from a previous version of Windows, Windows Update retains your previous settings.) Updates are classified as follows:

- **Important updates** These increase the security or reliability of the operating system and Microsoft software products.
- **Recommended updates** These address non-critical problems, and help enhance your computing experience.
- **Optional updates** These do not address specific Microsoft software problems. They might include software add-ons or drivers for third-party hardware.

With the default settings, at 3:00 in the morning, Windows Update collects the version numbers of your operating system, Web browser, and other installed software, as well as information about the hardware devices that are connected to your computer. It then

proactively contacts the Microsoft Update site, compiles a list of updates that are available for your system, downloads any available Important or Recommended updates for Windows and Windows programs (even for Windows Update itself), and installs them.

Tip When the update process is complete, Windows Update discards the version and ID information that it collected from your computer.

Completing an Update

Some updates require that you restart the computer to finish the installation, because files can't be updated while they're in use. If you don't restart the computer immediately after installing an update that requires a restart, Windows Update displays a reminder message.

From the reminder message, you can restart the computer or dismiss the message for 10 minutes, 1 hour, or 4 hours. If you don't postpone the reminder, Windows Update counts down to a restart time.

If you don't interrupt the countdown, Windows saves auto-recover copies of open documents, shuts down running programs, performs any other tasks necessary to safely shut down the computer, restarts the computer, and displays a message that it has done so.

Windows Update Options

You can change your Windows Update settings at any time. You can access Windows Update from the Start menu, from Control Panel, or from Windows Help And Support. The options are to have Windows 7 do one of the following:

- Download and install updates automatically.
- Download updates and notify you when they are ready to be installed.
- Check for updates and notify you when an update is available.
- Check for updates only when you manually initiate the process.

Important If your computer is part of a domain, your network administrator might control the installation of updates.

The default setting in Windows 7 allows you to install updates whether you're logged on as an administrator or as a standard user. You can choose to restrict the installation of updates to administrators only.

Automatic updating is very convenient if you don't want to bear the responsibility of remembering to manually update your system, or if you want to be sure updates are installed as soon as they become available. The default update settings make the automatic update process reasonably unobtrusive—but they are effective only if your computer is usually on and online at 3:00 in the morning.

Tip The default Windows 7 Sleep mode options allow scheduled programs such as Windows Update to bring your computer out of Sleep mode to check for, download, and install available updates according to your Windows Update settings. For more information, see "Configuring Power Options" in Chapter 15, "Mobile Computing."

When an update has been downloaded and is ready to be installed, Windows Update alerts you in one or more ways:

- When any type of update is ready, a Windows Update icon appears in the notification area of the taskbar.
- When an Important updates is ready, a security icon appears on the Power button on the Start menu.

If you click the button when this icon is present, Windows Update downloads and installs the updates before turning off the computer.

In addition to updating Windows system files, you can update other Microsoft products and featured programs through Windows Update. When not already selected, these options are available from the box at the bottom of the Windows Update window:

- Get updates for other Microsoft products To have Windows Update monitor availability of updates to Office and other Microsoft programs, click the Find Out More link. This opens the Microsoft Update site. At the bottom of the page, select the I Accept The Terms Of Use check box, and then click Install.
- Additional Windows Update options are available Windows Update can notify you when featured updates and programs are available. To invoke this option, click the View Options link and then, in the Windows Update message box, click Turn On This Option.

In this exercise, you'll check update settings, install available updates, and set up the computer to periodically install critical updates.

SET UP You don't need any practice files to complete this exercise; just follow the steps.



1. Click the **Start** button, click **All Programs**, and then click **Windows Update**.
Windows Update displays information about your computer's current update status, when it most recently checked for updates, when it most recently installed updates, and the scope of updates your computer receives from Microsoft Update.

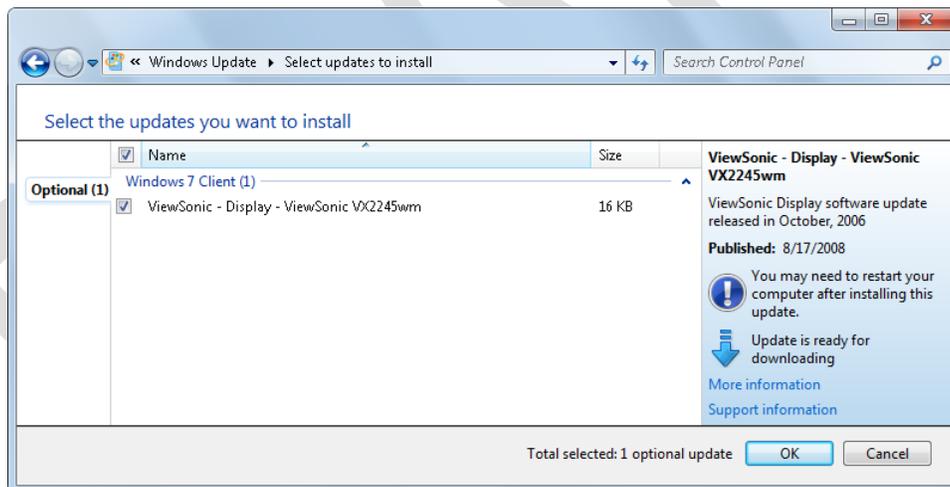
If your computer is up to date, the bar and security shield are green.



The color of the bar and shield indicates your Windows Update status: green means that all available Important updates are installed.

If updates are available, the bar and shield are yellow or red.

2. If a link to available updates appears in the status box at the top of the **Windows Update** window, click it. Otherwise, skip to step 6.



The Select Updates To Install page displays the updates that are available for your computer.

In the left pane are tabs for each level of available updates. Clicking a tab displays its updates in groups in the center pane—in the graphic, there is only one group for Windows 7 Client updates, but you might have some updates that are specific to the hardware components of your system. (You can change the order in the center pane by clicking any column header.) Clicking

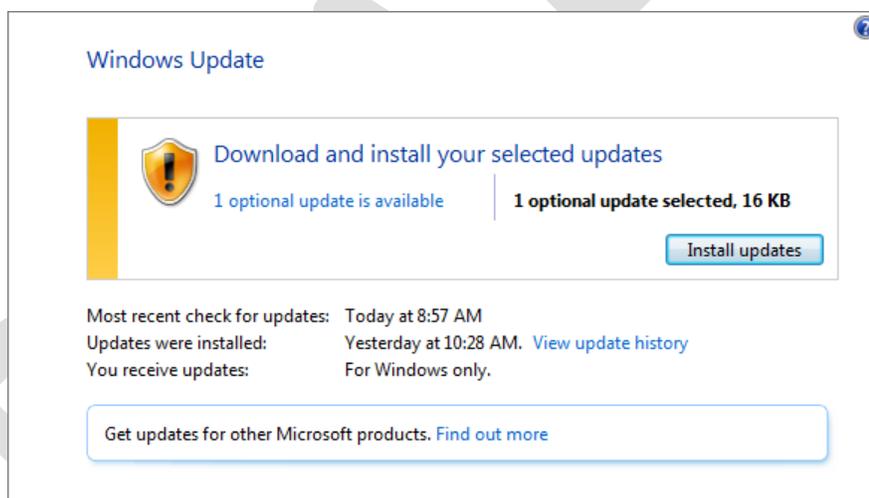
an update (not its check box) in the center pane displays its description in the right pane. Selecting an update's check box selects that update for installation.

Important updates are automatically selected for installation. You can choose to not install an update by clearing its check box, but unless you have a very good reason to wait, we recommend that you install Important updates as soon as possible.

Tip If administrator permission is required to install an update, the Windows security icon appears on the Install Updates button.

3. Select the check boxes of the updates you want to install, and then click **OK**.

Tip You can select all the updates in the center pane by selecting the check box to the left of the Name column header.

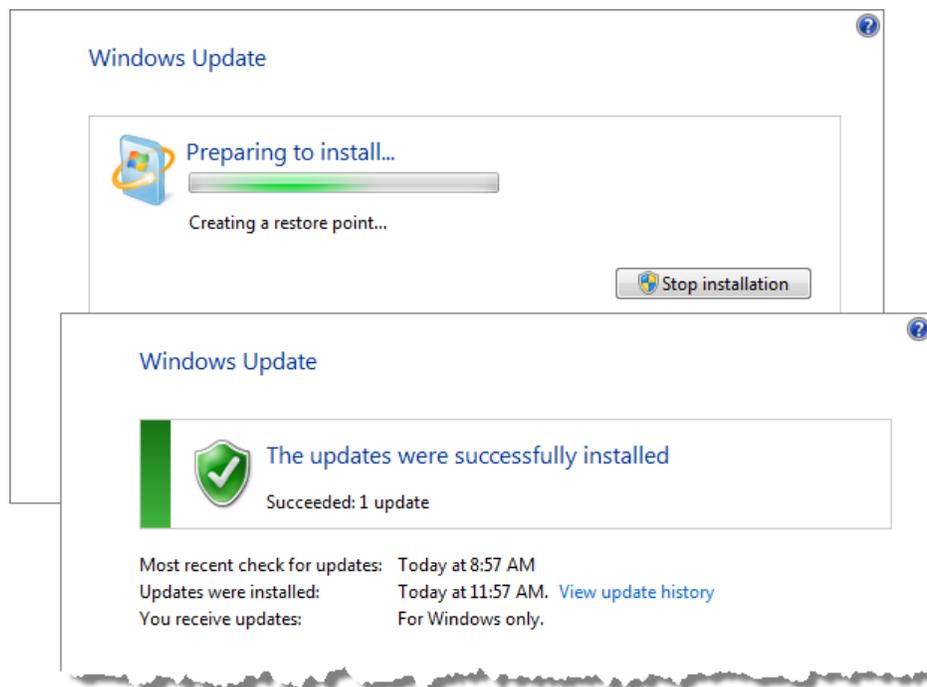


Windows Update is ready to download and install the selected update.

4. In Windows Update, click **Install updates**.

Troubleshooting Some software program updates will require that you agree to the licensing terms and conditions of the program before you can install the update.

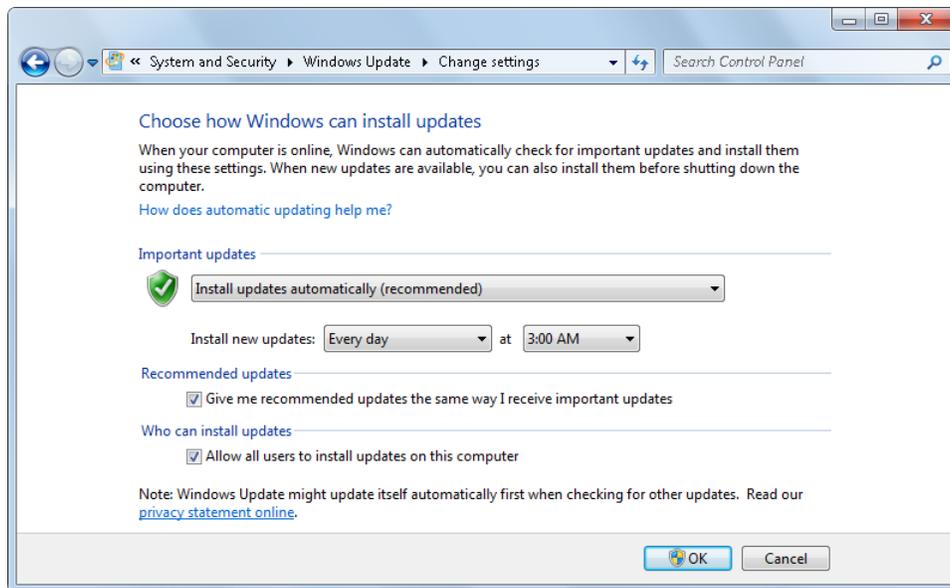
A progress bar reports on the update activities as Windows downloads the selected update(s), creates a restore point, and then installs each update.



Windows Update downloads and installs the selected update.

See Also For information about restore points, see "Restoring Your Operating System" in Chapter 11, "Problem Solving."

5. If Windows 7 prompts you to restart your computer, close any open files, and then click **Restart now**. After your computer restarts, log on, and then repeat step 1 to return to Windows Update.
6. In the left pane, click **Change settings**.



In the Change Settings window, you can change the frequency, time, type, and scope of automatic updates.

7. In the **Important updates** section of the page, if **Install updates automatically** is not already selected in the first list, select it now.
8. In the two lists to the right of **Install new updates**, click a frequency and a time at which your computer will usually be on and online.

It's best to select a time outside your core work hours—say at the beginning or end of your workday—when connecting to the Internet and installing updates won't impact your ability to work by monopolizing your computer's resources.

Tip If you prefer to have more control over the update process but still enjoy the benefit of automatic updates, select the Download Updates But Let Me Choose Whether To Install Them option. With this option, Windows 7 downloads available updates to your computer and displays the Windows Update icon in the notification area. You can click the icon to review and approve or reject the installation of each update.

9. Select or clear the check boxes in the **Recommended updates**, **Who can install updates**, and **Featured update notifications** sections to reflect the way you want Windows Update to function on this computer. Then click **OK**.

CLEAN UP Close the Windows Update window.

Ending a Computing Session

If you are going to stop working with your computer for any length of time, you can safeguard your information and save power in a number of ways. Although not all the options actually turn off the computer, they are referred to collectively as *shut-down options*, and they are available from the Shut-down Options menu located in the lower-right corner of the Start menu.

By default, clicking the Power button (labeled *Shut Down*) starts the process of shutting down the computer. Clicking the Shut-down Options button (to the right of the Power button) displays a list of the other available shut-down options.

Tip The shut-down option assigned to the Power button does not appear on the Shut-down Options menu.

See Also For information about changing the Power button behavior, see “[Modifying the Start Menu](#)” in Chapter 7, “[System Settings and Behavior](#).”

The shut-down options include the following:

- **Log off** If you’re finished working on a computer that you share with other people, you can end your Windows 7 session (but not affect other users’ sessions) by logging off. You must save your files and shut down all running programs before you log off; if you don’t, Windows 7 will close any open windows and exit programs, possibly losing unsaved data in the process.

See Also For information about multiple concurrent user sessions, and about the Switch User shut-down option, see the sidebar “[Switching Quickly Among Users](#)” in Chapter 12, “[Multiple Users](#).”

- **Lock** If you want to prevent passersby from seeing what you're working on, you can lock the computer, which displays the Welcome screen and requires that you log on to your account to resume. Locking is most effective when your user account is protected by a password; otherwise, anyone can click your user account picture on the Welcome screen to unlock the computer and access your information.

See Also For information about configuring a screen saver to lock a computer after a period of inactivity, see "Selecting and Managing a Screen Saver" in Chapter 3, "Visual Appearance."

- **Restart** After installing certain programs and program updates, it is necessary to restart the computer to complete the update of system files that are in use. You might also find, at times, that restarting the computer helps to resolve a technical difficulty.

Troubleshooting If your computer seems to be operating unusually slowly, or you're experiencing technical problems that seem related to the operating system rather than to an application, try restarting your computer. Restarting clears the system cache—an area in memory where Windows 7 stores information it might need to access quickly—and frequently resolves minor issues..

- **Sleep** If you're going to be away from your computer, conserve power and protect your work by putting your computer into Sleep mode. When you do, Windows 7 saves any open files, records their state and the state of any running programs in memory, and then puts your computer into a power-saving mode. When you "wake up" the computer, usually by moving the mouse or by pressing the Enter key or the computer's power button, Windows 7 needs only a few seconds to come out of its power-saving state and retrieve information from memory. Then it does one of the following:
 - If your user account is not password protected, resumes your previous computing session, exactly as you left it.
 - If your user account is password protected, displays the Welcome screen.

Troubleshooting Some video card drivers do not support Sleep mode. If the Shut-down Options menu does not include the Sleep option, update your video driver or consult the video card manufacturer’s Web site for driver information. On computers that don’t support Sleep mode, a Hibernate option is available from the Shut-down Options menu. Hibernate is similar to Sleep, except that it saves any open files and the state of any running programs on your hard disk instead of in memory, and then completely turns off the computer. When you press your computer’s power button to resume working, Windows 7 retrieves information from the hard disk and restores your previous computing session.

Putting your computer into Sleep mode conserves power and keeps your work quickly available. When a desktop computer is sleeping, it uses approximately 10 percent of the power required to run normally. When a mobile computer is sleeping, it uses approximately 2 percent of its battery power per hour.

See Also For information about configuring your computer to automatically enter Sleep mode after a period of inactivity, see “Configuring Power Options” in Chapter 15, “Mobile Computing.”

- **Shut Down** If you need to turn off your computer entirely—for example, to install hardware or to move a desktop computer—you do so by shutting down the computer. Shutting down closes all your open programs and files, ends your computing session, closes network connections, stops system processes, stops the hard disk, and turns off the computer. This option appears by default on the Power button.

See Also For information about specifying which shut-down option appears on the Power button, see “Modifying the Start Menu” in Chapter 7, “System Settings and Behavior.”

In this exercise, you'll lock and unlock your computer, put it into Sleep mode and wake it up, log off from Windows 7, and then shut down the computer.

SET UP You don't need any practice files to complete this exercise; just follow the steps. You can leave programs running on your computer; Windows will prompt you to save and close files during the shut-down process.



1. On the **Start** menu, click the **Shut-down Options button**, and then on the **Shut-down Options menu**, click **Lock**.

The Windows 7 Welcome screen appears, displaying only your user account. The word *Locked* appears under your user account name.

2. If your account is password protected, enter your password in the **Password** box, and then press the **Enter** key. Otherwise, click your user account picture. Your previous computing session resumes.

3. On the **Shut-down Options menu**, click **Sleep**.

Windows saves your file and program information and then puts your computer into a power-saving state. The hard disk stops spinning (the computer no longer makes any noise), but the power light on the computer itself is still on, either steadily or blinking slowly.

4. Depending on your hardware, either move the mouse, press **Enter**, or press your computer's power button to wake up your computer.

Troubleshooting If you don't know which method to use to wake up your computer, try them in the order given. If none of these methods work, consult your computer's manual or the OEM's Web site.

5. If your account is password protected, enter your password in the **Password** box, and then press **Enter**.
6. On the **Shut-down Options menu**, click **Log Off**.

If no programs are running on your computer, Windows 7 logs you off. Otherwise, Windows 7 displays a list of running programs and open files.

7. If you don't have any unsaved work, click **Force log off** to complete the process and display the Welcome screen. Otherwise, click **Cancel** to return to your computing session; then save and close open files, shut down running programs, and click **Log Off** again on the **Shut-down Options menu** to complete the process.



8. In the lower-right corner of the Welcome screen, click the **Power** button.

Troubleshooting If any other user accounts are logged on to the computer, Windows 7 gives you the opportunity to cancel the shut down process. If you shut down a computer while people are logged on to it, they could lose data in open files or running programs.

Windows 7 shuts down all computer processes and turns off your computer.

Key Points

- You start a computing session by logging on to Windows.
- Each computer user has an individual user account. Each person using a computer logs on to the computer with his or her own user account.
- To maintain security, log on as a Standard user. You'll enjoy the most secure computing experience when you log on to your computer as a Standard user and keep the User Account Control feature turned on.
- Your Windows environment preferences are linked to your user account. When you log on to Windows 7, it looks and works the way you want.
- Your primary interactions with the Windows 7 operating system are through the Start menu, the Windows Taskbar, and the Control Panel.
- Windows 7 includes numerous programs, tools, and utilities for managing your computer, creating things, and communicating with other people.
- It's important to keep your computer up to date with the most current upgrades and security updates. Windows Update makes it easy to do this automatically or manually.
- You end a computing session by logging off from Windows. You can log off and leave the computer running, or you can log off as part of the process of shutting down.
- You can save power without closing files and exiting programs by putting your computer into Sleep mode.