

CHAPTER

3

The Windows Vista Interface

Whenever Microsoft releases a new operating system, the one thing anyone seems to want to talk about is the new interface. What does it look like? Is it cool? Can I run it? On the surface this seems superficial because, after all, Windows is and should be more than just a pretty interface. Don't things such as stability and security mean more? Shouldn't the goal of any OS be to just get out of the way and let us get on with our work, perhaps a tad more productively than before?

That's all true, but the operating system interface shouldn't be relegated to mere eye candy status. After all, we use the operating system's interface for many nontrivial tasks during a typical day: starting programs; saving our work; finding documents; moving, copying, and deleting files; maintaining the computer; troubleshooting problems; networking with others; and so much more. If the interface to all these tasks is ugly, inefficient, or confusing, then we'll simply get less work done or have less fun than we would otherwise.

So how does Vista's interface rate? As you'll see in this chapter, the answer has to be "pretty darned good," although with a few reservations. Vista's interface is almost certainly the best that Microsoft has come up with so far (some would claim that's not saying much), and it's got plenty of eye-popping and jaw-dropping features without descending into gaudiness and mere trickery.

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- The Windows Presentation Foundation
- General Interface Changes
- The Aero Glass Theme
- Better Cool Switches: Flip and Flip 3D
- Taskbar Thumbnails
- New Folder Windows
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The Windows Presentation Foundation

All the interface changes that come in the Vista package are a direct or indirect result of Vista's new graphical subsystem. Code-named Avalon but now officially called Windows Presentation Foundation (WPF), Vista's graphical underpinnings should prove to be a boon to both developers *and* end users. But it won't be just the Vista community that benefits from WPF because Microsoft has decided to backport WPF for Windows XP and Windows Server 2003.

Developers will (and, by all accounts, already do) love WPF because it provides a one-stop shop for all their graphical needs. Before WPF, developers had to work with a rather alarming number of technologies and application programming interfaces (APIs). For example, to draw a simple 2D shape, they called on the Graphics Device Interface (GDI); for 3D objects, they used Direct3D or OpenGL; for media objects, they used DirectShow; and for user interface objects, they used USER32 or Windows Forms, to name just a few. Some of these technologies (such as the GDI) have been around since Windows 1.0. Clearly, it was time for a change.

With WPF, developers can do 2D, 3D, animation, imaging, video, audio, special effects, and text rendering using a single API that works consistently no matter what type of object the developer is working with. This greatly simplifies user interface programming, resulting in more robust applications that are delivered to market faster than ever.

WPF also introduced a new markup language called XAML—eXtensible Application Markup Language—which acts as a kind of front end for building application interfaces. The idea here is that by using relatively simple markup code, developers and designers can work together to build user interfaces.

From the user's perspective, the main problem has been that although our graphics processing units (GPUs) have been getting ever more powerful, and our video adapters have been populated with more graphics memory, our operating systems and applications—with the notable exception of the gaming sphere—have not been programmed to take advantage of all this powerful hardware.

WPF changes all that by implementing a new graphics model that can take full advantage of today's powerful GPUs and scads of video RAM. With WPF, all output goes through the powerful Direct3D layer, which means that all graphical work is offloaded to the GPU, thus saving the CPU for more important tasks. (Technically, WPF will only pass the graphics load to the GPU in video adapters that support DirectX 7 or later.) Also, the output uses *vector graphics*, a rendering technology in which each image on the screen is composed of points, lines, polygons, and curves (these are called *primitives*). Unlike *raster graphics*, in which each screen image is composed of pixels, vector graphics support extremely high-resolution images and are completely scalable (that is, you can zoom in and zoom out) without any loss of quality in the image.

Also, WPF implements a new technology called the Desktop Window Manager (DWM), which assumes complete control over what's displayed on the screen. In previous versions of Windows, applications used APIs to display their graphics directly on the screen. Now

the DWM takes over that chore. Each application draws its graphics to an off-screen buffer, and then the DWM composites the buffer contents on the screen.

All this means that WPF brings some significant changes to Windows graphics:

- **No more window “tearing”**—When you move a window quickly in any GDI-based version of Windows, the edges of the window appear to temporarily “tear” because the system has trouble keeping up with the graphical changes that are happening onscreen. On WDF systems, however, the graphics route through the hardware-accelerated GPU, so window movement remains smooth and seamless no matter how quickly you drag across the screen.
- **Better and more useful animations**—Microsoft realized a few years ago that some sort of animation effects were necessary, particularly for novice users. For example, new Windows users are often surprised at the abrupt disappearance of a window when they click the Minimize button. The user either thinks he has closed the program or that he has done something wrong. With an animated minimize, however, the user can “see” the window going down to the toolbar, which offers a vital visual clue about what just happened. With the power of WPF available, Microsoft has implemented animations of much higher quality than those seen in, say, Windows XP. For example, windows that are being moved quickly or minimized have a motion blur effect, which effectively highlights the movement of the window.
- **Improved scaling**—With vector-based graphics, you can scale any image bigger or smaller without any loss in the image quality. This is simply not possible with raster-based graphics. For example, if you have ever tried using larger icons in Windows or a program toolbar, you know that the resulting icons look blurry and jagged. With WPF, everything is drawn with vectors, so you can scale windows and icons as big (or as small) as you want, and the objects will display with no loss in quality.
- **Transparency**—Drawing an object so that it offers some level of transparency has always been a tall order for the GDI because transparency effects require hardware acceleration, and the GDI didn’t have access to that part of the GPU (for the most part). Any developer trying to get transparency via the GDI would end up with a program that slowed the system to a crawl. With WPF, however, transparency effects are easy because a dedicated GPU is much more capable of rendering them without any effect on overall performance.
- **Video as just another graphical object**—Most of us think of video as a real performance killer. Just running video in a single window can slow your system noticeably, and video doesn’t move or scale well: If you try, you get dropped frames by the cartload. That all changes in WPF because it treats video as though it were any other graphic object. Thanks to WPF’s direct access to the GPU’s hardware acceleration, you can move and animate running videos without dropping frames or affecting the performance of the CPU. On a practical level, this enables Vista to show running video when you press Alt+Tab to switch windows (see the section “Better Cool Switches: Flip and Flip 3D,” later in this chapter) and when you move your

mouse over the video window's icon in the taskbar (see "Taskbar Thumbnails," later in this chapter).

General Interface Changes

The first thing you might notice upon loading Windows Vista for the first time is the new Welcome screen, shown in Figure 3.1, which replaces the XP Welcome screen. (If you're running Vista with just a single user account and no password, you won't see the Welcome screen; it appears only if you have multiple user accounts or after you have assigned a password to at least one account.) Click the user you want to log on as; then type your password and press Enter.



FIGURE 3.1 The Windows Vista Welcome screen.

The Vista Desktop

After Vista loads, the main thing you'll notice is that the overall look of the desktop has changed. As you can see in Figure 3.2, the most obvious change is the new wallpaper (although the one you see might be different; when you install Windows Vista, it gives you a choice of several wallpapers) and the new Windows Sidebar on the right.

If you're into the wallpaper thing (I rarely see my desktop these days), you'll be happy to know that Vista ships with some stunning new images, as shown in Figures 3.3 and 3.4.

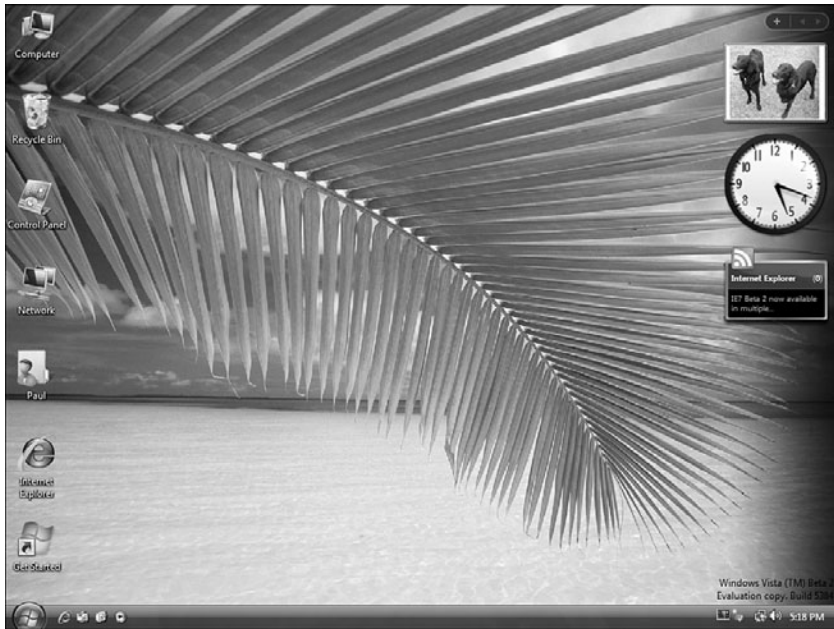


FIGURE 3.2 The Windows Vista desktop.



FIGURE 3.3 The Windows Vista desktop showing an image from the Textures series of backgrounds.



FIGURE 3.4 The Windows Vista desktop showing an image from the Black and White series of backgrounds.

As you can see in Figure 3.2, the desktop also comes with updated icons for the Recycle Bin, Computer (formerly My Computer), and Network (formerly My Network Places), as well as a new desktop icon for the Control Panel. The default desktop just shows the Recycle Bin icon, but you can customize which icons appear on the desktop by using the Desktop Items dialog box, shown in Figure 3.5. (Right-click the desktop, click Properties, click Change Desktop Icons, and then click Customize Desktop.)

The Vista Taskbar

At the bottom of the Vista screen, you see the slightly revamped taskbar, shown in Figure 3.6.

The most obvious change here is that the Start button has morphed from XP's rounded rectangle to a translucent orb showing just the Windows Vista logo. It sure looks nice, but I have to wonder if it will confuse novice users because in the past they saw the word Start and at least had a logical place in the interface to get something going.

To the right of the Start button, the taskbar itself has a new look. If your video card supports the Aero Glass interface, the taskbar appears with the transparency effect so you can see the desktop behind it. Also, the taskbar now appears as an integrated whole, meaning that you no longer see any visual breaks between the Quick Launch toolbar on the left, the taskbar's icon area in the middle, and the notification area on the right. (The breaks are still there, but they don't appear with the taskbar locked. Right-click the taskbar and then deactivate the Lock the Taskbar command to do things such as resize the Quick Launch toolbar and display more taskbar rows.)

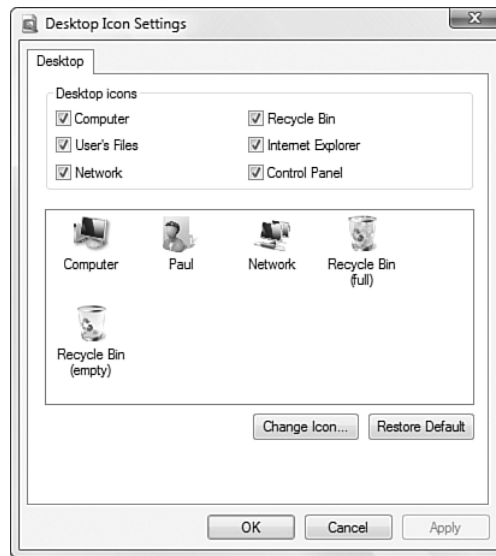


FIGURE 3.5 Use the Desktop Items dialog box to customize the Windows Vista desktop.



FIGURE 3.6 The Windows Vista taskbar.

Speaking of the notification area, it's now a bit more customizable in Vista. As you can see in Figure 3.7, the Taskbar and Start Menu Properties dialog box (right-click an empty section of the taskbar and then click Properties) now comes with a Notification Area tab. You can hide inactive icons, as you could in XP, but there's a new System Icons group that enables you to toggle the icons for four different items: Clock, Volume, Network, and Power.

The Start Menu

Clicking the Start button reveals the Windows Vista version of the Start menu, shown in Figure 3.8. The overall layout of the Start menu hasn't changed too much from Windows XP, but there are subtle differences in the way the Vista Start menu works. For example, the left side of the XP Start menu showed a list of the programs that you've used most often. In Vista, the left side of the Start menu shows a list of the programs you've used most recently; those that you've used most often appear closer to the top of the list. As with XP, the Internet and Email items are "pinned"—that is, they appear in bold at the top of the program list and are a fixed part of the Start menu. However, just as in XP, you can pin any icon to the Start menu by right-clicking the icon and then clicking Pin to Start Menu.

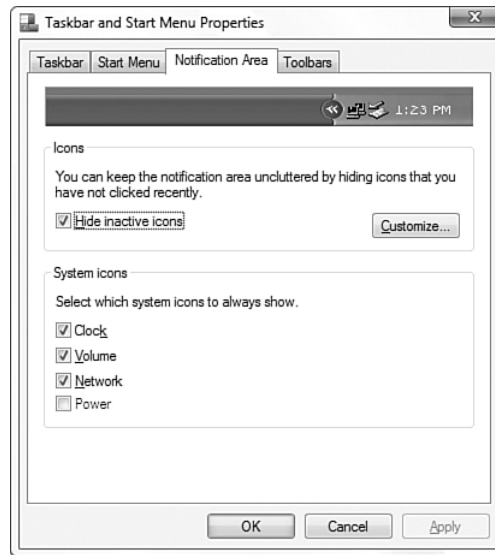


FIGURE 3.7 In Windows Vista, you can control the notification area view by toggling several different system icons.

TIP

You can tell Windows Vista not to display recently used programs on the Start menu. Right-click the Start button, click Properties, and then deactivate the Store and Display a List of Recently Opened Programs check box.

TIP

One of the biggest disappointments on the new Start menu is the missing Run command that gives you access to a command-line interface. If, like me, you use Run frequently, you can add it back where it belongs. Right-click the Start button, click Properties, and then click Customize. In the list of Start menu items, activate the Run Command check box and then click OK to exit all dialog boxes. Remember that you can also fire up the Run dialog box by pressing Windows Log+R.

The right side of the Start menu—it's called the Start panel—contains links to various Windows Vista folders and features. There are three changes to note:

- Windows Vista does away with the old "My X" paradigm that began with Windows 95 and the My Computer icon, and reached absurd heights in Windows XP (My Music, My Pictures, My Videos, My Received Files, and on and on). In Vista, the corresponding folders are named simply Documents, Pictures, Music, Recent Items, and Computer.

- The new Games icon opens the Games folder, which has icons for the games that come with Vista, as well as most third-party games you install yourself. See Chapter 10, “Windows Vista and Gaming,” for more details.
- If you’re connected to a network, the Network icon appears on the Start menu. Launching this icon shows you the computers and devices in your workgroup or network, so it’s the equivalent of XP’s View Workgroup Computers command. (Vista has no equivalent to XP’s My Network Places feature.)



FIGURE 3.8 The Windows Vista Start menu.

One of the major changes to the Start menu is the All Programs link, which works a bit differently than it did in previous versions of Windows. When you click all Programs, instead of a menu flying out to the right, Vista simply converts the Start menu’s program list to a list of items in the All Programs folder, as shown in Figure 3.9.

If you then click a folder icon, the folder’s menu items appear in place, as shown with the Accessories folder in Figure 3.10. To return to the list of recently used programs, click Back. In other words, Vista’s Start menu is self-contained; when you get used to the new method, it’s a relief not have to chase menus and submenus across the screen.

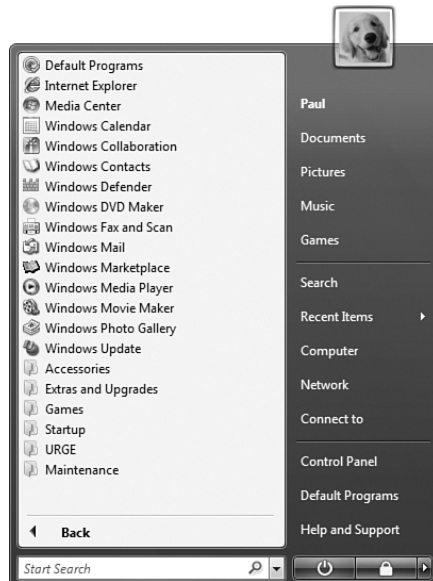


FIGURE 3.9 In Vista, clicking All Programs displays the submenu within the main Start menu.

The bottom of the Start menu has been revamped considerably from XP. For starters, there are replacements for XP's Shut Down and Log Off links:

- **Sleep**—Click this button to save your current programs and documents and put your computer into a low-power mode that's the next closest thing to being completely shut off. The next time you power up your computer, Vista resumes in just a few seconds; after you log on, it restores your running programs and documents.
- **Lock**—Click this button to lock your computer. This displays the logon screen; you can return to the desktop only by entering your password. You can also click the arrow to the right of the Lock button to display a menu consisting of several items, including Switch User, Lock, Log Off, Shut Down, Restart, and Undock (for docking stations only).

Perhaps the most interesting and potentially most useful and time-saving of Vista's Start menu innovations is the Instant Search box that appears on the bottom left. Thanks to Vista's high-powered search engine, the Start menu's Instant Search box offers on-the-fly searches. Type in the text you want to search for, and Vista immediately displays a list of programs, folders, files, email messages, contacts, and other user data that have names containing the text, as shown in Figure 3.11. Vista also displays Search the Computer and Search the Internet links so that you can easily expand your search. See "Desktop Searching with the Windows Search Engine" in Chapter 4, "File System Improvements," to get more details on this and other Vista search features.

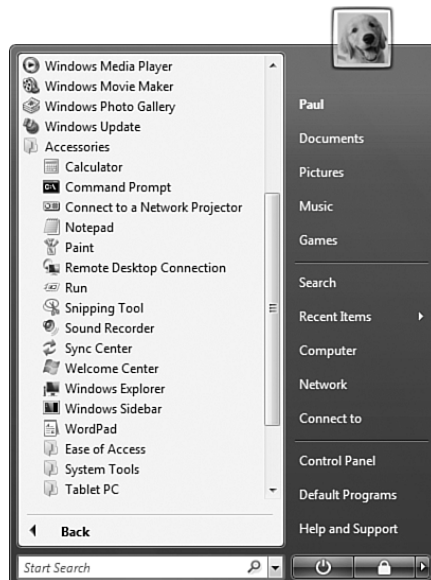


FIGURE 3.10 Clicking a folder icon opens the folder's menu items in place.

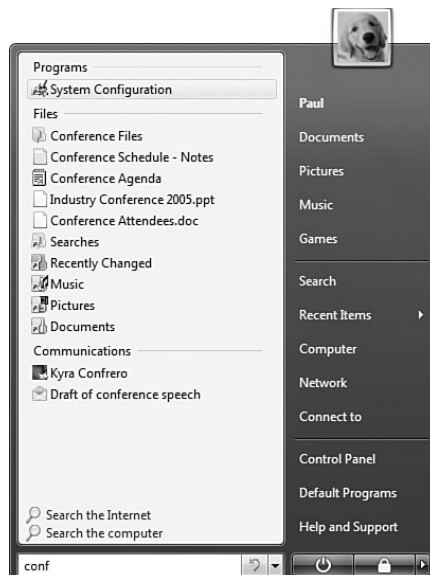


FIGURE 3.11 Type text in the Start menu's Instant Search box, and Vista returns a list of programs, folders, and files with the text contained in the name.

The Aero Glass Theme

Perhaps the most talked about of Windows Vista's new features is the Aero theme with its Glass color scheme. Part of the discussion has centered on Microsoft's controversial decision to run Aero Glass only on systems with relatively powerful graphics capabilities (as I talked about in Chapter 2, "Moving to Windows Vista"). It's not so much an issue with home machines because the hardware required to run Aero Glass is becoming more mainstream, thanks to the influence of gaming and media applications. However, the corporate sector has been doing most of the griping, and that's because in most corporate IT departments, graphics are barely considered during purchasing decisions. The thinking seems to be that if the graphics hardware is good enough to run PowerPoint, it's good enough for a corporate desktop. The entire discussion might be moot, however, because when corporate IT departments finally get around to adopting Vista en masse in 2 or 3 years, Aero Glass-capable graphics should be standard on the kind of midrange PCs that corporate purchasers favor.

TIP

Windows Vista performs a hardware check on your system to see if it can handle the Aero Glass interface. If not, Vista shuts off Aero Glass. However, you can use a trick to force Aero Glass on, as long as you're using a WDDM-compliant video driver. In the Registry Editor (Start, Run, type **regedit**, and click OK), navigate to the following key:

HKLM\Software\Microsoft

Add a new subkey named DWM and then create a DWORD setting named **EnableMachineCheck**. Leave the value of this setting at 0, which disables Vista's DWM-related hardware checking. Some caveats concerning this hack:

- It does not work on all systems.
- Even if it does work, it can make your system run extremely slowly. (There's probably a reason Windows shut off Aero Glass.)
- Microsoft might not support the **EnableMachineCheck** setting in the final version of Vista.

The rest of the Aero Glass talk has centered on what this new theme brings to the Vista interface. The most obvious change is one that you've already had a brief taste of in your brief tour of the Vista interface: the transparency effects that you see in the taskbar and the Start menu. Transparency extends to all the windows and dialog boxes Vista displays. It even extends to the windows and dialog boxes of applications that weren't built with Aero Glass in mind because the DWM displays all screen output, so it can apply the transparency effect—indeed, any of the Aero Glass effects—to any window or dialog box.

Figure 3.12 shows Vista with a window and a dialog box displayed. You can see (hopefully—the effects could be difficult to discern in black and white) that the transparency effect is most apparent in the title bar, but it also applies to the window and dialog box borders. What's the point, you may ask? I think Microsoft's goal here is both simple and

subversive: to change the user's focus from the window to what's *inside* the window. In other words, by reducing the visual presence of the window title bar and borders, Vista shifts the focus from the container to the content. Many of the features that you learn about in Chapter 4—including desktop search, virtual folders, document metadata, and a de-emphasis on the traditional disk-and-folder storage model—are also designed to bring content to the fore.

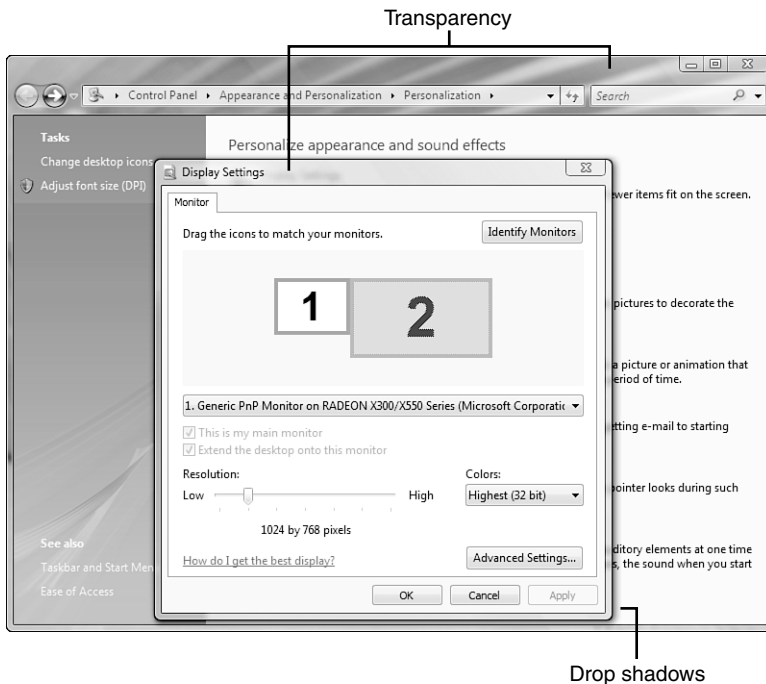


FIGURE 3.12 The Aero Glass theme brings a number of graphical innovations to the Windows Vista interface.

Aero Glass also applies the following effects to the Vista interface:

- Each open window and dialog box has a drop-shadow effect.
- When you hover the mouse pointer over a window button, the button “lights up”: You see a blue glow for the Minimize and Maximize buttons, and a red glow for the Close button.
- Almost anything that’s live (in the sense that clicking it will trigger some action) gets highlighted when you hover your mouse pointer over it.
- In a dialog box, the default button (usually the OK button) uses a repeating fade effect in which the color that normally appears when you hover the mouse over a command button appears to fade in and out.

These interface changes are, thankfully, subtle. With access to Direct3D and graphics hardware accelerations, Microsoft could have cranked up the eye candy and turned Vista into a version of Halo or some other frenetic game. Instead, they opted for muted effects that enhance the look of the interface while also making users' lives easier. (For example, it's going to be much harder in Vista to accidentally click Close when you meant to click Maximize because that glowing red Close button will put an instant "Stop!" message into your brain.)

Another useful Aero innovation is the use of animations to enhance interface actions. For example, when you minimize a window, it noticeably shrinks down to its taskbar icon. When you restore it, the window expands to its previous size and position. Similarly, when you close a window, it fades from view. Aero Glass also implements blur effects when an action is performed quickly.

Better Cool Switches: Flip and Flip 3D

One of the first keyboard shortcuts almost all Windows users master is Alt+Tab for switching programs. As you hold down Alt and press the Tab key, a small window of icons appears, one icon for each open program window.

This handy shortcut—generally known as the *cool switch*—has served us well since Windows 95, but it suffers from a glaring drawback: The Alt+Tab window shows only the program icons and titles. You can usually figure out which window you want to switch to, but sometimes the limited size of the cool switch window text box means that you can't tell whether the current window is the one you want.

NOTE

If you installed any of Microsoft's PowerToys utilities for XP, you might have used the Alt+Tab Replacement PowerToy. This small utility intercepted Alt+Tab keystrokes and displayed a large window that, as you pressed Tab, showed you not only each icon, but also a copy of the entire program window, making it easier to select the one you want.

If you have a video card that supports the Windows Vista Device Driver Model, Vista's version of the cool switch is similar to the Alt+Tab Replacement PowerToy. When you hold down Alt and press Tab, Vista displays not an icon for each open window, but a scaled-down version of each window. (There's also an icon for the desktop, which gives you a quick way to minimize all open windows and get to the desktop.) The power of WPF brings two considerable benefits to this so-called Flip method of switching windows:

- The WPF vector-based graphics ensure that the scaled-down windows are easily viewed and that the contents of these miniature windows are still fully readable.

- The WPF access to the GPU and its hardware acceleration mean that the scaled-down windows are “live” in the sense that they reflect the current state of each window, even if a window is playing full-motion video.

Figure 3.13 shows the Flip feature in action.



FIGURE 3.13 Press Alt+Tab to flip through live thumbnails of your running windows.

Flip is a nice update to the Alt+Tab cool switch, but Vista has another trick up its window-switching sleeve: Flip 3D. Press Windows Logo+Tab to convert the open windows to a 3D stack, as shown in Figure 3.14. To flip through the thumbnails, hold down the Windows Logo key and press Tab. Alternatively, press Windows Logo+Ctrl+Tab to get a 3D stack that doesn't require you to hold down any keys. When you have the stack displayed, you have two choices:

- **Use the arrow keys**—Press the down arrow or right arrow to move thumbnails toward the front of the stack; press the up arrow or left arrow to move thumbnails toward the back of the stack.
- **Use the scroll wheel on your mouse**—Scroll forward to move thumbnails toward the front of the stack; scroll backward to move thumbnails toward the back of the stack.

As with the Flip method, Flip 3D thumbnails show live content. When you bring the thumbnail you want to the front, press Enter to switch to that window.

TIP

As I write this, there is talk that some keyboard manufacturers will be adding a Flip 3D key in upcoming configurations. It's a certainty that Microsoft's own keyboards will include this feature, and I'm sure other manufacturers will follow suit.



FIGURE 3.14 Press Windows Logo+Tab and then scroll the mouse wheel to flip through a 3D stack of live thumbnails.

Taskbar Thumbnails

The taskbar's main duty is to play host to a set of buttons that represent the open windows on the desktop. You can switch to any window by clicking its taskbar button. In theory, it should be straightforward to choose the taskbar button for the window you want to activate because each button shows the window title and the icon associated with the program. In practice, however, picking out the correct taskbar button is often problematic because many window titles don't fit entirely inside the button. This is particularly true of documents, which tend to have longish names. The situation worsens as you open more windows because the more buttons there are on the taskbar, the smaller each button becomes.

The “solution” to this dilemma has long been the pop-up banners that appear when you hover the mouse pointer over a taskbar button. These banners show you the full title of the window. The pop-ups help, but you can still have problems figuring out the correct button if you have opened several documents that use similar names.

What you really need to know in these cases is what's *inside* each window, and Vista has just the thing: taskbar preview windows. When you hover your mouse pointer over a taskbar button in Vista, the WPF displays not only the window title, but also a thumbnail image of the window. As you've probably guessed by now, these thumbnails are live, so they show real-time changes to the window state, such as a running video. Figure 3.15 shows an example of a taskbar preview window.

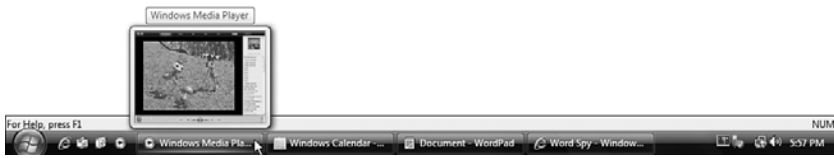


FIGURE 3.15 When you hover the mouse pointer over a taskbar button in Windows Vista, a live thumbnail of the window appears.

One of Windows XP's solutions to taskbar clutter was to group similar taskbar buttons together. For example, if you had several Internet Explorer windows open, XP would show just a single Internet Explorer taskbar button with an arrow. Clicking the arrow displayed a list of the open Internet Explorer windows, and you could then click the window you wanted to activate.

Windows Vista keeps this feature, but with a slight twist. When you hover your mouse pointer over a button representing a group of windows, a stacked thumbnail appears, as shown in Figure 3.16. The thumbnail that appears at the front of the stack is the window that you opened first. Note, however, that you cannot navigate the stack, so this version of the taskbar thumbnails is not all that useful.



FIGURE 3.16 When you hover the mouse pointer over a grouped taskbar button, a stacked thumbnail appears.

New Folder Windows

Microsoft has spent a lot of time rethinking document storage and has incorporated into Vista some substantial changes in the way we view, navigate, and use folders. I discuss many of these innovations in Chapter 4. For now, let's take a tour of the new interface features that you'll find in Vista's folder windows. Figure 3.17 shows a typical example of the species, the Documents window (formerly My Documents).

Navigating Folders

One of the most fundamental and possibly far-reaching of Vista's innovations is doing away with—or, technically, hiding—the old drive-and-folder-path method of navigating the contents of your computer. You could go your entire Vista career and never have to view or type a backslash. Instead, Vista implements drives and folders as hierarchies that you navigate up, down, and even across. As you can see in Figure 3.17, the Address bar doesn't show any drive letters or backslashes. Instead, you get a hierarchical path to the

current folder. The path in Figure 3.17 has three items, separated by right-pointing arrows:

- **Desktop icon**—This icon represents the top of the hierarchy. You'll see a bit later that you can use this icon to navigate to your computer drives, your network, the Control Panel, your user folder, and more.
- **Paul**—This represents the second level of the example hierarchy. In the example, this level represents all the folders and files associated with the account of a user named Paul.
- **Documents**—This represents the third level of the example hierarchy. In the example, this level represents all the folders and files that reside in the user Paul's Documents folder.

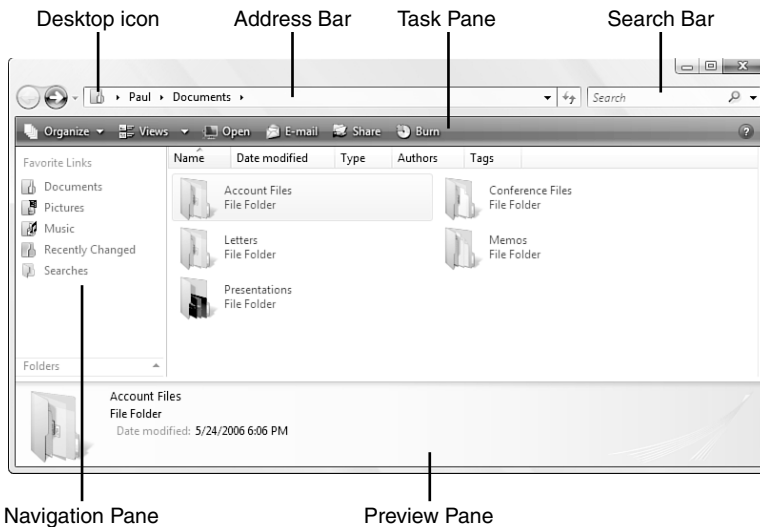


FIGURE 3.17 Vista's folder windows boast a radical new design.

TIP

If you miss the old pathname way of looking at folders, you can still drive letters and backslashes in Vista. Either right-click the path and click Edit Address, or press Alt+D. To return to the hierarchical path, press Esc.

This is a sensible and straightforward way to view the hierarchy, which is already a big improvement over previous versions of Windows. However, the real value here lies in the navigation features of the Address bar, and you can get a hint of these features from the nickname that many people have applied to the new Address bar: the *breadcrumb bar*.

Breadcrumbing refers to a navigation feature that displays a list of the places a person has visited or the route a person has taken. The term comes from the fairy tale of Hansel and Gretel, who threw down bits of bread to help find their way out of the forest. This feature is common on websites where the content is organized as a hierarchy or as a sequence of pages.

Vista introduces breadcrumb navigation to Windows not only by using the Address bar to show you the hierarchical path you've taken to get to the current folder, but also by adding interactivity to the breadcrumb path:

- You can navigate back to any part of the hierarchy by clicking the folder name in the Address bar. For example, in the path shown in Figure 3.17, you could jump immediately to the top-level hierarchy by clicking the Desktop icon on the far left of the path.
- You can navigate “sideways” to any part of any level by clicking the right-pointing arrow to the right of the level you want to work with. In Figure 3.18, for example, you see that clicking the Paul arrow displays a list of the other navigable items that are in the Paul folder, such as Downloads, Music, and Pictures. Clicking an item in this list opens that folder.

Click the arrow to see the items in that level

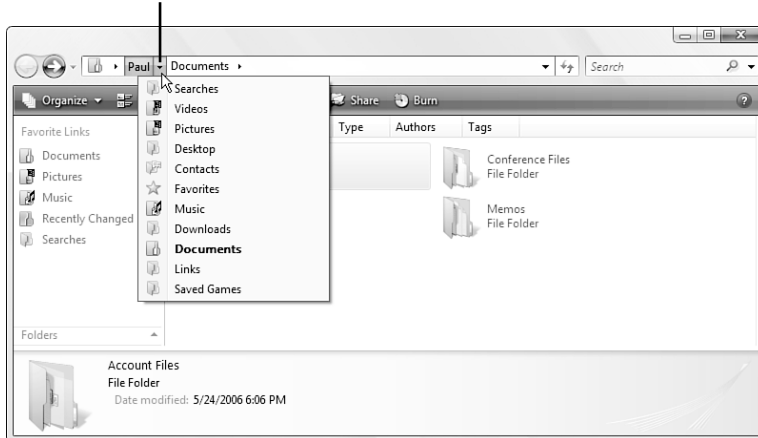


FIGURE 3.18 Breadcrumb navigation: In the Address bar, click a folder's arrow to see a list of the navigable items in that folder.

Instant Search

The next major change to the folder window interface in Windows Vista is the Instant Search box, which appears to the right of the Address bar in all folder windows. Search is everywhere in Vista, and I go into it in much more detail in Chapter 4. For folder windows, however, the Instant Search box gives you a quick way to search for files within the current folder. Most of us nowadays have folders that contain hundreds or even

thousands of documents. To knock such folders down to size in Vista, you need only type a word or phrase into the Instant Search box, and Vista instantly filters the folder contents to show just the files with names or content that match the search text, as shown in Figure 3.19. Vista also matches those files that have metadata—such as the author or tag—that match your text.

NOTE

For more on metadata in Vista, see the section in Chapter 4 titled “Metadata and the Windows Explorer Property System.”

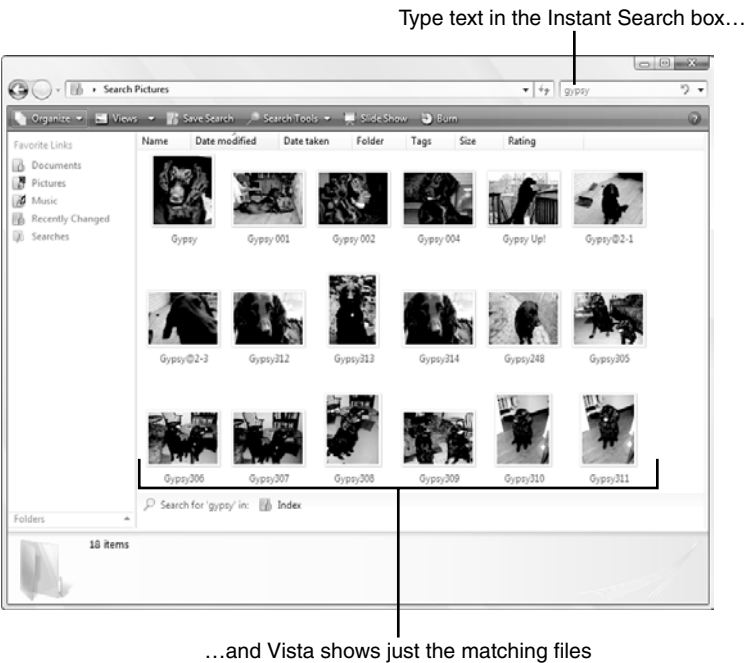


FIGURE 3.19 With as-you-type folder searching, Vista displays just those files with names or metadata that match your search text.

The Task Pane

The Task pane resides just below the Address bar and the Search bar. This pane contains task-related buttons, and its configuration depends on the type of folder you’re viewing. For example, in the Pictures folder (see Figure 3.20), there are buttons related to images, such as Preview and Slide Show.

However, all folder windows have the following two buttons:

- **Organize**—This button drops down a menu that enables you to perform basic file tasks (such as renaming, moving, copying, and deleting). It also has a Layout command that displays a submenu of options for configuring the folder window's layout by toggling the Preview pane, Reading pane, and Navigation pane (discussed in the next three sections), the Search pane (see Chapter 4), and the Classic menu bar (see the following Tip).
- **Views**—This button drops down a slider that enables you to change the folder view (such as Details, Tiles, or Large Icons).

TIP

Yes, the “classic” menus (as they’re now called) are still available. If you want to use them only occasionally, press Alt to display the menu bar. (Press Alt again to hide the menu bar.) If you want the menus to remain onscreen in the active Windows Explorer window, click Organize, Layout, Classic Menus. (To hide the menu bar, click Organize, Layout, Classic Menus to deactivate it.) If you want the menus to appear by default in all Windows Explorer windows, click Organize, Folder Options; display the View tab; and activate the Always Show Classic Menus check box.

The Preview Pane

The Preview pane resides at the bottom of the folder window, and it gives you information about either the current folder (if no files are selected), the currently selected file or folder, or the current multiobject selection. If a document is selected (see Figure 3.20), the Preview pane shows the following data:

- **A thumbnail of the document**—Vista’s document thumbnails are much more informative than XP’s. Here are some examples:
 - **Image**—The thumbnail shows a scaled-down version of the image.
 - **Video**—The thumbnail shows the first frame.
 - **Word document**—The thumbnail shows the first page.
 - **PowerPoint presentation**—The thumbnail shows the first slide.
 - **Excel workbook**—The thumbnail shows the first worksheet.
- **The document’s metadata**—This includes the title, rating, and tags, as well as metadata specific to the document type, such as Genre for a music file and Camera Model for a digital photo. Some of this data is editable, and you can modify that data by clicking the Edit link.

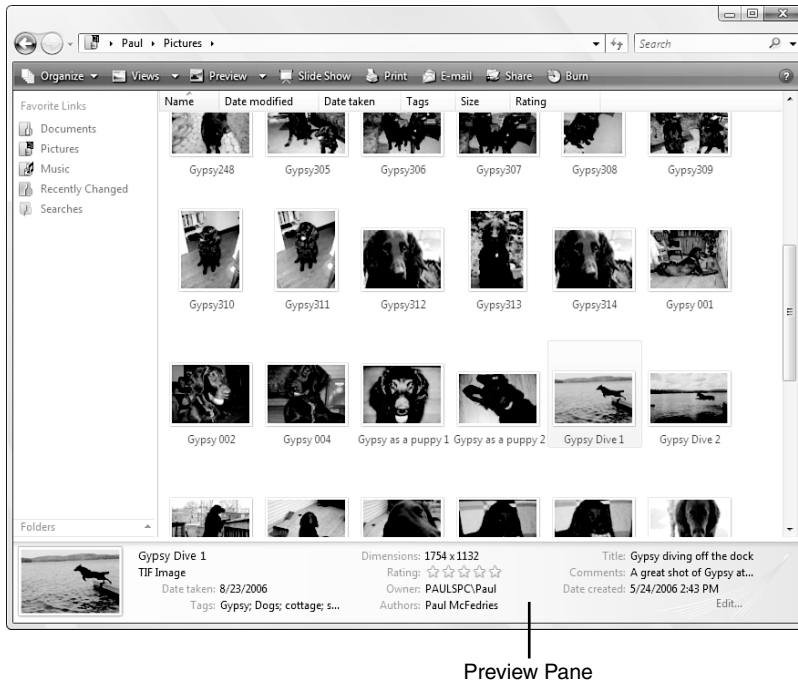


FIGURE 3.20 The Preview pane shows information about the selected file or folder.

The size of the Preview pane is also configurable. You can use two methods:

- Click and drag the top edge of the Preview pane up or down.
- Right-click an empty part of the Preview pane, click **Size**, and then click **Small**, **Medium**, or **Large**.

The Reading Pane

The Reading pane offers yet another thumbnail view of the selected object. (It should be apparent to you by now that Vista is big on thumbnails.) As with the thumbnail in the Preview pane, the Reading pane shows you the actual content from file types that support this feature, including images, videos, text files, and Office documents. Figure 3.21 shows the opening text from a text document previewed in the Reading pane.

The Navigation Pane

The Navigation pane appears on the left side of each folder window and offers access to a few common folders. The top three icons—Documents, Pictures, and Music—are shortcuts to those folders. The other two items in the Navigation pane are special folders called *search folders*, which I discuss in detail in Chapter 4. For now, here's a summary of what these three search folders represent:

- **Recently Changed**—Items from your Documents folder that you have created or modified in the past 30 days.
- **Searches**—A collection of search folders, including Recently Changed, Unread Email, and Favorite Music. Any searches that you save also appear in this folder.

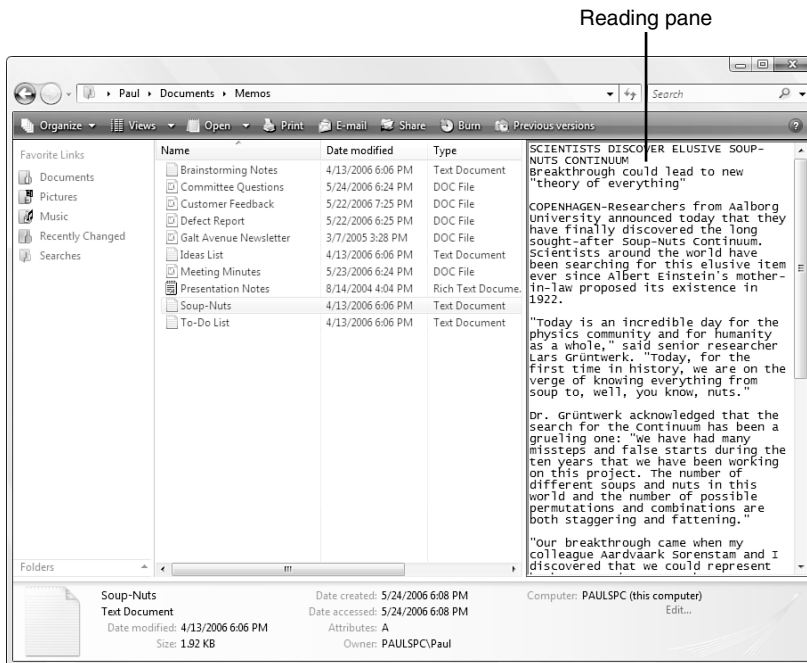


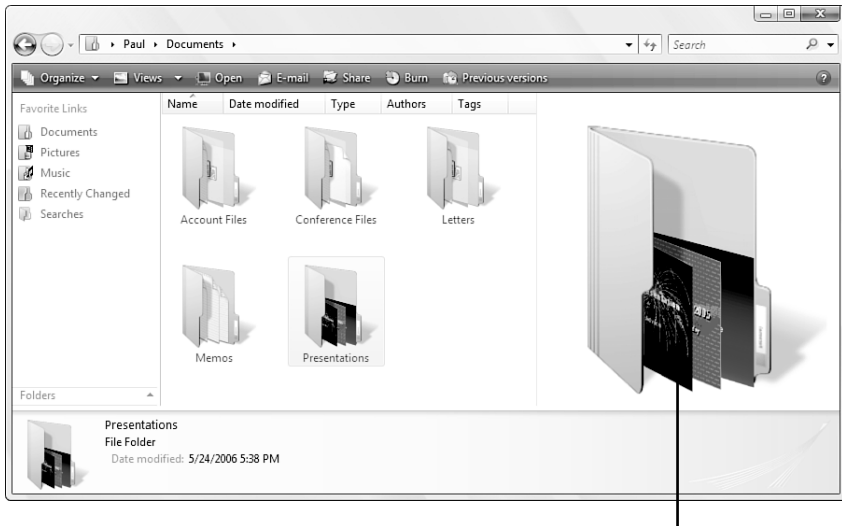
FIGURE 3.21 The Reading pane shows a thumbnail version of the selected file.

TIP

What happened to the Folders list? It's still around, but it's hard to pick out among all the new gewgaws. However, it's easy enough to get at it: just click Folders at the bottom of the Navigation pane.

Live Folder Icons

Do you ever wonder what's inside a folder? In previous versions of Windows, the only way to find out was to open the folder and take a look at the files. With Vista, however, that extra step might not be necessary. That's because Vista introduces a remarkable new feature called Live Icons; each folder icon is an open folder filled not with generic "documents," but with actual folder content. For example, if you have a folder that you use to store PowerPoint presentations, that folder's icon will show the first slides from several of those presentation files. Figure 3.22 shows an example.



Actual first slides from PowerPoint presentation files

FIGURE 3.22 With live icons, the folder icon is filled with actual content from the folder.

Gadgets and the Windows Sidebar

Remember the Active Desktop that Windows 98 foisted on an unsuspecting world? If not, don't worry about it—it was about as forgettable a technology as Microsoft has ever shipped (with the possible exception of Microsoft Bob). The idea wasn't a terrible one: enable the desktop to support mini-applications downloadable from the Internet. Why not convert the desktop wasteland into something that does more than just provide a home for a few icons? The problem was that the Active Desktop items were ugly, slow, barely functional, and hungry: Their appetite for system resources seemed boundless, and just a few of them running at the same time could bring the most powerful system to its knees. Microsoft quietly dropped the Active Desktop and it sank from view, never to be heard from again.

Now, however, Microsoft seems to be trying again. No, the Active Desktop hasn't risen from the dead. Instead, Microsoft is touting a new technology called *gadgets*, which are, once again, mini-applications. The big different between gadgets and Active Desktop items is that gadgets are much more versatile:

- You can run *web gadgets* from a website, such as Microsoft's Live.com site, shown in Figure 3.23.

- You can run *desktop gadgets* in Windows Vista's new Sidebar or on the desktop itself, as shown in Figure 3.24. (To display the Sidebar, select Start, All Programs, Accessories, Windows Sidebar.) In this example, the Sidebar is running three gadgets (from top to bottom): Slide Show (images from your Pictures folder), Clock, and Feed Viewer (RSS feeds from Internet Explorer). As you can see from the accompanying window, there are a number of other gadgets you can add.
- You can run *device gadgets* on external devices.

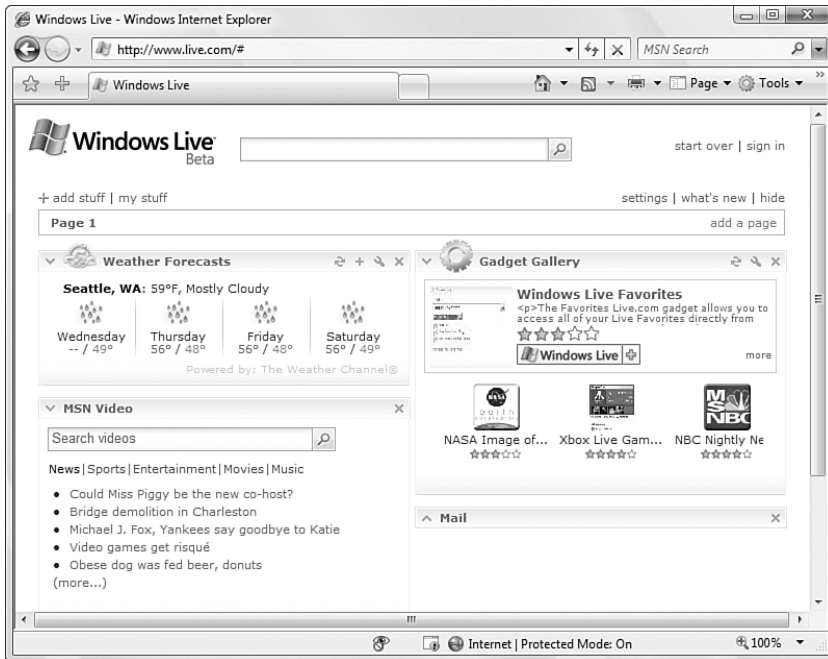


FIGURE 3.23 Websites can implement gadgets, as shown here on Microsoft's Live.com site.

Also, gadgets should prove to be far more robust and efficient than their Active Desktop predecessors because developers can build gadgets using either standard DHTML or the Windows Presentation Foundation.



FIGURE 3.24 Gadgets running in the new Windows Sidebar.

From Here

Here are some other sections in the book where you'll find information related to the topics in this chapter:

- To learn the system requirements to run Vista's Aero Glass interface, see the section in Chapter 2 titled "Graphics Requirements."
- For information on metadata in Vista, see the section in Chapter 4 titled "Metadata and the Windows Explorer Property System."
- See "Desktop Searching with the Windows Search Engine" in Chapter 4 to get the details on Vista's new search features.
- To learn about search folders, see the "Search Folders" section of Chapter 4.
- For information on Vista's new Games folder, see the section "The Game Explorer" in Chapter 10.