

Windows 7



PCWorld SUPERGUIDE



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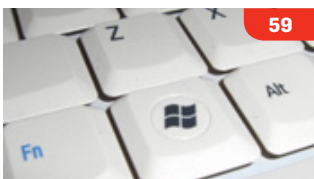
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Installation

The Smartest Way to Upgrade

Whether you're moving from Vista or from XP, we'll help you get up and running on Windows 7 without headaches.

How to Move Up to Windows 7

You can upgrade your PC without losing functionality or gaining gray hairs. Here's how.

LINCOLN SPECTOR

UPGRADING YOUR OPERATING system is always fraught with problems and anxiety, and quite often with disaster. But by taking the right precautions, gathering the needed materials, and hoping for the best while preparing for the worst, you can move to Windows 7 painlessly. I'm here to tell you how.

Since you're reading this, I'll assume you've already made the decision to upgrade, have checked to make sure your hardware is compatible, and have purchased your upgrade. If you haven't yet checked your hardware, download and run the Windows 7 Upgrade Advisor (as a general rule, if you're running Vista, you probably already have Windows 7-capable hardware).

You have one other early decision make: Do you want to upgrade your current Windows installation, or go for a clean, fresh install? The upgrade is certainly easier—your applications, your settings, and your data travel with you, and there's little you have to do after the install itself is complete. After a clean or fresh or (Microsoft's word) custom install, you'll have to set up your users and network, reinstall your drivers and programs, and move your data back into place.

A custom install is cleaner than an upgrade. Windows accumulates garbage as you use it, and flushing it out every so often makes sense. So does starting a new version of the OS with a clean slate.

If you're currently using XP, the choice has been made for you. The custom install is your only option.

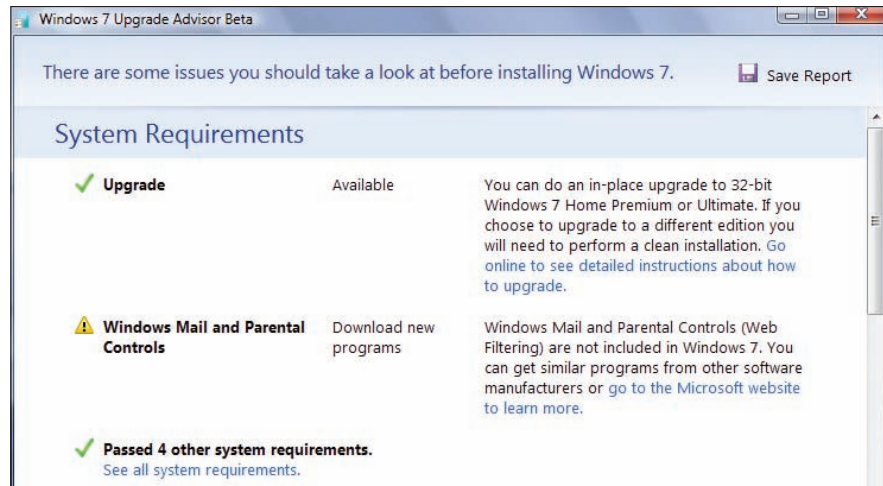
These instructions are for both kinds of installs. I'll let you know when instructions are only for one group or the other.

Prepare Your PC

You've got a few chores to do before you insert that Windows 7 DVD.

First, consider the driver issue. If you're upgrading from Vista, chances are you'll have no driver problems. If you're currently on XP, you almost certainly will.

Make sure you can get Windows 7 or Vista drivers for



THE FREE UPGRADE Advisor utility checks your PC's hardware and software to ensure that they will still work with Windows 7.

your display, audio, and networking adapters. If you use a wireless keyboard or mouse, you'll need to check drivers for those, as well. If you're not sure what these are, check Device Manager: In XP, select *Start*, right-click *My Computer*, select *Properties*, click the *Hardware* tab, and then the *Device Manager* button. In Vista, click *Start*, type **device manager**, and press **<Enter>**. You'll also want to check for your printers and scanners.

Once you know the devices, how do you find the drivers? Check the Windows 7 Compatibility Center. At press time, that site was still "coming soon," but the Vista equivalent is a good substitute until it's ready, especially for XP-to-Windows 7 upgraders. You can also check your devices' manufacturer Web sites. >>



Inside the OS Not Flashy, Just Effective

Microsoft's new OS won't blow you away with major innovations, but it gets the basics right. Here's what you'll love about Windows 7—and what you'll still complain about. »

ILLUSTRATION: KEITH NEBLEY

A Worthy Successor to Windows XP

Microsoft revamps the Taskbar, the System Tray, and other key interface features.

HARRY MCCRACKEN

WHAT IF A new version of Windows didn't try to dazzle you? What if, instead, it tried to disappear except when you needed it? Such an operating system would dispense with glitzy effects in favor of low-key, useful new features. Rather than pelting you with alerts, warnings, and requests, it would try to stay out of your face. And if any bundled applications weren't essential, it would dump 'em.

It's not a what-if scenario. Windows 7 has a minimalist feel and attempts to fix annoyances old and new. In contrast, Windows Vista offered a flashy new interface, but its poor performance, compatibility gotchas, and lack of compelling features made some folks regret upgrading and others refuse to leave Windows XP.

Windows 7 is hardly flawless. Some features feel unfinished; others won't realize their potential without heavy lifting by third parties. And some long-standing annoyances remain intact. But overall, the final shipping version appears to be the worthy successor to Windows XP that Vista never was.

Microsoft's release of Windows 7 also roughly coincides with Apple's release of its new Snow Leopard; for a visual comparison of the two operating systems, see our slideshow "Snow Leopard Versus Windows 7" Read on here for an in-depth look at how Microsoft has changed its OS—mostly for the better—in Windows 7.

Interface: The New Taskmaster

The Windows experience occurs mainly in its Taskbar—especially in the Start menu and System Tray. Vista gave the Start menu a welcome redesign; in Windows 7, the Taskbar and the System Tray get a thorough makeover.

The new Taskbar replaces the old small icons and text labels for running apps with larger, unlabeled icons. If you can keep the icons straight, the new design painlessly reduces Taskbar clutter. If you don't like it, you can shrink the icons and/or bring the labels back.

In the past, you could get one-click access to programs by dragging their icons to the Quick Launch toolbar. Windows 7 eliminates Quick Launch and folds its capabilities into the Taskbar. Drag an app's icon from the Start menu

or desktop to the Taskbar, and Windows will pin it there, so you can launch the program without rummaging around in the Start menu. You can also organize icons in the Taskbar by moving them to new positions.

To indicate that a particular application on the Taskbar is running, Windows draws a subtle box around its icon—so subtle, in fact, that figuring out whether the app is running can take a moment, especially if its icon sits between two icons for running apps.

In Windows Vista, hovering the mouse pointer over an application's Taskbar icon produces a thumbnail window view known as a Live Preview. But when you have multiple windows open, you see only one preview at a time. Windows 7's version of this feature is slicker and more efficient: Hover the pointer on an icon, and thumbnails of the app's windows glide into position above the Taskbar, so you can quickly find the one you're looking for. (The process would be even simpler if the thumbnails were larger and easier to decipher.)

★★★★★ **VERY GOOD**

Windows 7 Ultimate | Microsoft

This workmanlike operating system is a practical, well-designed, and slightly faster upgrade over Vista.

Street: \$320

Also new in Windows 7's Taskbar is a feature called Jump Lists. These menus resemble the context-sensitive ones you get when you right-click within various Windows applications, except that you don't have to be inside an app to use them. Internet Explorer 8's Jump List, for example, lets you open the browser and load a fresh tab, initiate an InPrivate stealth browsing session, or go directly to any of eight frequently visited Web pages. Non-Microsoft apps can offer Jump Lists, too, if their developers follow the guidelines for creating them.

Other Windows 7 interface adjustments are minor, yet so sensible that you may wonder why Windows didn't include them all along. Shove a window into the left or right edge of the screen and it'll expand to fill half of your desktop. Nudge another into the opposite edge of the screen, and it'll expand to occupy the other half. That >>



Performance Much Slimmer, Slightly Faster



Windows 7 is efficient enough to run even on netbooks with puny processors, but it's only marginally faster than Vista, according to tests by PC World Labs. »

Windows 7 Makes Some Strides Over Vista

Find out how the operating system fared against Vista on boot time, battery life, and benchmark performance.

NICK MEDIATI

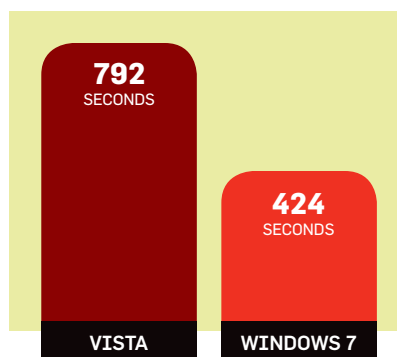
WINDOWS VISTA NEVER was particularly speedy in most people's eyes. Whether it deserved the reputation or not, the word on the street was that Vista was both slow and bloated.

Given that, it's no wonder that improving performance was one of Microsoft's design goals with Windows 7. Many reviewers have said that the new operating system feels faster than Vista. In our extensive PC World Labs evaluations comparing the two, we found an increase in speed, though the overall improvement wasn't dramatic.

We installed Windows 7 on five computers (two desktop systems, two laptop PCs, and a netbook), and put the systems through our

Windows 7 vs. Vista

IN OUR WORLDBENCH 6 Nero tests, Windows 7 showed big improvements. Performance nearly doubled on average over Vista, which indicates that the new OS enhances hard-disk performance.



*Average of results from six test PCs. Lower time equals better performance.

WorldBench 6 benchmark suite, which consists of a number of tests that assess a machine's performance in popular, real-world applications. We also ran timed tests to measure how the two OSs affected boot-up and shutdown times, laptop battery life, and launch times for several common apps. (For more information, see "Windows 7: How We Test.")

The verdict? Windows 7 makes some performance strides over Vista, though in some cases we saw no clear-cut winner, and in one area Windows 7 lagged considerably behind its predecessor.

For more of PCW's Windows 7 coverage, read our in-depth Windows 7 review. [»»](#)

Windows 7 vs. Vista: Speed Test Results

The PC World Labs put both Windows 7 and Windows Vista through extensive performance testing and found that the new operating system makes incremental improvements over its predecessor overall. Below are select results from the WorldBench 6 suite.

TEST SYSTEM	WorldBench 6 (overall)		DirectX 3D rendering		Firefox		Nero		WinZip	
	Higher scores are better.		Lower times indicate better performance; all times are reported in seconds.							
	Windows 7	Windows Vista	Windows 7	Windows Vista	Windows 7	Windows Vista	Windows 7	Windows Vista	Windows 7	Windows Vista
E&C Black Mamba (64-bit)	144	139	244	263	169	171	203	218	147	153
HP Pavilion a6710t (32-bit)	106	104	375	378	262	256	313	365	203	222
HP Pavilion a6710t (64-bit)	103	96	399	404	264	271	314	688	208	219
Gateway T-6815 (32-bit)	64	58	719	1093	443	431	667	1648	449	495
Lenovo IdeaPad Y530 (32-bit)	84	83	563	515	371	305	517	703	252	313
Lenovo IdeaPad Y530 (64-bit)	83	79	572	532	373	320	530	1127	253	291

CHART NOTES: Bold text indicates better performance. All tests performed by the PC World Test Center in August 2009, using the final release version of Windows 7 and Windows Vista Service Pack 2. We tested the HP Pavilion a6710t and the Lenovo IdeaPad Y530 first with the 32-bit Windows Vista Ultimate and Windows 7 Ultimate, and then again with the 64-bit versions of both OSs.



Networking Connect to a Home or Office Network

Share files, Internet connections, multimedia, and more with Windows 7's built-in tools. »

ILLUSTRATION: KEITH NEGLEY

Set Up a Home Network

Windows 7 is packed with features that make home networking easier and more fun than before. Here's how to get started with file sharing, media streaming, and more.

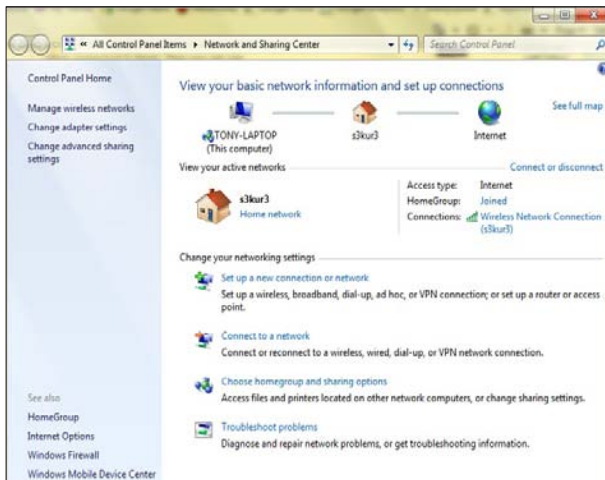
TONY BRADLEY

NETWORKING ISN'T JUST for business anymore—these days, home networks are the norm. In response, Microsoft is offering the Windows 7 Family Pack, which includes three licenses for Windows 7 Home Premium at a discounted price.

The multilicense bundle isn't Microsoft's only move: In Windows 7 the company has made networking home PCs and sharing their files and folders much simpler. Whether you need to connect to the network, to share printers and resources, to access and play music, or to do anything else across the network, Windows 7 makes the entire process more seamless and intuitive than it was in either Windows Vista or Windows XP.

Managing Network Connections

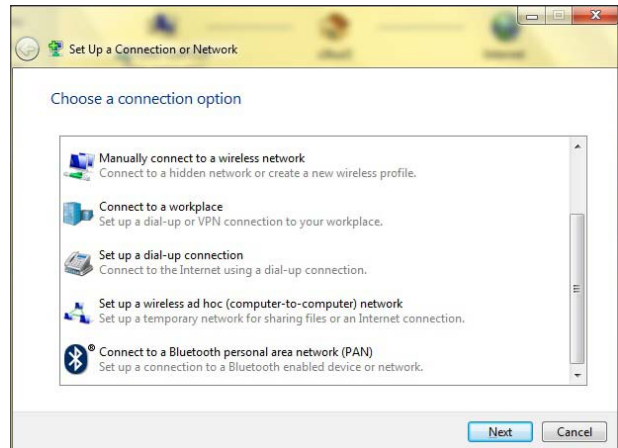
In Windows 7, Microsoft has improved the Network and Sharing Center (introduced in Windows Vista) to provide greater functionality and make it the go-to place for man-



WINDOWS 7'S NETWORK and Sharing Center is the launch point for all things network-related.

aging all aspects of network connectivity.

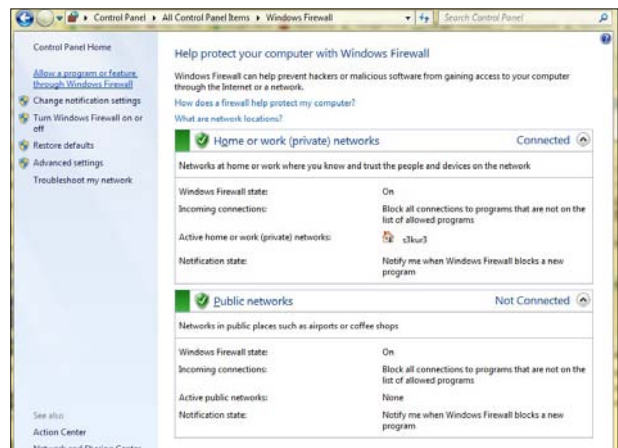
The Network and Sharing Center—which is available in the Windows 7 Starter, Home Premium, Professional, and Ultimate editions—allows you to find new networks and create new network connections, verify connection status, and troubleshoot network connectivity issues.



WINDOWS 7 PROVIDES simple wizards to guide you through setting up different types of network connections.

At the top is a visual representation of the current connection; you'll also find a link that displays the full map of your network, visually. If you lose your connection, the graphic will show the broken connection so that you can easily identify which portion is down.

You can click *Troubleshoot problems* at the bottom of the Network and Sharing Center to initiate diagnostic tests that will help you identify and resolve the issue. You can also establish new wireless-network or VPN connections by >>



WINDOWS 7 LETS you configure unique firewall profiles for the different network location types



Fine-Tuning Working With the New OS

Safely share your PC with everyone in your home or office, customize the interface, get the best performance, and more. »

Manage Multiple Users

Use Windows 7's built-in tools to oversee multiple users on your PC and your network.

MICHAEL SCALISI

A COMPUTER RUNNING Windows 7 might be used by a single person, by a group of people in an office, or by a family in a home. Fortunately, Windows 7 was designed from the ground up to be a multiuser operating system. The new OS is flexible and can support many different scenarios, with each user having appropriate permissions and a customized environment. Every person using Windows 7 must log in with an account, and each account has a personalized desktop,



THE 'USER ACCOUNTS and Family Safety' control panel provides a straightforward interface for managing users.

Start menu, documents folder, history, favorites, and other customizations.

All of that stuff resides in the Users folder on the root of the system drive, where each account has a subfolder named after it. The two main tools I'll describe in this article are the 'User Accounts and Family Safety' wizard-based tool, which you can find in the Control Panel, and the traditional 'Local Users and Groups' tool, which is available in Computer Management.

Account Types

Before you start creating new users on your Windows 7 computer, you should understand the difference between the two main account types.

Administrators have full control over the system. They can install software programs and hardware drivers, and they can create and modify new users and groups. Additionally, they can reset passwords, set policies, and edit the Registry. The OS identifies tasks that require administra-

tor permissions with a Windows security icon.

Standard users are permitted to log on to the computer, run programs, customize their accounts, and save files in their user folders. Users are restricted from making system-wide changes.

The First User

When Windows first installs, it asks you for a user name and password, which it then uses to create your first account. This account joins the Administrators group, which has the highest set of privileges. From this account you can create and manage all other user accounts. When one person is the sole user of a computer, this first account is sometimes the only one ever created. However, even if you are the only user, a recommended practice is to create a second, standard account for daily use, so that you have it separate from your account with administrative privileges for managing the system. If you want to install software or make other system changes while logged in as a standard user, never fear: When you attempt to make the change, Windows will prompt you to authenticate your administrator account so that you won't need to log on with it.

Creating a New Account

To create a new account, open Control Panel and choose



CREATE A NEW user with the Create New Account wizard.

User Accounts and Family Safety, Add or remove user accounts.

Click on *Create a new account*. Type in the new account name, select either the *Administrators* or *Standard Users* user type, and then click *Create Account*. By default, Windows assigns no password; you can make one by clicking on >>