



What's new in Windows 7? Below are some easy explanations of some of the new and updated features from the newest Microsoft operating system.

Feature Comparison

Features	Windows 7 Home Premium	Windows 7 Professional	Windows 7 Ultimate
32-Bit Maximum RAM	4GB	4GB	4GB
64-Bit Maximum RAM	16GB	192GB	192GB
Home Group (Create & Join)	Yes	Yes	Yes
Windows Internet Explorer 8	Yes	Yes	Yes
Windows Media Player 12	Yes	Yes	Yes
Windows Mobility Center	Yes	Yes	Yes
Windows Aero	Yes	Yes	Yes
Multi-Touch	Yes	Yes	Yes
Premium Games	Yes	Yes	Yes
Windows Media Center	Yes	Yes	Yes
Encrypting File System	No	Yes	Yes
Location Aware Printing	No	Yes	Yes
Remote Desktop Host	No	Yes	Yes
Presentation Mode	No	Yes	Yes
Windows Server Domain	No	Yes	Yes
Windows XP Mode	No	Yes	Yes
AppLocker	No	No	Yes
BitLocker Drive Encryption	No	No	Yes
BranchCache Distributed Cache	No	No	Yes
DirectAccess	No	No	Yes
Subsystem for Unix-Based applications	No	No	Yes
Multilingual User Interface Pack	No	No	Yes
Virtual Hard Disk Booting	No	No	Yes

Home Group:

HomeGroup takes the headache out of sharing files and printers on a home network. Connect two or more PCs running Windows 7, and HomeGroup makes it easy to automatically start sharing your music, pictures, video, and document libraries with others in your home. The new “Share with” menu, meanwhile, provides a speedy way to share individual files.

Concerned about privacy? HomeGroup is password-protected and puts you in total control. You decide what gets shared – and what stays private. You can also make your files “read only,” so other people can look at (but not touch) your stuff.

You can create and join a HomeGroup in Windows 7 Home Premium, Windows 7 Professional, and Windows 7 Ultimate.

Aero:

The Aero desktop experience mixes cool graphics with useful new ways to manage your desktop. Aero visual hallmarks include subtle animations and translucent glass windows, which you can personalize. Pick from the included color palette, or create your own custom tints with the color mixer.

There's more to Aero than style. Point to a taskbar icon, and you'll see a thumbnail-sized preview – even for live video. Hover over a thumbnail, and it morphs into a full-screen preview. Aero Shake and Aero Peek cut through the desktop clutter by quickly minimizing open windows or turning them invisible.

Windows Mobility Center:

Windows Mobility Center is a recently introduced application in Windows Vista and Windows 7 that allows you to easily access all the settings related to your mobile PC (laptop, notebook, Tablet PC). By using these settings you can improve the battery lifetime or system performance while working, without being connected to a power supply.

Multi-Touch:

Mover over mouse: When you pair Windows 7 with a touch-screen PC, you can browse online newspapers, flick through photo albums, and shuffle files and folder – using nothing but your fingers.

Limited one-finger touch capability has been available in Windows for years, but Windows 7 is the first to fully embrace multi-touch technology. Need to zoom in on something? Place two fingers on the screen of a multi-touch compatible PC and spread them apart. To right-click a file, touch it with one finger and tap the screen with a second. The Start menu and taskbar now sport larger, fingertip-friendly icons. All your favorite Windows 7 programs are also touch-ready. You can even finger paint in Paint!

Encrypting File System:

A key security feature of Windows 7 Professional and Ultimate, Encrypting File System is useful for user-level file and folder encryption. For example, if two users are sharing a computer, an administrator can use Encrypting File System to encrypt each user's data to make it unavailable to the other user. For network file and folder encryption, Windows 7 enhances Encrypting File System management by enabling administrators to store Encrypting File System keys on smart cards.

IT administrators can use Group Policy in Windows 7 to block the use of removable storage devices, such as USB flash drives and external hard disks, to help prevent the compromise or theft of corporate intellectual property and sensitive data.

Location-Aware Printing:

Do you routinely print to multiple printers from your laptop? Now you don't have to manually switch printers when you go from, say, home to work. Windows 7 can do it automatically.

The new feature, included in the Professional and Ultimate editions of Windows 7 works like this: Whenever you print, Windows 7 remembers which network and printer you're using. Next time you return to that spot, Windows automatically switches the default printer to match the one you last used. You can also manually pair printers and networks.

Windows XP Mode:

It's the best of both worlds: The new Windows XP Mode lets you run older Windows XP business software right on your Windows 7 desktop.

Designed primarily with small and medium sized business in mind, Windows XP Mode comes as a separate download and works only with Windows 7 Professional and Ultimate. Windows XP Mode also requires virtualization software such as Windows Virtual PC. Both are available free on the Microsoft Website.

AppLocker

AppLocker is a flexible, easily administered mechanism that enables IT professionals to specify exactly what is allowed to run on user desktops. It provides the flexibility to allow users to run the applications, installation programs, and scripts they need to be productive. Learn how you can realize the security, operational, and compliance benefits of application standardization by using AppLocker. The AppLocker feature is found only in Windows 7 Ultimate and Enterprise editions.

BitLocker Drive Encryption

BitLocker Drive Encryption is a full disk encryption feature included with the Ultimate and Enterprise editions of Microsoft's Windows Vista and Windows 7 desktop operating systems. It is designed to protect data by providing encryption for entire volumes.

BranchCache Distributed Cache

BranchCache creates an automated infrastructure for caching documents right within your individual branch offices. Once a remote document is accessed by a branch office desktop, that document is then cached in the remote location. Any future request for the document is automatically referred to its new second home instead of its far-away remote source.

The primary reason for local caching is speed. Caching documents to a local storage area dramatically reduces their load time. If a needed document is locally available, a requesting client will automatically load that document from the local cache instead of going over the wire. Since the document doesn't need to traverse the WAN, the net result for users is a dramatic improvement in performance with no extra outlay in network hardware.

DirectAccess

DirectAccess is a new feature in the Windows 7 operating systems that gives users the experience of being seamlessly connected to their corporate network any time they have Internet access. With DirectAccess, users are able to access corporate resources (such as e-mail servers, shared folders, or intranet Web sites) securely without connecting to a virtual private network (VPN). DirectAccess is only found in the Windows 7 Ultimate and Enterprise editions.

Subsystem for Unix-Based Applications

Subsystem for UNIX-based Applications (SUA) is a source-compatibility subsystem for compiling and running custom UNIX-based applications on a computer running Windows 7 Enterprise or Ultimate. You can make UNIX-based applications fully interoperable with Windows in SUA with little or no change to your original source code.

SUA supports case-sensitive file names, job control, compilation tools, and the use of over 300 UNIX commands, utilities, and shell scripts. Because the subsystem installs separately from the Windows kernel, it offers true UNIX functionality without emulation. SUA is only found in the Windows 7 Ultimate and Enterprise editions.

Multilingual User Interface Pack

Language packs or MUI packs are used to change the default language of Windows 7 to a language of your choice. For example, download and installing the French language pack will translate all the menus and options in Windows 7 into French.

This feature is only available in Windows 7 Enterprise and Ultimate. You can download these language packs via Windows Update.

Virtual Hard Disk Booting

In Windows 7 Ultimate and Enterprise editions, a virtual hard disk can be used as the running operating system on designated hardware without any other parent operating system, virtual machine, or hypervisor. Windows 7 disk-management tools, the DiskPart tool and the Disk Management Microsoft Management Console (Diskmgmt.msc), can be used to create a VHD file. A Windows 7 image (.wim) file can be deployed to the VHD and the .vhd file can be copied to multiple systems. The Windows 7 boot manager can be configured to boot directly into the VHD.