

By Steven Pittsley

Early indications are that Windows Vista will be the most comprehensive operating system ever produced by Microsoft, and the eye candy offered by the 3-D Aero Glass graphics are very slick. But enhanced functionality and graphical improvements come at a price--and that price is usually high-end hardware. If you plan to take advantage of all that Windows Vista offers, that's definitely true. The minimum requirements to run Microsoft's latest flagship will be much steeper than any previous operating system.

Microsoft has created two distinct hardware classifications for PC manufacturers to use for their new systems. A PC can be either Vista Capable or Premium Ready. The standard Vista Capable machines have more scaled down hardware requirements than the Premium Ready machines. Other than being cheaper and a bit slower than their beefy Premium Ready siblings, the biggest difference between the two systems is that Vista Capable machines can't use the exciting new Aero Glass graphics.

Here are 10 factors to address as you prepare your existing computers to run Windows Vista. Many of the hardware requirements are surprisingly easy to meet, despite the demands of the operating system. The biggest hurdle to run Windows Vista will be the graphics card requirement, although this requirement is less stringent if you don't plan to use the new Aero Glass graphics. In general, a majority of existing PCs will be fully capable of running Windows Vista with standard 2-D graphics. It may not be as pleasing to the eye, but it's likely to be pleasing to your pocket book.

1 Analyze your machine for upgrade readiness

Before doing anything else, you should download and run the [Windows Upgrade Advisor](#) utility. This software will examine your computer and provide you with a summary of what versions of Windows Vista the computer is capable of running. Note that the Upgrade Advisor only indicates whether or not the PC will run Windows Vista. It does not indicate which requirements the PC doesn't meet.

2 Check the CPU

The CPU requirements for Windows Vista are not earth shattering by any means. To be considered Vista Capable, the computer must have a CPU of at least 800 MHz. Those that are Premium Ready require a processor of at least 1 GHz. Most computers that have been sold in recent years will meet this requirement with ease.

3 Make sure you have enough memory

Memory is another fairly easy-to-meet hardware requirement for Windows Vista. To be considered Vista Capable, the PC must have at least 512 MB of RAM. Premium Ready machines must have a minimum of 1 GB of system RAM. Most modern PCs will either meet this requirement or be capable of a relatively inexpensive upgrade.

4 Evaluate your graphics adapter

Those of you looking forward to the new 3-D Aero Glass graphics will need to make sure that your graphics adapter is DirectX 9 capable. WDDM (a Windows display driver model for writing drivers) compatibility is also recommended. To be considered Premium Ready, the graphics adapter must have a minimum of 128 MB of video RAM. Vista Capable cards require only 64 MB of video RAM. Unless you plan on using the Aero Glass graphics, there is no reason to upgrade your existing video adapter if it's Vista Capable.

5 Verify that you have sufficient hard drive space

With hard drive capacity constantly increasing, available space is usually not a major concern. However, you should still be aware of the minimum space requirements for Windows Vista.

Take a moment to verify that your system has enough free space. To install Windows Vista, the hard drive must be at least 40 GB in size and have a minimum of 15 GB of free space.

6 Make sure you've got a DVD drive

Windows Vista ships on a DVD, so to install the new operating system, the computer must have a DVD drive. This is another requirement that should be fairly easy to meet, since DVD drives have become commonplace or require only a fairly inexpensive upgrade.

7 Sort out the versions

Determining which version of Windows Vista to install can be a bit more complex than it was with previous versions of Windows. Windows Vista will have five editions:

- **Windows Vista Home Basic.** This version of Vista provides basic operating system functionality. If you don't need advanced features, such as Aero Glass, this is the choice for you. Average home users will choose this version, although stepping up to Windows Vista Home Premium will offer more functionality.
- **Windows Vista Home Premium.** This version is sort of a cross between Windows XP Home and Windows XP Professional. It offers much more functionality than the Vista Home Basic edition and is probably the version that most average to advanced home users will install.
- **Windows Vista Business.** This version is comparable to Windows XP Professional. It offers standard business functionality and will be a staple on the corporate desktop.
- **Windows Vista Enterprise.** The Vista Enterprise version offers advanced functionality such as BitLocker Drive Encryption for laptops, application compatibility tools, and multi-language support.
- **Windows Vista Ultimate.** The Vista Ultimate version combines the best of the home and business editions into one feature-rich operating system. This version also includes the Windows Media Center.

8 Check application compatibility

To make your Windows Vista installation go as smoothly as possible, you should ensure that your existing applications will run under Vista before installing it. You can download and run the [Application Compatibility Toolkit](#) to help you identify applications that may not run under Windows Vista.

9 Don't overlook data backups

Backing up your data is one of the most critical steps in upgrading your operating system. Unfortunately, this step is often overlooked in the excitement of installing the latest operating system. In addition to backing up your data, it's best to verify that you have all of the installation media from your existing software and the appropriate licensing information before you start the installation.

10 Remember the notebooks

Notebook computers must meet all of the same hardware specifications as desktop PCs. The one problem with notebooks, however, is that if the graphics card isn't compatible, there is little that you can do to upgrade the system.

Additional resources

- TechRepublic's Downloads RSS Feed [XML](#)
- Sign up for TechRepublic's Downloads Weekly Update newsletter
- Sign up for our Windows Vista Report newsletter
- Check out all of TechRepublic's free newsletters
- ["10 things to consider before rolling out Windows Vista in your organization"](#) (TechRepublic download)
- ["Installing Windows Vista: The good, the bad, and the ugly"](#) (TechRepublic download)
- ["What you need to know before you upgrade to Windows Vista"](#) (TechRepublic download)

Version history

Version: 1.0

Published: October 13, 2006

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