

Horizon Newsletter



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Windows Vista

This article will address...

- Known hardware requirements
- Components needed for new systems
- What updates are needed for existing systems to run Vista at its full potential.

Availability: Beta 2 was released in June, and Microsoft now says final products will be available to businesses in November. General release to consumers is now set for January 2007. Analysts say a more likely ship date is mid-2007.

Ease-of-use: User interface has been redesigned — taking a cue from Mac OS X. It features a new graphical user interface (GUI) called Aero which is optional and isn't included in the base version. Aero looks great and requires some hefty graphics horsepower.

Security: Vista is more tightly integrated with Microsoft's anti-malware tools than Win XP. Vista supports advanced security features, such as hard-drive encryption and a new feature called Windows Service Hardening, which helps prevent virus, spyware and other malware from messing with critical system-level components. Vista also includes features to make it easier and faster to find files, manage wireless networks, and integrate with backup and system-recovery tools.

Requirements

Microsoft is pushing two systems requirements categories:

- Vista Capable
- Vista Premium Ready

Vista Capable: System that will be able to install and run the OS and its core new features, such as security enhancements and search improvements. What it probably won't do is run the Aero GUI, which requires a higher-end graphics processor. It's also likely to be pretty sluggish, due to the slower main processor and the less-than-ideal RAM included.

Minimum requirements:

- 800MHz processor
- 512MB RAM
- 15GB of free hard-drive space
- DirectX 9-capable graphics card (An old-school Super VGA graphics card will work, but the graphics and resolution won't be as rich.)

Vista Premium Ready: Supports all of the main features, including security enhancements and search improvements and have the capacity to run Aero.

Minimum requirements:

- 1GHz processor
- 1GB RAM
- 15GB of free hard-drive space
- DirectX 9 capable graphics card with 128 MB of memory and support for WDDM and Pixel Shader 2.0

The main difference between Capable and Ready is more RAM. A system with an integrated video card sharing system memory is almost certainly not going to cut it.

Bottom line: Microsoft's recommended minimums are way too low for a true production system. The more RAM and graphics horsepower, the better your experience is likely to be.

Five Editions

Home Basic: Includes only the core security and usability/search improvements. Does not include the Aero interface and many of the bells and whistles such as Photo Gallery, Movie Maker and Media Center.

Home Premium: Aero GUI is included along with all of the Media Center functionality, such as support for watching DVDs, recording TV (similar to TiVo), and the ability to connect to Xbox 360 built-in. This is the edition most home consumers will choose.

Business: Incorporates several tools to ease connections with corporate and wireless networks. Also includes Windows Defender integrated anti-spyware/malware protection.

Enterprise: Similar to Vista Business, but with the addition of a few business features, including the ability to use Virtual PC Express to run older applications. Another bonus: Subsystem for UNIX-based Applications (SUA), a package for running Unix programs that can be critical when working with certain legacy systems.

Cost?

Microsoft hasn't said much about pricing. Most analysts expect the prices to be similar to those for WinXP.

- XP Home retails for \$99 for an upgrade copy and \$199 for the full version.
- XP Pro is \$199 for the upgrade, \$299 for the full version.
- XP Media Center Edition adds about \$25 to the price of XP Pro.

Test Results of the Adviser on two systems

A laptop with a 1.2GHz processor and 512MB...

The laptop in its current state won't run Vista for multiple reasons. Mainly, there's too little hard-drive space, and its graphics card has too little power to run Aero. Strange that the Upgrade Adviser didn't recommend adding additional RAM because Vista has higher RAM requirements than XP.

A two-year-old tower with a 2.5GHz processor, 768MB and upgraded with a NVIDIA 6600GT graphics card...

The tower passed with more or less flying colors. Because Watch and Record TV was selected in the Adviser, it noted that the video card does not support TV output, let alone HDTV output. It did, however, suggest to use the PC as a media-center host and connect it to an HDTV through a Microsoft Xbox 360.

Vista continued...

Ultimate: Includes all features from the versions above. Choosing Ultimate means you won't have to decide between having fun and doing business. Either way, you'll be covered.

Vista Upgrade Advisor

Lets you test your current system's readiness to run Vista. It also evaluates which edition would be best. Once you install this application, a quick system scan will start. A Web page asks what options you want.

The options you can check or uncheck include:

- Elegant user experience with Windows Aero
- Work Anywhere (this covers wireless networking and VPN support)
- Watch and record TV, premium photo
- Music and movie experiences
- Connect to corporate or campus networks
- Simplify My Business (this covers simplifying networking and system-management features)

Two other options, that cannot be unchecked, are included with all versions: Strengthen Security, and Search and Organize. Based on the options you select, the Advisor dynamically changes the edition it recommends.

Picking any of the **first four options** above points you to Home Premium.

Picking **Simplify My Business** or **Connect to Corporate or Campus Networks** points you toward Business.

Picking a **combination** of them points you to Ultimate.

Oddly, no combination recommended Enterprise.

Clicking next will bring you to a readout showing how the system you're testing would fare when trying to install and run the edition that Upgrade Advisor has recommended.

Vista-Ready Systems

Motherboards should support up to 2GB to cover you for the next few years. Don't be surprised if Vista's minimum system requirements for RAM have trouble running the newest applications. Although Intel and AMD both promise efficiency improvements in their new multi-core processors, there's no reason to think you can cut corners on power. Add to that the need for a separate, power-hungry graphics card to get the full Aero experience, and you'll regret going with anything less than 400watts or so on newer systems. Expect changes coming for hard-drive and DVD drive interfaces. Especially with Serial ATA (SATA) becoming more prominent and customers starting to include Blu-ray and HD-DVD drives in their systems.

Upgrading Older Systems for Vista

Older PCs can be able to run Vista provided they have enough RAM and graphics power. RAM and graphics power are the two make-or-break areas for upgrading to Vista.

Get systems into the range of 1.5GB to 2GB of memory. Today, 2GB of RAM is overkill for just about everything but the most tricked-out XP system. Most systems running Vista will need to upgrade to at least 1GB of memory.

Currently, there doesn't seem to be any motherboard-integrated graphics cards that will support the full Aero interface. That means one of three things:

- 1) A lot of customers will settle for non-Aero graphics.
- 2) Integrated graphics cards will get a lot more powerful, very quickly.
- 3) NVIDIA and ATI are going to sell a boatload of expensive standalone video cards.

It seems Vista will only be available on DVD. So a DVD drive will be helpful for installing Vista, unless you'll pull the OS files from a network. Upgrading to a 100GB drive or better should be adequate for the next few years.

Blu-ray and HD-DVD

Both the Blu-ray and HD-DVD formats rely on blue-laser technology. The main advantage: greater storage capacity. While using the same surface area as a conventional CD or DVD, the new blue-laser discs store much more. A blue-laser disc holds at least 15GB, and some roadmaps call for as much as 200GB on a single disc.

Format War: The DVD Forum, the consortium that is responsible for the DVD format, developed and promotes HD-DVD. The Blu-ray Disc Association champions the Blu-ray format. Key players for Blu-ray include Apple, Sony, Mitsubishi and Matsushita. Promoters of HD-DVD include Toshiba, Intel, Microsoft and NEC.

All the major film studios have announced support for at least one of the two formats, but some will initially publish titles for both. Unlike the conflicting "dash-R" vs. "plus-R" battle fought over writeable DVD media, the Blu-ray vs. HD-DVD skirmish looks to be more protracted. If it sounds like Betamax vs. VHS all over again, you're right. Most likely, hybrid drives will emerge that support both Blu-ray and HD-DVD media types.

As of now, there is no clear winner. HD-DVD has a slight advantage, since it was the first out of the gate with consumer products, and since manufacturing process proponents say the technology is more accessible to existing CD/DVD plants. But Blu-ray is looking at a major boost when the Sony Playstation 3 is released, reportedly in November, as the PS3 will sport a Blu-ray drive.

Vendor Stability: The major proponents of both Blu-ray and HD-DVD technology are large, solid, and reliable organizations. While an investment in either Blu-ray or HD-DVD could be lost if one or both formats fail to gain traction with consumers, media suppliers are lined up on both sides of the blue-laser aisle. They should provide blank media for many years to come. You can buy either disc technology today without worrying too much about the vendor going out of business.

Backwards Compatibility: Backwards compatibility from either Blu-ray and HD-DVD is not completely guaranteed. The HD-DVD format includes regular DVD compatibility as part of the specification. But for Blu-ray, DVD compatibility is only recommended, not strictly mandated. Both CD audio and CD-ROM support remain questionable. There have already been a couple of Blu-ray drives for early adopters which are not CD-compliant.

Given the sheer quantity of data entrusted to CD-ROM and CD-R over the past 15 years, it seems almost a given that any serious contender for desktop space will need to include full CD-reading capabilities, even if not all will write to CD-R media. But be forewarned: There are, and will likely continue to be, next-generation optical devices that do not have complete read/write compatibility with DVD and particular CD formats. In other words, read the specs carefully.

Writeable Discs: CD makers took several years to get field-writeable discs into the mainstream. By contrast, specifications for writeable Blu-ray and HD-DVD are already well-entrenched and understood, and the first drives to ship for these platforms tend to be write-capable. So early adopters can get everything from one single drive: They can instantly boost their backup capabilities with writeable discs, even if the software they buy or exchange does not ship on blue-laser formats for a matter of years.

CD vs. DVD: DVD-ROMs have still not completely supplanted CD-ROMs; similarly, blue-laser discs will not shove either DVD or CD media production completely into the drawer for some time. This is a cutting-edge technology that seems likely to become a necessity for imaging and video applications where huge sums of data are king. In mainstream computing, where 700MB on a CD is still perfectly acceptable, adoption of blue-laser discs will likely be slower.

Early Adopters: While not all companies use optical as a serious alternative for near-line storage or backup, the high capacities of Blu-ray and HD-DVD give them a perfect opportunity to start considering such a move.

Capacity

Blue lasers can penetrate through more layers. While CDs are always single-sided and single-layered and DVDs max out at two layers each on two sides, some Blue-ray discs reportedly offer four layers on a side. More layers per side means that more data can be accessed without having to manually turn over the media or use another disc.

Blu-ray discs store 25GB per layer and supports dual-sided discs. HD-DVD stores 15GB per layer and supports dual-sided discs. CD-ROMs max-out at 700MB. DVD double-sided tops out at 9.4GB.

Size

The physical size and shape of the media for both Blu-ray and HD-DVD formats is essentially unchanged. It's still the familiar round-platter-with-a-hole made famous by music CDs.



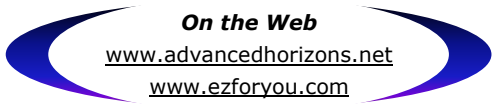
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Humor

All You Really Need to Know Can Be Learned From Noah's Ark



1. Don't miss the boat.
2. Don't forget that we're all in the same boat.
3. Plan ahead. It wasn't raining when Noah built the ark.
4. Stay fit. When you're 600 years old, someone might ask you to do something REALLY big.
5. Don't listen to critics, just get on with what has to be done.
6. Build your future on high ground.
7. For safety's sake, travel in pairs.
8. Two heads are better than one.
9. Speed isn't always an advantage; the snails were on board with the cheetahs.
10. When you're stressed, float awhile.
11. Remember that the ark was built by amateurs; the Titanic was built by professionals.
12. Remember that woodpeckers inside are a larger threat than the storm outside.