

# Windows 7®

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## *Upgrade Considerations*



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*Cherry Hill Regional Chamber of Commerce  
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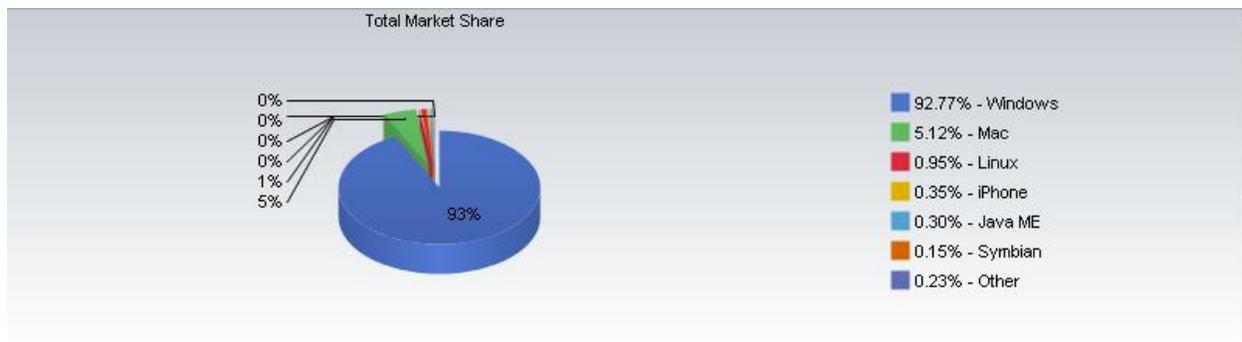
## Scope

We'll not try and describe every feature available in Windows 7, just several of the most important things you'll want or need to know in order to help you decide how or when to upgrade to Windows 7, choose the right version, and begin to enjoy some of the new features.

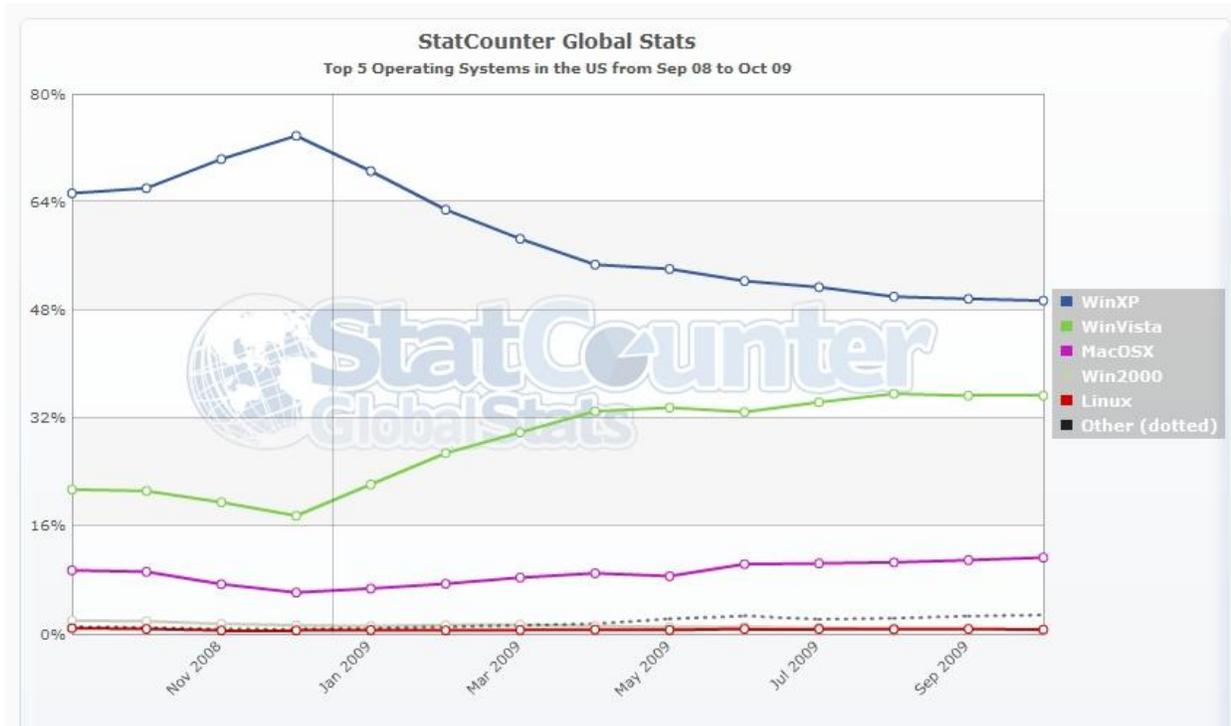
## Windows Operating System Background

Windows is a computer operating system. Users want their operating systems to be reliable, user-friendly, and capable. The primary purpose of the operating system is to run computer software applications, like word processing, spreadsheet, accounting packages, database programs, photo editing programs, music players, web browsers, and e-mail clients. In addition to the core functionality of running applications, the operating system has become host to several computer utilities, programs that aren't necessarily applications software, but more like a swiss-army knife of tools that perform functions like backs-ups, anti-virus software, firewall software, etc. In fact, there's been ongoing multi-million dollar legal controversy between the European Union and Microsoft related to where the operating system ends, and where independent software applications begin.

In any case, Windows XP is used by a large percentage of the computer-user population. It was designed in 1999 and came out in 2001. Windows Vista came out in early 2007.



Overall Operating System Market Share as of September, 2009 according to <http://marketshare.hitslink.com/default.aspx>



Operating System Market Share Trend from October 2008 through October 2009 according to <http://gs.statcounter.com/#os-US-monthly-200809-200910>

The obvious point from the prior two graphs is that Windows XP came out in 2001, and Windows Vista came out 2007, but Windows XP still has leads in market share by a significant margin. Why? Windows Vista had problems.

- Hardware and software compatibility issues
- Hardware not capable of running the operating system efficiently
- Annoying nuisance security warnings

Windows 7 is officially to be released October 22, 2009. How has Windows 7 addressed the problems of Windows Vista?

### Hardware and Software Compatibility (Drivers, Peripheral Devices, Software Applications)

For hardware and software compatibility there were a couple of primary issues. One compatibility problem was *driver software* – the software that controls peripheral devices and key computer components from printer drivers to video drivers to Ethernet network card drivers. A second was that some older desktop applications simply wouldn't run on Vista. And closely related to the driver and overall software application compatibility issue, was that there were both 32-bit and a 64-bit versions of Vista, with the latter being a more powerful system but one where more devices and older applications wouldn't operate.

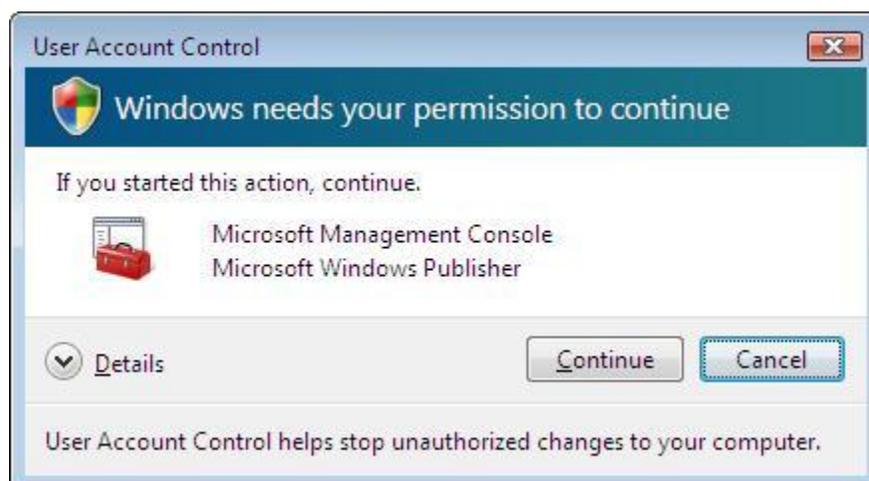
The driver problem has been addressed by a more organized and better-managed software release cycle. Computer hardware suppliers and manufacturers such as Dell Computer have been more aware of the importance of having the drivers ready to go when the software is released. Plus, they've had three years to develop experience working with Vista, and Windows 7 builds on the foundation of Windows Vista, so there's more experience and better overall preparedness for Windows 7. You can use a rule of thumb that if your hardware plays nicely with Vista, that it'll work with Windows 7. You may, of course, need to update your drivers, but they should all be available.

The desktop application software issue follows along the same lines that if it runs on Vista, it should also run on Windows 7. The problem, of course, is that a lot of people didn't upgrade to Vista because they found that their software wasn't compatible. For example, I have an older version of Adobe Photoshop Elements that I've been using for years, and it doesn't run on Vista. I also use a Cisco VPN client that I need to connect to a customer's network and I don't have a version that runs on Vista 64-bit operating system. So, for these reasons, I still have one PC that runs XP. Sure, I could buy the later version of the software package, and I could bug the I.T. guy at my client site to find a version of the VPN client that will run on Vista 64-bit, but I don't want to buy another software package for \$199.00, and my I.T. guy doesn't want to buy any more VPN client software until he has to. So what's the answer to this one? You have three options: keep running the old apps on XP, upgrade the app to one that is compatible with Windows 7, or run the app in *Windows XP mode* on Windows 7 (more on that later).

## Vista Incapable

Microsoft had a marketing campaign in 2007 by the name of Vista-capable, which was to help determine if PC's were ready-and-able to run the new operating system effectively. The "Vista capable" stickers were used on Windows XP systems sold in the run-up to Vista. Let's just say we don't expect a similar fiasco this time around.

## User Account Control



The third major frustration users have had with Vista, is related to the dreaded User Account Control (UAC). Basically what that is, is a pop-up that asks if you are sure you want to go ahead and do something that you just decided that you do want to do. The concept was that there are rogue spyware, malicious software

(a.k.a., malware), and viruses out there that may try and commandeer control of your PC. If UAC requires a manual confirmation of each action where one program is requesting another program to do

something, then there's less chance a virus or other type of malicious code can attack your computer. Going back in history, you have to recall that around the time Vista was developed, Microsoft was under attack for not battening down the hatches tightly enough when it came to fighting viruses. Bill Gates was promoting a "Trustworthy Computing initiative" designed to make Windows more secure. The trade-off, it turns out, was less usability. I've had situations, where just installing software because so impossible, made me want to cry. UAC just wouldn't let my programs access certain files or other programs that they needed to install or run.

With Windows 7, the User Account Control beast has been tamed. It's no longer out of the realm of most users to "turn the UAC down a notch" when and if they need to, to get a program installed or running. You'll see in the new Windows 7 UAC pop-up that you have control over how ferocious the guard-dog will be.

So, to wrap-up the background / introduction section here, we'll point out that Windows 7 is an upgraded operating system over Windows Vista. It runs lighter (loads less programs on start-up, uses less RAM, and the installation eats up less disk space), consumes less power (which will help battery-powered mobile laptop users), has a better user interface (more similar to Mac), has some useful new utilities or features, and is generally rated as stable and reliable. And, most importantly, three of the killer (bad) issues with Vista have been addressed and resolved.

The question, then, based on market share, and based on the fact that a lot of Windows XP machines are approaching the end of their useful life cycle, is how to go about upgrading to Windows 7, what you need to know, what to expect, and what to watch out for.

## Upgrade Considerations

Unless you're a Mac user, or you expect your existing PC to last forever, you're most likely, eventually, going to be faced with the prospect of either:

- Buying a new PC with Windows 7
- Upgrading from XP or Vista to Windows 7

So, whether you want to upgrade or have to upgrade, or whether you have to buy a new PC, you're most likely going to encounter Windows 7 eventually. All new PC's you go to buy retail will be loaded with the Windows 7 operating system. There are still ways to get XP and Vista, and many business I.T. departments will want to take their time rolling out the new system, so if you're at a business that has a either a volume license or enterprise license agreement with Microsoft, you'll be able to install whichever operating system you like, for pretty much as long as you want.

## Do You Need Windows XP Mode?

Here's one really good reason to upgrade: if you're like me, you have applications that only run on Windows XP, and you've been holding off upgrading your PC or laptop because you were afraid that the

old application wouldn't run on Vista or Windows 7, and – also – you don't want to work on two separate machines. Well, now you can buy a new Windows 7 machine that is capable of running Windows XP mode, and you'll have all the benefits of the later operating system, plus backward compatibility with your old application. But you need to do your homework to make sure of two things:

- The hardware of the new system is capable of running in Windows XP mode
- You buy the right version of Windows 7 that offers the Windows XP mode functionality (XP Mode is available in the Professional, Ultimate, and Enterprise versions of Windows 7)

In this case, you'd want to buy a machine with "Chip Level Virtualization Support." It might not be easy to tell if machines meet this requirement – so if you need it, you'll want to be especially sure before you buy. Recall that many machines that claimed to be "Vista-compatible," really weren't. To start with, look for AMD-V or Intel-VT branded chips.

Here are two tools that will tell you if the processor on your current machine is capable of running in XP mode:

- [Intel Processor Identification Utility](#)
- [AMD Virtualization Compatibility Check Utility](#)

My Dell Latitude D620 turns out not to have the required Virtualization Technology to run XP Mode.



A few other points about XP Mode, and then we'll move on

- It requires more system resources (2 GB RAM minimum, and 15 GB of hard drive space), but if you're getting the advanced chip set, you're probably not into skimping on the horsepower, and you *shouldn't* skimp on the hardware if you want to run XP mode.
- There's a switch in the BIOS that you'll need to flip to enable XP mode
- When you're running an application in XP mode, it will look and feel just like you're running it in native Windows 7
- But it's not running in native Windows 7 – it's running in Windows XP – which means you'll need to secure your Windows XP virtual machine with security updates and anti-virus, etc.
- You have to download and install Virtual PC
- You have to download, install, and configure a Windows XP SP3 Virtual Hard Disk image, which is essentially, your *virtual* Windows XP operating system.
- You then startup your Virtual PC XP environment, install your old PC applications on the XP machine, and you're done.
- You'll then be able to run the XP applications from the start menu, just like the other Windows 7 applications.

So, we've covered the first upgrade consideration – whether you need to have XP mode. The second upgrade consideration is: should you upgrade your existing PC to Windows 7 or let your Windows XP / Vista machines die a natural death and wait until you're ready to buy a new PC to get Windows 7?

## Hardware and Applications Software Compatibility

As far as hardware and software compatibility, you'll can be fairly certain that that if your devices and applications work on Vista, they'll work on Windows 7. But you may not have that luxury if you're still happily running XP.

There's an easy check that you can do on your existing hardware to see if it's going to be compatible with Windows 7. It's called the [Windows Upgrade Advisor](#). I ran the upgrade Advisor on my Dell Latitude D620 laptop, and show the results in Appendix A. It looks like I'd be able upgrade my laptop that's currently running XP, with too many worries from a hardware driver or system horsepower perspective. But I would most likely need to free up some disk space, which wouldn't be a problem because I'd need to do a fresh install anyway; which brings us right up to the next point.

## In Place Upgrade or Clean Install

If you're running Windows Vista, you'll be able to upgrade to a like version of Windows 7 with the purchase of an upgrade license.

If you're running Windows XP, you're going to have to save off your data and basically wipe your computer hard drive clean as you install a fresh version of Windows 7. Then you'll have to reinstall any and all applications software you're running, like Office, QuickBooks, Adobe Acrobat Reader, Photoshop, etc. My recommendation is to take an inventory of the machine. Make sure that you get everything off the machine you need! Make sure you grab templates of important forms or documents, e-mail history if that's kept stand-alone on this PC, all your data files, documents, contacts, etc. Oh, and music and photos. Don't forget the music and the photos!

Be sure to check a couple things before going the XP to Windows 7 upgrade route:

- Backup your entire PC, just in case you get to a point where the upgrade just isn't going to work out; and you decide to stick with XP...a free trial download version of [Macrium Reflect](#) may suit the bill for this task.
- Again, [Windows Upgrade Advisor](#) on your XP machine to make sure it's capable
- Make sure any older applications you're running on XP will be compatible with Windows 7, or else make sure your machine is capable of running in XP mode. We talked about how to check if you processor is capable of running XP mode, and you may have gathered that it's a fairly advanced procedure to get that to work, and remember that it requires a powerful machine. The better alternative is to know ahead of time that your applications are going to run in Windows 7 native mode. The [Windows 7 Compatibility Center](#) is the place to find out what works before you upgrade.

- After you take inventory of all of your software, make sure you have the disks and license keys to reinstall them. Look for license keys on the original installation CD's or in e-mails. Make sure you have these, or you're going to have a hard time re-installing your applications.
- [Migrate files and settings to a new computer](#) using Windows Easy Transfer. This will require another external hard disk drive, separate from the one you backed up your whole XP computer onto.

The Vista-to-Windows 7 upgrade is an “in-place” upgrade, and should be significantly easier since you won't have to reinstall all of your applications.

This [technet library article](#) provides step-by-step instructions for either the XP-to-Windows 7 or the Vista-to-Windows 7 upgrade paths.

### Which Version – based on Upgrade Path

For upgrades, you're going to be restricted somewhat in which version you can upgrade *to*, depending on what version you're upgrading *from*. You can upgrade up versions, but if you want to “upgrade” to a lesser version, you're going to have to perform a clean install. But anyway, upgrade licenses are cheaper, so let's look into these for a moment. First of all, you have to actually be running a genuine licensed version of Windows XP or Vista to upgrade to Windows 7. The upgrade license is going to look for that.

Actually, I'm going to defer here. The upgrade options are complicated, and I'd be up all night trying to document the various scenarios. Here's an excerpt, and a web link to an [excellent post by Ed Bott](#) on the ZDNet blog discussing the topic:

***Is it fair that I have to pay the same price to upgrade from Windows Vista Ultimate as someone running Windows XP Home or Vista Home Basic?***

**No, it's not fair. But the alternative would be ludicrously complicated.**

***What's the difference between an OEM license, an upgrade license, a full license, and a volume license?***

**Can I just explain the infield fly rule? That would be easier. Seriously.**

**No? OK, fine:**

**An OEM Windows license is one that's included with a new computer. The top 20 manufacturers get insanely great discounts on Windows compared to retail costs. This license is locked to the computer on which it's installed.**

**A System Builder OEM license has a much lower discount but is still a pretty good deal with a new PC from a small system builder.**

**An upgrade license is a discounted retail copy of Windows that can only be installed on a system that already has an OEM or full license.**

**A full license is sold at retail and is intended for use on a computer that was not sold with Windows originally. The price is horrendously high.**

**Volume licenses are sold in bulk to corporate customers, in quantities of five or more at a time. A volume license is available as an upgrade only.**

### **Which Edition – based on the Features**

The big dividing line for most users will be deciding whether they need a PC to connect to a computer network, or domain. We often see business users running out to Staples or Best Buy and coming back with a Home Office Premium version of the operating system, which is not going to connect to your typical corporate office computer network.

The cutover between the ability to join a domain, or not, is the same version cutover that will determine if you can run XP mode – and that is the difference between the Home Premium Edition and the Professional Edition.

The Enterprise or Ultimate version is required for BitLocker Drive Encryption, which would protect data if laptops were lost or stolen.

Home office networking is a different story, and the Home Office Premium version is well-suited for the home-based business-owner that would like to share data and devices across a small network. Home Office Starter and Home Office Basic editions can join the Home Office network, but not host it.

The features in each successive higher Windows 7 version are a “superset” of the features in the previous version. Also, you can use an unlocking key to get at higher versions that are installed, but not activated with Windows Anytime Upgrade, [explained in this post by Brandon LeBlanc on the Windows Blog](#).

### **32-bit or 64-bit**

Go with 64-bit if your hardware can handle it, which most should at this point; and if your programs will run on it. There may be certain key programs, that you’re emotionally attached to, that only run on Windows 7 32-bit. Again, run the [Windows Compatibility Checker](#), which launches on October 22, with the launch of Windows 7. Here’s a screenshot from the Windows Vista Compatibility Checker. Note that you can run it for either 32-bit or 64-bit queries.

The screenshot shows the Windows Vista Compatibility Center search results for software. The page has a green header with the title "Windows Vista Compatibility Center" and navigation links for Home, About, Feedback, and FAQ. Below the header is a search bar with a dropdown menu set to "Software" and a "Go" button. The search results are displayed in a table with columns for software name, version, publisher, and compatibility status. The results are sorted by Relevance and show 10 results per page. The first five results are:

Software Name	Version	Publisher	Compatibility Status
Adobe Photoshop Elements	version 7	Adobe	Not Compatible (64-bit)
IrfanView	version 4	irfan skiljan	Status Unknown (64-bit)
Adobe Photoshop Elements	version 6	Adobe	Not Compatible (64-bit)
Adobe Photoshop Album Starter Edition	version 3	Adobe	Status Unknown (64-bit)
Adobe Photoshop CS3		Adobe	Compatible (64-bit)

## Where's My Old Familiar Features?

If you're not on a corporate network with an Exchange messaging server, there's a good chance you're using either Webmail or POP3 e-mail. With webmail, you're accessing your e-mail whilst connected to the web, and your e-mails and contact lists are "hosted" on a site such as AOL, hotmail, msn, Yahoo, Google, Comcast or Verizon, etc. Any combination of these e-mails can be downloaded to your desktop using a light e-mail client like Outlook Express (XP) or Windows Mail (Vista). Then, your e-mail is on your computer, and you don't need to be online to read or compose your e-mails. You only need to connect to send and receive, which can be done automatically, on a 15-minute interval, or on-demand.

Outlook Express was included in XP (and tied to Internet Explorer 6), and Windows Mail was included in Windows Vista. Windows 7 does not allow installation of Internet Explorer 6, and doesn't make it easy to activate the "old" Windows Vista-based Windows Mail e-mail client. The program is included as a *hidden file* in \Program Files\Windows Mail\WinMail.exe. To get this program to work, you'd actually need to grab (and take ownership of) a dll file from Vista (msoe.dll) of the same (32-bit or 64-bit) technology.

I'm not advocating working around the suggested Windows Live Mail suggestion from Microsoft, and it doesn't really affect me because I use Outlook. But my mom uses Windows Mail, she gets it, she's

comfortable downloading POP3 e-mail from Verizon, and she likes it much better than Verizon's Webmail client. But, she'd never be found re-registering .dll's on an idle Sunday afternoon. We'll have to wait and see how this one plays out.

## What's Not to Like?

So, all this verbiage and we hardly talked about [the features](#), the snap, crackle, and pop of the new user interface. The nice and simple DVD burner, the [Problem Steps Recorder](#), the Task Bar, the Jump Lists, etc. The features are too numerous to list here and everyone has their favorite new features, or things they wish would have been improved (or left alone).

Some of the new features are targeted to specific user audiences, and you'll want to figure out which one is best suited for your situation, see Appendix B for a summary of the editions with pricing, and Appendix C for main features that differ by edition.

Best of all, the operating system is stable, gets along well with peripheral devices and built-in hardware, and you can predict ahead-of-time if your software is going to run in Windows 7 native mode. And if you really want to run your old software, you can run it in XP mode.

## Appendix A – Example Output from Windows Upgrade Advisor

The Windows 7 Upgrade Advisor was run on the Dell Latitude Laptop, presently running Windows XP. Because the machine is currently running XP, the upgrade path is to perform a clean installation of Windows 7 operating system, and re-install any required application software programs. Be sure to save off data and favorites before you start, and be sure that you have original program disks and license keys for your programs.

There are some issues you should take a look at before installing Windows 7.

### System Requirements

 <b>Upgrade</b>	Backup system first	You'll need to perform a custom installation of Windows 7 and then reinstall your programs. Make sure to back up your files before you begin. <a href="#">Go online to get important information about installing Windows 7.</a>
 <b>Hard Drive Free Space</b>	2.03 GB	You need at least 16 GB of free space on your hard disk to install 32-bit Windows 7, or 20 GB of free space to install 64-bit Windows 7. You can make room by removing unwanted files from your hard disk, contact your PC manufacturer or retailer to see if a hard disk with more capacity is available for your PC, or install Windows 7 on another hard disk.
 <b>CPU speed</b>	1.66 GHz	Your CPU meets the 1 GHz minimum requirement.
 <b>RAM</b>	3.25 GB	Your system memory meets the 1 GB requirement for 32-bit Windows 7 and the 2 GB requirement for 64-bit Windows 7.
 <b>Windows Aero</b>	Capable	Your system can run Windows Aero.

### Devices

 <b>HP Color LaserJet 3600</b>	Action recommended	An update is required to make this device compatible with Windows 7. <a href="#">Go online to get the latest driver from the</a>
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HP

[manufacturer's website.](#)**! DYMO LabelWriter 400**

Action recommended

An update is required to make this device compatible with Windows 7. [Go online to get the latest driver from the manufacturer's website.](#)

DYMO

**✓ NVIDIA Quadro NVS 110M**

Action recommended

Run Windows Update after installing Windows 7 to make this device compatible.

NVIDIA

**✓ SigmaTel High Definition Audio CODEC**

Compatible

This device is compatible with Windows 7.

SigmaTel

**✓ Conexant HDA D110 MDC V.92 Modem**

Compatible

This device is compatible with Windows 7.

Conexant

**✓ O2Micro OZ6912 CardBus Controller**

Compatible

This device is compatible with Windows 7.

O2Micro

**✓ Broadcom NetXtreme 57xx Gigabit Controller**

Compatible

This device is compatible with Windows 7.

Broadcom

**✓ Intel(R) PRO/Wireless 3945ABG Network Connection**

Compatible

This device is compatible with Windows 7.

Intel Corporation

**✓ USB Smart Card reader**

Compatible

This device is compatible with Windows 7.

USB CCID Compliant

 <b>USB Mass Storage Device</b>	Compatible	This device is compatible with Windows 7.
Compatible USB storage device		

## Programs

 <b>Intel(R) PROSet/Wireless</b>	Minor issues	You might experience minor issues using this program while running Windows 7. For more information, go online to the manufacturer's website.
version 10.1.0.0		
Intel Corporation		
<a href="#">Visit the publisher's website.</a>		
 <b>Alps Pointing-device Driver</b>	Minor issues	You might experience minor issues using this program while running Windows 7. For more information, go online to the manufacturer's website.
version 5.5.101.156		
Alps Electric Co., Ltd.		
<a href="#">Visit the publisher's website.</a>		

## Appendix B – Windows 7 Editions Summary

### Windows 7 Starter

Designed for use on netbook computers, and will come pre-installed. This edition is low-priced (but it's usually going to be included with the netbook price, you can't buy it retail), but has the limitation that it can only run three separate applications at once. Those three applications don't include browser sessions, and once an application is open, you can have as many windows as you want with the one application. If the user is not satisfied with the restrictions of the starter edition, they would be able to upgrade to Home Premium.

### Windows 7 Home Premium

Available for approximately \$199.99 (\$119.99 for upgrade), this edition contains features aimed at the home market segment, such as the ability to create a home network, called Group that makes it easy to share libraries of pictures, music, and documents; plus devices like printers and scanners. All the machines that are going to connect to the HomeGroup will need to be Windows 7 machines also (not XP or Vista).

The Home Premium edition does not give you the option to remote into one computer from another, join a domain (network with Active Directory), or run applications in XP Mode.

### Windows 7 Professional

Available for approximately \$299.99 (\$199.99 for upgrade), Windows 7 Professional includes all the features of Windows 7 Home Premium, with the primary step-up being the ability to connect to a Windows Server-based computer network (a domain). You'll also get the ability to run applications in XP mode. Business laptop users may want to take advantage of encryption technology that allows files and folders to be password-protected and encrypted in case the hard drive is ever lost or stolen. You can setup your laptop computer up so that it will recognize whether you're at home or at work, and choose the right printer. You'll also be able to "remote in" to one computer from another.

### Windows 7 Enterprise

This edition targets the large company segment of the market and is sold through volume licensing to companies that have a Software Assurance contract with Microsoft. It comes with multi-lingual capabilities and has BitLocker Drive Encryption and UNIX application support.

### Windows 7 Ultimate

Available for approximately \$319.99 (\$219.99 for upgrade), Windows 7 Ultimate contains the same features as Windows 7 Enterprise but the licensing is different in that you'll be able to purchase it retail or OEM (with the purchase of new PC's or laptops). If you're using one of the lower-ranked Windows 7 operating systems, you'll be able to upgrade to Windows 7 Ultimate.

## Appendix C – Detailed Features List by Windows 7 Edition

Features / Availability	Starter	Home Premium	Professional	Enterprise	Ultimate
	OEM licensing	Retail and OEM licensing		Volume licensing	Retail and OEM licensing
32-bit and 64-bit versions	32-bit only	Both	Both	Both	Both
Maximum physical memory (64-bit mode)	N/A	16 GB	192 GB	192 GB	192 GB
Maximum physical CPUs supported	1	1	2	2	2
Home Group (create and join)	Join only	Yes	Yes	Yes	Yes
Backup and Restore Center	Cannot back up to network	Cannot back up to network	Yes	Yes	Yes
Multiple monitors	No	Yes	Yes	Yes	Yes
Fast user switching	No	Yes	Yes	Yes	Yes
Desktop Wallpaper Changeable	No	Yes	Yes	Yes	Yes
Desktop Window Manager	No	Yes	Yes	Yes	Yes
Windows Mobility Center	No	Yes	Yes	Yes	Yes
Windows Aero	No	Yes	Yes	Yes	Yes
Multi-Touch	No	Yes	Yes	Yes	Yes
Premium Games Included	No	Yes	Yes	Yes	Yes

Features / Availability	Starter	Home Premium	Professional	Enterprise	Ultimate
Windows Media Center	No	Yes	Yes	Yes	Yes
Windows Media Player Remote Media Experience	No	Yes	Yes	Yes	Yes
Encrypting File System	No	No	Yes	Yes	Yes
Location Aware Printing	No	No	Yes	Yes	Yes
Remote Desktop Host	No	No	Yes	Yes	Yes
Presentation Mode	No	No	Yes	Yes	Yes
Windows Server domain joining	No	No	Yes	Yes	Yes
Windows XP Mode	No	No	Yes	Yes	Yes
Aero glass remoting	No	No	No	Yes	Yes
AppLocker	No	No	No	Yes	Yes
BitLocker Drive Encryption	No	No	No	Yes	Yes
BranchCache Distributed Cache	No	No	No	Yes	Yes
DirectAccess	No	No	No	Yes	Yes
Subsystem for Unix-based Applications	No	No	No	Yes	Yes
Multilingual User Interface Pack	No	No	No	Yes	Yes
Virtual Hard Disk Booting	No	No	No	Yes	Yes