

Sun City Summerlin Computer Club

Upgrading to Windows 7

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Windows 7 Versions

- **Windows 7 is the Successor to Windows Vista**
- **Versions and MS Retail Prices:**

	Upgrade	Full
– Windows 7 Home Premium	\$120	\$200
– Windows 7 Professional	\$200	\$300
– Windows 7 Ultimate	\$220	\$320
– Windows 7 Basic (no retail copies)		
– Windows 7 Starter (no retail copies)		
– Windows 7 Enterprise (Corporate licenses)		
- **More Information**
 - <http://www.microsoft.com/windows/windows-7/compare/default.aspx>

How To Get Windows 7

- **Easiest – Buy a *new* PC!**
 - Windows 7 Home Premium comes pre-installed.
(You can order a PC with other versions of Windows 7.)
 - Product Activation is handled by the hardware vendor.
 - Windows 7 and drivers tested and verified by the vendor.
 - Still need to install your other applications and tools.
- **Buy and install a retail copy of Windows 7**
 - “Upgrade” or “Full” version
 - First, run the Windows 7 Upgrade Advisor
 - <http://www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx>
 - Upgrade your PC hardware as needed / desired
 - Choice of “Upgrade” installation or Custom “Clean” installation
 - Get (or pay) someone to install Windows 7 Upgrade on your PC
 - For more excitement ... Do the install *yourself!*

To Upgrade or Not

- **Windows 7 will ship pre-installed on most new PCs.**
 - \$500 to \$800 buys a *very nice Win 7 desktop or laptop*
- **For existing Windows Vista users:**
 - In-place upgrades to Win 7 seem to work well.
 - No additional hardware requirements.
 - You should make a whole system backup first! Then if “in-place” upgrade fails, you can revert back.
 - Most software for XP or Vista should run on Windows 7.
- **For existing Windows XP users**
 - No Windows 7 “in-place upgrade” option.
 - Must do a clean install or a double in-place upgrade (Requires a copy of Vista setup DVD and an activation key).
 - Win XP Home “Extended Support” goes until 2014.

Hardware Requirements

- Basically the same as for Windows Vista
- Windows 7 (with Aero Glass):
 - 1 GHz P4 or later CPU., 1 GB of RAM
 - DirectX 9 Graphics Card with WDDM driver, Pixel Shader 2, 32 bits / pixel (for Aero glass UI)
 - 15 GB free hard disk space on a 40GB drive
- Tom's *Recommended* Standard Configuration:
 - 2 GHz single P4 CPU or more, 2 GB of RAM or more
 - DirectX 9 Graphics Card with WDDM driver, Pixel Shader 2, 32 bits / pixel (for Aero glass UI)
 - 40 GB free hard disk space on a 120GB drive or more
- Windows 7 Upgrade Advisor
 - <http://www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx>

XP to Win 7 Upgrade Paths

- Do a custom “clean” install of Windows 7
 - You will have to reinstall all your apps and migrate your data. (May be an issue if all you have is a “recovery” CD)
 - May be a challenge to find Windows 7 drivers.
- XP Home to Vista Home Basic / Premium to Windows 7
 - Expensive to do double “upgrade over” the existing OS.
 - Can be lots of extra work to find / install proper drivers
- XP Pro (not Home) to Vista Business to Windows 7 Pro
 - Same procedures, issues.
- Consider doing a “dual boot” install of Windows 7
 - Need to set up a separate partition for Windows 7.
 - Windows 7 setup will offer dual boot option.
 - You will have to install all your apps and migrate key data.
- <http://www.microsoft.com/windows/windows-7/get/upgrade-considerations.aspx>
- <http://blogs.zdnet.com/Bott/?p=922&tag=nl.e539>

XP Virtual Machine on Win 7

- **Step 1 – Use Disk2VHD**
 - Free download from www.sysinternals.com
 - Converts a physical hard drive to a MS Virtual PC virtual hard drive.
 - Run Disk2VHD against your existing XP boot drive.
 - Save the output .VHD file to an external USB drive.
External drive must be formatted with NTFS to handle large files.
- **Step 2 – Copy the .VHD file to your new Win 7 PC hard drive.**
 - Save the VHD in a folder on the Win 7 C: drive
- **Step 3 – Download and install MS Virtual PC 2007**
 - Setup may complain that it's not supported, but it will run fine.
- **Step 4 - Create a new Virtual PC virtual machine**
 - Point the new virtual machine's virtual hard drive to the .VHD file created by Disk2VHD.

32-bit or 64-bit

- **32-bit Windows 7 will run on ANY CPU & RAM memory size**
 - **Maximum usable RAM memory about 3.3 GB**
 - **Good choice for systems with up to 4 billion bytes of RAM**
 - **32-bit CPU access and processes data in 32-bit wide chunks.**
 - **Very good backward compatibility to Vista drivers.**
- **64-bit Windows 7 requires a 64-bit capable CPU**
 - **AMD Athlon 64, Athlon II and Phenom series**
 - **Intel Core 2 series, Core I3, I5 or I7 series**
 - **64-bit CPUs access and process data in 64-bit wide chunks.**
 - **Can be faster on compute intensive applications.**
 - **64-bit versions of programs often larger.**
 - **Can access up to 256 GB of RAM.**
 - **Require new 64-bit “signed” drivers (may not exist).**
 - **Runs almost all 32-bit programs with no problems.**
- **Can't do an “in-place” upgrade from 32-bit to 64-bit**

Security Features

- **Security**
 - Major focus of Vista / 7 development effort.
 - Many fixes deal with Internet Explorer and E-mail.
- Windows 7 more resistant to mal-ware by design.
- Better Support for hardware Data Execution Protection.
- Windows 7 provides a built-in “two-way” fire wall.
 - But outbound default is to NOT block or warn!
- Windows 7 also includes built-in Windows Defender.
 - Anti-spyware scanner and blocker.
- Configurable multi-level User Account Control.
- Support for whole disk data encryption (Win 7 Ultimate).
- Can now install the free Microsoft Security Essentials.

Windows Genuine Advantage

- **Newest MS “anti-piracy” system - on XP, Vista and Win 7**
 - **Combination of installed software and web databases.**
 - **WGA “phones home” regularly.**
- **A specific retail copy of Windows 7 can only be installed on one system at a time (volume licenses available).**
- **Can call MS to get a new Activation Key if you need to reinstall and reactivate. You *must* have your Product Key.**
- **If you bought a new PC, make sure you have the Product Key (should be on back of case).**
- **WGA also regularly verifies your license is “valid”.**
 - **If not, Windows 7 complains until you “pay up” to get a valid license.**
 - **Can’t download non-critical updates.**

Re-Learning Windows 7

- **Where IS it?**
 - **New Win 7 GUI has moved many things around. (Different than XP and Vista)**
 - **Some things easier to find, but many not.**
 - **Growing use of the “ribbon” interface.**
 - **Can set up Win 7 GUI for “classic (Win 98)” mode.**
 - **Some formerly “built-in” programs now gone. (Download free Windows Live Essentials versions)**
- **How do I DO that?**
 - **Many new features require new learning.**
 - **Tutorial and Help and Support Center.**
 - **Task oriented panels in all Explorer windows.**
- **Bonanza for book and training vendors**
- **Howard Verne now doing Windows 7 classes.**

Clean Install with Upgrade DVD

- **No need to purchase the “Full” version of Windows 7.**
- **Feature of Win 7’s “Upgrade” Setup DVD**
 - **Do this with an empty hard drive / partition.**
 - **Boot the setup CD**
 - **Do the Clean Install in Trial Mode (don’t enter the product key).**
- **Boot your new Trial Mode Win 7 hard drive / partition**
- **Reinsert your Win 7 Upgrade Setup DVD**
 - **Win 7’s setup will detect the Trial install of Win 7**
 - **It will ask if you wish to upgrade that version**
 - **Reply Yes or OK**
 - **Now, when asked, enter the Upgrade Product Key**
- **The Win 7 Upgrade will now proceed with the install.**
- **When it’s done, you have a valid, clean Win 7 installation.**
- **<http://www.windowssecrets.com/2009/11/12/02-Clean-install-Windows-7-from-the-upgrade-disc>**

Windows 7 Compatibility Issues

- **Hardware**
 - BIOS (might be out of date on old PCs)
 - No Win 7 hardware drivers from MS or vendors
 - Video and Sound cards
 - SCSI Disk Controllers and Wireless LAN cards
 - Printers and Scanners
- **System Utility / Tool Software**
 - Anti-virus programs may need upgrades
 - CD Burners – some may need firmware updates
 - FAX, Scan and Print Tools
- **Application Software – Especially OLD Programs**
 - Games
 - Graphics applications
 - Video processing
 - Music Processing

Windows 7 Problems Found

- **May require Acronis True Image 2010**
- **iTunes**
 - Upgrade Advisor recommends to uninstall before upgrade and then reinstall afterward.
- **Windows 7 only supports IE8**
 - May still be some issues with non-standards compliant web sites.
 - Consider Mozilla FireFox, Google Chrome or Apple Safari
- **No built-in e-mail, photo editor or movie maker.**
 - **Download Windows Live Essentials suite:**
 - Windows Live Mail
 - Windows Live Movie Maker
 - Windows Live Photo Gallery
 - **Or Get Free Open Source Programs:**
 - Mozilla Thunderbird
 - GIMP
 - Paint.Net

Moving Data, Settings and Programs

- This is automatic if you do an in-place upgrade from Vista
- For “Clean Installs” or a new Windows 7 PC, use Windows 7 Easy Transfer Tool
<http://www.microsoft.com/windows/windows-7/features/windows-easy-transfer.aspx>
 - Can transfer files from XP, Vista or Windows 7 to another Windows 7
 - Transfer an easy transfer cable, via an Ethernet LAN or via an external drive
 - Transfers data files & folders, e-mail contacts & messages, program settings, user accounts and settings, Internet settings, pictures, video and music.
 - You still need to reinstall all your applications.
- Consider Laplink PC-Mover Windows 7 Upgrade Assistant
<http://www.laplink.com/pcmover/pcmoverupgradeassistant.html>
 - Claims to be a more complete solution.
 - Moves programs as well as settings and data.
 - Review indicates process is complex
 - Street price is \$15 to \$30, worth shopping around.

Windows 7 – Web Links

- **Microsoft Windows 7 Site**
<http://www.microsoft.com/windows/windows-7/default.aspx>
- **Windows 7 Upgrade Advisor**
<http://www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx>
- **Microsoft Security Essentials Download**
<http://www.microsoft.com/protect/>
- **Windows Live Essentials Download**
<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=087a1320-9990-4482-9a40-8e311108a0c0>
- **Windows 7 Easy Transfer Tool**
<http://www.microsoft.com/windows/windows-7/features/windows-easy-transfer.aspx>
- **Windows 7 Tips**
<http://technet.microsoft.com/en-us/magazine/ee851557.aspx>
- **PC Magazine: Windows 7 Page**
http://www.pcmag.com/search_redirect/?qry=windows+7&x=0&y=0&searchSection=0&site=3
- **ZD-Net: Windows 7 Page**
http://news.zdnet.com/2463-9595_22-286664.html?tag=trunk;popular
- **Windows 7 Pocket Guide (PDF)**
<http://dl.dropbox.com/u/304490/Win7/Windows-7-Pocket-Guide.pdf>

Questions And Answers