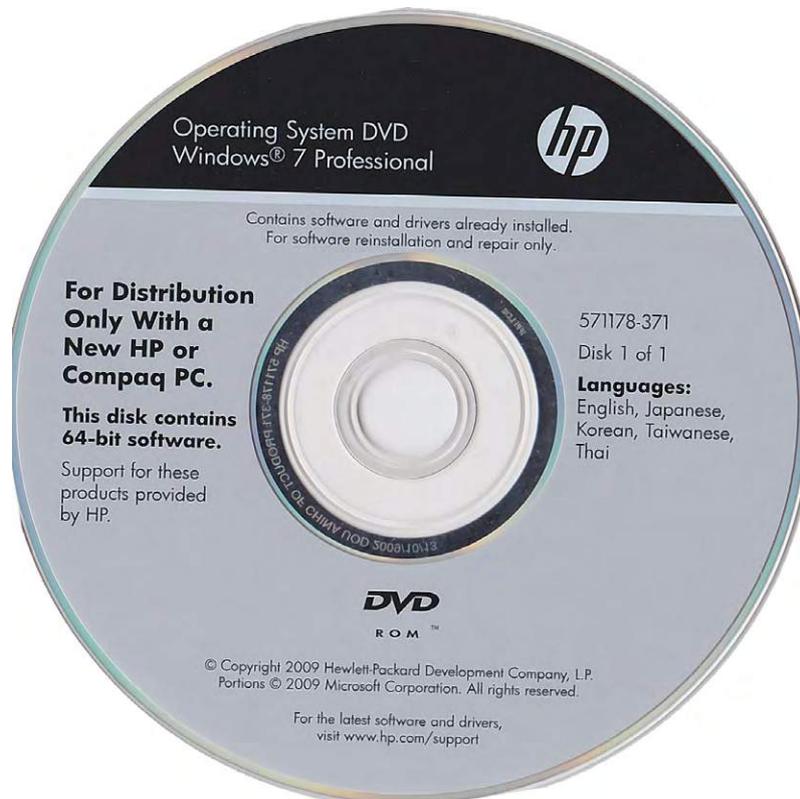


4 Installing Windows 7 on a New Computer

This chapter looks at installing Windows 7 on a brand new computer with no previously installed operating system. Before you start installing Windows 7, you need to have a license. The license gives you the right to install the operating system. Microsoft provides a number of different ways that the Windows 7 operating system can be licensed. The difference in each license determines what you can and cannot do. The different licenses that will be looked are OEM, OEM System Builder and finally Retail Full Package Product.

Windows 7 OEM

Original Equipment Manufacture or OEM is a copy of Windows that is shipped with the computer when it is sold. There are two type of OEM software. Large computer manufacturers such as IBM, Toshiba, Dell and HP to name a few supply an OEM DVD with the computer. This DVD may be labeled as a recovery DVD or install DVD. On the DVD it will have written, “For Distribution Only With a New PC.” The DVD can only be used with computers from that manufacturer and often will only work with the computer model the DVD was shipped with. An example of a DVD is shown below.



These DVDs are often bundled with additional software and device drivers provided by the manufacturer. For example the DVD may come with additional software for burning optic disks. Some OEM DVDs may even come with trial software that lets the user install and use software for a time period. Examples of trial software include anti-virus and video editing software. If the user likes the software they have the option to later buy a registration key.

OEM software bundled with the computer is the cheapest way to license Windows 7. Due to its low cost, OEM also offers the least amount of flexibility. OEM software is tied to the computer that it is purchased with. If you purchase another computer later on, you cannot use that OEM DVD to install Windows 7 on the new computer.

Large PC manufacturers of computers have special deals with Microsoft for Windows 7 OEM software. To get the low cost, the PC manufacturer also needs to provide support for the operating system. Microsoft does not provide support for OEM installs of Windows 7.

.....Alcatel-Lucent 

www.alcatel-lucent.com/careers

What if you could build your future and create the future?

One generation's transformation is the next's status quo. In the near future, people may soon think it's strange that devices ever had to be "plugged in." To obtain that status, there needs to be "The Shift".



To ensure the computer is correctly licensed, a product key sticker needs to be attached to the computer. An example of a product key sticker is shown below.



This sticker has a product key printed on it. This product key is what uniquely identifies the license associated with that computer. To help stop piracy, Windows 7 will contact Microsoft to confirm the installation of Windows 7 is legitimate. This process is called activation. This needs to occur within 30 days of installing Windows 7 otherwise Windows 7 will switch to reduced functionality mode. This mode significantly reduces what can be done with the computer until it is re-activated. When you perform an install using the OEM DVD from the manufacturer it will not ask for the computer to be activated. The OEM DVD has an install of Windows 7 that is pre-activated and does not need to be activated again.

The computer you purchase may come with both a 32bit and 64bit OEM DVD of Windows 7. This gives you the choice of which operating system you want to run. The choice of operating system you can install is dependent on what the manufacturer has supplied with your PC. Since the install does not require activation, you can re-install the operation system multiple times without issue.

Since OEM software is tied to the computer that it is installed to, it is limited to what kind of hardware upgrades can be performed. A major change in hardware such as changing the motherboard would require the computer to be reactivated. Since the computer is significantly different, the activation process may fail. This is because Windows 7 thinks the operating system has been transferred to another computer which would break the terms of the OEM agreement. If hardware like the motherboard was to be replaced, it would need to be replaced with a motherboard supplied by that manufacturer. This would ensure that Windows 7 would not ask for the computer to be reactivated.

If the hardware has significantly changed and activation fails, after 30 days the computer will go into reduced functionality mode. While in this mode, this will allow you to login to the computer to activate Windows but not to do much else. When this occurs you will need to purchase a new license in order to get the computer to run again or replace the hardware in your computer with hardware for that computer supplied by the manufacturer. Microsoft considers too many changes in hardware to mean the computer may have been upgraded rather than simply repaired. This is to prevent the user continually upgrading their computer and keeping the original Windows 7 software. Small upgrades like installing additional RAM or changing the video card will not affect activation. If you find that Windows asks to be re-activated after an upgrade and it fails, you can always ring Microsoft and try to do a phone activation. At this point it is really up to Microsoft's discretion if they decide to allow the activation. Otherwise, you will need to purchase another license in order to use Windows 7 on that computer.

OEM System Builder

The second type of OEM software you may encounter is referred to as OEM system builder. This is when parts of a computer are put together by a store and sold as a complete system. The concepts of the OEM system builder are the same as the OEM version. The license is tied to the one computer and cannot be transferred.

The difference with the OEM system builder is that the copy of Windows 7 needs to be activated with Microsoft. Since the OEM system builder is not being sold through a company like the OEM version, Microsoft needs a way to ensure that Windows 7 has not been installed on multiple computers. The OEM DVD supplied by a large company, as discussed in the last section checks before the install that the computer it is being installed on is from that manufacturer. For this reason it does not require activation.

Using an OEM system builder DVD means you can re-install the operating system multiple times but each time it must be activated with Microsoft. Microsoft does not release the exact details of how many times you can do this, but if you do this too many times in a short period of time the activation will fail. When activation fails you will need to phone Microsoft in order to activate the operating system. Again it is up to Microsoft discretion if they allow the copy of Windows 7 to be activated.

Since the OEM system builder license is tied to the computer that it was sold with, like the OEM version this means you cannot upgrade hardware like the motherboard. If your motherboard fails and needs to be replaced, Windows 7 may ask to be reactivated again and the activation could fail.

You will find that both online and retail computer stores will be happy to sell you an OEM version of Windows without selling you the computer. This is essentially the OEM system builder license which should be only sold with a new PC. This breaks the OEM license. It is up to you to decide if you want to take the risk of purchasing an OEM version of Windows 7 like this as Microsoft will consider this install not to be genuine.

For more information about OEM licensing, refer the Microsoft web site at

<http://www.microsoft.com/oem>

Retail Full Package Product

The full version of Windows 7 is also referred to as a box set and is available via retail outlets. This version costs the most but offers the most flexibility. Shown below is the box set for each edition of Windows 7. Remember that the starter edition is only available in certain countries.



With the full version of Windows 7 you can move the install from PC to PC. The only limitation is that you can only have Windows 7 installed on one computer at a time. This means unlike OEM versions of Windows 7, you can upgrade the hardware in the computer including the motherboard at any time.

In the next chapter I will be covering how to go about upgrading to Windows 7. If you have the full version of Windows 7 you can use this to perform what is referred to as an in-place upgrade from Windows Vista. An in-place upgrade is when you retain all your documents, settings and applications after the upgrade. Microsoft also sells an upgraded version of Windows 7 which is a lot cheaper than the full retail version. In most cases you would purchase the upgrade version instead of the full version if you have a product that qualifies as an upgrade as this is a much cheaper option.

The full version of Windows 7 also gives you the option to install the 32-bit or 64-bit version. If you change between the two different versions this does require a re-install, but you can change between the two at any time.

License Summary

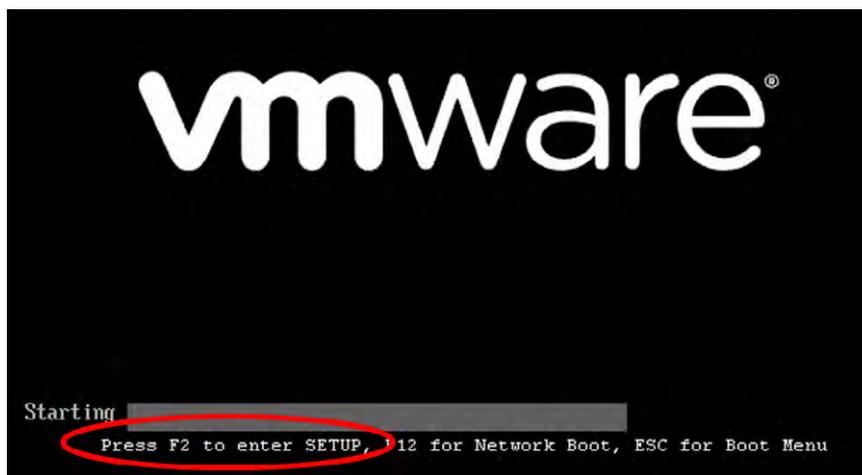
There are a lot of rules about what you can and can't do depending on how you purchase Windows 7. Below is a summary of what can be done depending on how you purchased Windows 7.

	OEM from PC manufacturer	OEM System Builder	Retail Full version
Can be transferred to another PC	No	No	Yes
Activation required	No	Yes	Yes
Install 32/64bit	* No	No	Yes

* Some manufacturers may supply a 32-bit and 64bit OEM DVD with the computer.

How to install

When the computer is started up with the Windows 7 DVD, the computer should automatically boot from the DVD and start installing Windows 7. If the computer fails to boot off the optic drive, you may need to change a setting in the BIOS to ensure that the computer is configured to check the optic drive for bootable media. As shown in the example below, to change the BIOS settings on this computer you need to press F2 when the computer starts up. Different computers may require a different key to be pressed like escape or F10 to change the bios settings. In some cases you may get the option to press a key and select which device you want to boot from. In the example below, if I were to press the ESC key this would access the boot menu. Once in the boot menu, I could select the optic drive and the computer would boot off this drive.



Maastricht University *Leading in Learning!*

**Join the best at
the Maastricht University
School of Business and
Economics!**

Top master's programmes

- 33rd place Financial Times worldwide ranking: MSc International Business
- 1st place: MSc International Business
- 1st place: MSc Financial Economics
- 2nd place: MSc Management of Learning
- 2nd place: MSc Economics
- 2nd place: MSc Econometrics and Operations Research
- 2nd place: MSc Global Supply Chain Management and Change

Sources: Keuzegids Master ranking 2013; Elsevier 'Beste Studies' ranking 2012; Financial Times Global Masters in Management ranking 2012

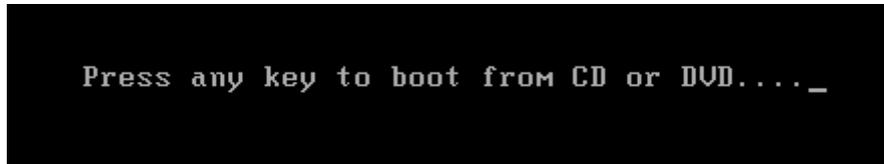
**Maastricht
University is
the best specialist
university in the
Netherlands
(Elsevier)**

**Visit us and find out why we are the best!
Master's Open Day: 22 February 2014**

www.mastersopenday.nl



In some cases you may be installing Windows 7 on a computer that already has an operating system on it. When setup detects an existing operating system it will display the message “Press any key to boot from CD or DVD” as shown below.

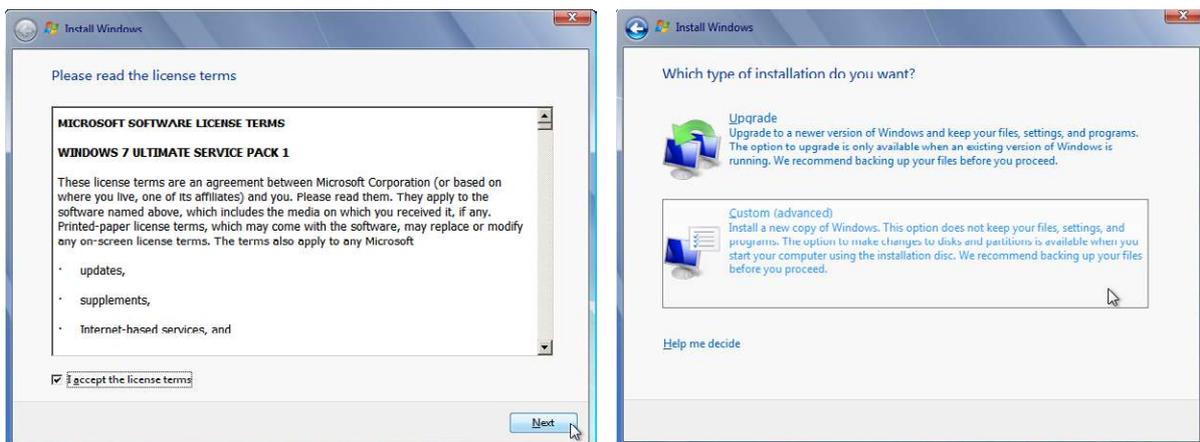


In order to boot off the DVD and not the existing operating system, you will need to press any key when given this prompt. Setup will give you a few seconds to press any key before it automatically boots from the existing operating system. The setup DVD gives you this option in case the setup DVD is left in the computer after the install. This will ensure the operating system on the drive will boot instead of setup being run from the DVD again assuming no key is pressed when prompted.

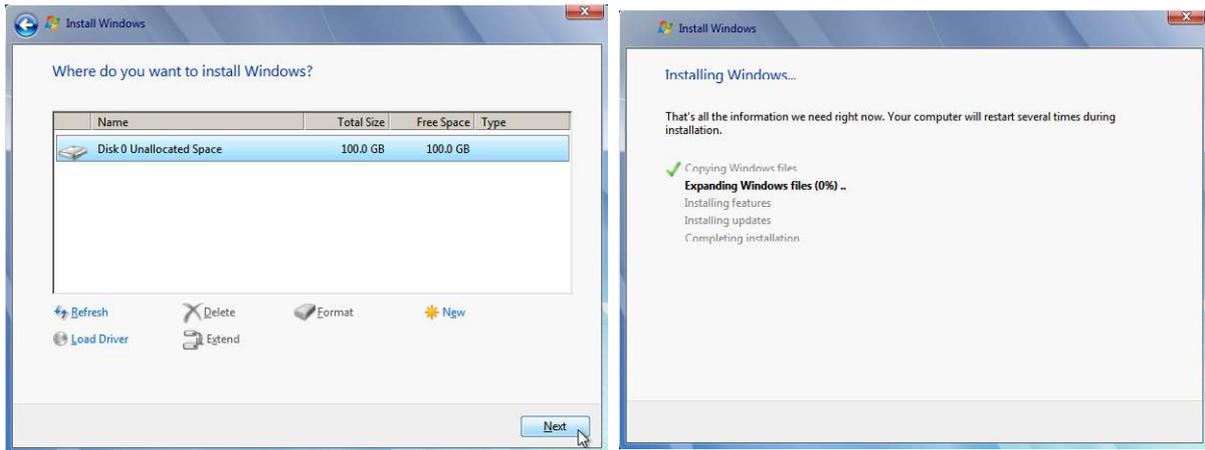
Once the computer has booted off the DVD, setup will automatically run and start installing Windows 7. As shown in the bottom left image, Windows will ask which language to install, the time and currency format and the desired keyboard or input method that you want to use. Some DVD's may contain multiple languages; others may contain only one language option. Once you make your selection and press next, the Install screen will appear as shown in the image below on the right. A “Repair your computer” option appears on this screen at the bottom. Choosing this option will launch a number of repair tools that may be able to fix an existing Windows 7 install that is not boot or having other problems. When you are ready to install Windows 7, press the button in the middle install now.



On the next screen of the wizard you will be presented with a license screen as shown below to the left. It is a simple matter of selecting the tick box “I accept the license terms” and pressing next. The screen that follows shown below to the right, let’s you decide if you want to perform an upgrade or a custom advanced installed. You should select the upgrade option if you want to upgrade an existing operating system to Windows 7. In order to use the upgrade option, setup needs to be run from the operating system that you want to upgrade. Since I booted the computer from the DVD the upgrade option would not work if it was selected. In the next chapter I will look at how to perform an upgrade from an existing operating system to Windows 7. In this case since this is a new clean install, select the option at the bottom Custom (advanced).



The next wizard screen shown below to the left, will ask you which hard disk you want to install the operating system on. In most cases, setup should detect your drive automatically. If it does not, you may need to select the option load driver located at the bottom on the left of this screen. The load driver option will allow you to load additional device drivers supplied by your manufacturer of the drive. This is rare and should only happen if you are using hard drives which are not commonly used. Most hard drives like traditional hard disks and even the new solid state drives should appear without any problems. This screen of the wizard also allows you to reformat and change the layout of the drive called partitioning. In most cases when installing Windows 7 you will select the unallocated space as shown below on the left and press next. This will mean setup will use all the available space on the drive to install Windows 7 on. As shown below on the right, Windows 7 will now copy files from the DVD to the drive. The setup process may reboot the computer a number of times. This is normal. The process depending on the speed of your computer generally takes less than half an hour.



Once the install is complete, Windows 7 will boot for the first time and run the initial setup wizard. The first screen of this wizard is shown below on the left. This screen will ask you to configure a user name that will be used in Windows 7 and also to configure a computer name.

> Apply now

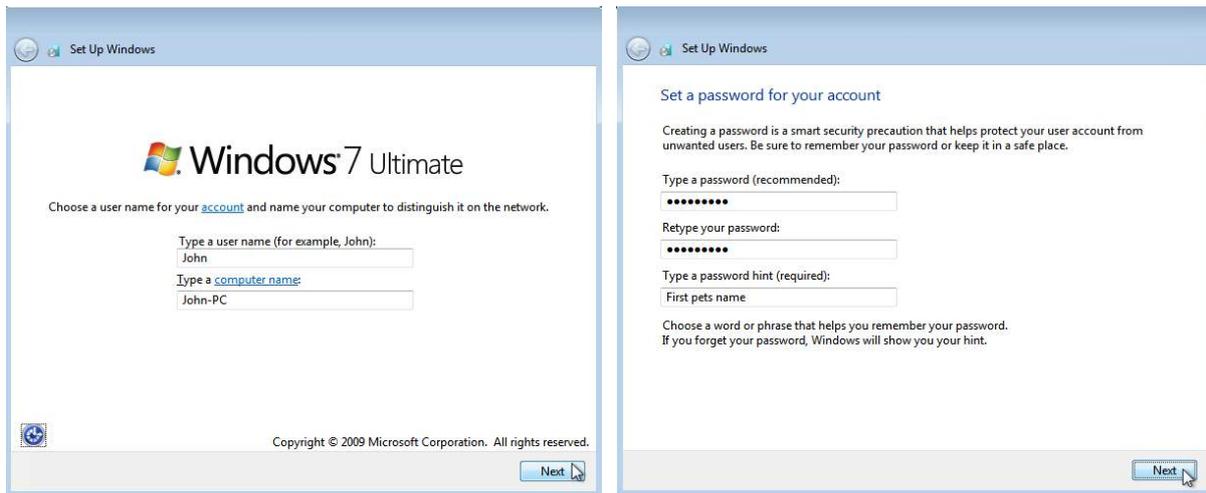
REDEFINE YOUR FUTURE
AXA GLOBAL GRADUATE PROGRAM 2015

redefining / standards 

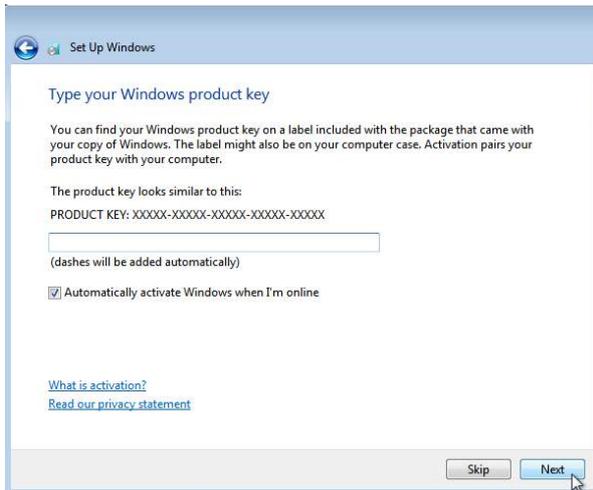
agence créa © Photonostop



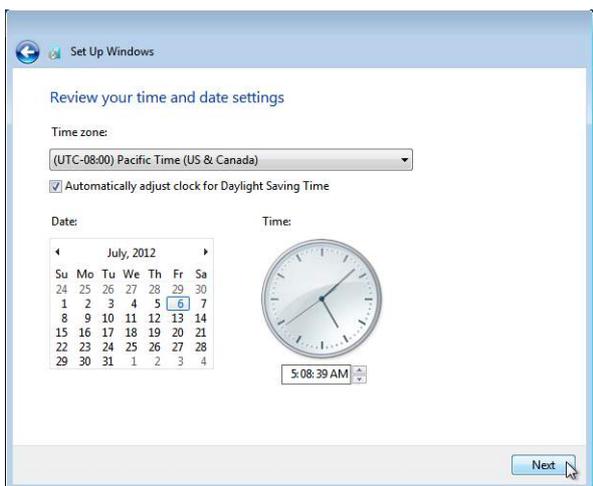
It is up to you what username and computer name to create but generally a computer name should be meaningful enough to remember. For example if you are installing a home office pc you may want to set the computer name to office. If the computer is for the study you may want to call it study. The name of the computer is used to identify this computer on the network and can be changed later on if needed. The next screen of the wizard shown below on the right, will ask you to enter in a password for the user that you entered in the last screen. You also have the option at the bottom that will give a hint what the password is. This should be a hint that will easily jog your memory as to what the password is, but should not be too easy someone else could guess it.



The next screen of the wizard shown below on the left will ask you for a product key to install Windows. This product key is located inside the Windows 7 packaging. If you purchased Windows 7 online, Microsoft emails the product key to you. Regardless of which edition of Windows 7 you purchased the product key entered here will determine which edition is installed. For example, if you lose your full retail Windows 7 Professional DVD and then reinstall using a friend's full retail Windows 7 Home Premium DVD, you will be able to use this Home Premium DVD to install Windows 7 Professional. Microsoft includes all copies of Windows 7 on each DVD to make sure you have all the necessary files in case you decide to upgrade your edition of Windows 7 at a later date. Setup has the option ticked by default "Automatically Activate Windows When I'm Online." If this is left ticked, Windows will attempt to activate itself with Microsoft 3 days after the install is completed. If you untick this option, you have 30 days in which to manually activate Windows. The next screen of the wizard, shown below on the right asks you how you want to keep windows up to date. This will be covered in more detail in chapter 9. If you are unsure which settings to choose just select, "Use Recommended Settings." This will ensure that the latest updates from Microsoft are automatically downloaded and installed without needing to prompt you.



The next screen of the wizard shown below on the left, allows you to determine which time zone that you want to use. The time zone can be changed later on if required. There is also an option to update the time automatically during daylight saving. It is recommended that you leave this option ticked so that Windows will automatically update the time to the correct time during daylight saving if it is in use in that area. The next screen of the wizard should ask you to configure the firewall settings for your network card as shown below on the right. If you have multiple network adapters like a wireless and wired adapter you may get multiple dialogs appearing. If Windows does not prompt you for these settings they may appear later on when you first login to Windows. If the computer is used at home or work choose the work or home option. The configuration is the same regardless which option you choose so don't worry if the computer is used on both home and work networks. The public network option is different from the other options in that it will block any incoming connections like file sharing. The public network option is normally configured on a wireless adapter since wireless adapters are often used to connect to public networks like a wireless hot spot.



The initial setup wizard should now be complete and you should be logged into Windows 7 for the first time. For a video demonstration of how to install Windows 7 on a new computer please refer to the following free video. <http://itfreetraining.com/70-680/clean-install-of-windows-7>