

# **INSTALL OPERATING SYSTEM AND DRIVERS FOR PERIPHERALS/DEVICES**

## **Installing Windows 7**

**Learning Objectives:** After reading this information sheet, the trainee is expected to:

1. Identify the Windows 7 system requirement

1.

Recognize the Windows 7 editions.

2.

3.

Appreciate the importance of following the procedure in Install Windows 7 according to the needed system requirement.

4.

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Processor - another term for central processing unit (Oxford Languages Definition)

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Gigahertz (GZ) - The speed of microprocessors, called the clock speed, often is measured in gigahertz. For example, a microprocessor that runs at

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200 GHz executes 200 billion cycles per second. (Webopedia Definition)

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BitLocker - encrypts disk drives and their contents. (Source: study.com)

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**Windows 7** is the Microsoft Windows operating system (OS) released to manufacturing in July 2009 and commercially in October 2009 as a part of the Windows NT family of operating systems. It is the successor to Windows Vista as well as the predecessor to Windows 8.

### **Windows 7 Editions**

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Windows 7 Starter

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Windows 7 Home Basic

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Windows 7 Home Premium

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Windows 7 Professional

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Windows 7 Enterprise

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Windows 7 Ultimate

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### **Windows 7 System Requirements**

Applies to: Windows 7

If you want to run Windows 7 on your PC, here is what it takes:

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1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor\*

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1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)

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16 GB available hard disk space (32-bit) or 20 GB (64-bit) ✓ DirectX 9 graphics device with WDDM 1.0 or higher driver

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Additional requirements to use certain features:

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Internet access (fees may apply)

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Depending on resolution, video playback may require additional memory and advanced graphics hardware

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- - Some games and programs might require a graphics card compatible with

- - DirectX 10 or higher for optimal performance
    - For some Windows Media Center functionality, a TV tuner and additional hardware may be required

- - Windows Touch and Tablet PCs require specific hardware
    - Homegroup requires a network and PCs running Windows 7
    - DVD/CD authoring requires a compatible optical drive
    - BitLocker requires Trusted Platform Module (TPM) 1.2
    - BitLocker To Go requires a USB flash drive

- - Windows XP Mode requires an additional 1 GB of RAM and an additional 15 GB of available hard disk space.
  - Music and sound require audio output

- - Product functionality and graphics may vary based on your system configuration. Some features may require advanced or additional hardware.

#### **PCs with multi-core processors:**

Windows 7 was designed to work with today's multi-core processors. All 32-bit versions of Windows 7 can support up to 32 processor cores, while 64-bit versions can support up to 256 processor cores.

#### **PCs with multiple processors (CPUs):**

Commercial servers, workstations, and other high-end PCs may have more than one physical processor. Windows 7 Professional, Enterprise, and Ultimate allow for two physical processors, providing the best performance on these computers. Windows 7 Starter, Home Basic, and Home Premium will recognize only one physical processor.

\* Prior versions of Windows, including Windows 7 and Windows 8.1, have limited support when running on new processors and chipsets from

manufacturers like Intel, AMD, NVidia, and Qualcomm. For more information, please see the Support Lifecycle FAQ. A device may not be able to run prior versions of Windows if the device hardware is incompatible, lacking current drivers, or otherwise outside of the Original Equipment Manufacturers (“OEM”) support period.

As a technician you must be able to know the variations or options in installing an operating system that is compatible with the hardware requirement of a personal computer. Another operating system available in the market now is the Windows 7 version. Now, take a tour through the procedures in installing a Windows 7 operating system.

## **OPERATION SHEET 3.1**

### **Windows 7 Installation Procedure**

1.

Turn your computer on then press Del or F2 (depend on your computer's main board) to enter the system BIOS.

2.

1.

Go to the Boot menu and choose Boot from CD/DVD.

2.

1.

Press F10 to save the configuration and exit BIOS then reset your computer.

2.

1.

Insert Windows 7 DVD into your DVD drive then start up your computer, Windows 7 will be loading files.

2.

1.

Select your language, time & currency format, keyboard, or input method  
and click



Next.

2.

[http://i1.wp.com/www.door2windows.com/wpcontent/uploads/install-windows-7/step-\(2\).png](http://i1.wp.com/www.door2windows.com/wpcontent/uploads/install-windows-7/step-(2).png)

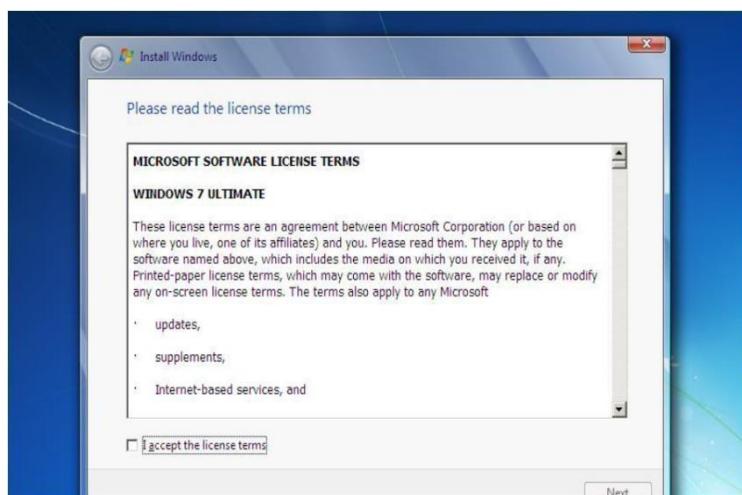
1.

Click Install now.

2.

1.

Check the “I accept the license terms” checkbox and click



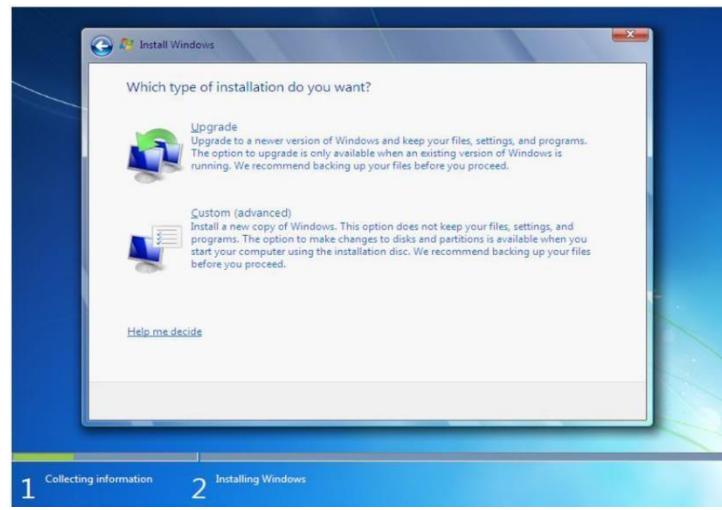
Next.

2.

[http://i0.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-\(4\).png](http://i0.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-(4).png)

1.

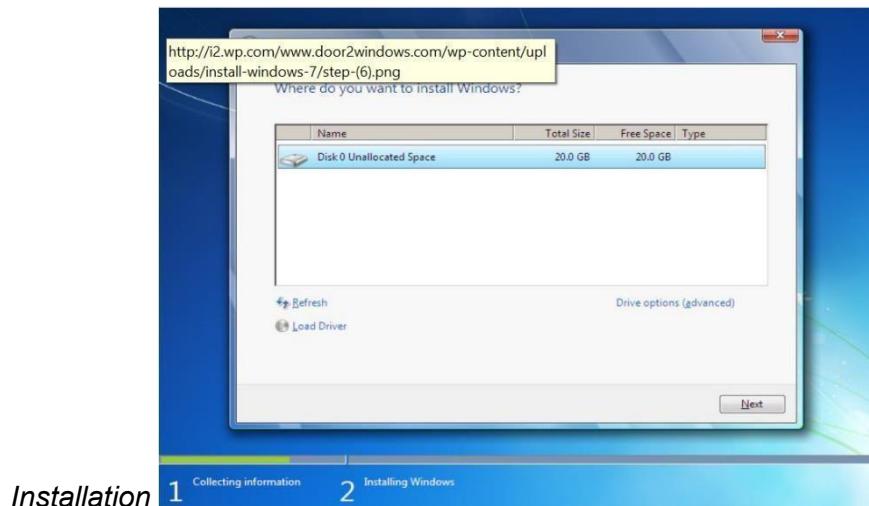
Click Upgrade if you already have a previous Windows version or Custom (advanced) if you don't have a previous Windows version or want to install a fresh copy of Windows



2.

[http://i0.wp.com/www.door2windows.com/wpcontent/uploads/install-windows-7/step-\(5\).png](http://i0.wp.com/www.door2windows.com/wpcontent/uploads/install-windows-7/step-(5).png)

Figure 07. Windows 7 Options for



1.

(Skip this step if you chose Upgrade and have only one partition)  
Select the drive where you want to install Windows 7 and click Next.  
If you want to make any partitions, click Drive options

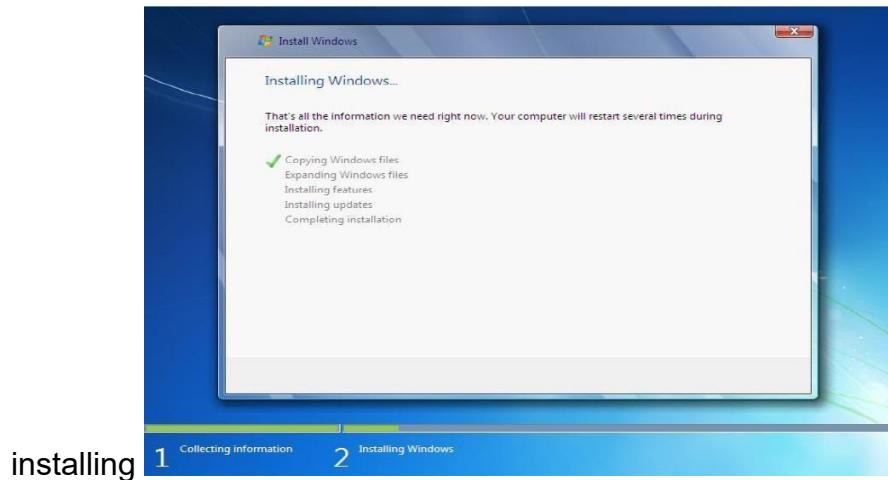
2.

(advanced), make the partitions and then click Next.

[http://i2.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-\(6\).png](http://i2.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-(6).png)

1.

It will now start



2.

Windows 7. The first step, (i.e. Copying Windows files) was already done when you booted the Windows 7 DVD so it will complete instantly.

[http://i0.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-\(8\).png](http://i0.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-(8).png)

1.

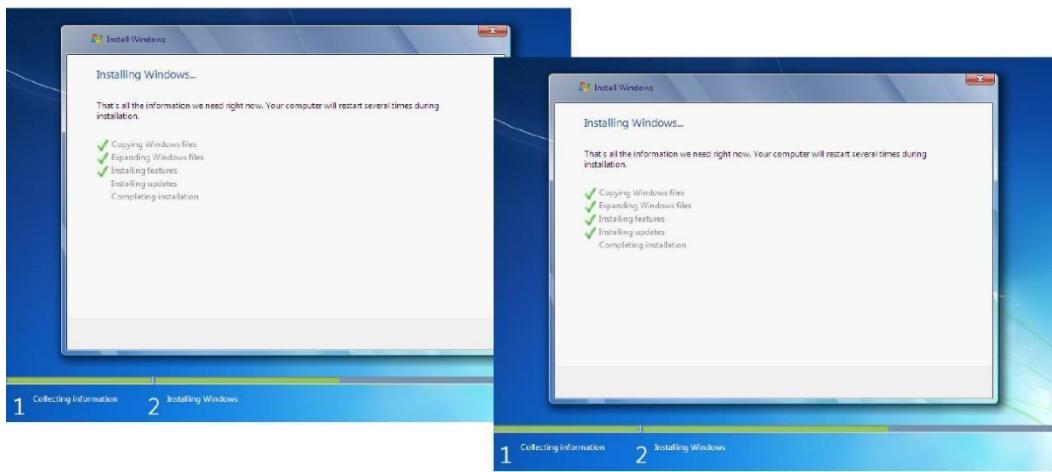
After completing the first step, it will expand (decompress) the files that it has been copied.

2.

1.

The third and fourth step will also complete instantly like the first step.

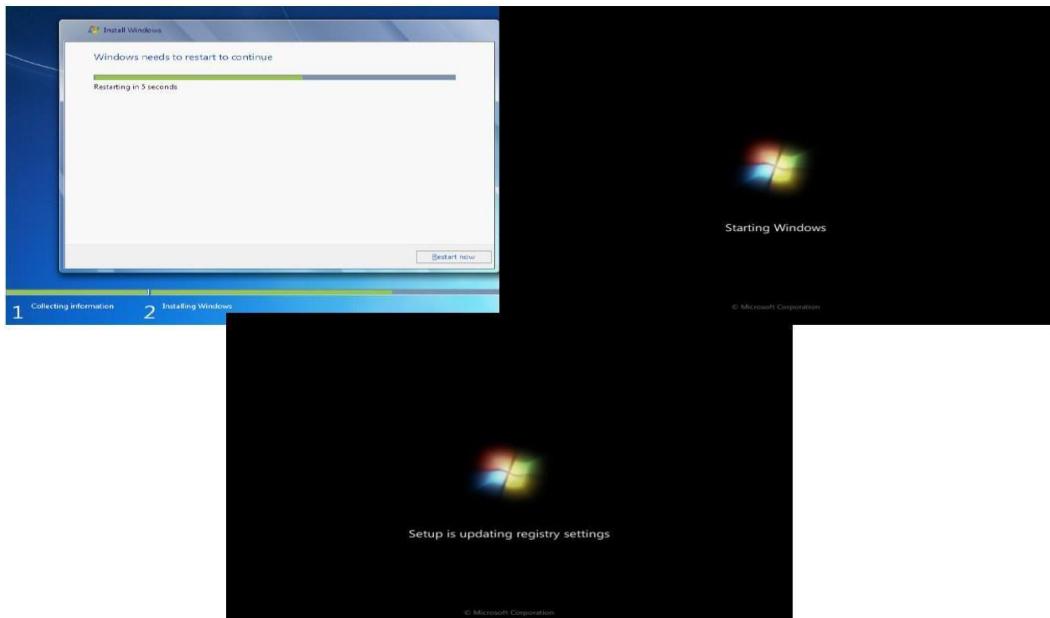
2.



1.

After that it will automatically restart after 15 seconds and continue the setup. You can also click Restart now to restart without any delays.

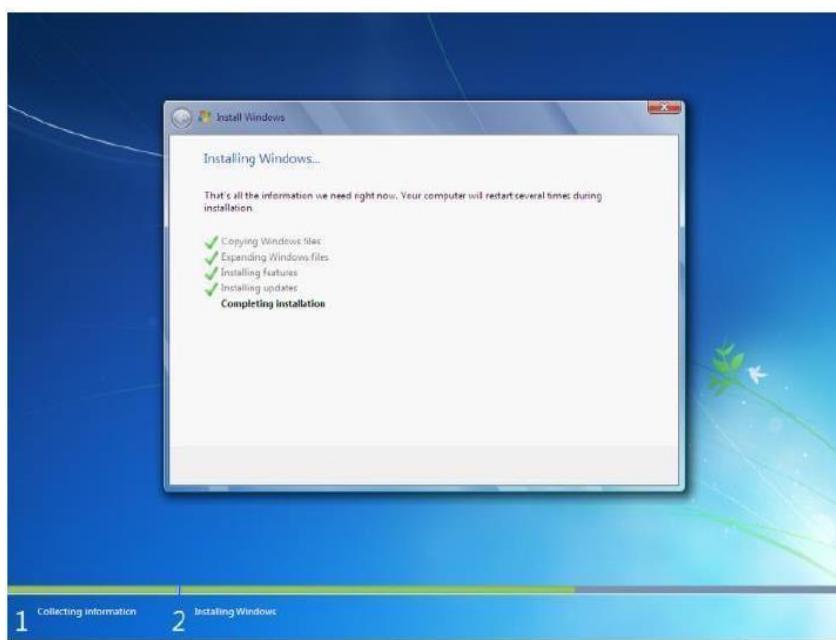
2.



1.

After restarting for the first time, it will continue the setup. This is the last step so it will take the most time than the previous steps.

2.



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1.

It will now automatically restart again and continue the setup. You can click Restart now to restart without any delays.

2.

1.

Type your desired username in the textbox and click Next. It will automatically fill up the computer name.

2.

[http://i1.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-\(20\).png](http://i1.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-(20).png)



1.

If you want to set a password, type it in the textboxes and click Next.

2.

18.

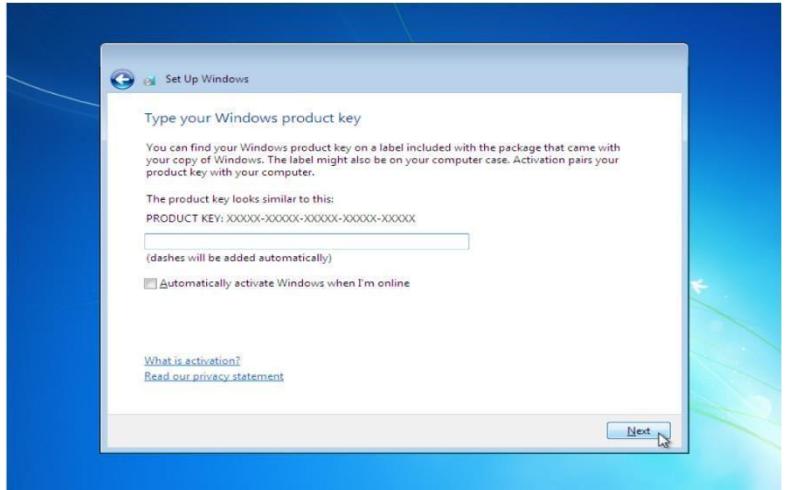
Type your product key in the textbox and click Next. You can also skip this step and simply click Next if you want to type the product key later. Windows will run only for 30 days if you do that.

[http://i2.wp.com/www.door2windows.com/w7/step-\(22\).png](http://i2.wp.com/www.door2windows.com/w7/step-(22).png)

1.

Select your desired option for Windows Updates

2.

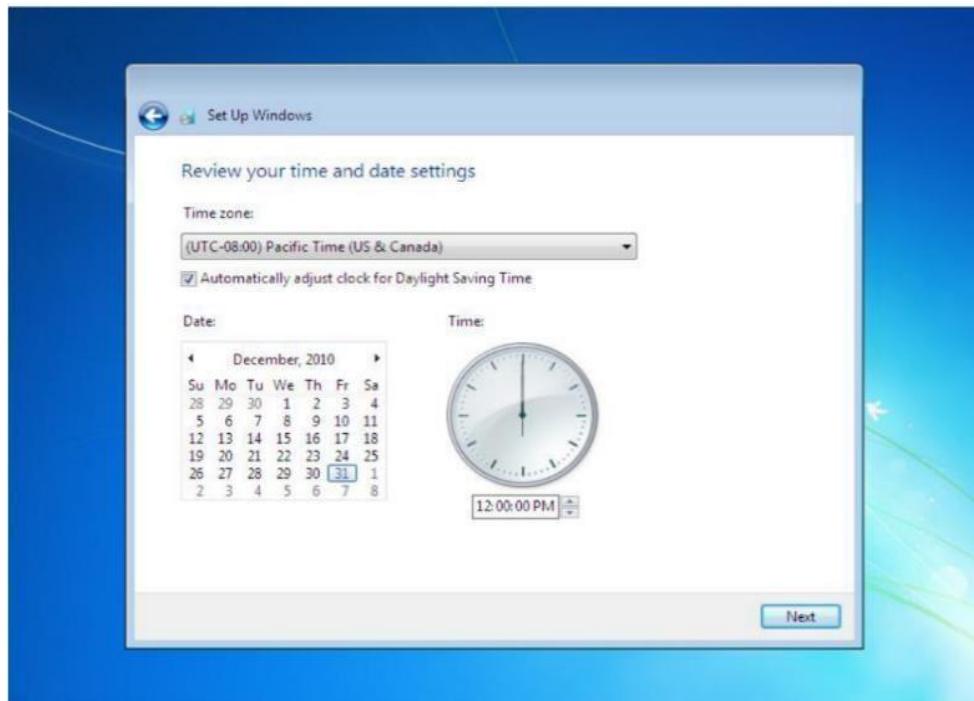


[http://i2.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-\(23\).png](http://i2.wp.com/www.door2windows.com/wp-content/uploads/install-windows-7/step-(23).png)

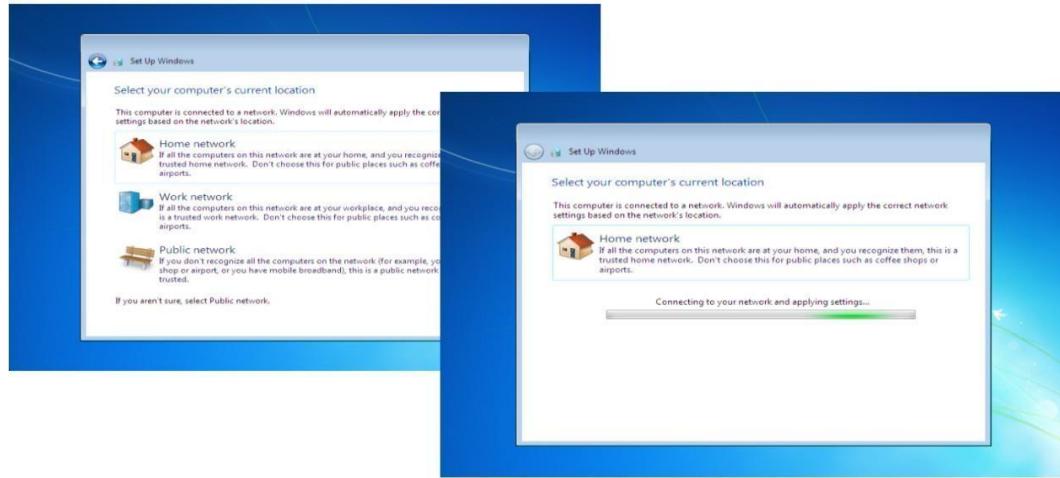
1.

Select your time and click Next. If you are connected to any network, it will ask you to set the network's location.

2.



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1.

Windows will now finalize the settings for your computer and restart.  
After the final restart Windows 7 will start to boot up.

2.

*Fresh copy of Windows 7 installed.*

## Windows 8 R2 Installation

**Learning Objectives:** After reading this information sheet, the trainee is expected to:

1. Identify the system requirements for installing Windows Server 2008 R2

1.

Recognize the enhancements made for Windows Server 2008 R2.

2.

3.

Appreciate the importance of understanding the procedure in Installing Windows Server 2008 R2.

4.

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**OEM** - Original Equipment Manufacturer, an organization that makes devices from component parts bought from other organizations.  
(Oxford Languages Definition)

•

•

**Kernel** - is a computer program at the core of a computer's operating system with complete control over everything in the system.  
(en.wikipedia.org)

•

**Windows Server 2008 R2** is a server operating system and the fourth release of Windows Server produced by Microsoft as part of the Windows NT family of operating systems. It was released to OEM hardware partners

on July 22, 2009 and became generally available on October 22, that year. It is the successor to the Windows Vista-based Windows Server 2008, released the previous year.

Enhancements in Windows Server 2008 R2 include new functionality for Active

Directory, new virtualization and management features, version 7.5 of the Internet Information Services web server and support for up to 256 logical processors. It is built on the same kernel used with the client-oriented Windows 7 and is the first server operating system released by Microsoft to exclusively support 64-bit processors.

### **System requirements for Windows Server 2008 R2 are as follows:**

**Processor:** 1.4 GHz x86-64 or Itanium 2 processor

**Memory:** Minimum: 512 MB RAM (may limit performance and some features)

Recommended: 2 GB RAM

Maximum: 8 GB RAM (Foundation), 32 GB RAM (Standard), or 2 TB RAM (Enterprise, Datacenter and Itanium)

**Display:** Super VGA (800×600) or higher

**Disk Space Requirements:** Minimum (editions higher than Foundation): 32 GB or more

Minimum (Foundation edition) 10 GB or more.

Computers with more than 16 GB of RAM require more disk space for paging and dump files.

**Other:** DVD drive, keyboard and mouse, Internet access (required for updates and online activation)

## **OPERATION SHEET 3.2 Installing Windows Server 2008 R2**

Note: These steps describe the installation of *Windows Server 2008 R2 Enterprise (Full Edition)*. These steps are included to demonstrate ground-up installations of an Infinity application in a two machine and three machine scenarios.

1.

Insert the installation media for Windows Server 2008 R2. After the installer runs, the Install Windows screen appears.

2.



1.

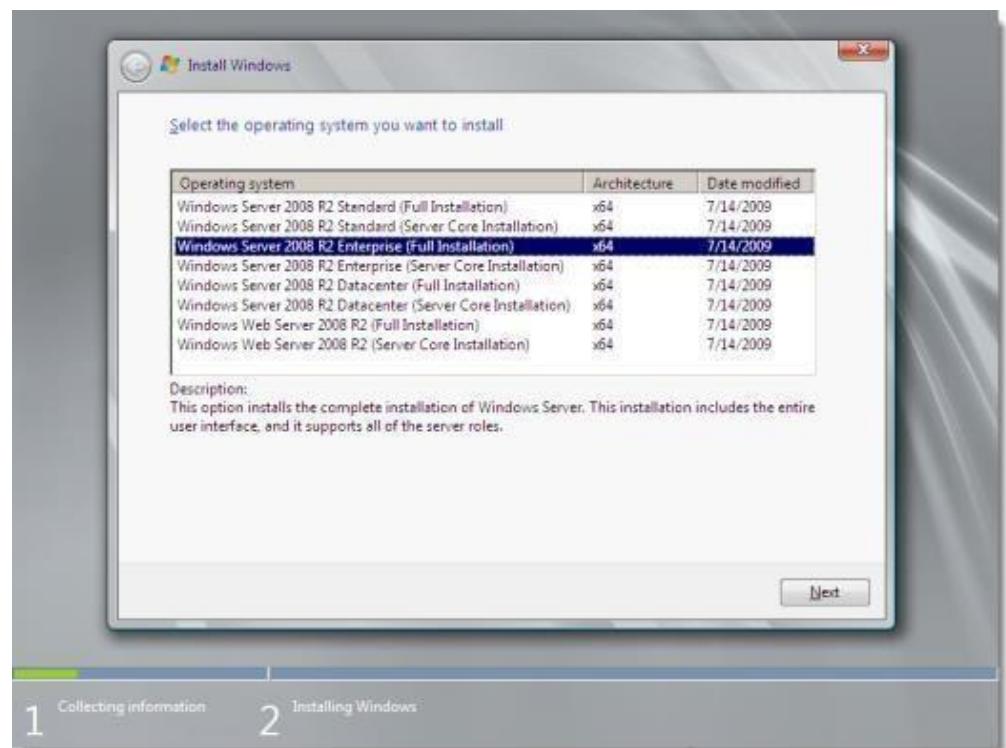
Enter language and other preferences.  
Click Next.

2.

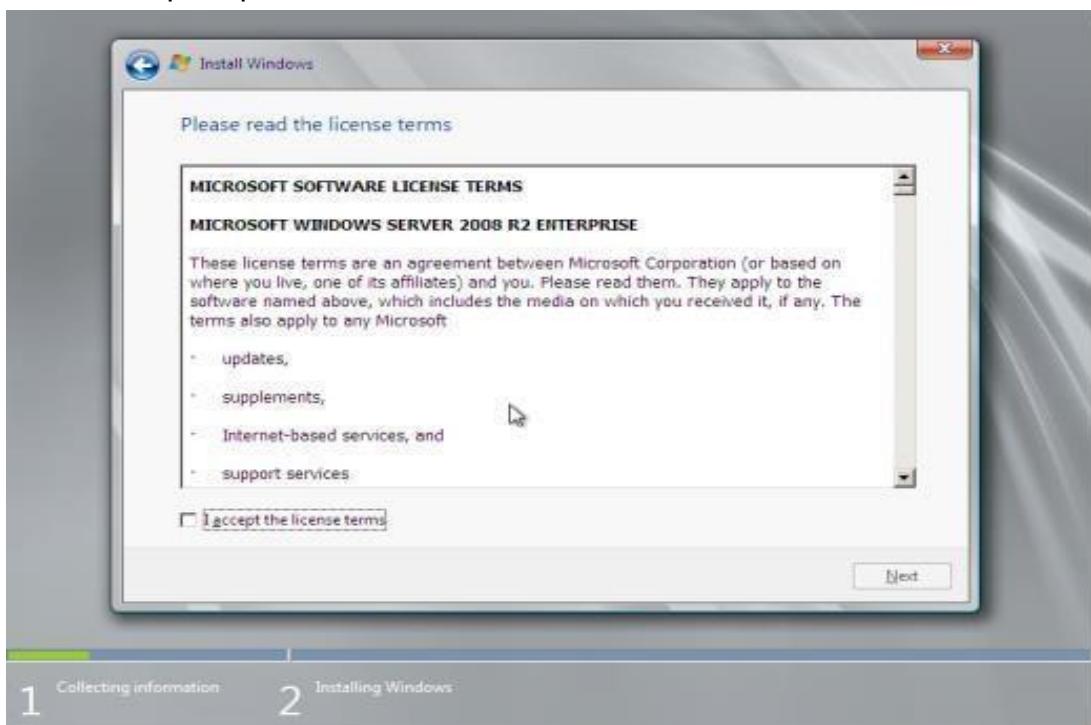
1.

Select Windows Server 2008 R2 Enterprise (Full Installation) and click Next.

2.



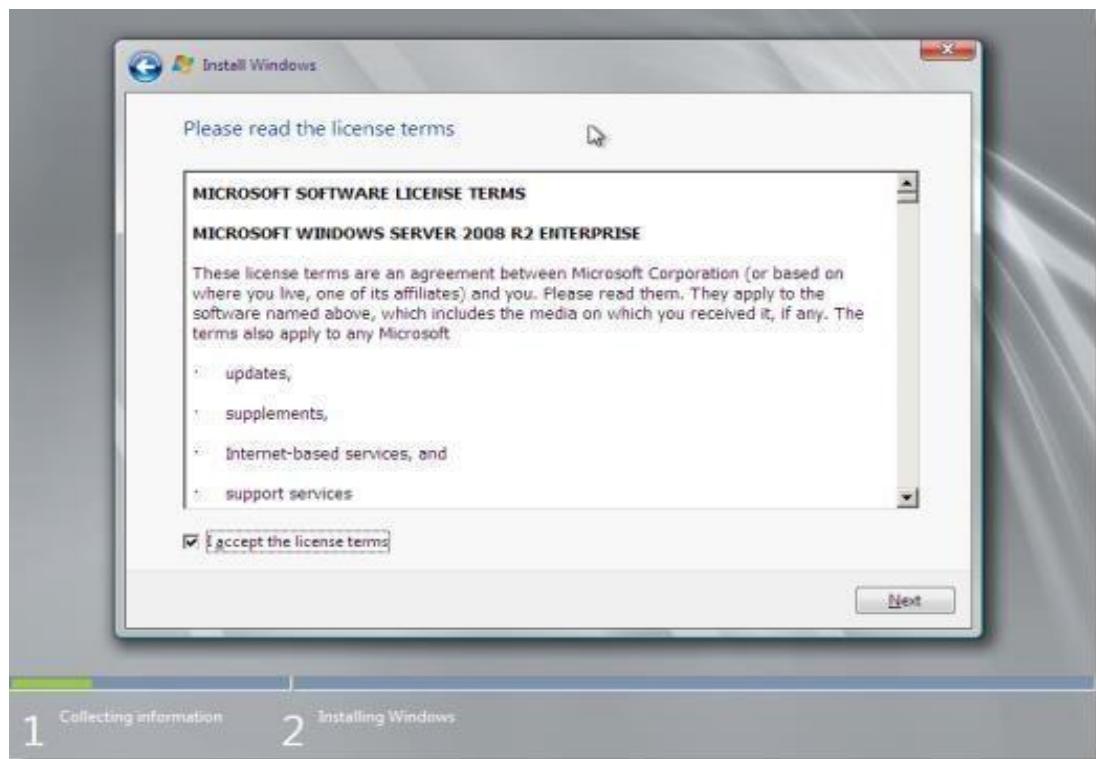
The installer prompts to read the license terms.



1.

Read the license terms. If you agree to the license terms, select I accept the license terms and click Next.

2.



1.

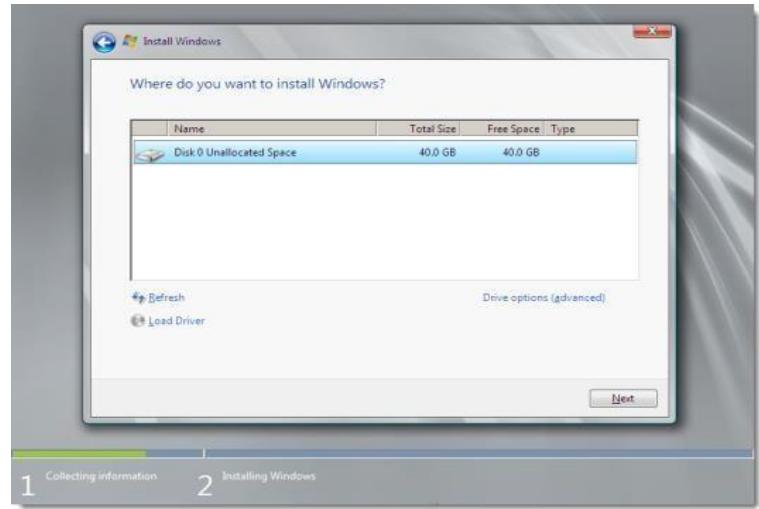
The installer asks you which type of installation. For a new installation, click Custom (advanced).

2.

1.

The installer asks for disk location information. Make your selection and click Next.

2.



1.

The installation begins.

2.

1.

The installer prompts to change the password. Click



OK.

2.

1.

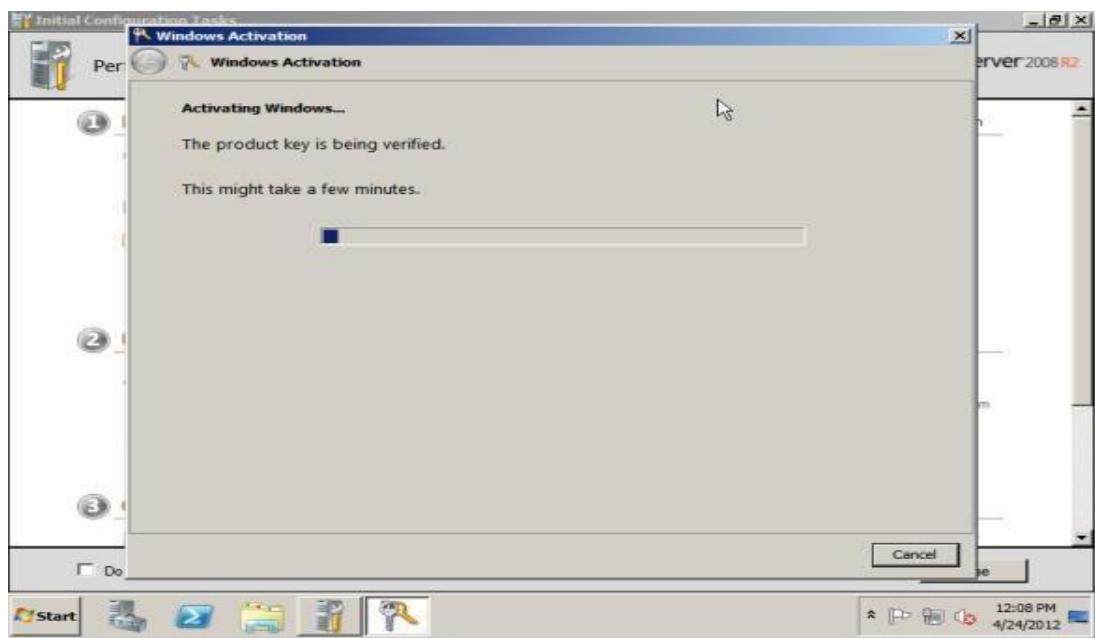
Enter a new password, re-enter the password to confirm it, and click the right-arrow.

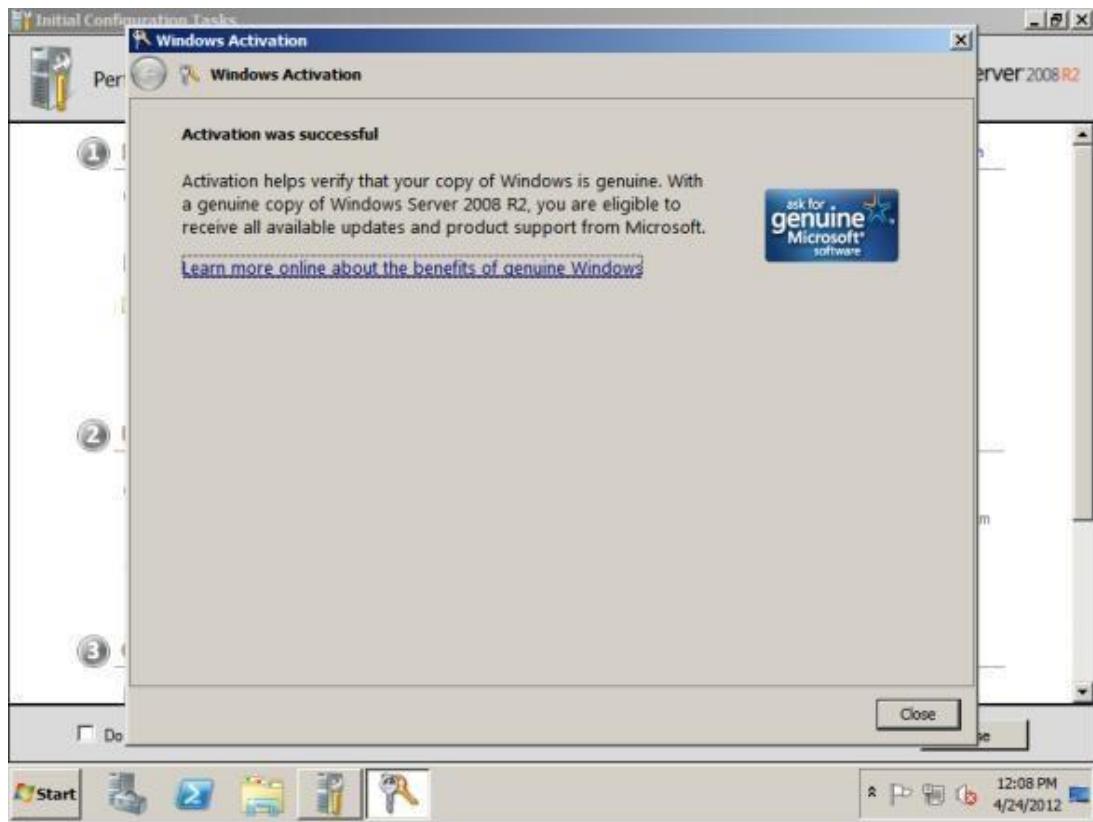
2.

1.

After you click OK on the confirmation screen, the operating system prepares your desktop.

2.





## Various Types of Application Software

Learning Objectives: After reading this information sheet, the trainee is expected to:

1.

Identify the various types of Application Software

2.

3.

Recognize the importance of the various types of Application Software

4.

5.

Appreciate the function of each variation of Application Software

6.

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**Site** - a location connected to the Internet that maintains one or more pages on the World Wide Web. (Oxford Dictionary)

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**Programs** - a series of coded software instructions to control the operation of a computer or other machine. (Oxford Dictionary)

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### **Application software is available in a variety of forms:**

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Packaged • Shareware

•

•

Custom • Freeware

•

•

Web Application • Public Domain

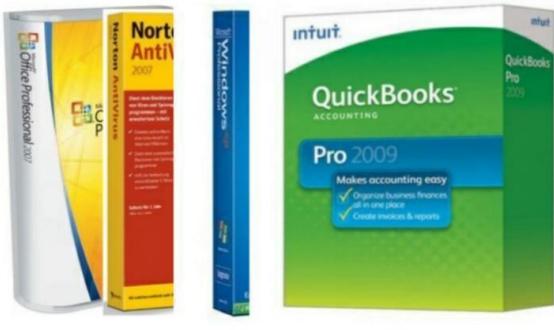
•

•

Open Source

•

#### **PACKAGED SOFTWARE:**



#### **Variety of Forms**

1.

Packaged Software - is a massproduced, copyrighted retail software that meets the needs of a wide variety of users, not just a single user or company. Package software is available in retail stores or on the Web.

2.

3.

#### **Custom Software**

4.

•

performs  
functions  
specific  
to a  
business  
or

•

Sometimes a company cannot find packaged software that meets its unique requirements.

1.

Web Application

2.

•

a Web site that allow users to access and interact with software from any computer or device that is connecte d to the internet.

Many Websites provide free access to their program s; some charge a fee.

•

1.

Open

source

### OPEN SOURCE SOFTWARE:



software

2.

- 

software provided for use, modification, and redistribution. This software has no restrictions from the copyright holder regarding modification of the software's internal instructions and its redistribution.

•

1.

Shareware

2.

-copyrighted

software that is  
distributed at no  
cost for a trial  
period.

To use a shareware  
program beyond  
period, you send  
payment to the  
program  
developer.

1.

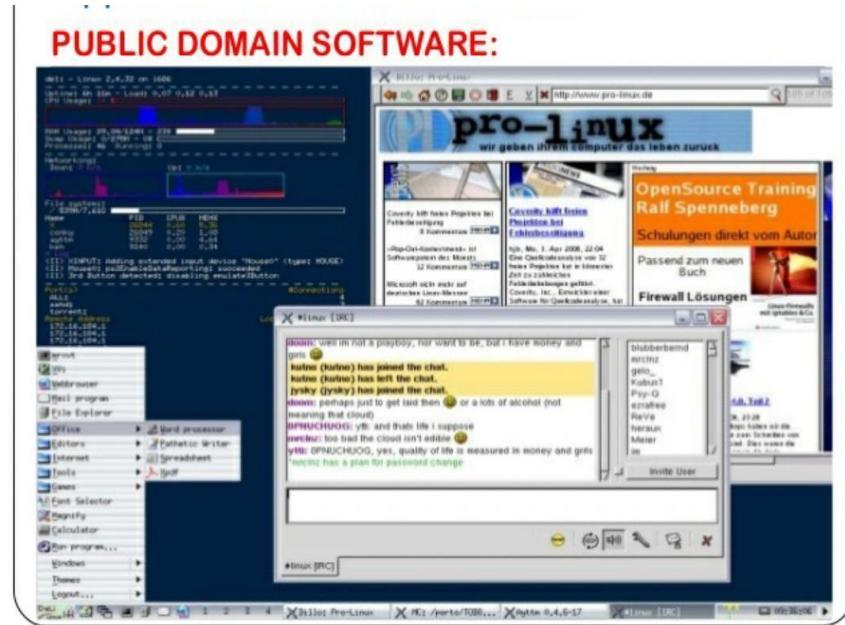
Freeware

2.

-  
copyrighted

software  
provided at  
no cost by  
an individual  
or a  
company  
that retains  
all rights to  
the  
software.

## 7. Public-domain



- software that has been donated for public use and has no copyright restrictions. Anyone can copy or distribute publicdomain software to others at no cost.