

# Introduction to Windows 7

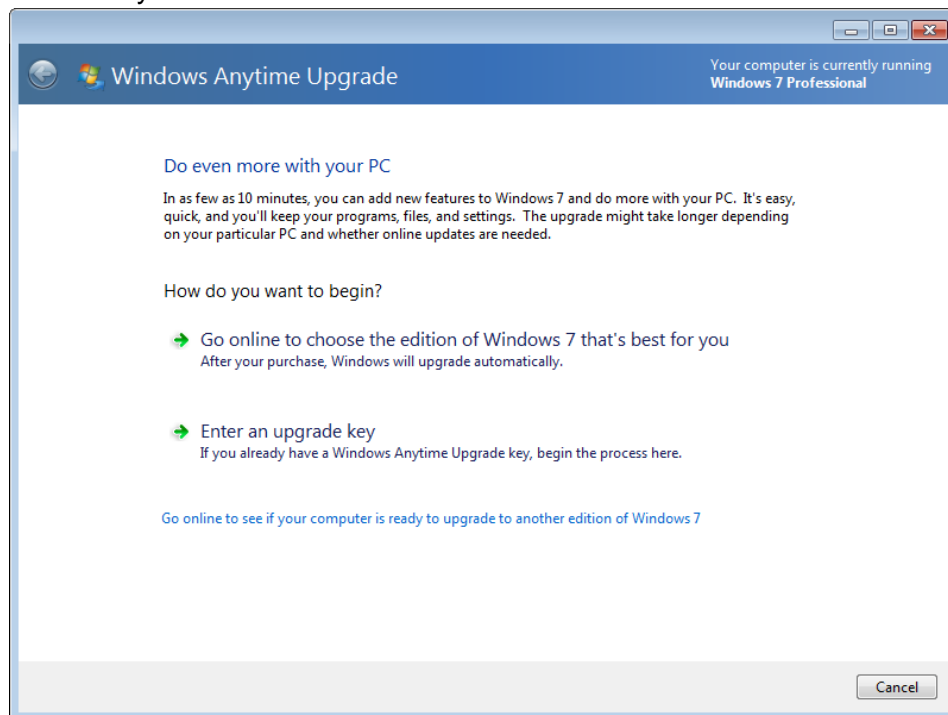
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*Note: Because of the number of screen captures needed to adequately explain this topic there have been some page breaks inserted to keep content with the screen capture.*

This is a simple introduction to Windows 7 and is not intended to be an in-depth discussion of any one topic. There will be more in-depth discussions throughout the textbook and in laboratory activities. Topics presented will cover many of the latest new features of Windows 7. When appropriate, the latest feature found in Windows 7 will be compared to earlier editions of Windows operating system such as Vista and Windows XP. Many of the basic features of Windows operating systems will appear on the CompTIA A+ certification exam. Questions related to the Windows Taskbar, Start Menu, Workgroup and Homegroup sharing, User Access Control, and more are common. This section will contain many items you are already familiar with as well as some items you may not be. First we will look at the various editions of Windows 7 which are available.

## Windows 7 Editions

Windows is available in many different editions such as: Starter, Home Basic, Home Premium, Professional, Ultimate, and Enterprise. The three most commonly encountered retail editions of Windows 7 are Home Premium, Professional, and Ultimate. Some editions are less commonly encountered such as Starter and Enterprise. A typical Windows 7 installation DVD has the capability to install all of the various editions such as Home Premium, Professional or Ultimate. The exact version that will be installed is determined by the product key. The user has the option to upgrade their operating system at any time using the Windows 7 - Anytime Upgrade feature. For example if a user has Home Basic installed on their computer, they can upgrade to Home Premium at any time.



Windows 7 - Anytime Upgrade Option

The upgrade is performed by downloading the required files from the Microsoft website. You must have or purchase a new upgrade key to complete the service. There is also an option that will allow you to verify whether or not your computer is ready to be upgraded.

## **Windows 7 - Home Premium**

The Windows Home Premium is designed for the typical home user, and can best be described by the features that are not included, such as the ability to join a domain, no Windows XP mode, no file encryption, and no enhanced backup, and restore utilities. Home Premium is fine for a typical home computer user, but lacks elements that are essential in a business network environment, business laptop or for use by a professional technician.

## **Windows 7 - Professional**

Windows 7 Professional provides features that are not found in Windows Home Editions, such as the ability to join a network domain. Joining a network domain is ability to join a network that is controlled by a network server. For example a large business network is called a domain and you have configuration options that allow you to assign the Windows professional computer as a member of that network. This is not the same as joining a home network. Windows Home edition can join a home network, but not a network domain system.

Another advantage of Windows Professional is the ability to encrypt files. If the user is working in a business environment, the encryption of files is a basic security fundamental practice. Encryption is not a *default* ability when using Home Premium or lesser editions.

Windows Professional also includes the ability to support XP mode which is new in Windows 7. There will be more about Windows XP mode later in this chapter.

There is one major disadvantage of the Windows 7 Professional and that is the lack of parental controls. Parental controls are available in Windows Home, Home Premium, and Ultimate, but not in Windows Professional or Enterprise editions. Parental controls would prove to be an asset for parents of young children and in some cases teenagers as well. Again, there will be more about this later in the chapter concerning parental controls.

## **Windows 7 – Ultimate, and Windows 7 - Enterprise**

Windows Ultimate provides nearly all of the same features as Windows Enterprise Edition. The difference between Windows Ultimate and Enterprise is the fact that Ultimate is a retail version available by purchase as a DVD or download, or by Windows Anytime Upgrade. Whereas, each copy of Windows 7 - Ultimate is individually licensed, and cannot be installed on more than one machine. Windows 7 - Enterprise is only intended for large business, education, and government institutions, and is not available for private, individual use. Windows 7 - Enterprise is purchased through volume licensing. Volume licensing means the software can be installed one more than one machine, but not more than the number for which it is licensed. Enterprise is used on multiple machines and is not available for purchase by the general public or through

original equipment manufacturers (OEMs). Both Windows Professional and Ultimate editions are the typical network technician choices. Ultimate is the most secure because of the BitLocker encryption function, and is an excellent choice for protecting sensitive information stored on a lap top computer. At the time of this writing, the only two features not found in Windows 7 - Enterprise when compared with Windows 7 - Ultimate are Parental Controls, and DVD Maker.

## Windows 7 - Starter

In the United States, Windows 7 - Starter is only available on limited hardware/resources notebook PCs (netbooks), tablets, etc.. Windows starter is not available for re-sale in the United States at this time of writing.

## Windows 7- Home Basic

Home Basic was developed for very basic hardware, and is not presently marketed in the United States. Home Basic is typically installed on low end computers with limited performance. You may see Windows 7 - Home Basic installed on small portable computers that have limited hardware resources such as Netbooks.

### Compare Features by Windows 7 Editions

Feature List	Home Basic	Home Premium	Professional	Ultimate
Aero Glass	No	Yes	Yes	Yes
Join HomeGroup	Yes	Yes	Yes	Yes
Create a HomeGroup	No	Yes	Yes	Yes
Windows XP Mode	No	No	Yes	Yes
Join a Domain	No	No	Yes	Yes
Media Center/Internet TV	No	Yes	Yes	Yes
Advanced Backup Restore	No	No	Yes	Yes
Bit Locker	No	No	No	Yes
Multilingual User Package	No	No	No	Yes
Encrypted File System EFS	No	No	Yes	Yes
Direct Access	No	No	No	Yes
AppLocker	No	No	No	Yes
BranchCache	No	No	No	Yes
Parental Controls	Yes	Yes	No	Yes

*Note: Windows 7 Ultimate and Windows 7 Enterprise have the same features, except for parental controls and DVD Maker.*

*Note: In the United States, Windows 7 Starter is only available on small notebook PCs (netbooks and tablets).*

*For a complete list of features by comparison check the following link:*

## Aero Glass

The AERO theme was first introduced with Windows Vista, and continues with Windows 7. Windows not only continued the AERO theme, but also added many improvements such as the AERO translucent glass affect. Look at the screen capture below, and pay particular attention to the border of the open Windows dialog box.

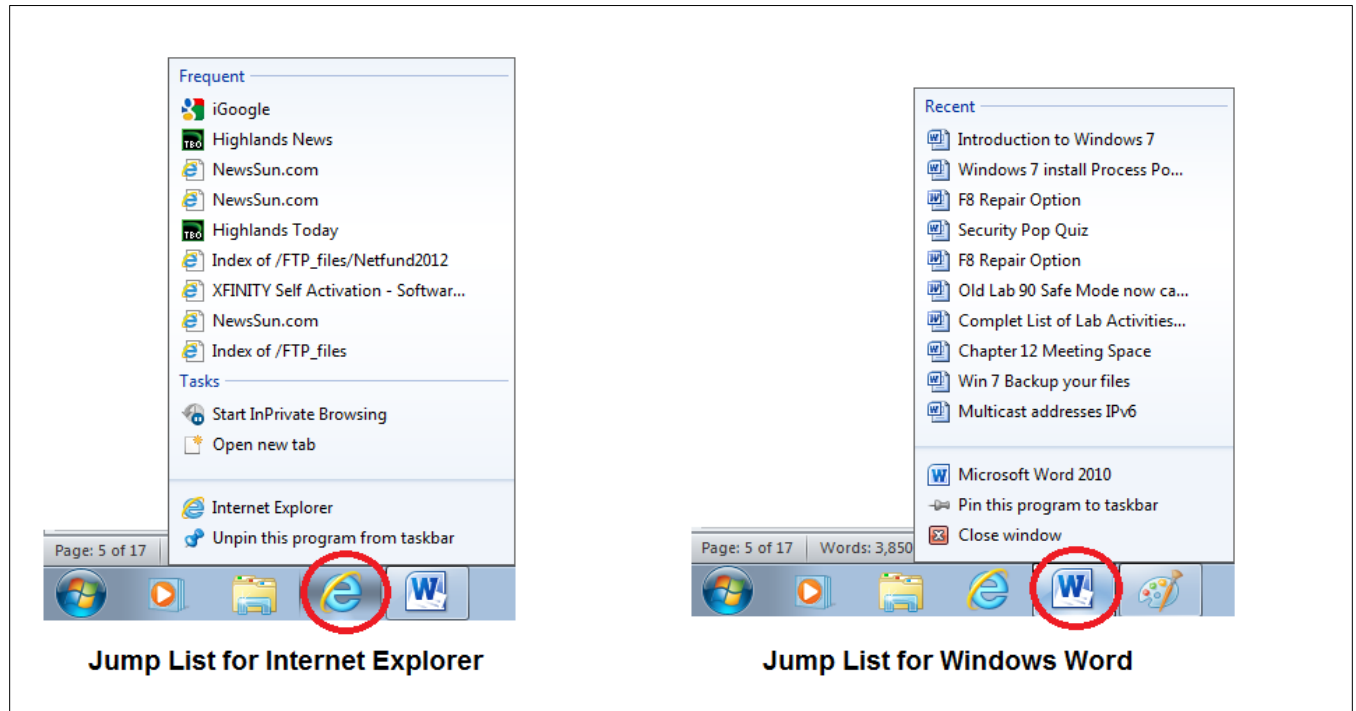


AERO Desktop

See how the Windows dialog box has a translucent glass affect allowing the rock image behind it to show through. AERO Glass is a visual affect in Windows that has a transparent look much like glass hence the name “AERO Glass”. AERO Glass requires additional memory and processor resources and enhanced graphics capabilities when compared to previous. The enhanced graphic effects reduce the hardware resources available for software programs and can result in sluggish computer performance. Some Windows 7 computers that have limited hardware resource disable the AERO effect to provide better software application performance.

## Jump List

The jump list is new in Windows 7 and provides a quick method to access a recent file folder or website. The Jump list is incorporated into the Start Menu as well as the Toolbar. Look at the following screen capture of a typical jump list.



Win7 Jumplist

The jump list on the left was generated by right clicking on the Internet Explorer icon. The jump list on the right was generated by right-clicking on the Word icon. Notice that the Internet Explorer jump list on the left also includes two common tasks associated with Internet Explorer, located under the “Tasks” section - “Start In private Browsing” and “Open new Tab.”

Jump list can also be generated from the list of programs located on the start menu.

## Network Domains, Workgroups, and Homegroups

There are two types of network memberships used today, Domain membership and workgroup membership. A domain is a network that is controlled by a network server. The server determines the network access limits for all users that are members of the network. Because the network is controlled by the server, many of the features presented in this section can be disabled by the network administrator for security reasons. For example, access to shared folders is controlled by the network system administrator to prevent unauthorized access.

A workgroup is the default configuration of a computer when the operating system is installed on a computer. The term workgroup is a Microsoft operating system term used to describe a collection of computers that do not use a centralized server to control access to the network.

For example, when two or more computers are connected together in a home or small office, they form a workgroup by default. The default name of the workgroup is usually “workgroup.” Members of a workgroup do not automatically share resources. The resources such as folders, printers, must be configured by the user. In order to make the sharing configuration much easier, Microsoft Windows 7 introduced the HomeGroup. It is easy to confuse the terms Workgroup and HomeGroup. A workgroup is the name for Windows operating system computers that are connected as a local area (home or small office) group of computers. The workgroup membership is automatically created for Windows 7, and earlier computers, but does not require a password, nor does it automatically create a set of shared folders and resources. Windows 7 HomeGroup is a special computer organization new in Windows 7 for the purpose of automatically sharing a collection of common resources through the use of a shared password which is automatically created when the HomeGroup is first created.

## **Homegroup**

Homegroup is a new Windows 7 feature designed to allow a user with limited technical skills to quickly create a common set of shared resources. A Windows 7 computer creates a Homegroup and automatically generates a Home group password. The password is then distributed to other computers wishing to join the Homegroup. When the computer joins the Home group, the user enters the password and becomes a member of the Homegroup. The password is only required to be used the first time to join the Home group, and is not required again for future connections to the Homegroup.

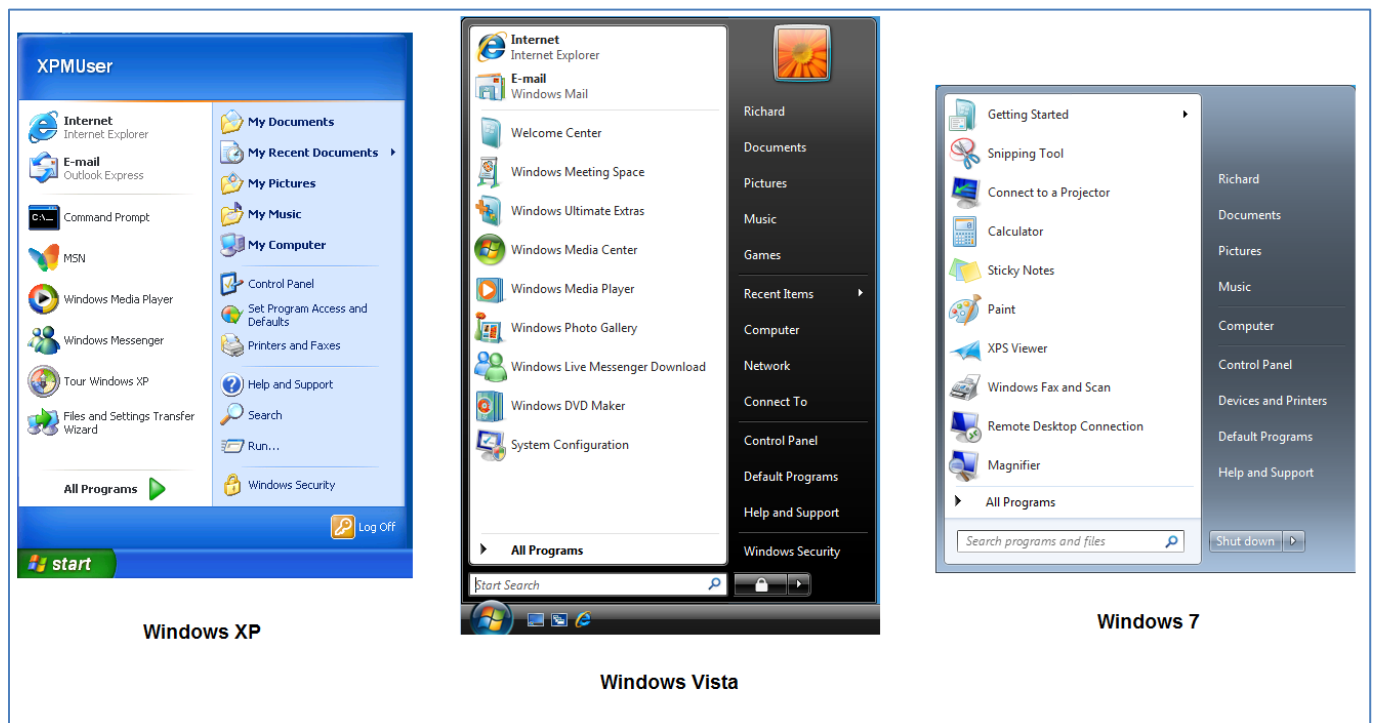
Homegroup can only be created by Home Premium, Professional and Ultimate editions of Windows 7, but a HomeGroup can be joined by any edition of Windows 7 and earlier operating systems such as Vista and Windows XP. Apple Mac OS X and some versions of Linux may also join a Windows 7 Home group. All members of the Homegroup can share a common set of folders. The default resources commonly associated with Homegroup are Documents, Music, Videos, and Pictures. In addition, the Documents Library, as well as devices such as Printer(s) can be shared through the HomeGroup.

Homegroup sharing is disabled by default when a PC is connected as a member of an organizational Domain. A Domain is a collection of computers connected to a network that contains a server which controls the membership of the network. Network Computers that are members of a home network or small office workgroup can be members of the workgroup as well as a Homegroup.

## **Start Menu Comparison**

When you compare Windows XP, Vista and 7 Start Menus, at first, the menu features appear very similar. Upon closer examination you will notice several subtle changes. See the screen capture below with explanation.





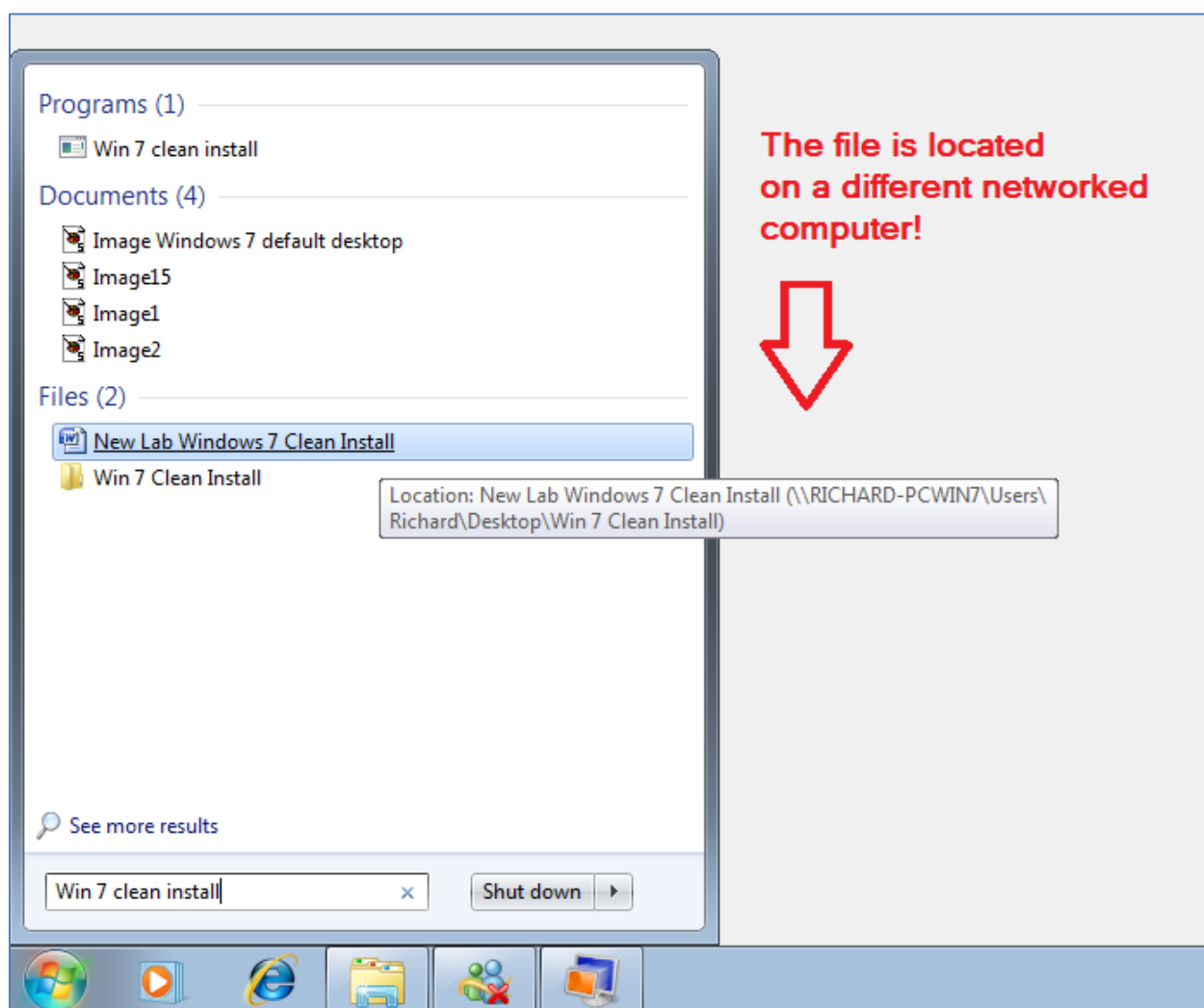
## Start Menu Comparisons

### Search Feature

One of the biggest changes has been with the Search function located in the start menu of Windows XP. This function is now located in a dialog box at bottom of the Start Menu in Windows Vista and Windows 7. Users have always lost files, and then had difficulty locating the files. For example, users often lost files after performing a download, or using a graphic program or some other application. The search dialog box has evolved into one of the nicest features of Windows 7, and makes it easy to locate lost files and executable programs.

Windows 7 has enhanced the search feature using what is now called **federated search**, and is based upon Windows file/folder index feature and the XML file format. The XML file format contains additional information about file contents which in turn supports Windows Explorer searches. The Federated search feature looks not only on the user's computer, but also in the entire local area network based upon the user account. This is a great advantage for home networks or small office networks where a user has multiple computers that they use regularly. The federated search feature not only looks for documents and folders but will also search your email files.

The Run Dialog box was located in Windows XP under the Start Menu Programs and is not configured by default starting in Windows Vista. The Run dialog box can still be added to the Start Menu in Vista or Windows 7, but it is no longer needed. The Search dialog box will perform the same function as the Run dialog box. The Run dialog box is located under Programs | Accessories in Windows 7 and Vista.



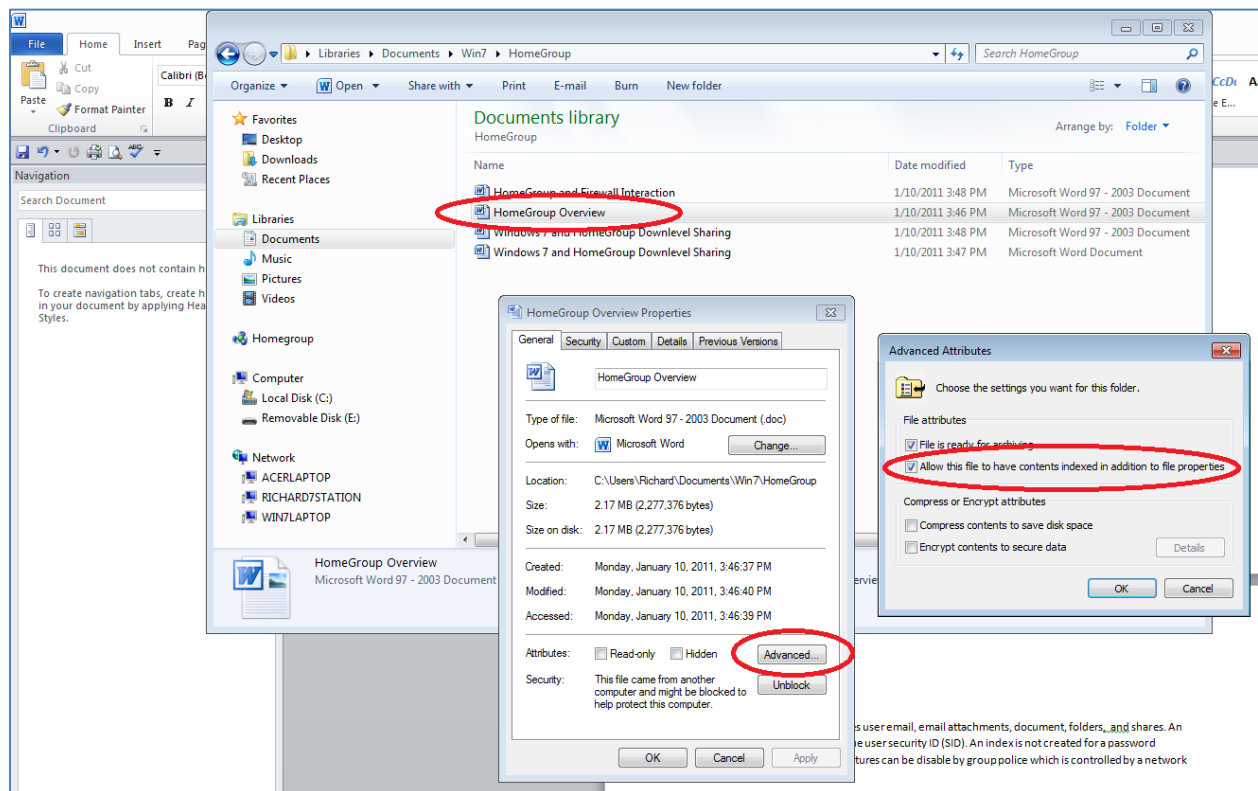
### Federate Search on Network Labeled

In the screen capture above, you see the results of a search looking for a document named “Win 7 clean install.” The federated search feature located the document on a different computer. This is a great feature for finding those lost files we all experience.

### Windows Search Index

By Default, Windows Search indexes the user email, email attachments, documents, folders, and shares. An index is created based on the unique user security ID (SID). An index is not created for a password protected Office file. The search features can be disabled by group policy which is controlled by a network administrator.





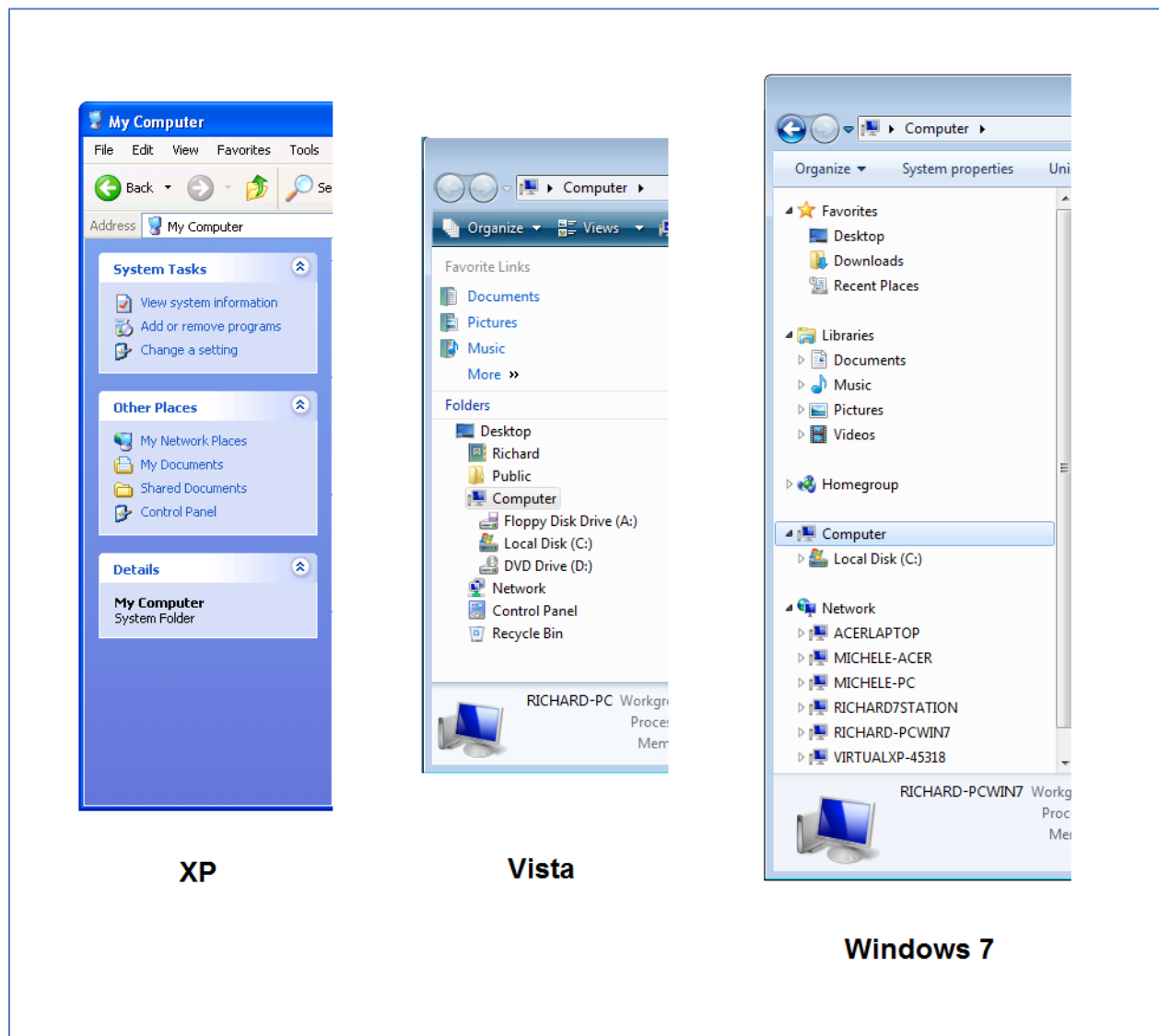
## Win 7 Indexing

When you right-click on a particular folder or file, and then select the properties option from the drop down menu, the file/folder properties are presented. You can then select the Advanced button to view the option allowing the file/folder to be automatically indexed. You also are presented with options to encrypt the contents for security reasons and/or compress the contents to save disk space. Encryption and compression are not enabled by default, but are an option to index the files.

## Windows 7 Directory Structure

Microsoft's approach to software is like the automakers constant model changes. They keep reinventing existing features, and nowhere is there a better example of this process than comparing the directory structure of Windows operating systems. As new approaches to old problems are solved, and new technology features are introduced, changes are reflected by the different operating systems directory structure.

A directory structure consists of files, folders, documents, and hardware devices such as hard disk drive partitions, CD/DVD drives, network locations and more. To make a quick comparison of the XP, Vista and Windows 7 directory structures, look at the figure below.



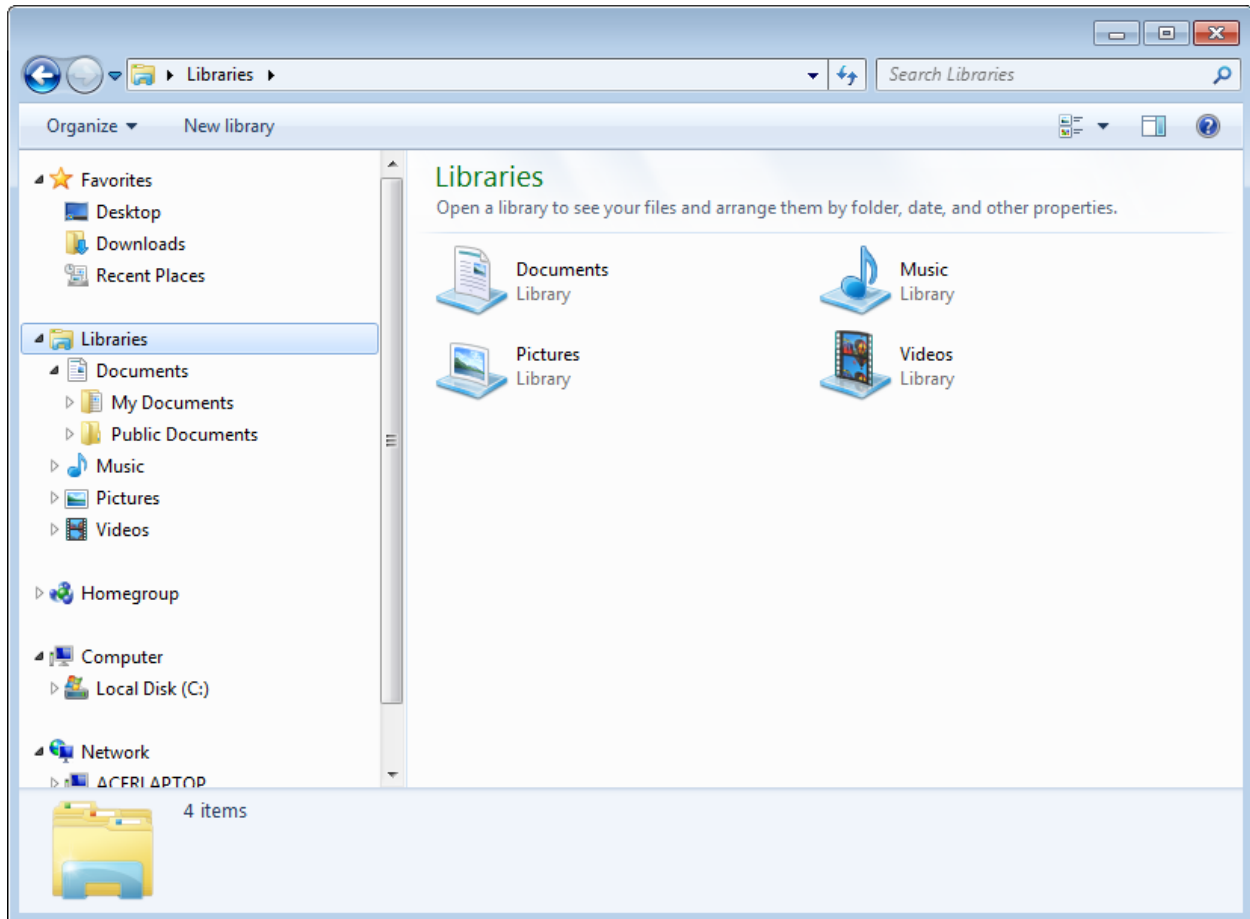
Windows Directory Left Panel Comparison

Changes in the directory structures is one of the biggest reasons people have trouble locating their files. The early Windows XP directory was simple in comparison to Vista. Vista introduced the concept of a “Public” folder to make sharing easier for users. Windows 7 directory structure is even more complex than previous versions. Windows 7 also introduced Libraries and Homegroup options into the directory structure. The Homegroup is an improved sharing feature, and the Libraries option allows easier access to files and folders located in multiple locations controlled by a single user.

## Libraries

Libraries are new in Windows 7 and differ from the original “My Documents” and “Documents” folder used in Windows XP and Vista. A Library is a virtual container of user content such as documents, music, pictures and more. It is a virtual container because the content included in the Library can be located anywhere on the local computer, as well as remote locations such as

network shares, exterior storage devices and even other computers. The idea is to have one central virtual storage location for the user. There are four default folders in a Windows 7 Library, Documents, Music, Pictures and Videos.

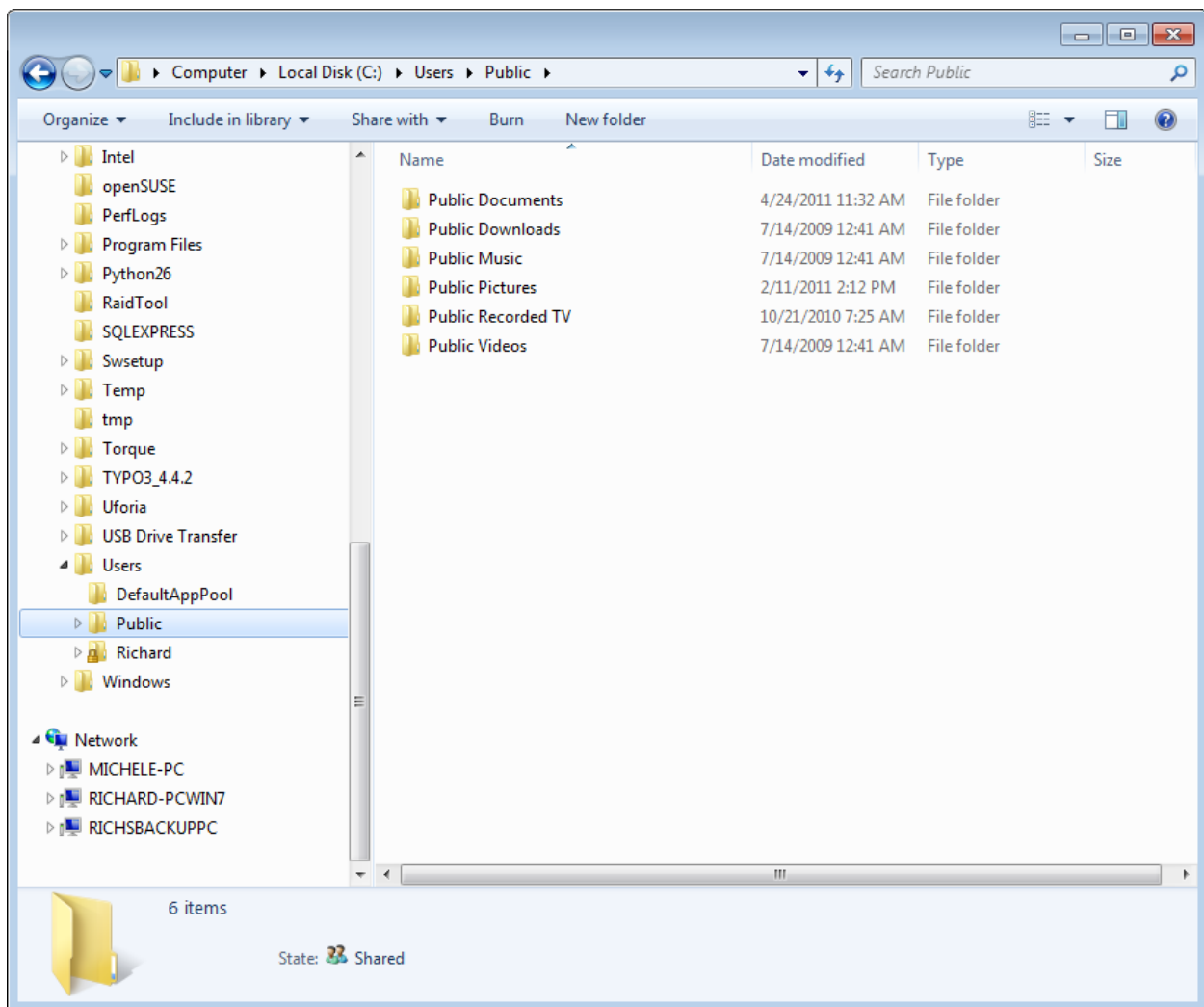


Win 7 Libraries

Libraries are not the only way folders are organized on a Windows 7 computer. You also have Public folders which were first introduced in Windows Vista.

## Public Folders

Public folders were originally designed for Windows Vista as a method for sharing documents, music, pictures and videos. The Public folder concept is still provided under Windows 7.

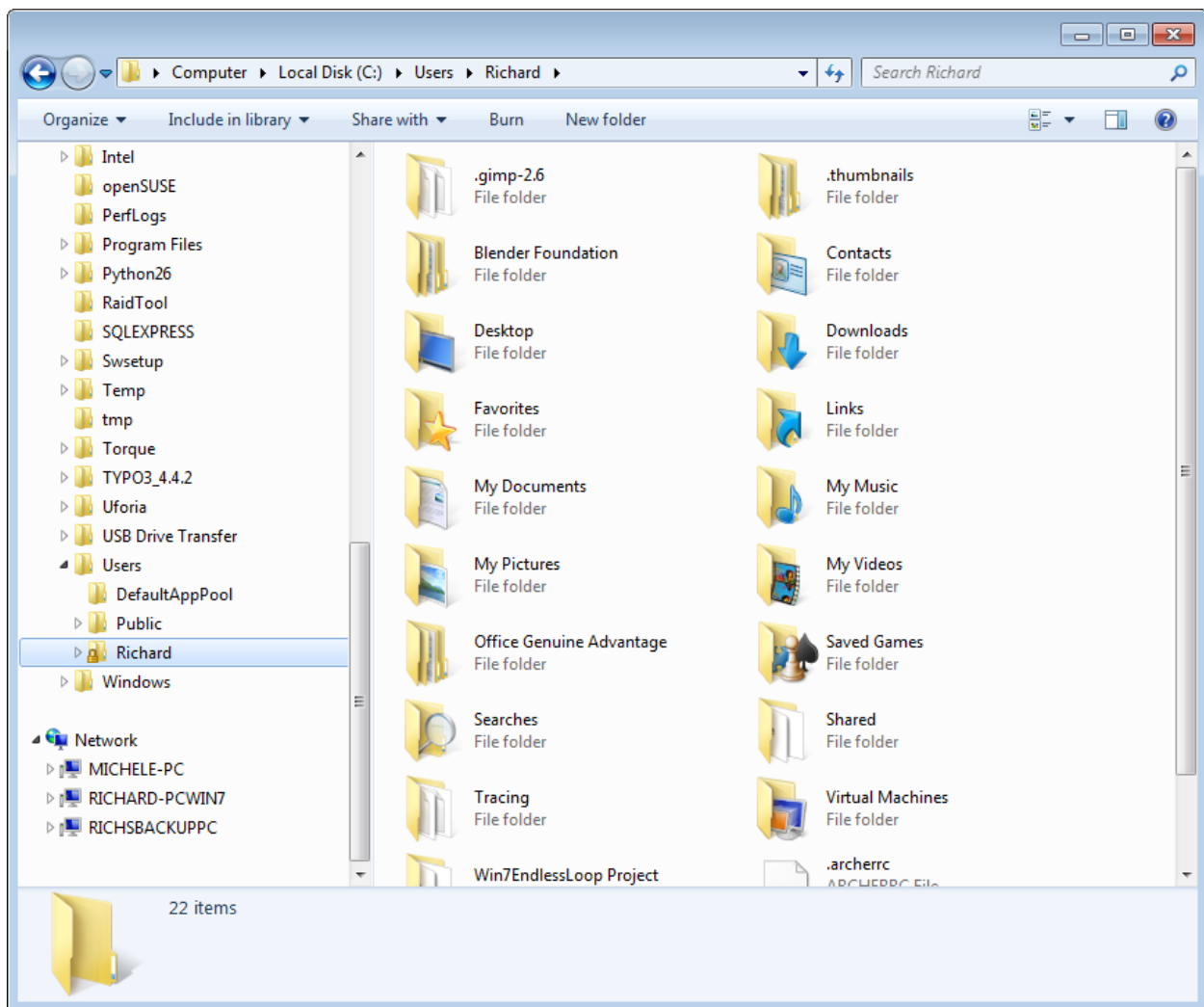


## Win 7 Public Folders

In the screen capture above, you can see that Public is a folder listed under Users. Anyone with a user account on the designated computer can access the Public folder. The Public folder can also be accessed through a local network, a user name and password is entered by a person designated on the authorized user list. Only items you wish to share with other users should be placed in a Public folder.

## User Account Folders

Below you see a screen capture of the User/Richard directory and folder structure taken from the same computer used to illustrate the concept of Public folders.

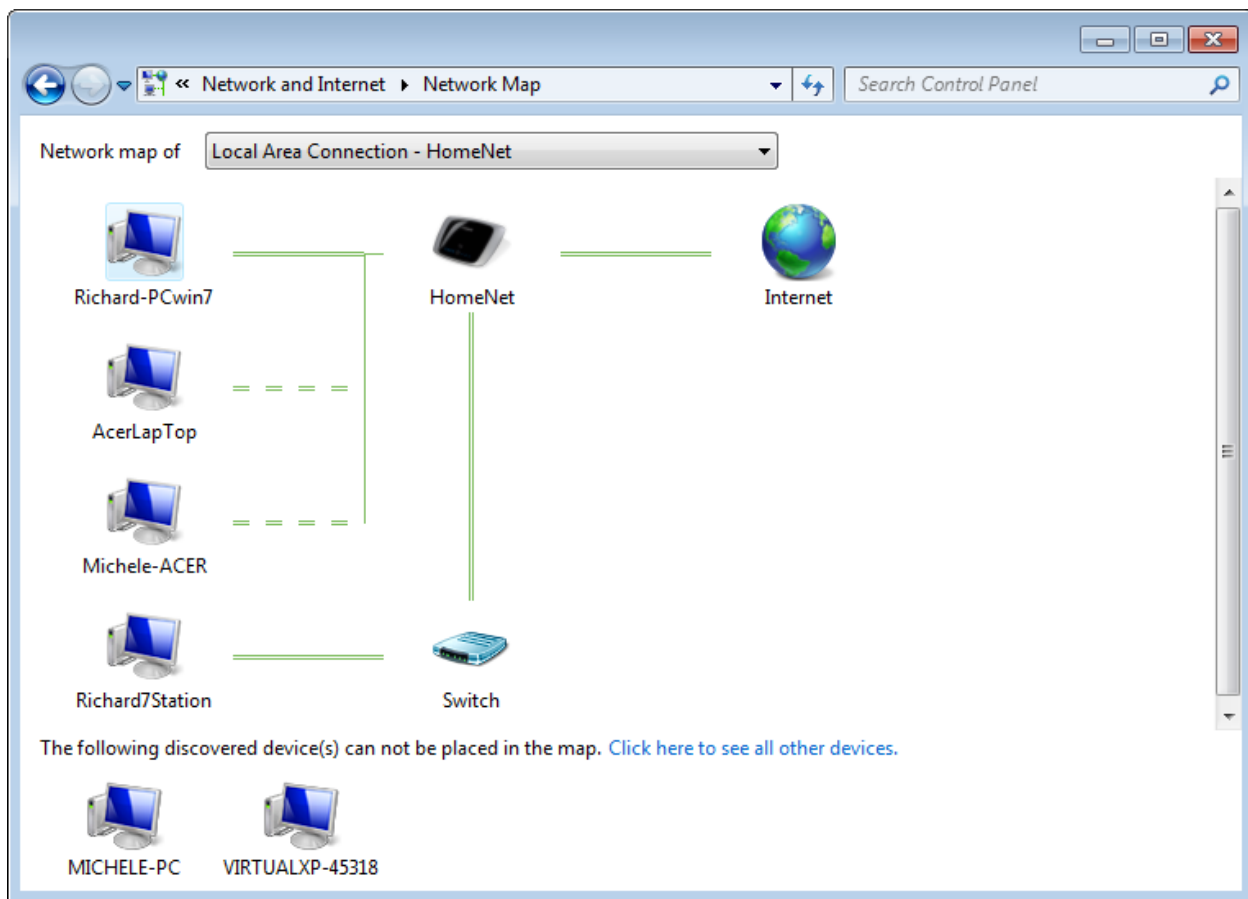


Win 7 Richard Folders

The individual folders are not configured by default to be shared with other computer users. Instead, they are intended to be secure folders that can only be accessed by predetermined users. As you can see in the comparison, the Public folders provide public access to items intended to be shared, while the individual user folders are intended as secure places to store items, and not intended to be readily shared with others.

## Network Map

Windows first introduced the ability to present a map of all network devices in Windows Vista. The Network Map feature produces a visual display or map of all devices connected to the local area network by either hard wire or wirelessly. In the screen capture below, you can see a Network Map created in Windows 7 showing all the computers, as well as network gateway to the Internet and switching devices.



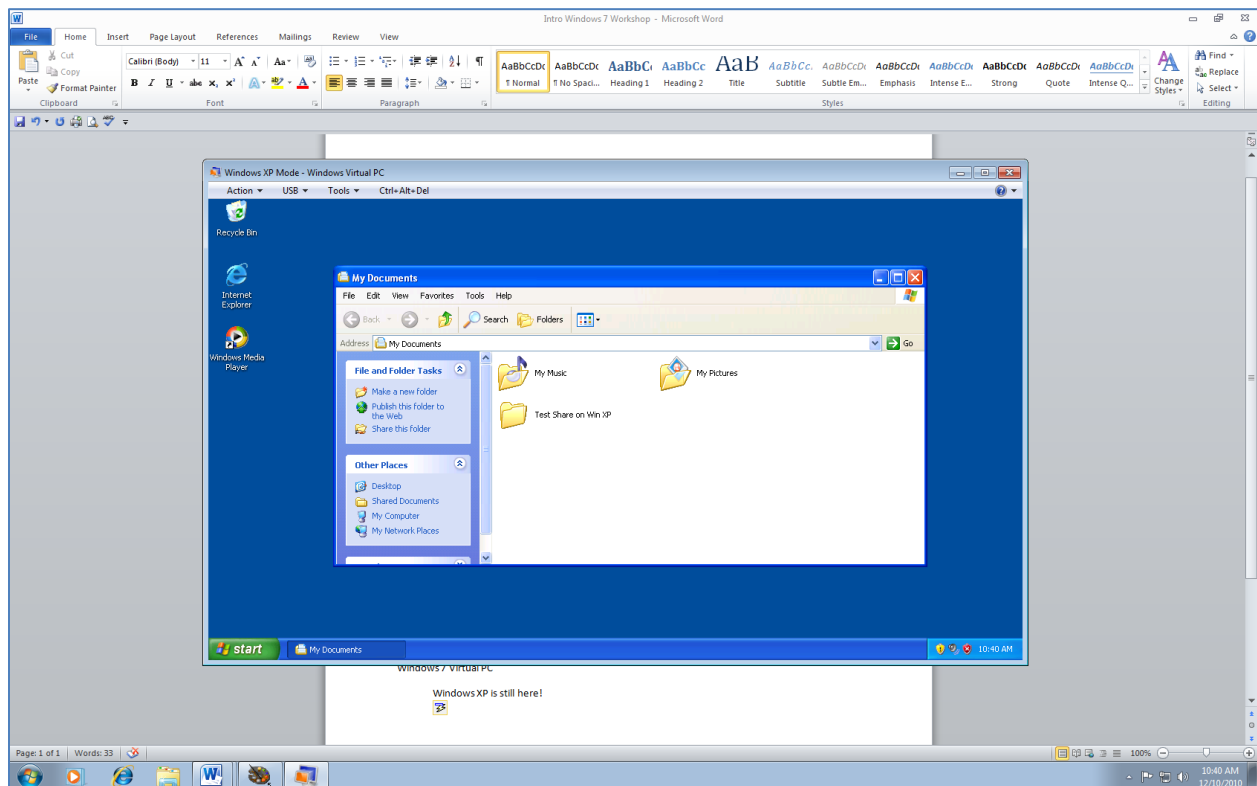
Windows 7 Network Map

The Network Map is a valuable troubleshooting tool for isolating network connection problems for Windows Vista and Windows 7 systems. Some devices may not appear as part of the network map because of the security configuration of the device or if the device is running an earlier version of the operating system.

## XP Mode

XP mode is another new feature first introduced in Windows 7. XP mode is not installed by default during the operating system installation. XP mode is installed from a free download from the Microsoft website. The download is actually two separate downloads. First, a utility that will create a virtual hard drive is downloaded, installed and automatically configured. The second is an actual full version of Windows XP operating system that is installed in the virtual hard disk drive created in the first download. After Windows 7 XP mode is completely installed and automatically configured, you can then install software programs and applications that run under the Windows XP operating system. You can also cut and paste, or copy files between the Windows XP mode program and the Windows 7 Programs. This is not a dual boot system, but rather Windows XP is running simultaneously with Windows 7. You are running the Windows XP operating system separately under the Windows 7. You can even install a copy of Windows Vista in the Virtual PC program, and then run three different programs at the same time if you desire.

XP Mode is only available in Windows 7 Professional, Ultimate, and Enterprise Editions.



Win 7 Windows XP Mode

In the screen capture above, you see an example of Windows XP Mode. Windows 7 program is running Word and the Windows 7 XP Mode is loaded to the desktop over the Windows Word program. Windows XP My Documents folder/directory is opened, exposing three folders contained in the directory. XP mode allows you to successfully run a legacy software program originally designed to run in the Windows XP environment.

## Virtual HDD

The virtual hard disk drive is new for Windows 7 and can be used for several different applications. For example, the virtual hard disk drive can be used to host another operating system. You can actually install a different operating system in the virtual HDD and then reconfigure the computer to boot to the new system. When the virtual HDD is used to host the new operating system, the computer is configured as a dual boot system, not as a virtual PC.

Configuring the virtual HDD as an alternative operating system requires expertise beyond the average user. The virtual HDD can also be used to serve as a backup location.



## **Windows Defender**

Windows Defender is a free antispyware program installed by default in Windows Vista and Windows 7. Defender is not installed by default in Windows XP but can be downloaded and installed as an update to the program.

In addition to removing spyware, Windows Defender monitors startup programs, Internet Explorer add-ons, system configuration changes, and more. While it is not an antivirus utility, it does help protect against system high jacking from unauthorized software.

## **BitLocker and BitLocker To Go**

BitLocker and BitLocker To Go are storage encryption systems used to safeguard critical information such as student or customer information. Encryption is used to prevent unauthorized persons from reading the stored data. BitLocker is unique when compared to other encryption methods in that BitLocker can encrypt the entire hard drive or storage device. Other encryption methods are limited to files, or drive devices, not the entire storage drive or device. BitLocker was first introduced with Windows Vista Ultimate and Enterprise editions. BitLocker To Go was first introduced in Windows 7 and allows the same type of file encryption to be extended to USB storage devices.

## **AppLocker**

AppLocker is a new feature in Windows 7 and Server 2008 which limits the users or groups who can run an application on the computer. AppLocker basically restricts or limits users to only run specific programs and prevents installing new program, or files that can be automatically executed, such as dll files and scripts. Dll files and scripts will be discussed in more detail in the Security chapter. As a result of configuring AppLocker, the computer is made much more secure, and it will eliminate a lot of tech support and or help desk calls. AppLocker is only available for implementation in Windows 7 Ultimate and Enterprise editions. The AppLocker file can be configured in Windows 7 Professional edition, but not implemented to run on Windows 7 Professional. AppLocker is designed for use on Ultimate and Enterprise attached to networks that use Active Directory structure.

## **Direct Access**

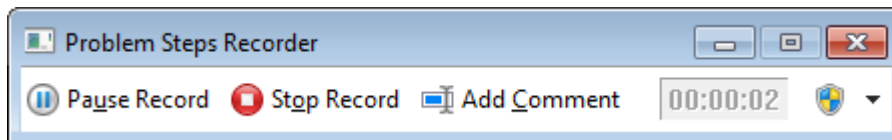
Direct Access is a new feature in Windows 7 that allows a user to securely connect remotely to a corporate network without the need to establish a virtual private network connection each time they make a connection. The Direct Access feature is especially helpful for mobile users. Configuring a VPN connection each time a connection is required can be annoying, especially for sales force personnel on the go. All the user needs is Internet access and the connection will be automatically configured each time the computer boots. Direct Access is only available in Windows 7 Enterprise edition.

## BranchCache

Branch Cache is a new feature that allows the user to retrieve information more quickly from a remote location, such as corporate network server. When files are downloaded to a remote location such as a corporate branch location, a copy of the file is stored (Cached) on a local computer. The next time that particular file is requested for download by another user on a different computer, the file is first searched for on the local area network rather than the corporate network server. If it is located locally, a copy is sent to the requester. This new feature results in a much faster retrieval time than if the file was downloaded from the corporate server by each individual machine or user.

## Problem Step Recorder

Problem Step Recorder is a screen capture tool designed to record a problem as it is occurring. A series of screen captures are generated while the utility is running. After the problem recorder is stopped, you can add comments, and save the recording session as a zipped (compressed) in MIME HTML (MHTML) file format. The file can then be sent by email to a technician or help desk for viewing. The technician can see exactly what problem occurred on your computer. The recorder is started by entering PSR.exe into the search box located off the start menu.



Problem Steps Recorder

In the screen capture above, you can see that the Problem Step Recorder is a very simple and intuitive tool. You can record, pause or stop the recording. You name the file as you would for any other program. Not all types of problems can be recorded, but most involving software applications can, especially ones which generate cryptic error messages that users cannot interpret.

To compare and contrast various Windows operating systems in general, look at the chart below. There have been many features add to the operating system since the original Windows operating system. The chart begins with Windows XP and compares it to Windows Vista and Windows 7.

## Compare Windows Operating Systems - by Released Generation

	XP	Vista	Win 7
HomeGroup	No	No	Yes
Libraries	No	No	Yes
Public Folders	No	Yes	Yes
Jump List	No	No	Yes
BitLocker	No	Yes	Yes
BitLocker To Go	No	No	Yes
Topology Discovery	No	Yes	Yes
IPv6 by Default	No	Yes	Yes
Windows XP Mode	NA	No	Yes
Virtual Hard Drive	No	No	Yes
Windows Connect Now (WCN)	No	No	Yes
Device Stage	No	No	Yes
Search Relevance	No	Yes	Yes+
Ready Boost	No	Yes	Yes
Idle Processing	No	Yes	Yes
Wake On Wireless LAN	No	No	Yes
User Accounts Control	No	Yes	Yes+
Parental Controls	No	Yes	Yes
AERO Theme	No	Yes	Yes
Action Center	No	No	Yes
Startup Repair Option	No	No	Yes
Location Aware Printing	No	No	Yes
Direct Access	No	No	Yes
VPN Reconnect	No	No	Yes
Gadgets	No	No	Yes

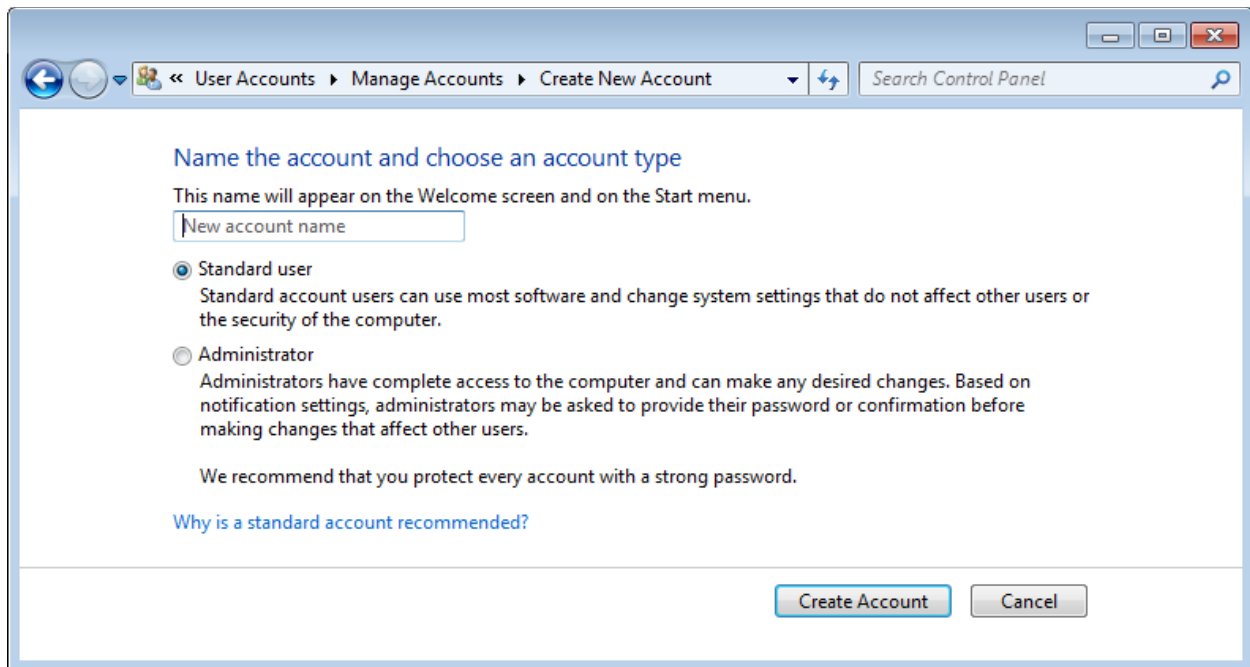
“Yes+” means - improved significantly.

Note: Windows XP first introduced Simple File Sharing feature which has evolved into Public Folder in Vista and Multiple Public Folders in Windows 7.

### User Accounts Control

The User Accounts Control **UAC** was first released with Windows Vista. The user account control was designed as a security feature for the Windows operating system by limiting the access that the user has to areas of the computer directory and by limiting the changes a user can make to the computer configuration. For years, Microsoft was criticized as having a weak security system that could be easily hacked or disrupted by users. In response, Microsoft then required an administrative password to be used before any and all changes are made to the operating system configuration. Requiring an administrative password for routine configuration changes proved to be annoying. In fact, it became so annoying that many users disabled the feature, which defeated the security purpose. The Windows 7 version of the user accounts feature was redesigned and is much more to user friendly to the typical computer user.

Look at the screen capture below and you can see the dialog box where a user account is created.



### Win 7 Standard and Administrative Accounts

The Administrator account can make any changes to the computer system configuration. The administrator can install or remove software, and access all files and directories on the entire computer unless the account file/folder is encrypted. The administrator can also add, delete, modify, and access other user accounts. When first installing the Windows operating system, the first user account created is an administrative account by default.

### Standard Account

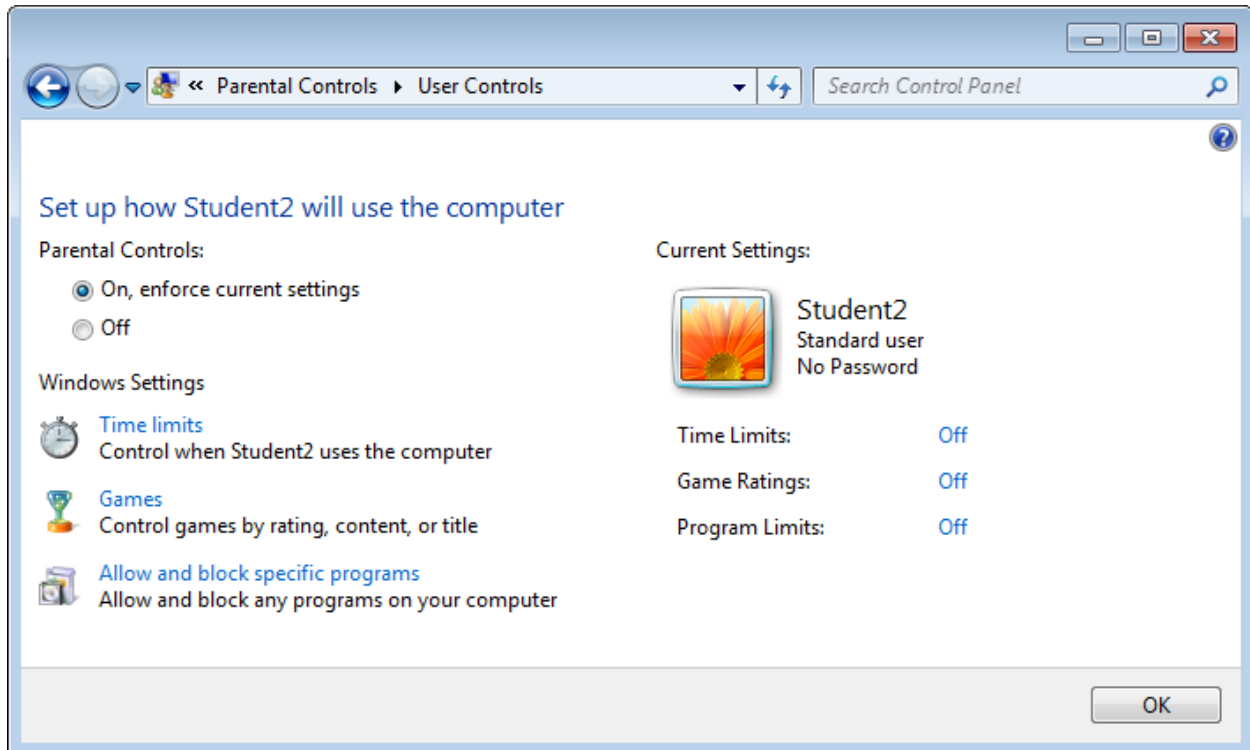
The standard account is also known as a limited user account and can modify many system configurations, but not critical system configuration changes without using an administrator password. The standard account can use most software applications such as word processing, email, internet searches, video and audio programs and more. The parental control can be used to add further restrictions to a standard account user.

### Guest Account

A third account which is created by default when the operating system is installed is the guest account. The guest account is as the name implies, a very limited user account used by computer guest to perform routine functions such as check their email, or use the Internet. The guest account cannot make any changes to the computer system configuration. The guest account is disabled by default.

## Parental Controls

Parental controls were first introduced in Windows Vista and continue with Windows 7. Parental controls allow a parent to restrict what their children can access or run on the computer, as well as restrict the hours and days the child may use the computer.



Parental Controls Win 7

The Parental controls can be enhanced to control web browsing. The parent can choose to block certain websites. The enhanced feature to control Web browsing can only be enabled after the parent creates a Windows Live account.

Note: Parental controls can only be assigned to a standard or limited user account. Parental Controls may not be assigned to an administrator account.

## Summary

- HomeGroup is new in Windows 7, and can be accessed by Windows Vista, Windows XP, Mac OS X, and some Linux systems.
- HomeGroup can only be created using Windows 7.
- Libraries are new in Windows 7 and are virtual containers of user content located anywhere on the user computer, as well as remote locations such as network shares, and exterior storage devices.
- Public folders were originally introduced in Windows Vista and used to share user content.

- XP mode was introduced in Windows 7, and consists of a full version of Windows XP installed on a virtual partition.
- XP mode can run simultaneously with Windows 7.
- BitLocker is a storage encryption system first introduced with Windows Vista Ultimate and Enterprise systems.
- BitLocker To Go was first introduced with Windows 7 and permits BitLocker encryption for USB storage devices.
- AppLocker basically restricts or limits users to only run specific programs and prevents installing new program, or files that can be automatically executed.
- Windows XP first introduced Simple File Sharing, which later evolved into Public Folder in Vista, and Multiple Public Folders in Windows7.
- Parental controls were first introduced in Windows Vista, and provide a means for parents to control access to games, programs and web browsing of their children.
- Direct Access is a new feature in Windows 7 that allows a user to securely connect remotely to a corporate network without the need to establish a virtual private network connection each time.
- Branch Cache is a new feature that allows the user to retrieve information more quickly from a remote location such as corporate network server.
- The jump list feature provides a quick method to access a recent file folder or website.
- Windows Defender is a free antispyware program installed by default in Windows Vista and Windows 7.
- Parental controls allow a parent to restrict what their children can access or run on the computer as well as restrict the hours and days the child may use the computer.
- Problem Step Recorder is a new feature which has been designed to assist support personnel in troubleshooting computer problems.
- Network Map feature produces a visual display or map of all devices connected to the local area network by either hard wire or wirelessly.
- Windows 7 Basic and Home Premium cannot join a network domain.
- The User Account Control was designed as a security feature for the Windows operating system by limiting the access of the user to certain areas of the computer directory and limiting the changes a user can make to the computer configuration.
- The Standard User Account is also known as a limited account and can modify many system configurations, but it cannot make critical system configuration changes without using an administrator password.
- The Guest Account is as the name implies, a very limited user account used by computer guest to perform routine functions such as check their email, or use the Internet.

## Review Questions

1. What are the three most commonly encountered editions of Windows 7? 2. Which Edition of Windows 7 is most like the Enterprise Edition?
  3. Identify 6 features that are found in Ultimate Edition.
  4. Which editions of Windows 7 can create a HomeGroup?
  5. What is the purpose of HomeGroup?
  6. Can Windows Vista or Windows XP access a workgroup?
  7. When is a password required to join a HomeGroup?
  8. Which editions of Windows 7 support XP mode?
  9. What is the name of the Windows antispyware program?
  10. What new feature in Windows 7 is designed to make sharing network resources much easier?
  11. What new feature has been added to Ultimate edition to prevent user execution of specific executable files and programs?
  12. What feature has been added to help with troubleshooting?
  13. Which Windows operating system first introduced Public Folders as a way of sharing?
  14. Which Windows operating system first introduced Libraries as a way of sharing?
- Windows 7
15. Which Windows 7 feature is designed to collect files and folder contents in a single virtual location?
  16. Which Windows operating systems can access Windows 7 Libraries by default?
  17. What is the purpose of AppLocker?
  18. Which Windows editions can run the AppLocker feature?
  19. What new feature of Windows 7 allows a user to securely connect remotely to a corporate network without the need to establish a virtual private network connection each time?
  20. What new Windows 7 feature allows the user to retrieve information quicker from a remote location such as corporate network server?
  21. Which two Windows 7 editions cannot join a Domain?
  22. Which Windows operating system first introduced Libraries?
  23. Which Windows operating system, first introduced BitLocker?
  24. What is the purpose of BitLocker?
  25. When was BitLocker-to-go was first introduced?
  26. What is the difference between BitLocker and BitLocker-to-go?
  27. What is the purpose of AppLocker?
  28. Which operating system first introduced simple file sharing?
  29. Which operating system first introduced first introduced Simple File Sharing?
  30. Which operating system first introduced parental controls?
  31. Which operating system first introduced direct access?
  32. What is the direct access feature?
  33. What is the Branch Cache feature?
  34. What is Windows defender?
  35. What does Network Map feature provide?
  36. Which edition(s) of Windows 7 cannot make a connection to a network domain?



37. What does the acronym UAC represent? 38. What is the purpose of the User Account Control?
38. Can you make changes to critical computer configurations using a standard user account?
39. What is the purpose of the guest account?
40. What type of user account is the first user account created during the install process of the operating system?

## Review Questions and Answers

1. What are the three most commonly encountered editions of Windows 7? **Windows Home Premium, Professional and Ultimate.**
2. Which Edition of Windows 7 is most like the Enterprise Edition? **Ultimate.**
3. Identify 6 features that are found in Ultimate Edition.  
**Bit Locker, Multilingual Package, Direct Access, App Locker, Branch Cache, Parental Controls**
4. Which editions of Windows 7 can create a HomeGroup? **A HomeGroup can be joined by any edition of Windows 7 but only created by Home Premium, Professional and Ultimate editions.**
5. What is the purpose of HomeGroup? **To provide an easy way to share documents, pictures, printers and more.**
6. Can Windows Vista or Windows XP access a workgroup? **Yes.**
7. When is a password required to join a HomeGroup? **Only the first time you join.**
8. Which editions of Windows 7 support XP mode? **Only available in Windows 7 Professional and Ultimate, not home Editions.**
9. What is the name of the Windows antispyware program? **Windows Defender.**
10. What new feature in Windows 7 is designed to make sharing network resources much easier? **HomeGroup**
11. What new feature has been added to Ultimate edition to prevent user execution of specific executable files and programs? **AppLocker**
12. What feature has been added to help with troubleshooting? **Problem Step Recorder**
13. Which Windows operating system first introduced Public Folders as a way of sharing? **Windows Vista**
14. Which Windows operating system first introduced Libraries as a way of sharing? **Windows 7**
15. Which Windows 7 feature is designed to collect files and folder contents in a single virtual location? **Windows 7 Libraries.**
16. Which Windows operating systems can access Windows 7 Libraries by default? **Windows 7 and later. Windows XP and Vista cannot access the Windows 7 Libraries by default.**
17. What is the purpose of AppLocker? **AppLocker allows the user to specify which user or groups can run an application on the computer.**
18. Which Windows editions can run the AppLocker feature? **AppLocker is designed for use on Ultimate and Enterprise type networks that use Active Directory structure. Windows Professional can configure AppLocker but not implement it.**
19. What new feature of Windows 7 allows a user to securely connect remotely to a corporate network without the need to establish a virtual private network connection each time? **Direct Access**
20. What new Windows 7 feature allows the user to retrieve information quicker from a remote location such as corporate network server? **BranchCache**
21. Which two Windows 7 editions cannot join a Domain? **Windows 7 Basic and Home Premium**
22. Which Windows operating system first introduced Libraries? **Windows 7**
23. Which Windows operating system, first introduced BitLocker? **Windows Vista**
24. What is the purpose of BitLocker? **BitLocker is used to encrypt data on storage devices.**
25. When was BitLocker-to-go was first introduced? **Windows 7**

26. What is the difference between BitLocker and BitLocker-to-go? Bitlocker is limited to storage devices such as hard disk drives, and bitlocker-to-go can encrypt portable storage devices such as USB flash drives.
27. What is the purpose of AppLocker? AppLocker basically restricts or limits users to only run specific programs and prevents installing new program, or files that can be automatically executed.
28. Which operating system first introduced simple file sharing? Windows XP
29. Which operating system first introduced first introduced Simple File Sharing? Windows Vista
30. Which operating system first introduced parental controls? Windows Vista
31. Which operating system first introduced direct access? Windows 7
32. What is the direct access feature? Direct Access allows a user to securely connect remotely to a corporate network without the need to establish a virtual private network connection each time.
33. What is the Branch Cache feature? Branch Cache feature allows the user to retrieve information more quickly from a remote location such as corporate network server.
34. What is Windows defender? Windows Defender is a free antispyware program installed by default in Windows Vista and Windows 7.
35. What does Network Map feature provide? Network Map feature produces a visual display or map of all devices connected to the local area network by either hard wire or wirelessly.
36. Which edition(s) of Windows 7 cannot make a connection to a network domain? Windows 7 Basic and Home Premium cannot join a network domain.
37. What does the acronym UAC represent? User Account Control
38. What is the purpose of the User Account Control? The user account control was designed as a security feature for the Windows operating system by limiting the access that the user has to areas of the computer directory and limiting what changes a user can make to the computer configuration.
38. Can you make changes to critical computer configurations using a standard user account? In general no, but if the standard user knows the administrator password then the standard user can make changes.
39. What is the purpose of the guest account? For users who do not have an account on the computer to check their email or surf the Internet or similar functions. The guest account cannot make any configuration changes nor download install any software applications.
40. What type of user account is the first user account created during the install process of the operating system? Administrative.