

General Computing Workshop



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Class Goal:

The student will be able to operate computer hardware and software as well as know basic computing concepts and terms.

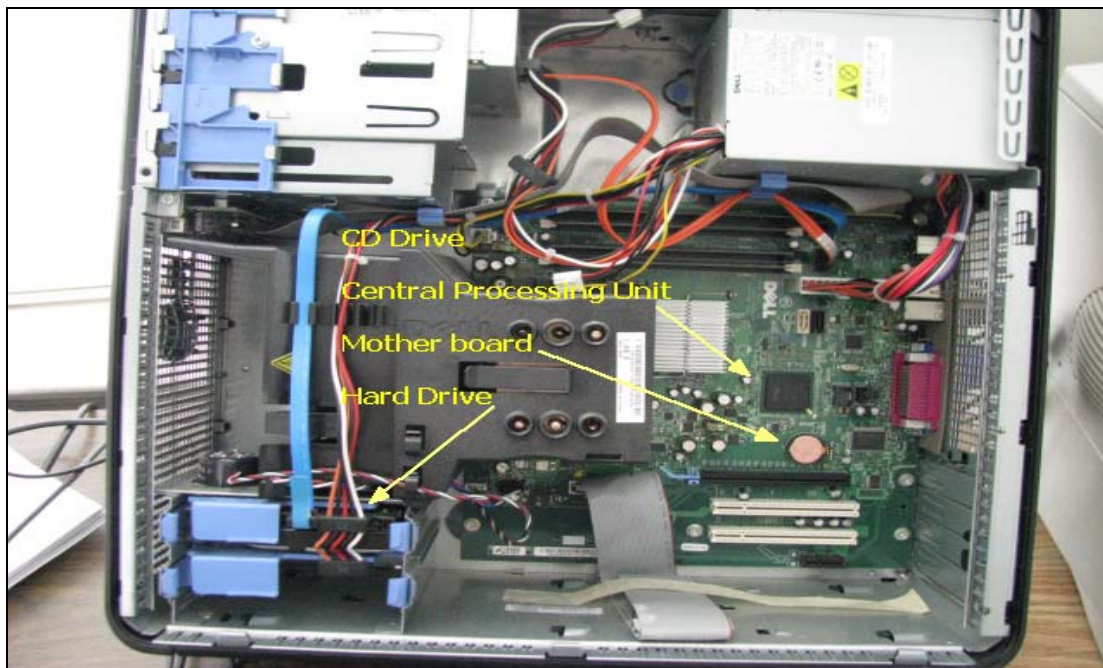
Class Objectives:

- Open CPU, identify motherboard, hard drive, flash and DVD/CD-ROM drives, install cards, memory & reassemble computer, wire computer including peripheral devices
- Explain RAM verses ROM, IP address, processing speed.
- Use "My Computer" to locate files on the memory stick and DVD/CD-ROM
- Open windows, minimize, maximize, size and move them
- Use icons and tool bars, Search, History, Task Manager to shut down, end task, change password
- Demonstrate cut and paste across several programs,
- Use Windows Explorer
- Create folders to manage computer files
- Check for and install updates on a regular schedule for Windows, Java, Adobe acrobat, and how to find versions.
- View MS Office and Adobe website for help.
- Use safe computing practices to prevent computer infection, manage firewall, update virus protection.
- Use zip and unzip software on SLIS desktop

Topic 1 Computer Hardware

A **computer** workstation can consist of a desktop tower with a monitor, keyboard and mouse or laptop. The lab in Room 131 Marist has 18 Dell Intel Core 2 computers running Windows 7 while the student lab in Room 237 has 5 Dell Intel Core 2 computers running Windows 7. There is a multi-media lab in 131A Marist with an IMAC and Dell Intel Core 2 Computer. You must have an active NT user ID and password to use the computers.

Let's look inside the desktop tower and identify the components.



CD ROM drive - an acronym of "compact disc read-only memory" is a optical device that allows the user to play and view data held on a CD(compact Disc).

Motherboard- the primary circuit board of a personal computer, containing the circuitry for the central processing unit, keyboard, mouse and monitor, together with slots for other devices

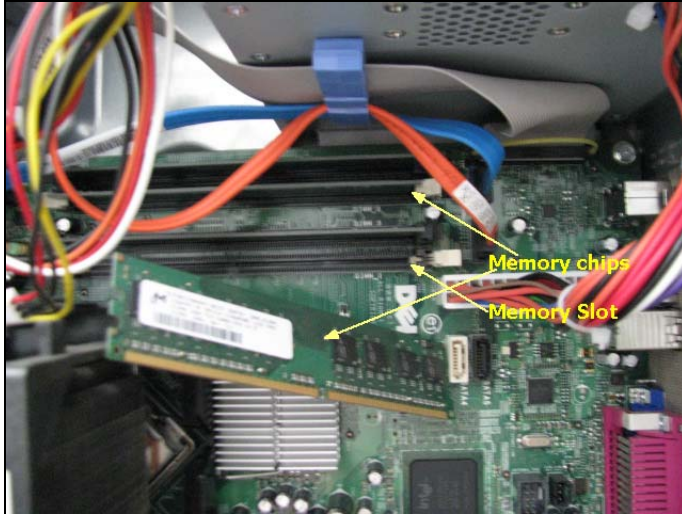
Central Processing Unit - A microchip that acts as the computer's "brain", executing instructions sequentially as if following a recipe for making a cake. The speed of a CPU is measured in megahertz or gigahertz.

Hard Drive - A **hard disk drive** is a device for storing digital data. It has one or more rotating rigid platters on a motor-driven spindle within a metal case. Data is encoded magnetically by read/write heads that float on a cushion of air above the platters.

(definitions adapted from Wikipedia)

Topic 2 Computer Memory

RAM- Memory modules on the motherboard that contain microchips which temporarily hold data and programs while the CPU processes both. Information in RAM is lost when the PC is turned off.

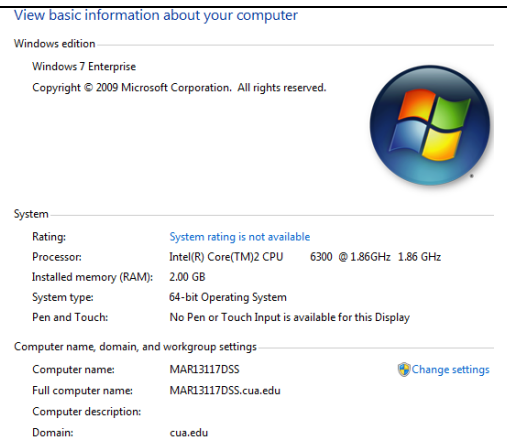
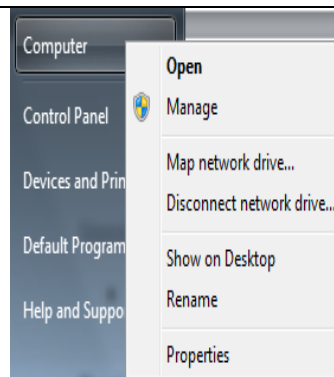


You need approximately 2-3 Gb of RAM to run the Windows 7 and Office 2010 applications. It is easy to upgrade memory for your computer by taking out the old memory chips and installing new higher memory chips.

Let's see how to tell how much RAM your computer has.

Steps:

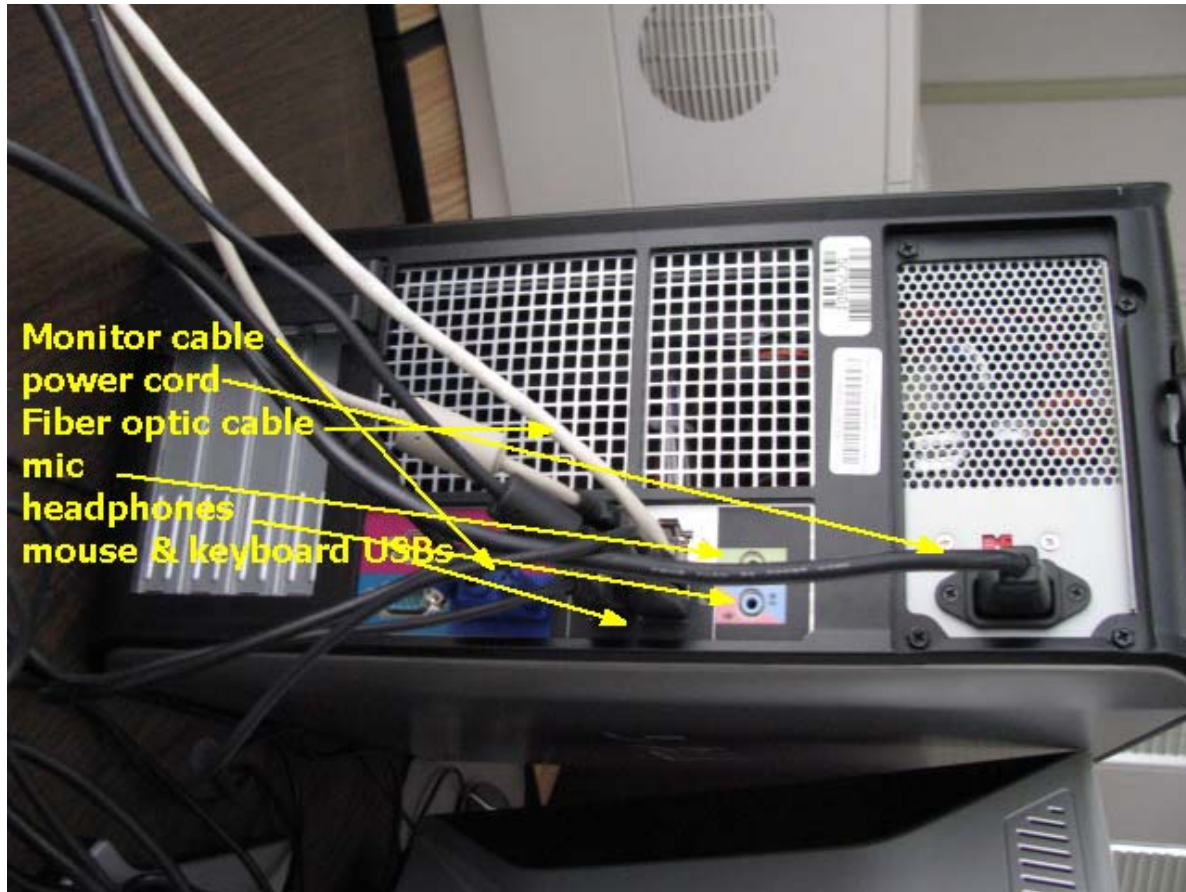
1. Click the Start button and **right click** on **Computer**.
2. Click on **Properties**.
3. On the General tab view the **RAM**.
4. You can also see the amount of processing speed you have measured in GHz.



- **ROM: Read Only Memory** - built-in" computer memory containing data that normally can only be read, not written to or edited.

Topic 3 Computer Wires

Sometimes you will hear someone talking about wiring up a computer or maybe you have just bought a computer and want to set it up. Alternatively, maybe someone has stepped on a cable and now the mouse or keyboard doesn't work. This can be a show-stopper in a library. Where do you start?



Steps:

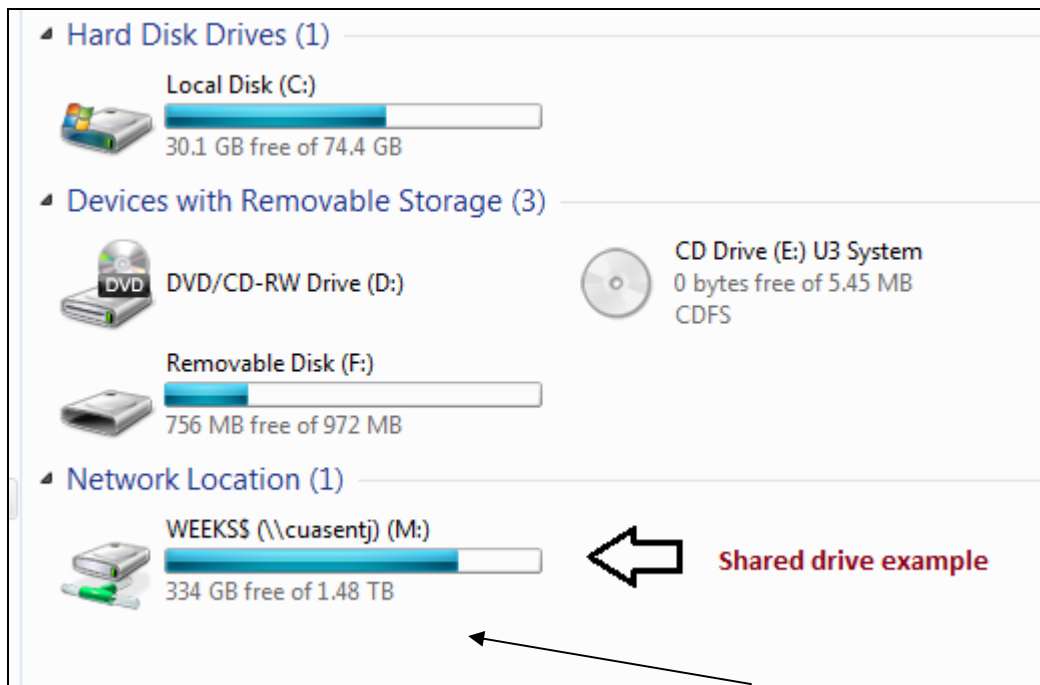
1. Set up the tower first. Plug in the power cord to a **power strip**.
2. Set up the **monitor** next. Plug in the power cord to a power strip. Plug in the **monitor cable** into the back of the tower in the video outlet on the back of the tower.
3. Insert the mouse and keyboard **Universal Serial Bus (USB)** cables into the USB drives.
4. Insert the fiber optic cable into the data port.

Topic 4 My Computer

In the Windows 7 hierarchy, the *Computer* icon is one level down from the desktop. It provides access to disk drives on the computer and on the network such as the “M” drive. It also provides access to Printers and Control Panel.

To open the **Computer** window, double-click on the **Computer** menu item after clicking the Start button on your desktop. The window displays icons representing objects on your computer. You can restore, resize, and close this window as you can any other window.

Drives on Windows7 PC



example

Shared drive

C:\ drive is the hard drive to store system files and programs.

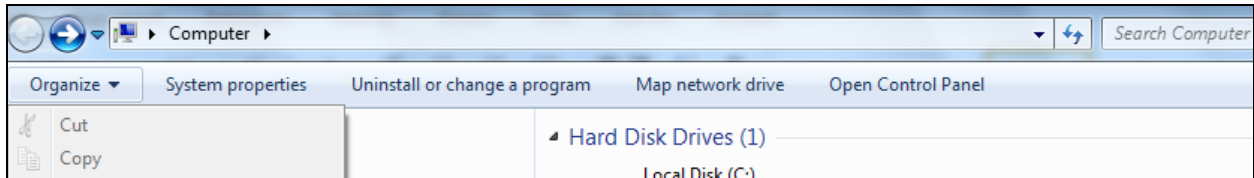
The **My Documents** folder will be found here.

E:\ drive is for CD-ROMs and DVDs.

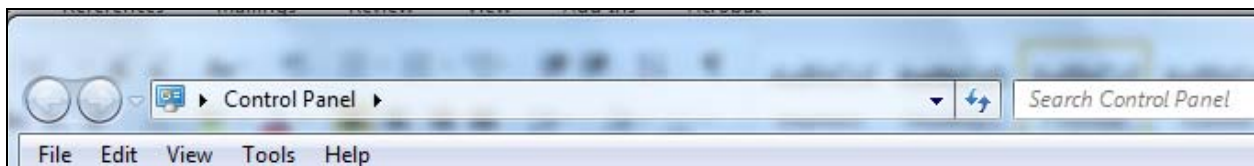
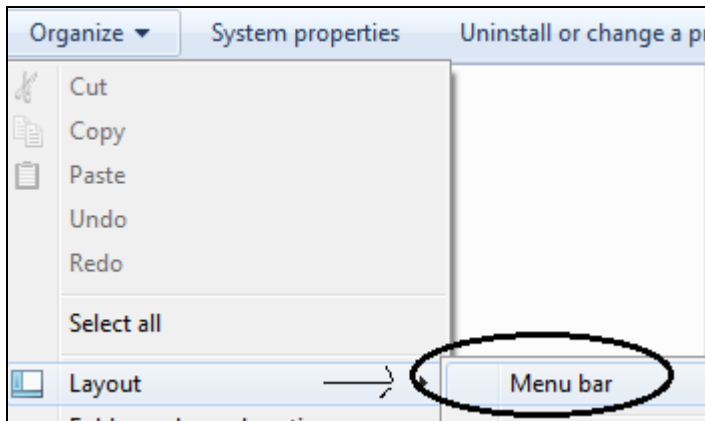
F:\ drive is for a flash or memory stick

M:\ drive or another letter is for the network drive that students can use to store shared files or save files on the server.

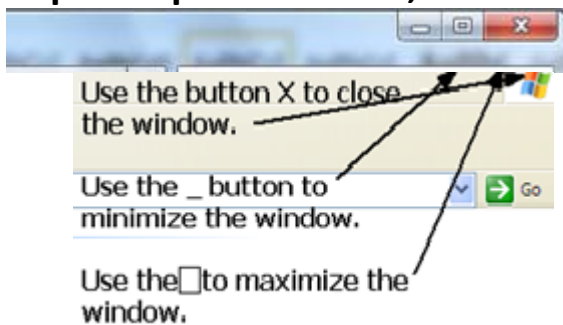
The **Computer** window includes, by default, the Standard Buttons toolbar and the Address Bar toolbar to allow you to navigate through the Windows 7 hierarchy.



If you would like the menu bar, click on **Organize, Layout, Menu bar** and a window will open where you can manage your view of the Computer.

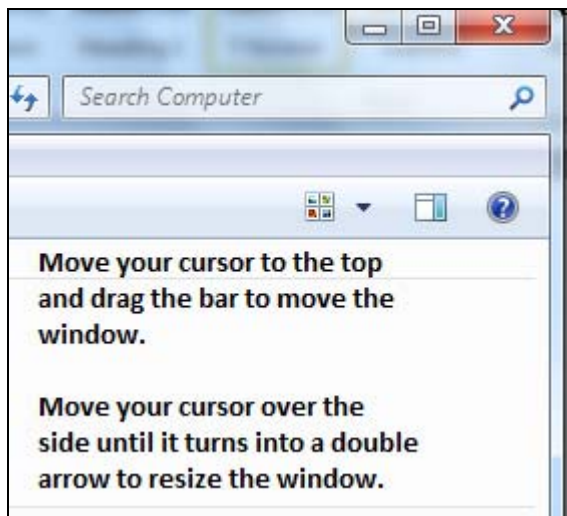


Topic 5 Open windows, minimize, maximize, size and move them



Exercises:

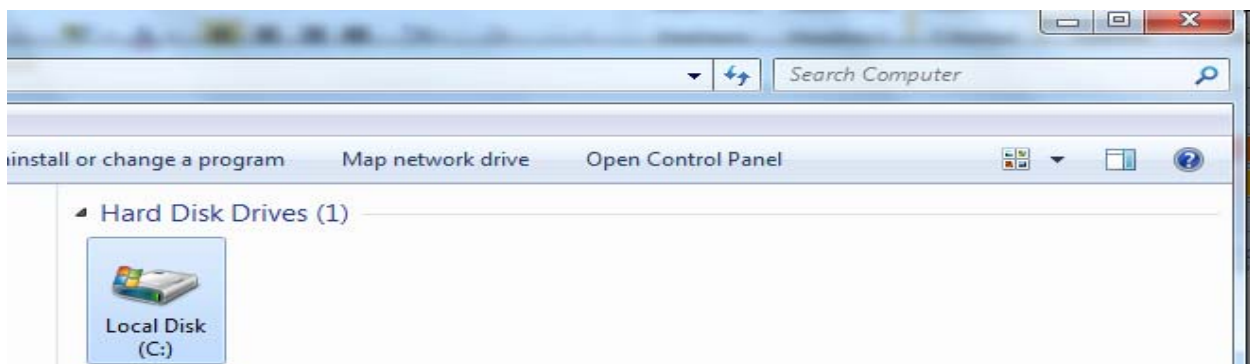
1. Use the center square control in the window upper right to maximize and reduce the size of the window.
2. Move your cursor over the edge of the window until it becomes a double-sided arrow and drag to resize it. Move your cursor on the blue bar at the top and drag the window to move it to a new location.



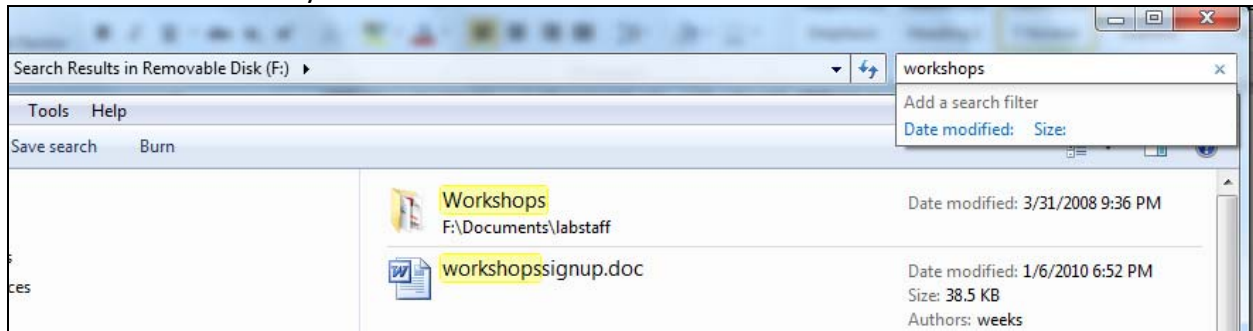
Topic 6 Using Search Functions

Search in Windows 7 is very powerful. You can use **Search** to locate files, folders, or even people, web pages etc. There are several ways to use **Search**.

1. Click on the **Start** button, then select **Computer**. You can select the drive to search.

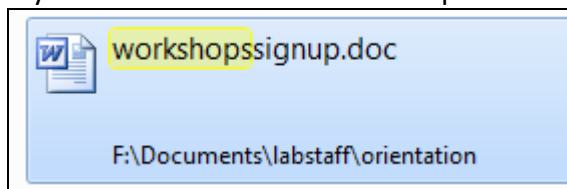


2. You can select what you want to search.



3. You can drill down in the folder hierarchy then search in a specific folder. When you enter your search terms they display in a highlighted form with the exact file where they appear.

If you double click the file it will open.



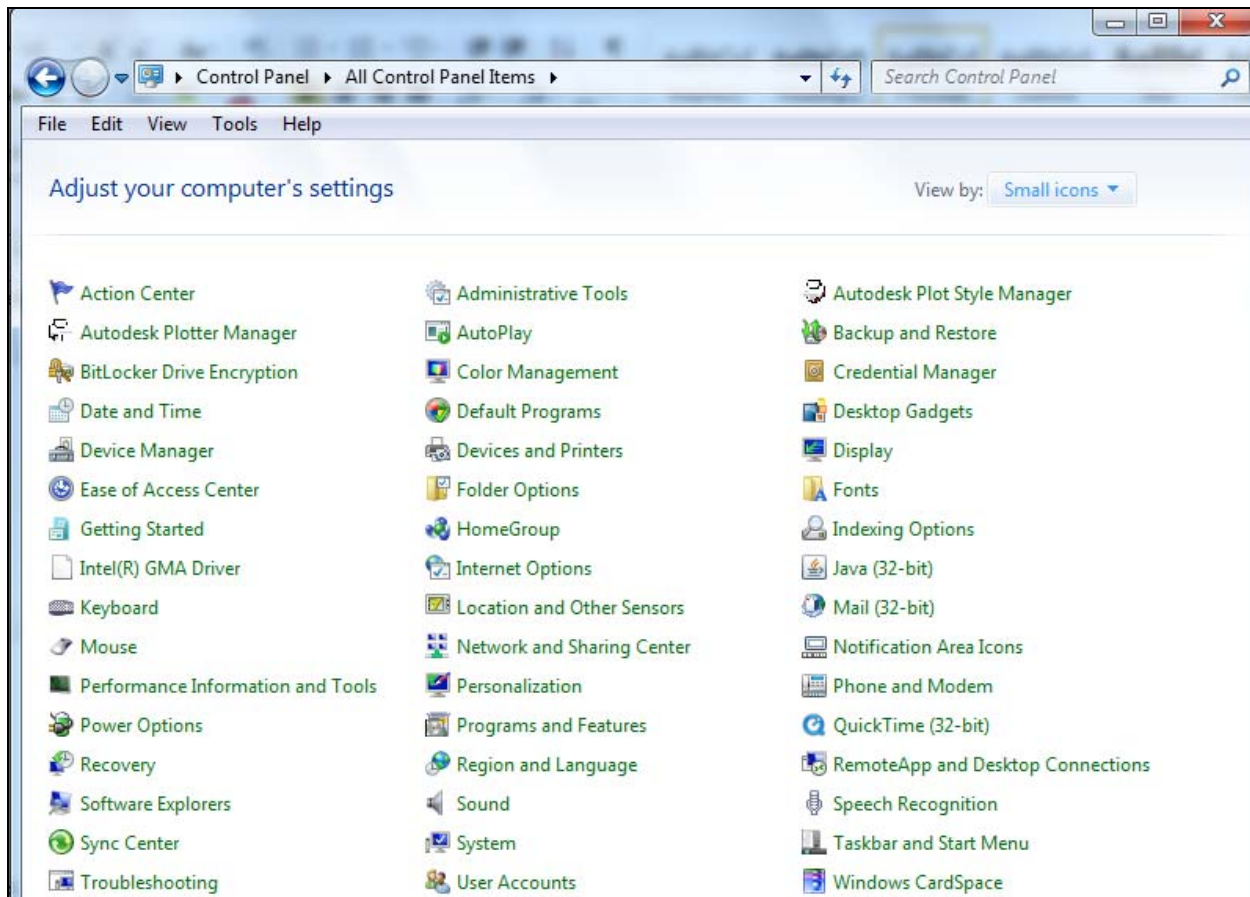
You may also select Search from the My Computer window tool bar.

Topic 7 Control Panel

The Windows Control Panel gives the user many tools to customize the computer.

Steps:

1. Click the Start button.
2. Select the Control Panel
3. Use the Dropdown arrow to select the view of the control panel.

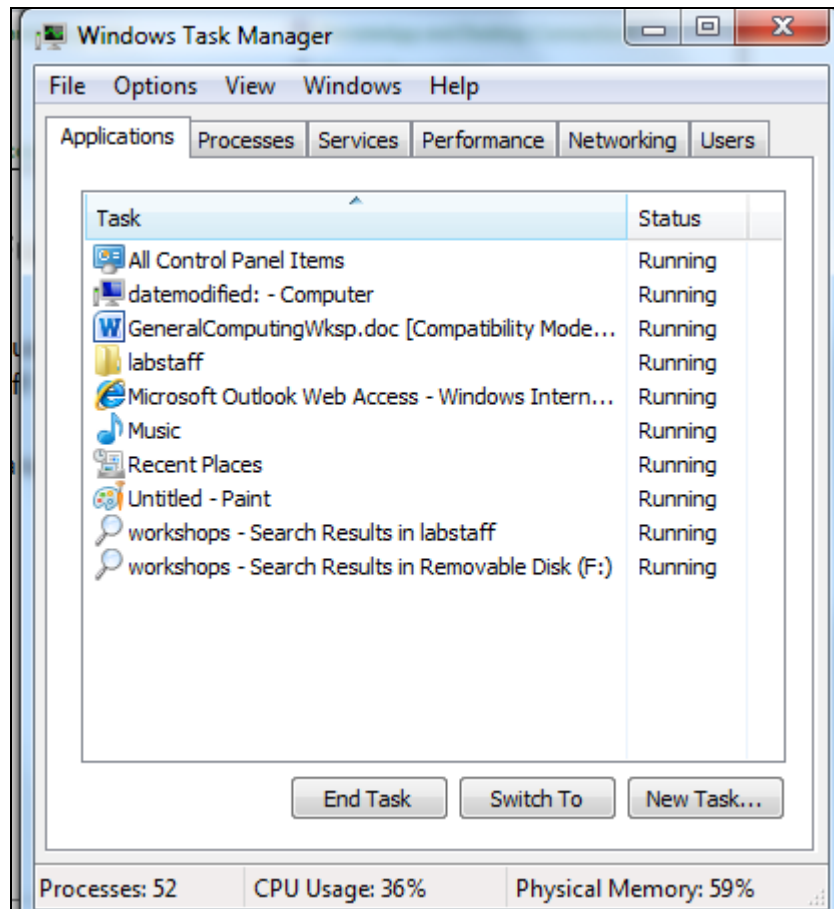


Topic 8 Using Task Manager Functions

Task Manager – In Windows7, you can use the Task Manager to change your password, close programs that are not responding, log off or lock the computer.

When you want to bring up the Task Manager, hit **Ctrl, Alt, Del** .

1. Select **Task Manager**.
2. Select the program that is frozen or not responding and then select the **End Task** button. You will only close the frozen window and then may continue to use the other programs.

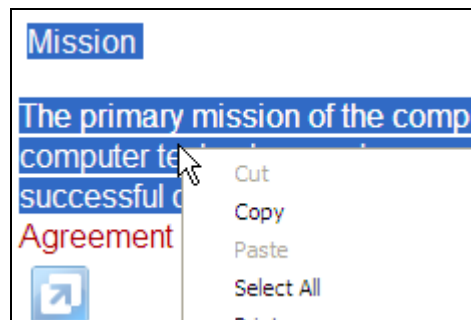


Topic 9 Cut and Paste

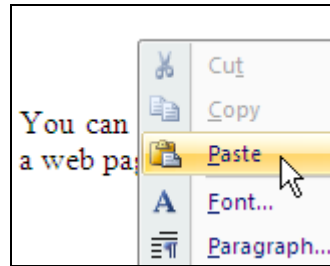
One of the most useful functions in Windows is the ability to cut, copy and paste across multiple applications.

Steps:

1. You can highlight a selection of text on a web page and right click and select **Copy**. Alternatively on the top menu bar you can select **Edit** and **Copy**.



2. You then can right click and **paste** in the copied content. Alternatively on the top menu bar you can select **Edit** and **Paste**.



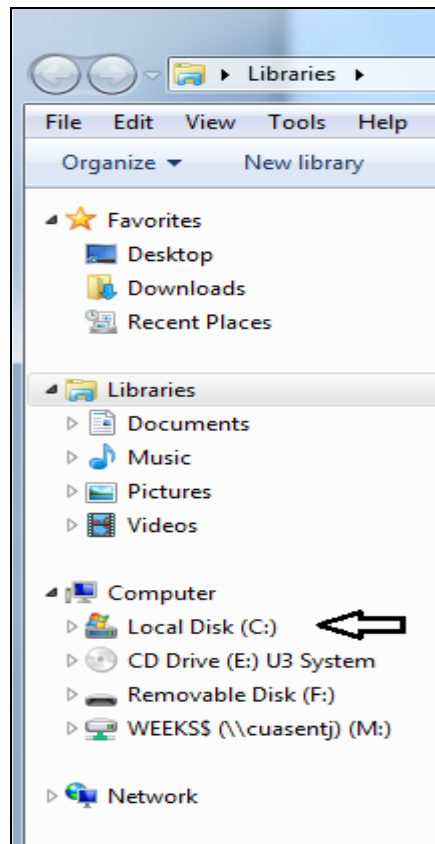
3. If you right click and select “cut” it removes the content but then you can still right click and paste it in another document.

Topic 10 Windows Explorer

Windows Explorer gives you a very useful left pane to view the hierarchy of drives and their structure and a right pane to view the contents of any drive that has been selected. Let’s access Windows Explorer.

Steps:

1. Right click on the Start button.
2. Select **Open Windows Explorer**.
3. You will see a panel with all the Libraries, Computer drives and your desktop.
4. You can select “**Computer**” and you will see all the drives

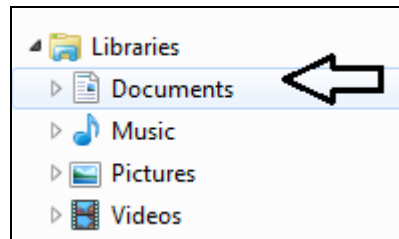


Topic 11 Create Folders and Manage Computer Files

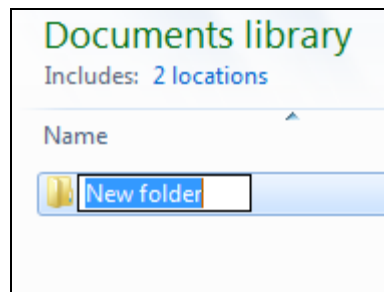
Just as you can put your paper documents in file folders in a filing cabinet, you can create folders in your “My Documents” folder on the hard drive of your computer. In the computer labs you should save your files on a flash or memory stick or on the M:\drive (this will be covered in the CUA SLIS Computing Environment Workshop).

Steps:

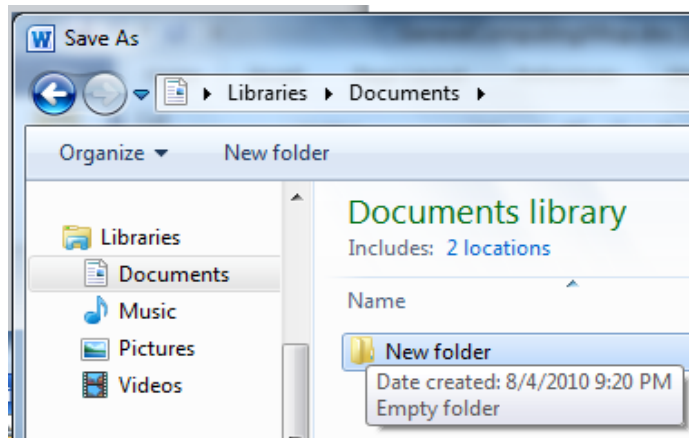
1. Open the “**Documents**” window from the Libraries or in the Computer window.
2. Right click in a blank space.
3. Select New >>Folder



4. Name the folder just as you would a file folder for a filing cabinet.



5. You may now save files in this folder by selecting: **File>>Save as** and navigating to this folder.



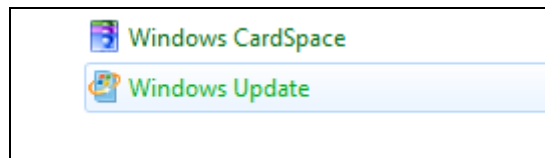
Topic 12 Check for and Install Updates on Your Computer

For your computer safety it is very important to check for updates for your operating system as well as for programs on your computer. You may check for versions of software programs to see if you need to download and/or purchase newer releases.

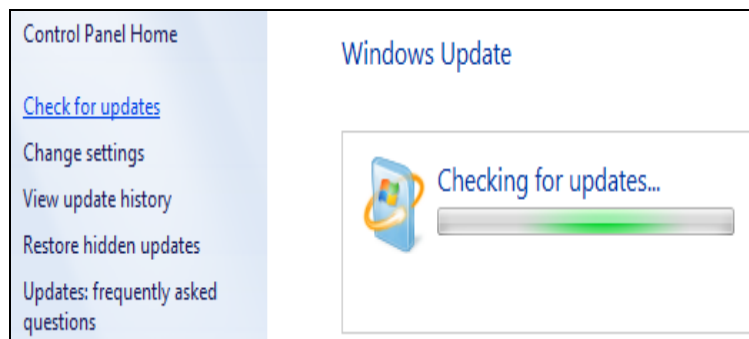
You should check regularly for Windows Updates.

Steps:

1. Press the Start button>>Control Panel.
2. Select Windows Update



3. Select the Express button.
4. Install the recommended high-priority updates.



You should also check for updates for the Adobe Reader to view Portable Document Format (PDF) files. The Adobe Reader is a free downloadable file from:

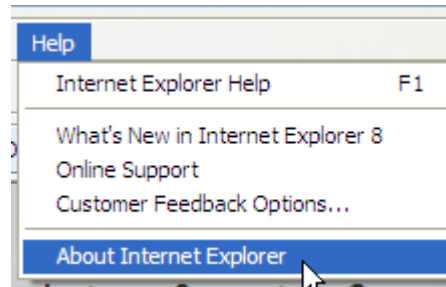
<http://get.adobe.com/reader/otherversions/>

Topic 13 Check for the Version of the Software

Software is distributed and tracked by version. You should always know the versions of the software you are running on your computer.

Steps:

1. On the top menu bar, select Help.



2. Select the About XXX program.

3. View the version number.



4. Check on the Program's website to determine what the latest release is.

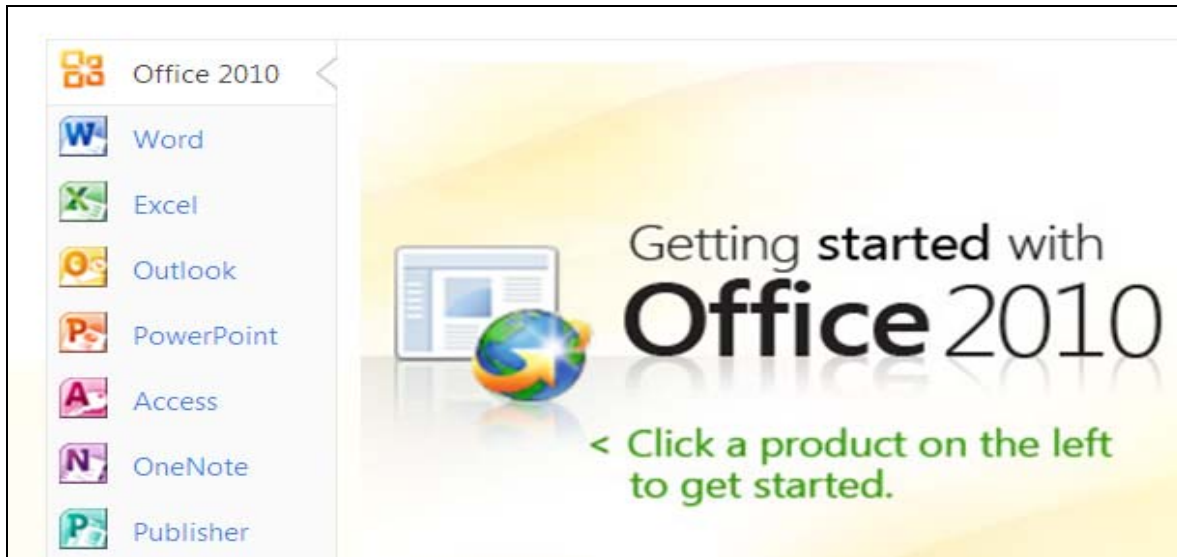
5. You may be able to purchase just the upgrade at a lower cost.



Topic 14 View MS Office and Adobe Websites for Help

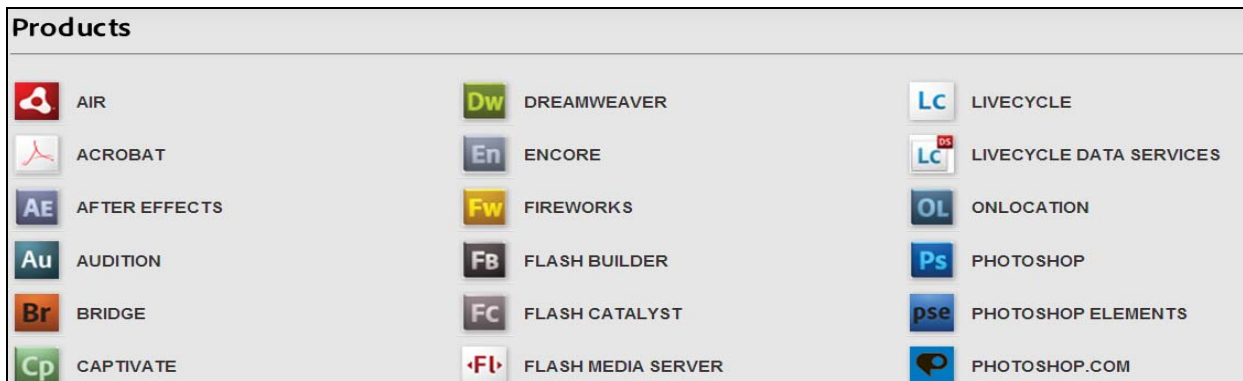
The MS Office help website has many tutorials as well as step-by-step procedures for specific questions. You may press F1 to open the help website at:

<http://office.microsoft.com/en-us/support/getting-started-with-office-2010-FX101822272.aspx?CTT=97>



The Marist classroom 208, 131 and the Information Commons have the new Adobe Creative Suite 5 (CS5) with Dreamweaver, Fireworks, Photoshop and Flash.

The Adobe has an extensive help system called Adobe TV at: <http://tv.adobe.com> where you can watch tutorials on various topics in each application.



Topic 15 Use Safe Computing Practices

The Center for Planning and Information Technology (CPIT) has excellent information on many best practices for safe computing at <http://computing.cua.edu/security/security-hints.cfm>.

Here are some of them:

- **Exercise extreme caution when opening e-mail attachments.**

Unless you and the sender arranged in advance that an attachment would be sent, it is safest never to open e-mail attachments. E-mail attachments are a primary method used to spread computer viruses.

Never open any e-mail attachment if you are not running antivirus software with up-to-date virus definitions.

- **Be careful when downloading programs and viewing Web pages.**

Take care not to run any program that does not come from a company or other entity that you trust.

Note that Web pages can sometimes contain malicious program code that executes silently as you view the page.

Turn off the preview pane in your e-mail program if possible. Many e-mail messages are written in the same language as Web pages; these may contain malicious code.

If you are visiting a Web page and are prompted to install software unexpectedly, click "No" or "Cancel."

Scan your computer for spyware every week.

- **Use instant messaging wisely.**

Don't accept messages from sources that you don't recognize. Configure your IM program to accept messages only from users on your contact list ("buddy list"). If someone is bothering you via IM, remove them from your IM program's contact list. If problems continue, abandon your IM screen name and select another, giving the new name to trusted friends only.

Don't accept file transfers via your IM program. You have no way of knowing whether the file being transferred is malware or contains viruses.

Even if you know the person sending the message, don't click on web links in IM messages. Some viruses work by sending IM messages containing web links that can appear to be from someone you know.

- **Use social networking sites safely.**

Keep control over the information you post to Facebook, MySpace, Twitter and other

social networking sites by limiting access to your pages to just your friends.

Use a different password on each of your social networking sites.

Don't list personal information such as your full name, address, phone numbers, Social Security number or bank and credit card numbers on social networking sites.

Consider opening a free e-mail account that is dedicated to your social networking site, and then forward that e-mail to your primary account in order to keep your primary e-mail account more private.

Do not allow social networking sites to scan your e-mail address book. This helps protect your friends' e-mail addresses.

[10 Tips for Social Networking Safety](#)

<http://www.microsoft.com/protect/yourself/phishing/socialnet.mspx>

[Social Networking Sites: Safety Tips \(FTC\)](#)

<http://www.ftc.gov/bcp/edu/pubs/consumer/tech/tec14.shtm>

- **Use strong passwords.**

Your logon password is the first line of defense in protecting you and your data from intruders. It is important that you select a strong password: make it at least eight characters long (14 or more characters is better); use at least one uppercase letter, lowercase letter, number and symbol; use phrases to create easy to remember passwords that are hard to guess.

Use the Microsoft password checker to determine the strength of a password you are considering using. Select a better password if the password checker says that it is weak.

[Password checker \(Microsoft\)](#)

https://www.microsoft.com/protect/fraud/passwords/checker.aspx?WT.mc_id=Site_Link

Topic 16 Update your Virus Protection

Use virus protection software on your computer. Microsoft provides its Security Essentials for Windows as a free download for personal use at:

http://www.microsoft.com/security_essentials/

There are many commercial antivirus software packages available, including Symantec Norton AntiVirus at: <http://www.symantec.com/norton/products/index.jsp> and McAfee VirusScan at: <http://home.mcafee.com> Your computer may have come with a full or trial version of one of these packages.

There are also antivirus packages available that are free for personal use, including Avira Antivir at: <http://www.free-av.com> and AVG at: <http://free.avg.com>

[Learn More About Antivirus Software](#) (Microsoft)

Be sure to configure your antivirus software to download virus definition updates automatically so that you are protected against the latest viruses.

Topic 17 Manage Your Firewall

Your firewall is critically important to protect your data. You should always enable your firewall. Microsoft Windows has a firewall feature built-in. Be sure that it is enabled.

There is information from Microsoft about the Windows 7 firewall at:

<http://windows.microsoft.com/en-us/windows7/products/features/windows-firewall>

Microsoft Firewall: Frequently Asked Questions at: <http://windows.microsoft.com/en-US/windows-vista/Firewall-frequently-asked-questions>

Please note that some antivirus software packages replace the built-in Windows firewall with an enhanced version of their own

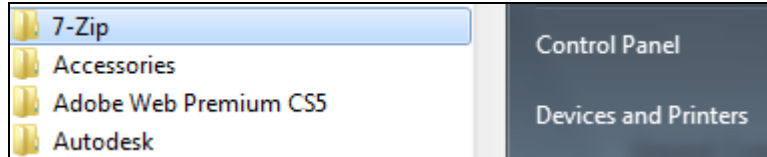
Topic 18 Zipping and Unzipping Files

Many files are too large to transmit over the Internet without compression called “zipping the file.” On the CUA SLIS computers, we have the 7-zip program.

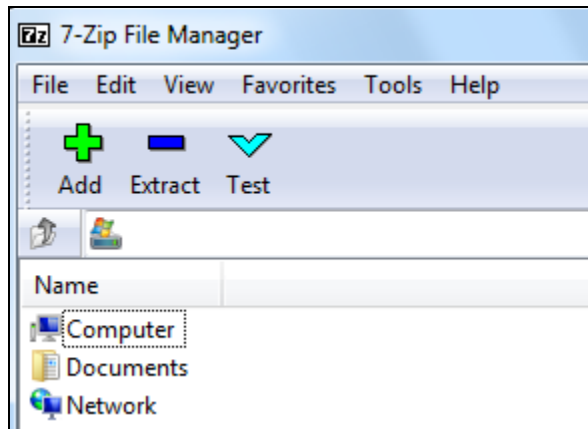
Zipping Files

Steps:

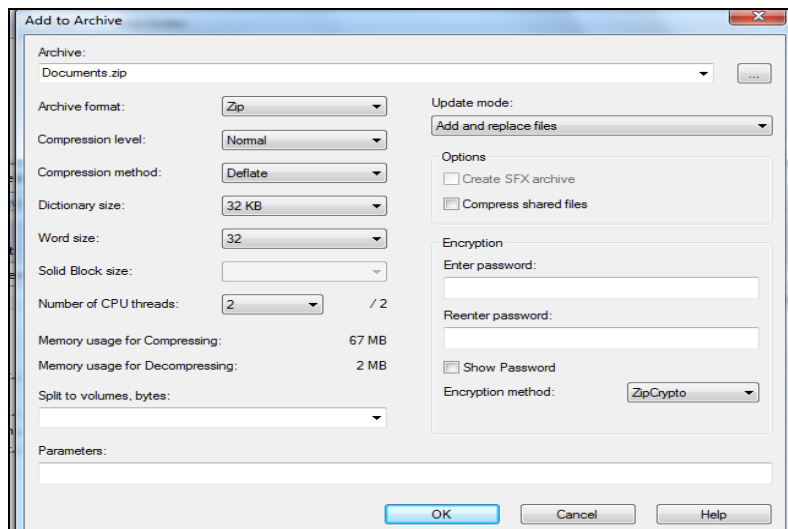
1. Go to the Start button>>Programs>>7-Zip.



2. Select the files to be compressed.
3. Select the **Add** icon to add files to be zipped.



4. In the Archive format use the dropdown and select **zip**.

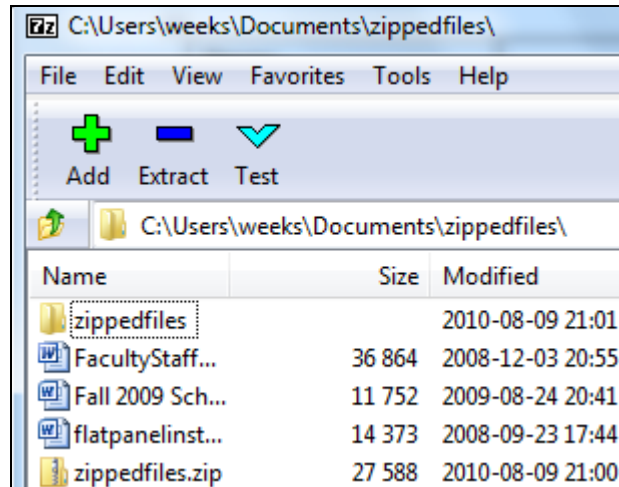


5. Select OK.

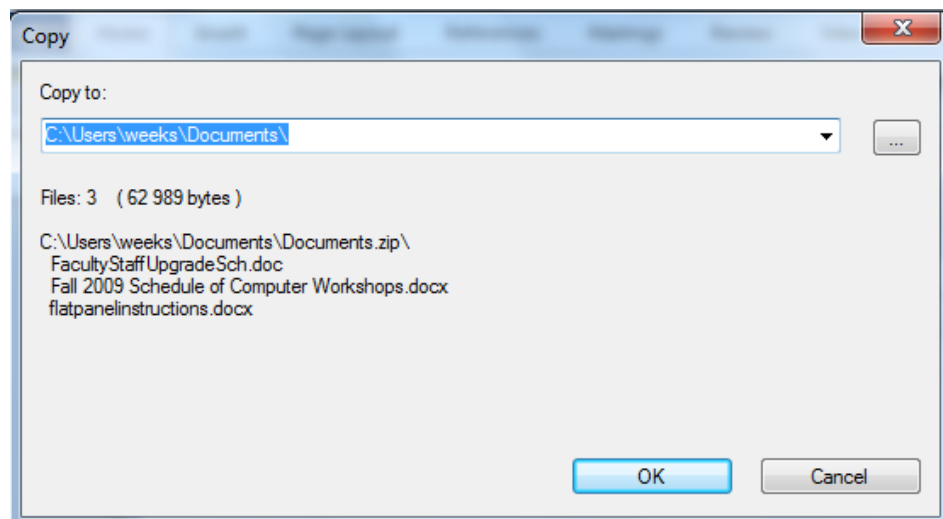
Extract Files (Unzip)

Steps:

1. Select the **Zipped** file to be extracted.



2. Select the **Extract** icon.



3. Select OK.