

Instructor Competencies in Technology

Productivity

Productivity in the context of using a computer means how to use the computer to accomplish a task in a timely and meaningful way (to produce results hence “productivity”).

Operating Systems: The OS (Operation system) is like the gas that goes into a car. If you do not have gas the car does not work. The same goes for the OS. It is what drives all the electrical components in your computer. Without it all your computer would be a pile of electrical components that might blink and make a noise when you turn it on. Although there are other operating systems that drive computers, we will be discussing the Microsoft Windows operating system. Here is a very brief description of the various Windows operating systems.

Windows 95, 98, or ME: good for home, small businesses; not secure.

Windows NT4 Workstation and Windows 2000: these have the look and feel of 95/98/ME but they have the security and flexibility that the above do not. These systems can restrict you from having access to certain parts of the computer (as determined by the system administrator).

Windows NT4 Server and 2000 Server: These operating systems give you the best type of Security and flexibility. A server operating system means that it has the capabilities to host files, web pages, data bases, printers, etc. You won't use these operating systems.

Windows XP (Pro or Home): offers a new look (sometimes called an “interface”), more stability, and security and many improvements that make it easier to use. This is a good upgrade.

COMPUTER OPERATION - Initial Competencies

Turn on, log in, and shutdown the computer

Turn on the computer (Just press the power-on button on the CPU).

Log in to the computer (Just click “OK” when the computer loads up and stops. Put in a password only if the system administrator has required one.

Turn off the computer. It is important to shut the computer off the correct way? Yes—Why? You may damage your operating system if you shut it down incorrectly.

Shutting down the computer

To shut down when you have finished using the computer (called ‘logging off’), first close all the applications you have been using.

- Click on the ‘Start’ button.
- Click on ‘Shut Down’ in the Start Menu that appears.
- Choose the option you want to do.

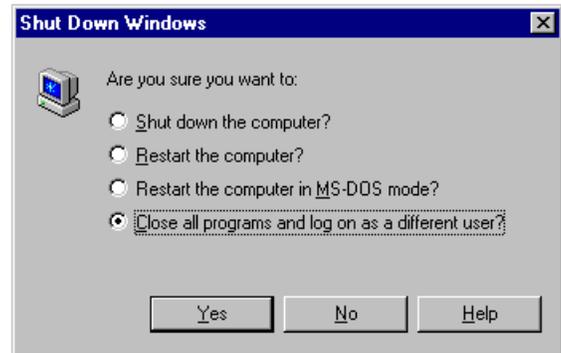
Click on ‘Yes’ from the options at the bottom of the window.

DO THIS EVERYTIME YOU SHUTDOWN THE COMPUTER (Did you know that whenever you see capital letters used in an email, it is considered “screaming.” SAME HERE).**

Launch and Quit Applications

Learn some things about the OS interface that make your using the computer more efficient and more productive. There are 5 possible ways to start an application.

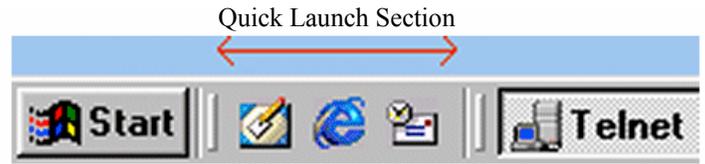
1. Double-click on “My Computer,” double-click on the “C” drive, find the folder that contains the application you want to launch, find the application (it frequently has a strange name that you may not recognize—but it will at least have the extension .exe after it—that is if you have the preference of showing extensions active), and double-click on it. WHOA—forget this method!! There are easier ways to launch applications - BUT - you may actually have to do this way occasionally. Read on!



Short Cut: A short is an icon that is a copy of the original application or file. You can tell a shortcut by the little arrow in the lower left hand corner. Shortcuts are good.



2. Use Start → Programs → select the application you want to start. This assumes there is, in fact, a “shortcut to the application in your start menu. (This is a good way but a little time consuming - Read on).
3. Make a short cut for the application on the Desktop of the computer—then just double click on it whenever you want to launch it. (This is a good way but it clutters up your desktop - yuk!)
4. Put a short cut to the application in the “Quick Launch” section of the Task Bar, This will save you a lot of time during your day. Put your most used applications here.
5. Put a short cut to other applications you use that are not in the “Quick Launch” section of the task bar in the Start Menu. This is a very handy way to start up lesser used applications.



How to Make a Shortcut and add it to the Quick Launch area of the Task Bar.

It’s easy—kinda. You need to find the application as described earlier (this is the hard part). Open “My Computer,” open the “C” drive, and the first place to look for the folder that contains the application is in a folder called “Program Files” (although it could be elsewhere). (See More - More - More for more information on Quick Launch)

Next: Right click on the application you just found and select “Create Shortcut.” You will see the “shortcut” appear on the screen. Just drag that shortcut to the Quick Launch area of the Task Bar. That’s it - try it. You need to click on items in The Quick Launch area just once.

Add a shortcut to the desktop.

Remember, you can also make a short cut as described above and just place it on the desktop.

Add a shortcut to the Start Menu

You can also add a shortcut to the Start Menu. Here’s how: Make a shortcut and place it on the desktop. Right click on the Start Menu and select Open. Drag the shortcut to the window you just opened. That’s it - a handy little shortcut has been added to the Start Menu - click on it and check it out.

Quitting an Application. There are several ways to close or quit an application *or program*.

1. Select Exit from the File Menu
2. Press the keys Alt-F4
3. Click on the Close Box - the little “X” in the upper right hand corner
4. There’s another way—anyone know it? The uppermost left hand corner of the screen - try it.



When you close or quit a program, you will be given the option to save it (if you haven’t Close box already done so).

Using the Windows Interface

This is a broad topic but we will cover the essentials.

Desktop - this is area of the screen that you are looking at when your computer is fully loaded. You can customize the look of your computer by doing a right-click on the some portion of the desktop (not over an icon or folder. You can adjust such things as the Background, the Screen Saver.... Well, just look at the graphic below. It’s all pretty much self explanatory - try to make some adjustments—if you’re brave enough



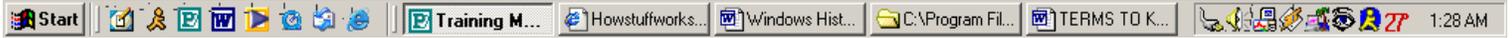
When you did that right click on the desktop, did you notice that you can do other things too - like arrange the icons on the desktop or line up the icons, or refresh your screen.



When you open a folder, you can also use the right click to customize that folder. Try some of these options - you might discover some things that you really like - like using “Thumbnail” view or using “Auto Arrange.”

Icons and Folders - they sit on the desktop. You can make new folders to store your stuff. It's easy - just right click on the desk top and select "New Folder." Type a name for the new folder. You can, of course, make a new folder within another folder. A very important folder on the desktop is called "My Documents." That folder usually contains all the data that you have saved. You should regularly back up this folder so you don't lose all you important data.

The Task Bar - it's usually bottom bar of the desktop - although you can move the Task Bar to the top of to the sides of the screen. The Task bar has 4 components to it: (1) the Start Menu, (2) the Quick Launch area, (3) The Active Applications area, and (4) the



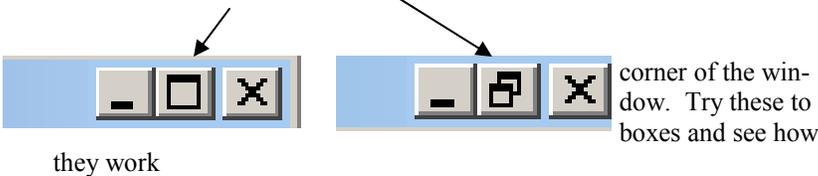
System Tray. Here's a graphic of the Task Bar as I am using it right now. Can you see the 4 distinct area I just mentioned.

My Computer - This "Folder" contains all the stuff (the directory) on your hard drive which is usually called the "C" drive, or on a floppy drive "usually called the "A" drive, or a CD, usually called the "D" drive if, and some other stuff. Check it out—double click on "My Computer." More on "My Computer" later.

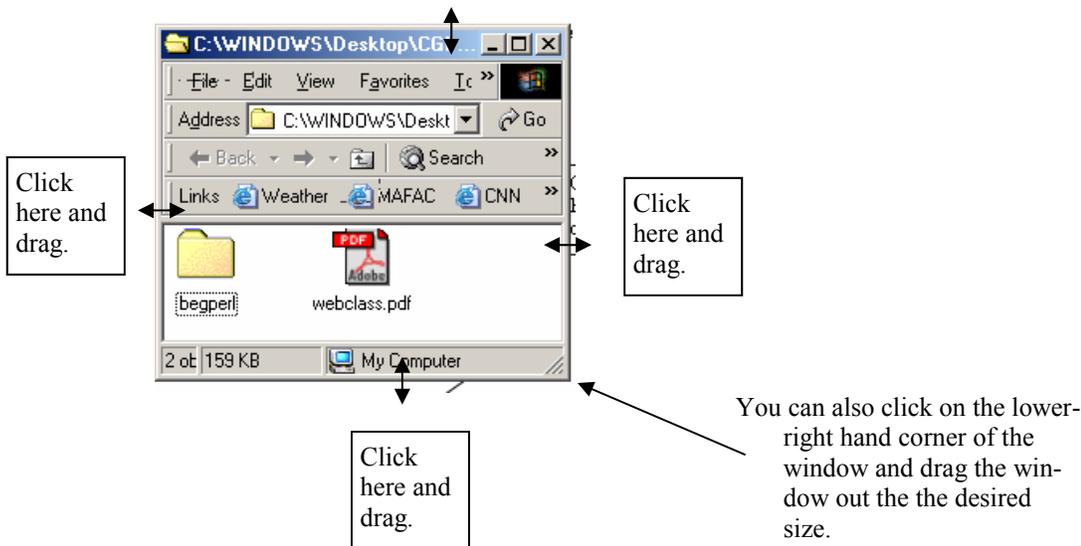
Windows - When I say windows, I am referring to what pops on the screen when you double-click on a folder - a window. In this graphic the are 4 windows open.

You can **resize** windows in various ways.

1. Use the Maximize & Restore Boxes in the upper right hand



2. You can also resize windows manually using the mouse. To do, you click on the one of the edges (left, right, top or bottom) and just drag out the window. Your cursor will turn into a double-headed arrow () when you point to one of the edges.

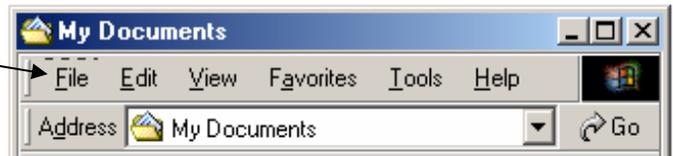


You can move a window (not a maximized window) by click on the top bar of the window and dragging It to a new location.



The Menu Bar in a Window

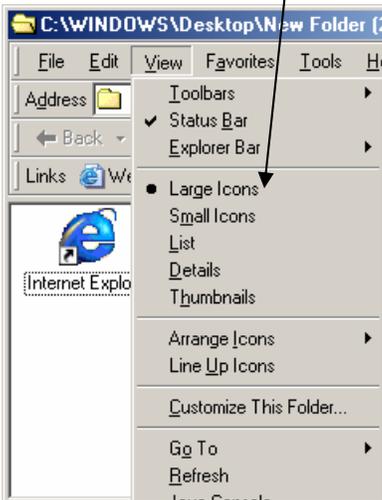
When you open a window, you see a menu bar at the top of the window. The best way to get familiar with these menu bars is to just experiment with them.



The Views Menu

In the Views you can customize the look of your folders. Try opening a folder and click on the various views:

Large Icons
Small
Icons
List Details
Thumbnails



Also in the Views menu, you can select which toolbars you want visible. Click on Views and then click on Toolbars. Try selecting and de-selecting the various toolbars, ie, Standard Buttons, Address Bar, Links, Radio.

Also in the Views menu you can choose how to arrange you window in the Arrange Icons option. Experiment with some of these options—they are pretty self-explanatory.

And last but not least—in the Views menu—you can click on the Explorer Bar option and select one of the following: Search, Favorites, History, Folders. These options also have little icons in the Standard Buttons toolbar - they look like this:



These options do exactly what they say they do,

- The Search option lets you search for a file anywhere on your hard drive (or floppy or CD).
- The Folders options opens up an area on the left side of the window where you can see every folder on your hard drive (or floppy—or CD).
- The History lets you see all the places visited one the internet for the last several days and weeks.

We'll do more on Search and Folders later.

UNDERSTAND AND USE STORAGE OPTIONS FOR DATA

When you create a document or file in Microsoft Word, or when you want to save a graphic off the internet, or when you draw a picture in Paint, you need to know how and where to save the document or file. Here's your options:

- ▶ Save it on the hard drive - in some folder.
- ▶ Save it on a floppy drive - that's a 3½ inch floppy disk.
- ▶ Save it on a Zip disk - if you computer has a Zip drive.
- ▶ Save it (or "burn it") on a CD - if you have a writable CD.

Well, most computers don't have Zip drives and CD burners, so looks like we will be saving to a hard drive or a 3½ inch floppy disk

Before we get into these 2 storage devices, a brief discussion about the these terms: Byte, K or kilobyte, MB or megabyte, GB or gigabyte.

A **byte** is the amount of storage it takes to save one character (a letter or a number).

K or **kilobyte** stands for 1000. So a 32 K file has 32 thousand characters in it.

MB or **megabyte** stands for million. So a 1.4 megabyte file would have 1,400,000 characters in it. So that means that 1000 K = 1 MB... 14,000 K = 14 MB... and so on. A Floppy Disk holds 1.4 MB.

GB or **gigabyte** means 1 billion. So 1000MB = 1 GB. A CD holds about 700 MB - A DVD holds about 17 GB.

GOT IT!! More on what this means as we discuss The floppy disk and the hard disk.

The Floppy Disk

There are 2 kinds of floppies around these days - one very common and one not so common. The most common is the 1.4MB floppy also called a **high density floppy**. The not so common is the 800K floppy also called the **double density floppy**. How do you tell the difference. The 1.4MB high density floppy has 2 notches in it, one in the upper left hand corner and one in the upper right hand corner. One of the notches has a little slider on it which can be "opened" or "closed." When it is open, you cannot write anything on the floppy because it is "write-protected." The 800K floppy has only one notch on it (the one with the slider). Of course, always use the 1.4 MB floppy because it stores more data than the 800 K floppy. By the way, 1.4 MB stands for 1.4 megabytes which is exactly 1,400,000. That means it will store 1,400,000 letters and numbers on it. That's a lot of word processing files!

A floppy disk has to be **formatted** - or **initialized** - before it can be used. When you buy most floppy disks, they come pre-formatted - but it is a good idea to reformat a new floppy disk before you use it. Here's how to format a floppy disk.

1. Put it in the computer. Double click on "My Computer."
2. Do a right-click on 3½ Floppy (A)
3. Select Format. Then click on the Full option and then click on Start. That's all there is to it.

One last thing about floppy disks. They are sometimes **not very reliable**. They konk out easily. So make a back up of your precious data if you are storing it on a floppy. In fact - make several backups.

The Hard Drive.

Hard drives come in many **sizes** - anywhere from 500 MB to 100 GB. Most computers you buy today have a 10 or 20 or 30 or 40 GB hard drives. To see how large the hard drive on your computer is, double click on My Computer and then do a right click on Local Disk (C) here after called the C Drive then click on Properties. You will see how large the hard disk drive is and how much space is used and how much space is available.

When you save files on your hard drive, most computers are set to automatically save the file in the **My Documents** folder. This is the main storage spot for saving all your data files. If you don't want to save in this location, you must tell the computer where you want to save the file, such as on the Desktop, or in some other folder on the hard drive.



Local Disk (C:)



My Documents

When you install programs (called applications) on your hard drive, they are usually stored in a special folder on the C Drive called **Program Files**. You usually have the options when you install software to choose a different location to store the program if you don't want it in the Program Files folder.

The C Drive obviously has many folders in it, but one very important folder in it is called the **Windows folder**. This is the folder that holds most of the operating system files. I would pretty much not mess with this folder unless you know what you are doing. You may do something wrong in this folder and then you will have to reinstall a new operating system - very bad!



Program Files



WINDOWS

The **Control Panels** folder can be accessed by double clicking on My Computer, or by going to the Start Menu and selecting Settings and then Control Panel. You can go in here and check out various settings, like the mouse settings, the date and time settings, and other settings. Again, just be sure you kinda know what you're doing here before you indiscriminately change things.



Control Panel

PROMOTE ACCEPTABLE USE POLICY FOR ORGANIZATION

The purpose of an acceptable use policy (**AUP**) is to establish guidelines and policies for the use of the internet in a school or business organization. Students and their parents are asked to sign an AUP after reading it and understanding it fully. The AUP protects the school from complaints from parents and even lawsuits if students do things on the internet that are inappropriate or even unlawful. Teachers or workers in businesses are often asked to sign an AUP. This also protects a school or business from possible ramifications from illegal or improper activity employees may do on the internet.