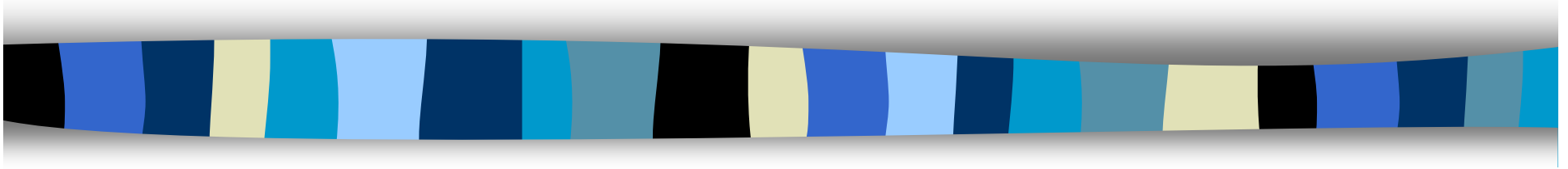


Computer Basics



Getting to Know Computers



What is a Computer?

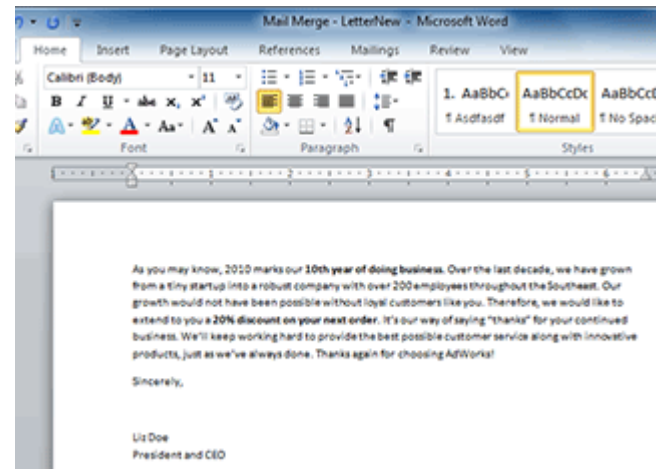
- An electronic device that manipulates information, or "data."
- Has the ability to store, retrieve, and process data.
- Used to type documents, send email, and browse the internet.
- Can also be used to handle spreadsheets, accounting, database management, presentations, games, and more.

Computers Simplified

- **All types of computers consist of two basic parts:**
 - Hardware is any part of your computer that has a physical structure, such as the computer monitor or keyboard.
 - Software is any set of instructions that tells the hardware what to do. It is what guides the hardware and tells it how to accomplish each task. Some examples of software are web browsers, games, and word processors such as Microsoft Word.



A motherboard (hardware)



Microsoft Word (software)

What are the Different Types of Computers?

■ Desktop Computers

- Many people use desktop computers at work, home, school, or the library. They can be small, medium, or large in style, and usually sit on a desk.
- Once you add a monitor, mouse, and a keyboard, you have what is typically known as a desktop computer.



A desktop computer

What are the Different Types of Computers?

■ Laptop Computers

- Laptops are battery or AC-powered personal computers that are portable, allowing them to be used almost anywhere.
- Since a laptop is smaller than a desktop, it's more difficult to access the internal components. That means you may not be able to upgrade them as much as a desktop.
- A laptop computer is sometimes called a **notebook computer** because of its size.



A laptop computer

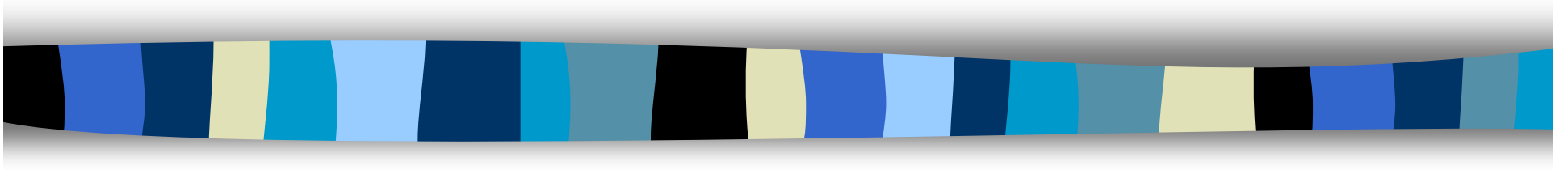


What are the Different Types of Computers?

■ Other Types of Computers

- **Tablet Computers:** These use a **touch-sensitive screen** for typing and navigation. Since they don't require a keyboard or mouse, tablet computers are even more portable than laptops. The **iPad** is an example of a tablet computer.
- **Mobile Phones:** Many mobile phones can do a lot of things a computer can do, such as browsing the internet or playing games. These phones are often called **smartphones**.
- **Game Consoles:** A **game console** is a specialized kind of computer that is used for playing **video games**. Although they are not as fully-featured as a desktop computer, many newer consoles, such as the **Nintendo Wii**, allow you to do non-gaming tasks like browsing the internet.
- **TVs:** Many TVs now include **applications** (or **apps**) that let you access various types of online content. For example, you can view your **Facebook news feed** or watch streaming movies on **Netflix**.

Hardware



Computer System Components

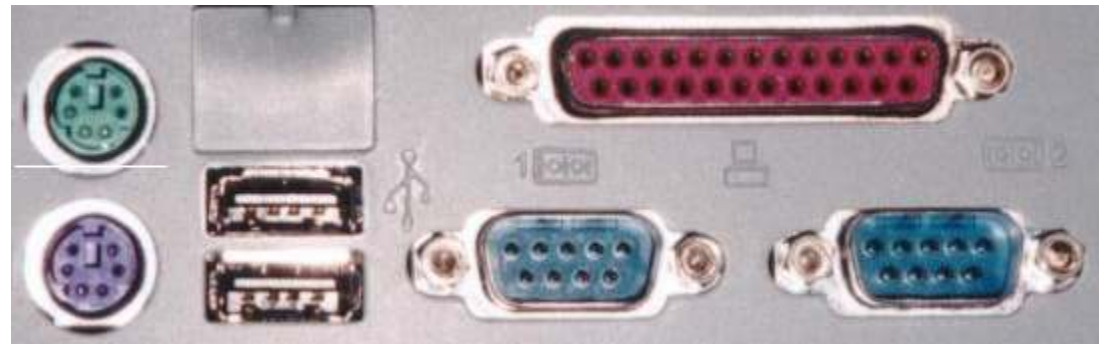


Computer System Components

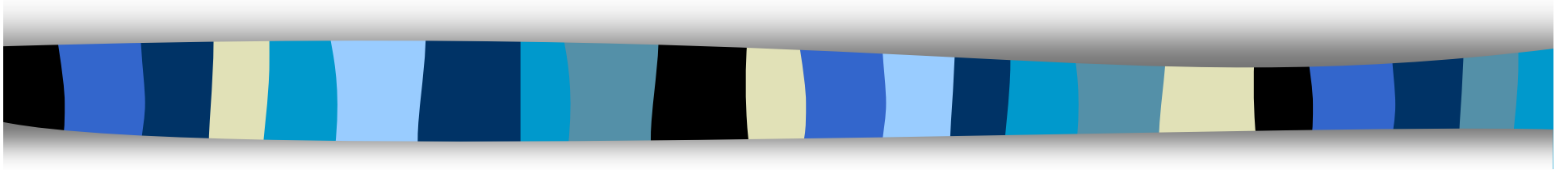
■ Communication Ports

– Common communication ports are:

- Keyboard
- Mouse
- Serial
- Parallel
- Modem
- Network Interface Card (NIC)
- USB



SOFTWARE



What is a Software?

- **Software** – refers to any program that tells the computer system what to do.





Categories of Software

- **System Software** – programs that take control of the PC on start-up, and then play a central role in everything that happens within a computer system by managing, maintaining, and controlling computer resources.
- **Application Software** – designed and created to perform specific personal, business, scientific processing tasks.



System Software

- **Operating System (OS)** - Monitors and controls all input/output and processing activities within a computer system. It is a program that controls the PC hardware and the operation of all other programs.



PC Platforms

Platform is defined by a processor and an operating system.

- Software created to run a specific platform won't run on other platforms.
- Most personal computer users choose the *Wintel* platform, which combines one of the Microsoft Windows operating system with an Intel-compatible processor.



PC Platforms

- Modern Wintel platforms, such as Windows ME and Windows 2000, are backward compatible, allowing programs written for earlier Microsoft platforms to be run on modern systems.
- Before choosing a platform, consider
 - Availability of appropriate commercial applications software for the platforms.
 - Compatibility of platform with existing hardware, software, and expertise.



Application Software

- **Word Processing** – a text editing program, which allows the user to type, compose and correct a document without the need to re-type, when errors changed. A word processor allows you to write a letter, design a flyer, and create many other kinds of documents.
- **Types of Word Processors**
 - WordStar
 - Word perfect
 - Microsoft Word



Application Software

- **Electronic Spreadsheet** – is a program replacing the traditional financial modeling tools that offer modern improvements in ease of creating, editing, and using of financial models and graphical representations.
- **Kinds of Electronic Spreadsheet**
 - Lotus 1-2-3
 - MS EXCEL
 - QUICKEN
 - FRAMEWORK



Applications

- **Application** or an **app**.
- A type of software that allows you to **perform specific tasks**.
- Applications for desktop or laptop computers are sometimes called **desktop applications**, and those for mobile devices are called **mobile apps**.
- When you open an application, it runs inside the **operating system** until you close it.
- Much of the time, you will have more than one application open at the same time, and this is known as **multitasking**.
- **App** can be downloaded **cheaply** or even **for free**. Many apps are also available for **mobile devices** and even some **TVs**.



Summary

- The PC consists of common external and internal components.
- Each component has a specific task.
- Communication ports connect to external devices.
- Storage devices are classified and primary or secondary.
- Software tells the computer what to do.



Getting to Know Your Computer

- Desktop Components
- The Mouse
- Opening and Closing Documents
- Keyboard
- How to Power on and Shut down



Desktop Components

- The screen that you see when your computer has finished starting up is called the **desktop**. Depending on what kind of operating system you have, the desktop will look different, but it generally consists of **menus** at the bottom, top, and/or sides of the screen, with the rest of the screen containing a **desktop background** (or **wallpaper**). The desktop background area can also contain any **files**, **applications**, or **shortcuts** that you want to have quick access to.
- [Getting to Know Your Desktop](#)

Desktop Components

Terms:

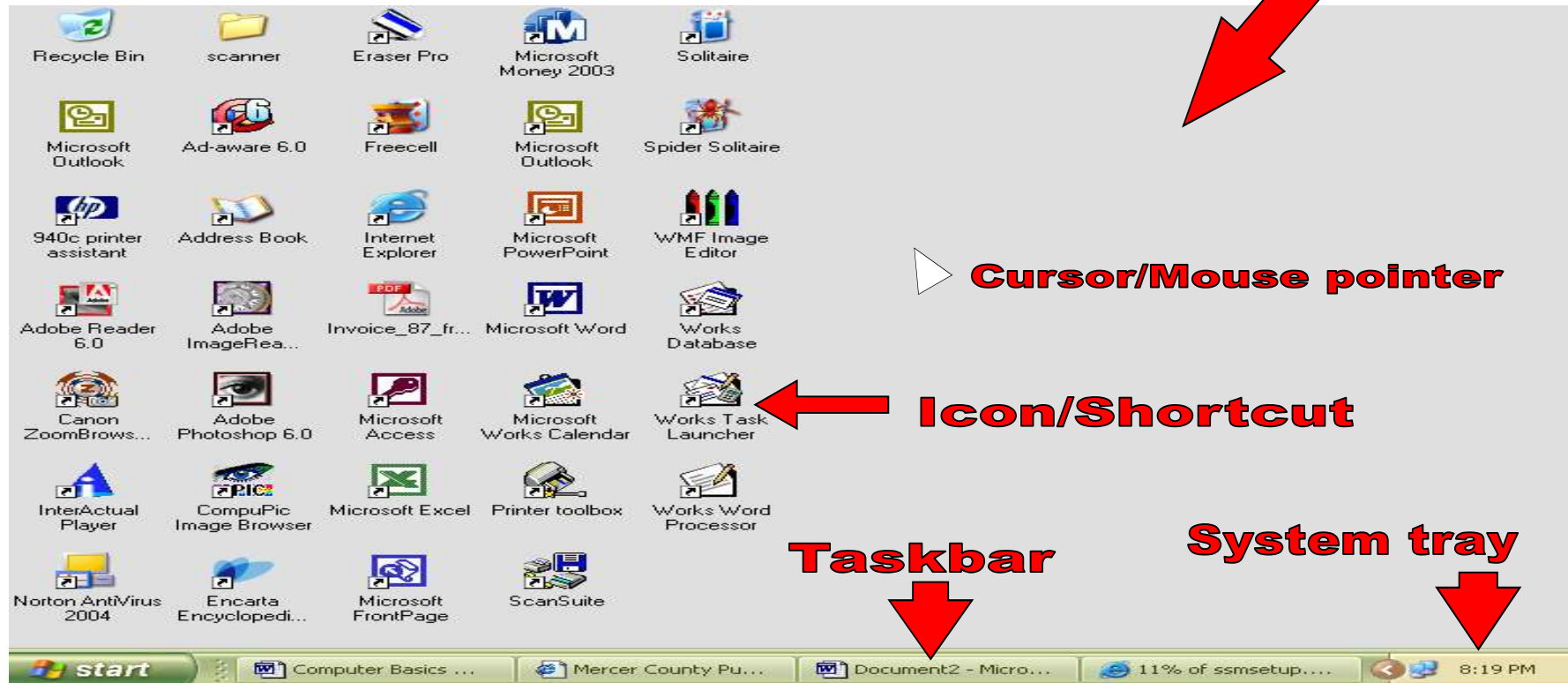
Desktop: the environment or field on which icons and programs are displayed.

Taskbar: The bar at the bottom of the desktop showing which programs are in use.

System Tray: The right end of the taskbar, showing programs in use.

Icon: Picture that symbolizes a program.

Shortcut: Desktop icon to click on to go to a program.



Desktop Components

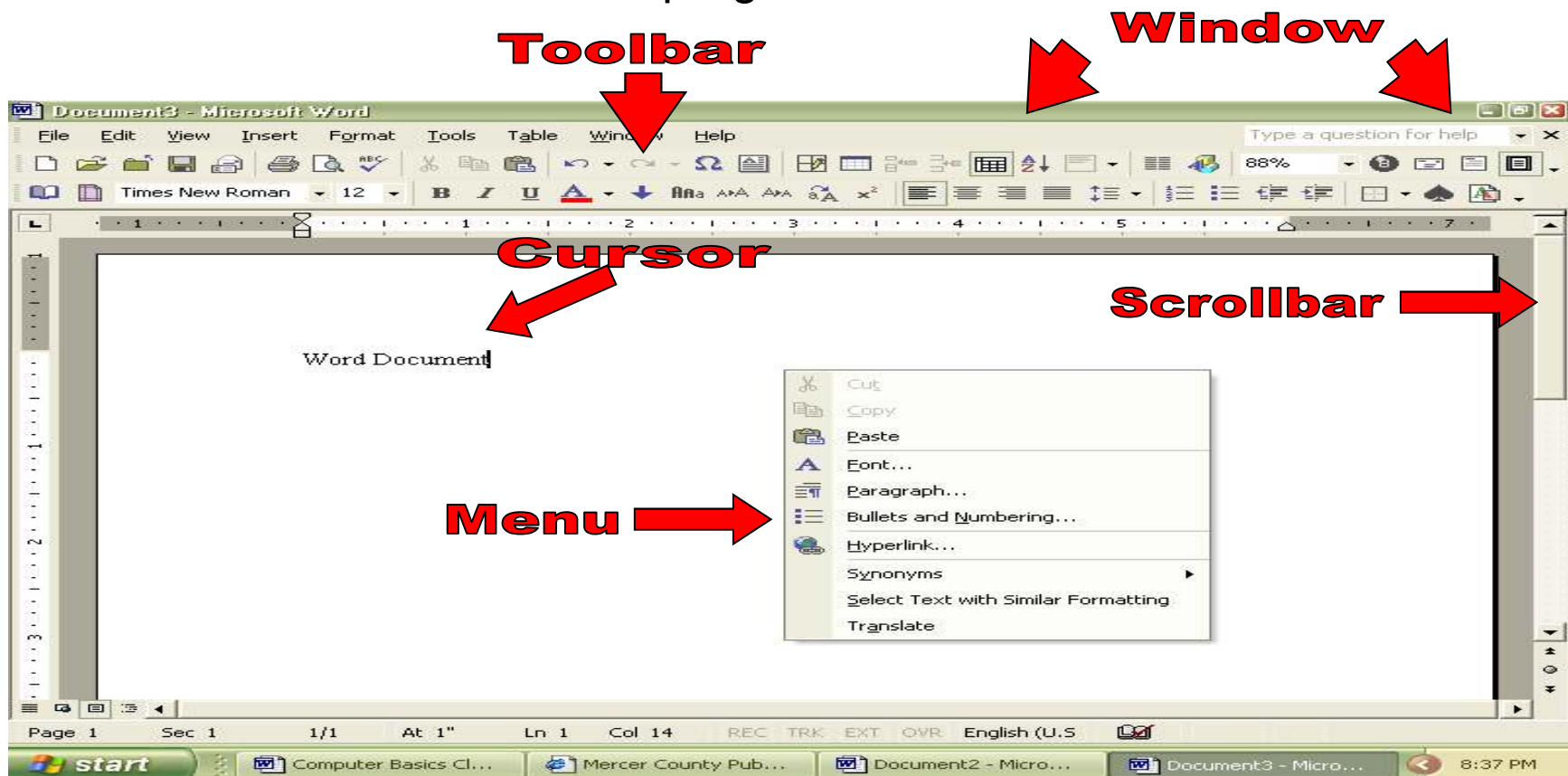
Scrollbar: Bar on right allows you to move up and down in a program.

Window: A page on a computer, one for each task.

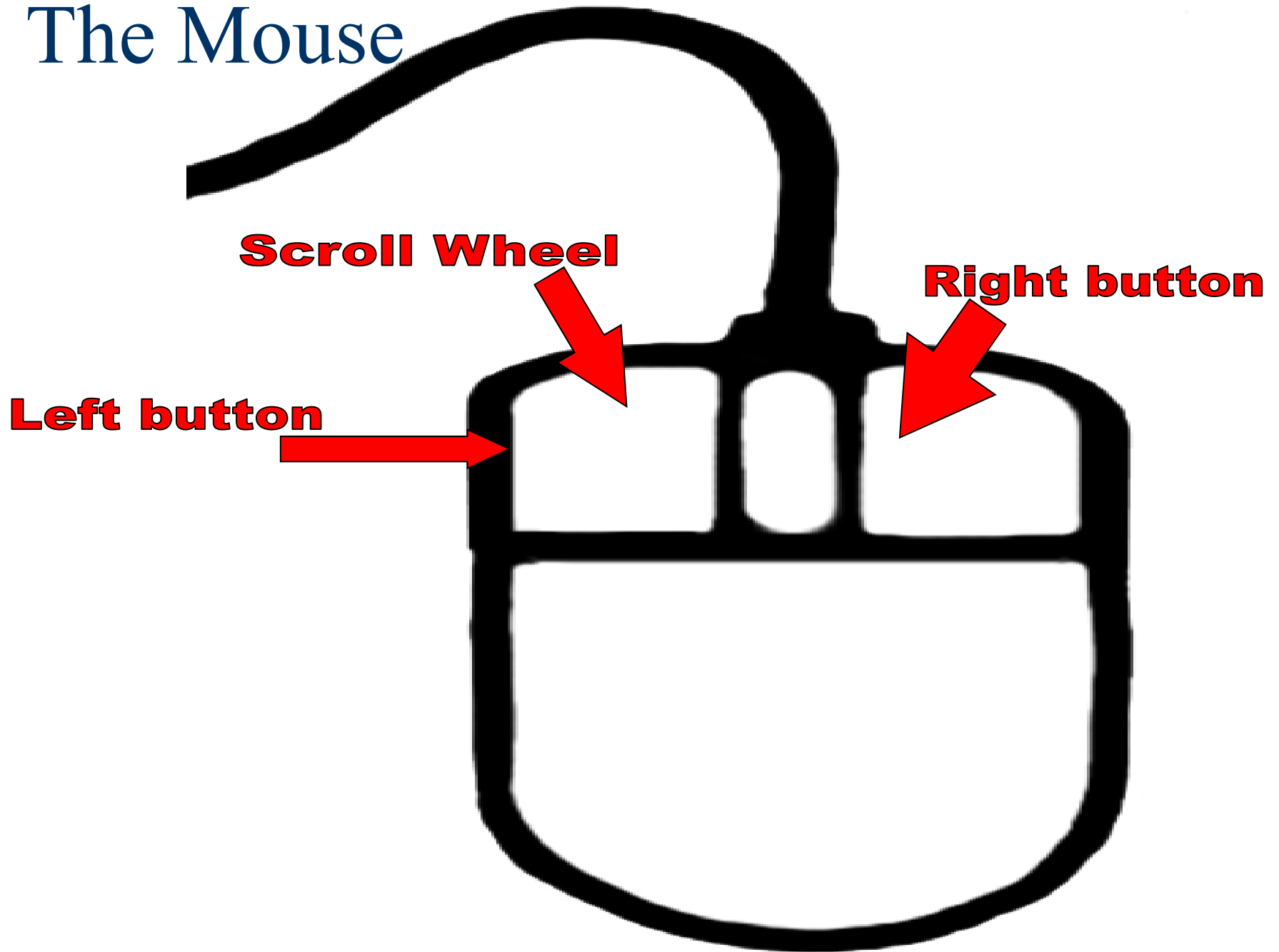
Cursor: The pointer or line indicating where the mouse is located.

Menu: Either drop-down or pop-up, displays options.

Toolbar: Selection of tools in a program.



The Mouse





The Mouse

Point: move mouse around until the tip is on top of the item you want.

Click: Point to something then press and release the left mouse button.

Right-Click: Same as click, but use the right mouse button.

Double-Click: Same as click, but press and release the button fast two times without moving the mouse.

Drag: Point to an object (usually a document or folder) and press the left mouse button and hold while moving the mouse. Release when you are on top of the area where you want the item to go.

Scroll: Using the scroll wheel in between the mouse buttons, without pressing down, move the wheel away from you to move up, and toward you to move down the page. (If you don't like the scroll wheel, you may click anywhere on the page and use the up and down Arrows on the keyboard.)



The Mouse

- Let's Practice
- <http://tech.tln.org/tutor/>



Opening and Closing Documents

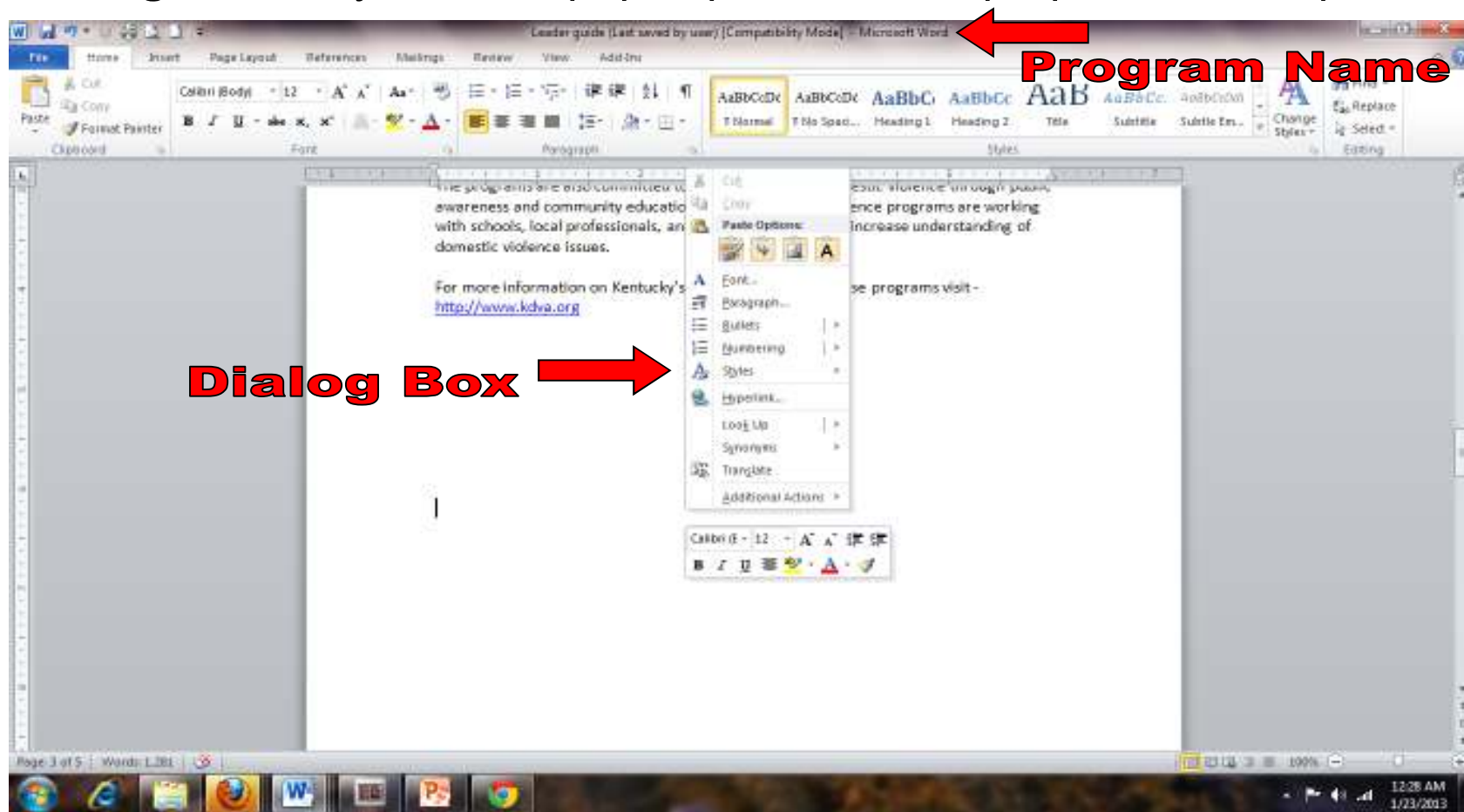
■ Opening Files with Applications

- Many applications are designed to open one or more types of **files** (or **file formats**). For example, **Microsoft Word** can create and edit **Word documents**. If you don't have the right kind of application, you won't be able to open a file.
- There are two main ways to open a file:
 - **Find the file on your computer, and double-click it.** This will open the file using the **default program**. Double-clicking a file to open it.
 - **Open the application, then use the application to open the file.** Once the application is open, you can go to the **File** menu at the top of the screen and select **Open**. This is useful because some files can be opened by several different applications, and this method allows you to **choose which application** to use. Opening a file within Microsoft Word.

Opening and Closing Documents

Program: Any piece of software produced to complete tasks. (Word, Internet Explorer, Solitaire)

Dialog Box: Any box that pops open to select properties and options.

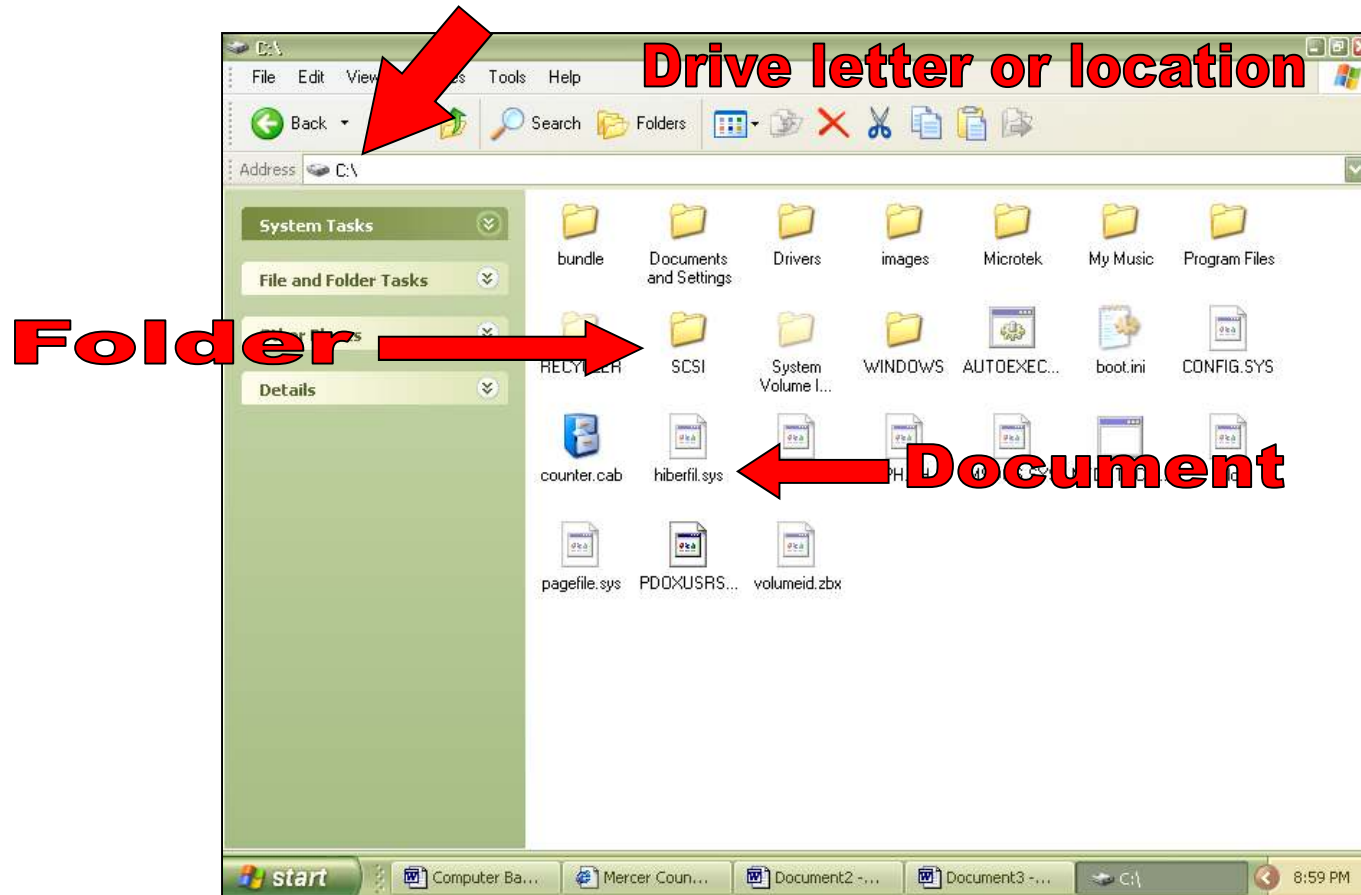


Opening and Closing Documents

Drive: Disk or hard drive to store data or information in documents or folders.

Folder: Literally a folder that holds documents or other data. Folders are saved on drives.

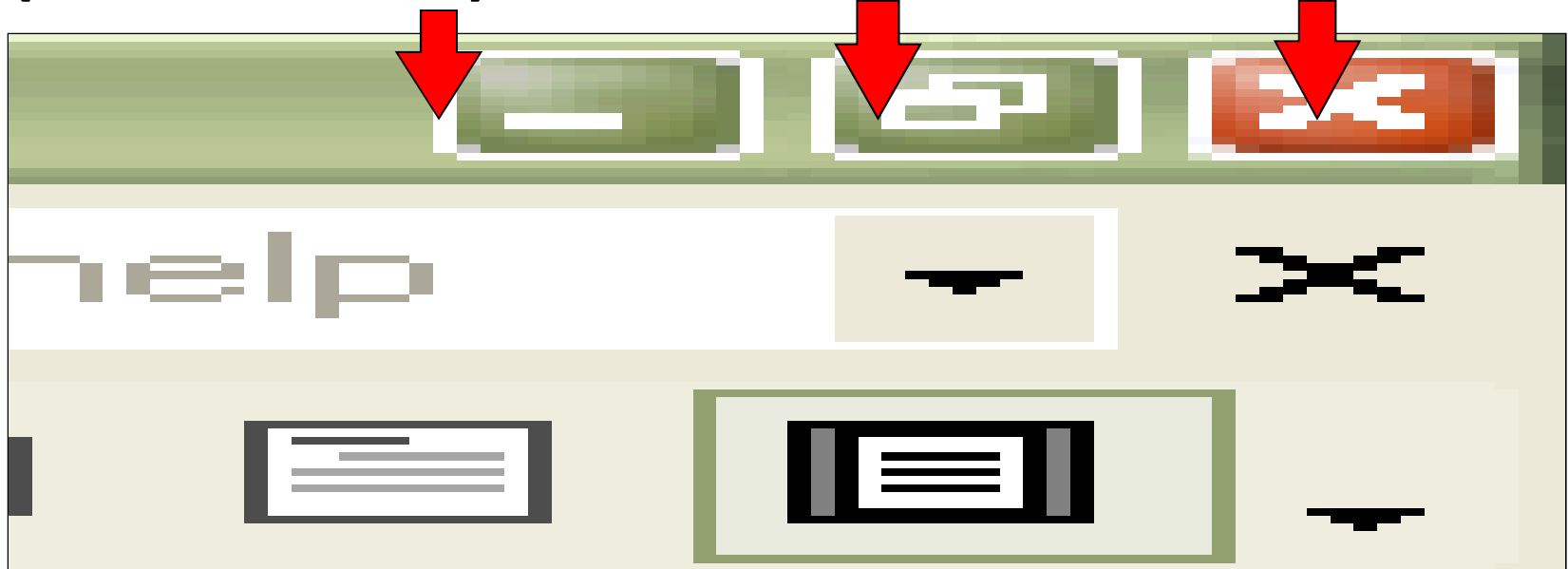
Document: Data in named bundles. Documents are saved in folders.



**Minimizes window
(Puts in taskbar)**

**Resizes window
(Larger or smaller)**

Closes window



Closing a Window: Click on the X in the upper right hand corner box.

Resizing a window: Click on the two boxes in middle of the three boxes in the upper right hand corner.

Minimizing a Window: Click on the minus sign on left of the three boxes in the upper right hand corner. This puts the window into the taskbar to access later. It does not close the document and the document can be reopened by clicking on it in the taskbar.

Opening a program: Click on icon (shortcut) on desktop.

Moving around the desktop: Use mouse to point to icon.

Using shortcuts: Double-click to open. Right-click for properties.



Opening and Closing Documents

- Let's Practice



Keyboard

- The Parts of the Keyboard



Keyboard

- Practice with the Keyboard



■ www.mcplib.info



How to Power on and Shut down

■ To Shut Down Windows 7 or Vista:

- Click the **Start** button and then select the **Shut down** button (or the **power button icon** in Vista). You can also click the **arrow** to the right of the Shut down button for more options.

■ To Power On Windows 7 or Vista:

- Press the power button.