

## Basics Lesson One – Getting Started

### OVERVIEW BEFORE EVEN BEGINNING TO UTILIZE THE COMPUTER

#### Four Essential Parts of a Computer

1. Tower (desktop computer), or Laptop either which contains:
  - Body of the laptop the portion underneath the keyboard
  - Contains the CPU (Central Processing Unit or brain), memory (RAM) and storage (hard drive), CD or DVD drives, "ports" for connecting external devices (cameras, printers, scanners, all-in-one printers), and any other desired device. This is the expensive part.
  - All-in-one devices may have these components in the back of the display (monitor), or in the base of the unit (monitor stand).
2. Monitor
  - The TV-like device which displays the actions of the computer
  - Referred to as a flat screen, either LED or LCD
  - Today all Laptop screens are LED panels
  - If an All-in-one (AIO) the monitor is attached to the body of the computer all together.
3. Mouse (or touchpad on laptop)
4. Keyboard
  - Varied appearance and functions depending on size of keyboard (and often laptop size) and manufacturer, but each has the essential keys to function.

#### Other non-essential Parts of Computer

- Speakers may be separate, attached to (or a component of) the monitor or All-in-one.
  - And may be two, five, or even seven, and with or without a subwoofer.

#### Other Items of the Computer

- Every computer has a **power button**, usually in front, or on top for a computer tower.
  - Or at the side or on top of an All-in-one.
  - Or on the side or adjacent to the keyboard on laptops
  - The location does vary by manufacturer design or model.
- **On a desktop tower, there is a button** on the side just below or adjacent to the **DVD Drive** which opens or closes the drive (desktop).
  - But it is also OK to gently push the tray to start it closing. But never **force**.
- A laptop DVD drive, if the laptop included one, has the button on the side but on the face of the drive; the drive can be on either side. Many laptops no longer include a DVD drive.
  - The drive door must be closed by pushing the tray until it clicks.
- **NOTE:** If you need to force anything on a computer, re-think what you are doing.
- Most new computers have Slots for camera memory chips to be inserted.
- Desktops usually have Front USB, Earphones, and Microphone ports for connecting devices.
  - Laptop and All-in-one PC ports are usually only on the sides.
- Most now also include wireless options for connecting devices (Wi-Fi, and/or Bluetooth).
- On the rear or the desktop, and sides of most laptops you will find:
  - USB ports (little rectangular opens) for connecting a Mouse and Keyboard.
  - Additional USB ports and possibly one or more USB-C or Thunderbolt ports.
  - Network (Ethernet) port
    - Looks very much like a telephone jack but is used for a network connection.
  - An earphone port may be a single combined Speaker/Microphone jack, or multiple ports.

## Basics Lesson One – Getting Started

### Setting up a New System - What You Need

- **Surge Protection**
  - Battery Back-up (apportion of some surge protectors) is not absolutely necessary, though advisable in Florida, or where short losses of power occur frequently
    - Or if data loss would be disastrous
    - If power is lost while composing any document, the document may (and likely will) be lost (if it wasn't saved previously or "auto-saved").
  - **Most advise a Cable or Phone Company Network cable needs surge protection too.**
    - Surge protection of cable/DSL line is also advisable.
    - Also, if you have a battery backup, be sure to plug the modem's power adapter and router's power adapter (if router is present) into the battery-backup side of UPS.
- **Typical cables Used**
  - Usually all you need will come with the computer.
    - Exception is possibly the printer cable, a USB cable. Check to confirm the printer came (or comes) with a cable.
  - **Note, it is almost impossible to connect cables wrong.**
    - Each cable terminal is unique, color-coded and attaches only one place (read on).
    - Every cable attaches a device (keyboard, mouse, monitor, speakers, camera, printer, etc.) to the computer by being attached to (or inserted into) a "**Port**", (one of the sockets or holes) on the back (sides or the front) of the computer.
    - The only cable which can conceivably be inserted into the wrong "Port" is the square (wrong) end of the USB cable (opposite cable end is rectangular). It fits and can be inserted into the network port. No harm is done but it won't make anything work.
    - Any color-coded round ports are for an older Mouse or Keyboard. They are the same shape and fit, but usually have a small associated device image on the computer.
  - The Power cable is obvious, usually black, and the largest in size.
  - A Monitor usually has 2 cables
    - An AC Power cable for the monitor. (which may be connected to a transformer).
    - And a second cable, VGA (blue), DVI (white), or HDMI which connects between the monitor and the CPU unit.
  - All USB ports are universal. Thus any USB cable can be plugged into any USB port.
    - The keyboard and mouse are often USB.
      - Always connect both a keyboard and a mouse before startup!
    - The Printer, Scanner, camera, or All-in-one printer also connects via USB
      - NOTE: Connect the printer, scanner, or other device only **after** the computer has been started and setup up for the first time.
      - The "device" end of the USB cable is square, and house shaped.
      - VS. the computer or laptop-intended end which is an elongated rectangle.
  - Speakers connect to the computer either via a small audio cable or USB cable.
    - Even if speakers are attached or included in the monitor.
    - One cable (usually green-tipped) connects from the (green) Computer port, to either one speaker or sub-woofer, with a second cable connecting between (or to) the left speaker and right speaker;
    - Only laptops and All-in-one desktops have the speakers connected internally.
  - The Network ("Ethernet") cable connects a Broadband (DSL or cable) modem or router.

## Basics Lesson One – Getting Started

Once the **power button** is pressed and power comes on Windows will start automatically (referred to as "startup"). **Be patient and wait if necessary. You can tell things are happening by the faint rattle of the hard drive or flashing light on the front of the laptop or desktop.**

### If this is the first time turning on a new computer:

- You will be asked some questions, such as the User name, Microsoft account, time zone, etc.
- Do not start the computer the first time unless you have at least half an hour to spend.
- You should not stop in the middle of setup! If you think the computer is "frozen" or stuck during setup, wait at least thirty minutes before turning it off. It may actually be doing something.
- If you do need to leave, simply walk away. The computer will stay at the point you have completed and wait for you to return to continue the setup.
  - Don't turn it off, just leave it wait.
- Merely **follow directions**.
- **Simply** follow the steps, as explained. **Be sure to read CAREFULLY.**
  - Sometimes things are stated in the negative.
- You should wait to install printers, scanners and other additional hardware until specifically instructed to do so.
  - Or at least until the initial startup has completed.
- **Some steps may take several minutes. Have faith!** Windows 10 is fairly reliable.
- It will ask for the names of those using the computer.
  - Use only one name or Microsoft account at setup.
  - You can add additional users later if desired.
- Windows 10 will want you to create a Microsoft ID AND Password.
  - Just follow the screen prompts.
  - **Be sure to write the information down!** You will need again, I promise.
- If reinstalling, it may ask for the Product ID number or the CD/DVD Product Key during Setup.
  - Requires the Microsoft Certificate of Authenticity which came, either on the side, back, (or bottom with laptops) of the computer. It may be encoded and inherent in new computers.
  - **This is why it is important to keep these certificates, and any documentation, or discs together WHERE YOU CAN EASILY FIND THEM for the life of the computer.**

### What to Do with All That Paperwork & Discs or USB drive (The CDs DVDs, or USB drive if provided)

- **Store all your paperwork, receipts books, any Certificates of Authenticity, in a safe and ACCESSIBLE place.**
- It is convenient to place this all in a large zip-lock bag.
- **Don't throw anything away** (Other than the original packing boxes)
- Registering software is usually not mandatory.
- **Activating** software is (eventually) mandatory.

### What to Do with Discs Which Came with the Computer

- Most of you will get two types of disc with the computer:
  - CDs/DVDs you have only to save for possible future catastrophes. They are called "Recovery", "Restore", or "Reinstallation" Disks.
    - **The computer manufacturer already installed the software that came with it.**
  - CDs/DVDs needed in order to use a program (such as clipart), thus are needed all the time.
  - You can keep these in the same zip-lock bag.

## Basics Lesson One – Getting Started

### Some Initial Knowledge

- Windows is referred to as an **operating system (OS)** for short). It is also described as a **GRAPHICAL USER INTERFACE, or GUI**.
  - Meaning it often uses pictures (graphics) rather than text (words) to give the computer commands. These are in the form of **ICONS** or **Buttons**.
- Don't get frustrated if / when Windows doesn't perform just the way you expect it.
  - It is going to happen, not often, but occasionally.
- Sometimes it is just you have to learn what Icons or symbols to use.
- But...Sometimes Windows just begins doing quirky things.
- Often, when strange things begin to happen, just Shutdown, or Restart.
  - If you are working with something you want to keep, **SAVE** it first. If you try to close down before something has been saved, it **HOPEFULLY** pops up and warns you, and asks if you want to save it. **Don't depend on that happening though**. It may not.
    - Sometimes instead it "locks up" the shutdown or restart process.
  - If the computer will not shutdown or restart (termed "locked up"), it may be necessary for you to perform a **hard** shutdown. With all computers, holding down the power button for several seconds **WILL** shut it down. It **WILL** turn off. Hold the button for as long as it takes. Again, have faith. This does not harm the computer.

**IMPORTANT: DON'T BE AFRAID TO USE THE COMPUTER** and try things. You cannot harm it irreparably...short of dropping it. And trying things is the only way to become comfortable with it.

The three most important things to learn when you truly begin using the computer:

1. **SAVE**
2. **SAVE**
3. **SAVE**

Once you have lost something you have worked long and hard to produce, you **will** remember these three lessons. You should Save the "document" frequently while in the process of creating it, such as typing a letter, creating a picture, or while using other programs.

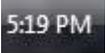
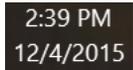
I have often mused, **Microsoft does not charge for repeated saves, nor for deleting** something you no longer need or want. It is easy both to save a project, and delete it when no longer needed.

As you begin to use the computer for more important purposes you should start thinking about learning to back up your important data early. We will speak to backing such items up in later lessons.

## Basics Lesson One – Getting Started

### Quick Start: Important Things to Know How to Do

Don't panic. If any information is already over your head, don't distress, we will discuss it more thoroughly in later sessions. This early information is just to help the "brave" explorer started.

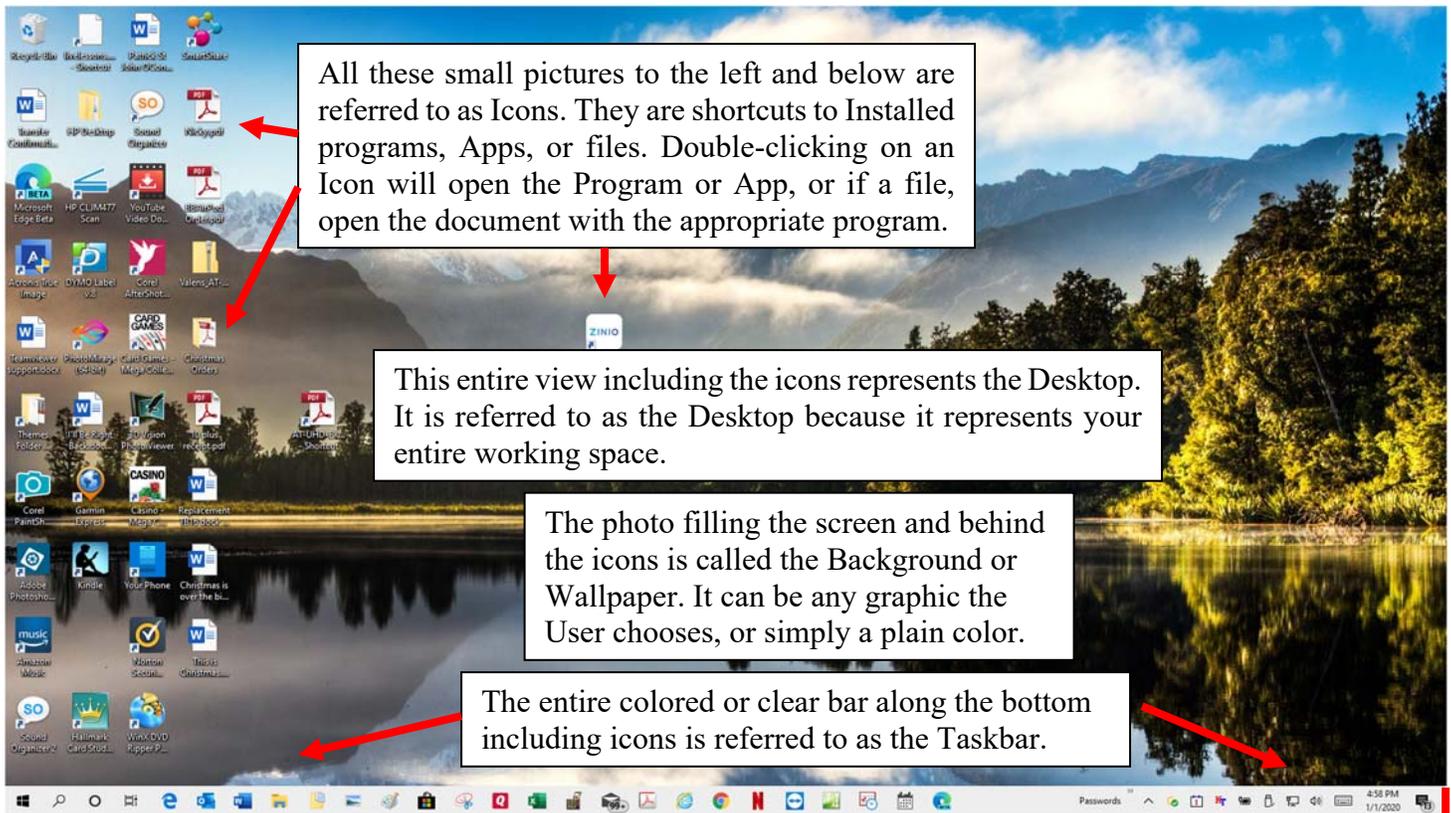
- Use the icons on the right side of the "Taskbar" (the colored or clear bar across the bottom).
  - Adjust Sound volume or mute (no you do not have to pull the plug on the speakers) by clicking on the speaker icon  or .
    - See and adjust the time by double-clicking on the time (Windows 7). 
    - Or Windows 8 & 10 a single click and choose Time and Date settings. 
- Use the START button to:
  - Check out Programs 
  - Shut down/Turn Off (or Restart)  the computer properly
- **ADVICE:** Don't start hitting keyboard keys or clicking the mouse until Windows has fully started.
  - The fresh startup takes at least thirty seconds, or even several minutes on some computers
  - Sometimes hitting the wrong keys during startup can interfere with part of the loading process, resulting in **ERRORS** or "**CRASHES**" (freeze/lock-ups)
  - A way to test if the computer is ready to operate: Click the Start button. If the menu pops right up, and clicking Start again makes the menu instantly close, the computer is "ready".
- **If Windows asks for a password on startup** (This does not apply to Windows 8 and 10 unless you have skipped creating the Microsoft Account, and chose to remain with a "Local" account):
  - Try just hitting the ENTER key. If no password was ever established, it will start. If no luck, you must enter the Password you originally established.
    - If a password was established, you will not be able to get around it.
- If the computer starts misbehaving, doing odd things, freezes or locks up:
  - Try shutting down or restarting.
  - If it is frozen, and it will not shut down or restart using the normal method (Start button).
  - Hold the Power button down until it shuts off. This may take several seconds, but it **will** shut off. **Trust me!**
  - When it restarts next time it is usually fine again.
  - **Restart is the first thing to try** if the printer stops printing, the Internet connection stops working, the program, mouse, or keyboard start doing strange things.
- A DVD writer (burner, DVD-RW) reads and writes to both CDs and DVDs, and is referred to as an "Optical" drive.
  - Just so you know in the event of encountering an much older computer, a CD writer cannot read, nor write DVDs. Most PCs around today, if supplied with an Optical drive, have a DVD writer.
  - The "Optical" drive may also be a Blue-ray reader or writer, and this reads and writes also to CD and DVD discs, besides Blue-ray material.

## Basics Lesson One – Getting Started

### Terms to Be Familiar With

- The term **Operating System (OS)** is referring to: primarily either Windows (with a Capital W) program or the Apple Mac system.
  - The operating system essentially coordinates all the devices, "Apps" and programs installed.
- The **Memory** usually referred to is **RAM** (Random Access Memory)
  - Many different versions of RAM (DDR, DDR2, DDR3, and DDR4.)
  - Only concern yourself with the version if planning to add more memory.
- **Hard drive capacity** refers to the **storage size** of the hard drive, measured in gigabytes (GB) or Terabytes (TB).
  - (i.e. How much room you have for storing files (pictures, documents, etc.)
- To understand computer memory or file storage know this:
  - A **byte** is the smallest storage size.
  - A **kilobyte** (KB) is 1,000 bytes (technically 1024 bytes).
  - A **megabyte** is 1,000 kilobytes (again, technically 1024 kilobytes).
  - A **gigabyte** is 1,000 megabytes (again, technically 1024 megabytes).
  - A **terabyte** is 1,000 gigabytes (again, technically 1024 gigabytes).
  - A **petabyte** is 1,000 terabytes (again, technically 1024 terabytes).
- A **Monitor** is described by the **diagonal** size in inches (15, 17, 19, 21, 22, 24, etc.).
- A **window** (not capitalized) refers to any open window (box) of a program
- The **Desktop** is the initial screen you see once Windows is up and ready to use.
- The desktop **background** is sometimes referred to as the **Wallpaper** (not the screen saver as some call it). See the diagram on the next page.
- The colored or clear bar at the bottom is called the **Taskbar**. It contains the **Start button**, Windows "Pearl" or the four-rectangle Windows logo (Windows 8 and 10) depending on version. This is where you can discover and open the many **Programs** or **Apps** available on the computer.
- A **Program** or **App** is what you use to do something, or even view something, with the computer, such as the e-mail program, the Internet program (also referred to as the browser), the word processing program, or a photo viewing program. Without using (loading) a program, the computer is useless. Windows is actually a giant program which allows the use of all the other programs and apps by coordinating them to work with each other.
- Windows 8 and 10 have reclassified programs as either:
  - Apps, small task oriented modern programs found and installed from the Windows Store.
  - Applications, more extensive programs which perform more involved tasks, and what were originally merely referred to as programs. These are installed to the desktop from either optical discs, USB drives, or Internet downloads.
- When a window comes up wanting typed information, locations of files, or choices, it is called a **"Dialog box"**, meaning the computer requires a dialog (instructions from) between the user and the computer.
- When typing a **path** for a file it is C:\folder name\subfolder name\filename. extension.
  - Folders are separated by the "backward slash" or "**backslash**" (\).
- When typing a **web** address, folders are separated by "forward slash" (/).
- When typing an instruction, steps are often separated by either by using the forward slash (/), or the upright bar (|) such as: View menu | Toolbars | Standard toolbar.
  - Meaning Start with the View menu, choose Toolbars, and then choose the Standard toolbar.

## Basics Lesson One – Getting Started



All these small pictures to the left and below are referred to as Icons. They are shortcuts to Installed programs, Apps, or files. Double-clicking on an Icon will open the Program or App, or if a file, open the document with the appropriate program.

This entire view including the icons represents the Desktop. It is referred to as the Desktop because it represents your entire working space.

The photo filling the screen and behind the icons is called the Background or Wallpaper. It can be any graphic the User chooses, or simply a plain color.

The entire colored or clear bar along the bottom including icons is referred to as the Taskbar.

This is the Start button which when clicked will display the Start Menu.

The area of the Taskbar from the up-directed caret to the right is referred to as the Notification Area. It contains all the Programs which are running behind the scenes. All are not visible until the up-directed caret is clicked upon. The other programs hidden but running in the background are then displayed.

In the next Lesson (Lesson 2), we will discuss using the mouse, keyboard, and Start menu.