

Basic Computer Hardware

Notes – Copy All

AGP

- The Accelerated Graphics Port is a high speed connection to the motherboard for video cards.
- Faster than a PCI card and doesn't use the system memory.

BIOS

The Basic Input/Output System controls the computer's basic operations and is responsible for starting up the computer and hardware.

Bit

- Short for **B**inary digit. It is the smallest unit of information handled by a computer. One bit expresses a 1 or a 0 in a binary numeral.
- **Or, it's a true or false logical condition, and is represented physically by an element such as a high or low voltage at one point in a circuit or a small spot on a disk magnetized one way or another.**

- A single bit conveys little information a human would consider meaningful.
- A group of 8 bits, however, makes up a **byte**, which can be used to represent many types of information, such as a letter of the alphabet, a decimal digit, or other character.

Bus Speed

Measured in MegaHertz (MHz) and determines how fast the memory and CPU run.

Case

The case holds, cools, and protects the computer; the bigger the better.

CD-ROM and CD-ROM Burner (CD-R/CD-RW)

- This device reads data, audio, and video files from a CD-ROM disc.
- A burner can also save and even re-save data to a CD-ROM.

CPU

The Central Processing Unit is the computer's control center: the "brain".

DVD-ROM (DVD and DVD+/-R/DVD+/-RW)

It reads the same as a CD-ROM but is a super compressed format (MPEG) that can store full-length movies.

Floppy Drive

- Magnetic storage medium. Sealed in a hard plastic shell, the actual magnetic disk is flexible plastic coated with a layer of magnetic film.
- Typical floppy disks hold 1.4 megabytes of data and measure 3.5 inches in diameter.
- Floppy disk drives connect to the motherboard via a dedicated cable.
- Old floppy disks were 5 1/4 in.

Hard Drive

This stores all of the computer's information and retains the information when the computer is turned off.

Keyboard

Allows the entry of data and executes programs.

Megabytes (MB)

- It is used to measure the amount of space on a hard drive or on a memory stick.
- Gigabytes (GB) are more frequently used now.

Monitor

It is a high resolution TV-like tube that displays the computer's output.

Motherboard

This transfers data between all of the computer's components: the human nervous system.

Mouse

Allows the entry of data and executes programs the easy way on screen and works well with graphics and icons.

PCI

The "Peripheral Component Interconnect" is a high-speed connection to adding devices to a computer including SCSI cards, video, sound, modems, and other PCI devices.

Power Supply

- Converts power from a source into power the computer can use.
- 300 – 400 watt supply cases are best. Smaller means more crashes.
- Aids in the cooling of the computer.

Printer

It outputs data that is seen on the screen or from a file.

RAM

- Random Access Memory holds recently accessed data from the computer for the CPU to have quick access to.
- It is gone once the computer is shut off.

Scanner

This device allows the reading of images and text.

SCSI

- The “skuzzy” stands for “Small Computer Systems Interface”.
- This interface is the fastest connection to the hard drive and is usually associated with the hard drive(s).

Switch

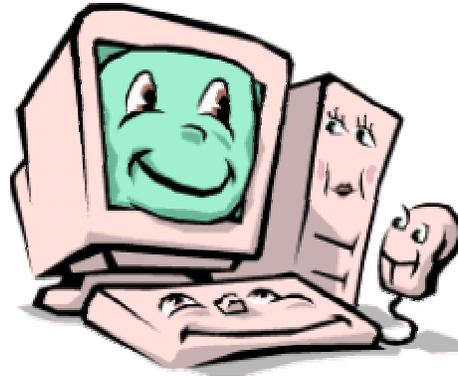
- A connecting device used on **Ethernet** networks. Each computer on the Local Area Network is connected to the switch with a dedicated segment.
- The switch uses the **MAC or ISP** address to determine which segment to forward frames to.
- A **frame** is only forwarded to the destination rather than broadcast to all computers.
- This increases both the security and the efficiency of the network.
- Contrast with a **Hub** simply forwards all data through the network.

USB

The Universal Serial Bus Port allows for the connecting of many external devices to the computer.

Video Card

It transfers data from the computer to the monitor. 3-D cards are necessary for games.



The End