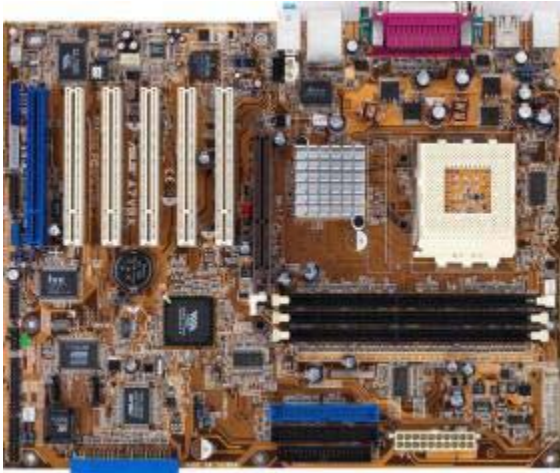


Computer Terminology

Hardware: The term hardware refers to those parts of the computer which you can touch and are usually hard. Computer hardware is usually referring to the parts inside the computer box, such as the hard drive, the floppy drive, the CD-Rom drive, or the sound or video card.



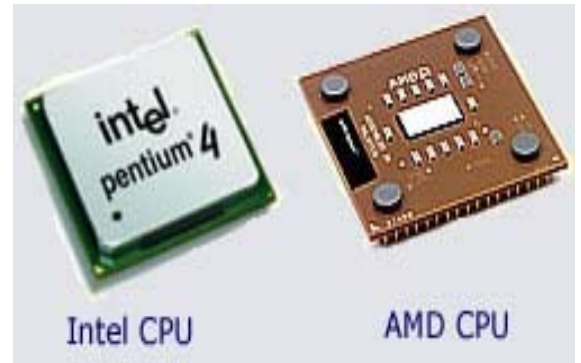
Motherboard These are the devices that are usually on the outside of the computer box or case. They include the keyboard, the printer, the mouse, the scanner, the speakers, etc. The main circuit board in the computer. All other parts of the computer are plugged into the motherboard including the CPU (processor) and RAM (memory).

NOTE: Mainboard - just another name for motherboard

Processor or CPU: At the heart of every computer is the computer's Central Processing Unit or CPU. More than any other single component this programmable chip defines the capabilities,

the character and the speed of the computer.

There are two main brands of processors: Intel, the maker of Pentium processors and AMD, the makers of Athlon and Barton processors. These two companies have been battling for years for supremacy of the CPU market, with each one always trying to stay one step ahead of the other.



RAM: Ram (Random Access Memory) is the little integrated circuit board with a bunch of memory chips on it that plug into your motherboard. RAM allows information to be temporarily stored or accessed by the operating system and any programs being run. When a program operates, it uses a certain amount of the computer's RAM. A computer with 512 Mb of RAM will be able to run many more programs simultaneously than a computer with 128 Mb of RAM. Depending on what you are using your computer for, a good rule of thumb is to install as much RAM as you can afford.



Sound Card: This is one of the little boards the plug-in to the motherboard. It's the part that makes all the sound you hear when you use the computer. This card enables you to play music CDs on your computer. The speaker, the microphone, and joystick all plug into to the sound card. Technically speaking, it is a digital to analog and analog to digital converter.

Video Card: This card is used to process the video signal that goes to your monitor. The faster the processor speed and the more

memory it has, the better. They can usually be identified as a video card by the built in cooling fan.

Modem: A device that converts signals from your phone line or cable connection into a digital signal that can be understood by your computer. It also works in reverse, connecting your computer to the phone or cable system.

Computer Terminology (continue)

Software: Software is the program or application with which you do something with your computer. Examples of software are your email program, Internet Explorer, your word processor and even Windows itself. Software usually comes on a floppy disk or CD Rom. It is the information that is on the disk that is actually the software. In other words, you can touch the container of software but not the software itself.

Driver: A driver is the software needed to run a hardware device, such as a printer, sound card, monitor, or scanner. New computers usually come with all the drivers already installed. But if you buy a new printer later or upgrade your video card, you will have to install the driver for it from the manufacturer. The driver may be stored on a floppy disk, a CD Rom, or you may have to download it from the manufacturer's web site. Usually the driver comes packaged with the software that came with your new hardware. You just have to install it.

Install: The steps taken to copy files of an un-installed program on to your computer's operating system and then configuring it with the options that you require.

Scanner: A scanner is like a camera for your computer. It takes a picture of whatever you place on its glass surface. Once you close the lid and start the scanner program, the scanner takes a picture that shows up on your computer screen, ready to be printed or exported into a image editing program.

Hard Drive: The hard drive is the main storage device in the computer. It consists of several round platters that spin at either 5400, 7200 or even 10,000 RPM. They range in size from ten or twenty gigabytes right up to 200 gigabytes in a higher end computer.



Format or Re-format: Disk formatting is the process of preparing a hard disk drive or other storage medium for use by the operating system. Formatting essentially creates the file system structure that the operating system requires for data to be stored on the drive.

There are several different file systems, such as FAT, Fat32, and NTFS.

Formatting a disk destroys all data that is on it, including Windows Operating System. For this reason, before any disk is formatted, backups of important data should be made. A backup of all device drivers should also be made. The advantage of re-formatting is that a computer running on a severely corrupted operating system can be reverted to a fresh and new state. Formatting a disk also eliminates all accumulated digital garbage that has built up over the months or years.

Disks can be formatted with two or more file systems, divided into sections: this is known as partitioning.

Partitioning: A method of dividing a large hard drive into smaller chunks that can each be assigned a separate drive letter. For instance, an 80 Gigabyte drive might be partitioned into four 20 gigabyte drives, each with its own drive letter; C, D, E and F.

Byte, Kilobyte, Megabyte, Gigabyte: A byte is a unit of computer memory. It is a very small unit. Just to give you an idea about how small it is, the computer needs one byte of memory to remember or store one character! That is why computer file sizes are usually expressed in Kilobytes (roughly 1000* bytes) and your computer's RAM (Random Access Memory) is usually expressed in Megabytes (roughly 1000* kilobytes), and your hard drive is usually measured in Gigabytes (roughly 1000 megabytes). To simplify matters, remember this:

- 1000 Bytes = 1 Kilobyte (KB)
- 1000 Kilobytes = 1 Megabyte (MB)
- 1000 Megabytes = 1 Gigabyte (GB)
- *One Kilobyte is actually 1024 bytes

All new computers sold today come with a minimum of 128 megabytes of RAM and most have 256 megabytes installed.

Computer Terminology *(continue)*

Megahertz and Gigahertz: This is the speed of the computer. One megahertz is one million operations per second. In 1993, my first computer was 33 megahertz, which was considered very fast at that time. Today I have a 2300 megahertz or 2.3 gigahertz. These days, computers are running at speeds of up to 2.8 Gigahertz. One Gigahertz is 1000 megahertz so a 2.8 Gigahertz computer is capable of performing 2.8 billion operations per second.



Network Interface Card: often abbreviated as NIC, an expansion board you insert into a computer so the computer can be connected to a network (Local Area Network, private home network, cable modem access, as well as DSL). Most NICs are designed for a particular type of network, protocol, and media.

Back-Up: A second, safe copy of a file, program or any kind of data. All important data on your computer should be backed up and kept in a safe location in the case of hard disk failure or computer theft.

File Sharing: Sharing files, usually MP3 music, videos or software, over a network of computer. Programs such as Kazaa, Kazaa light and Grokster enable you to download and upload files on a network of millions of computers around the world. See Links Page.

Firewall: A hardware or software device that protects a computer from various types of attacks and intrusion from the internet. A computer without a firewall is like leaving your front door open for anyone to come in. The firewall is like having a deadbolt on a steel door. Nobody is getting in. All computers connected to the internet should have a firewall. A firewall controls access in both direction - uploading and downloading data.

Virus: A computer virus is a little program that can only run when the program it is attached to is opened. They are created by mean human beings, the purpose of which is to do damage to your files and lately, to shut down or make inaccessible certain corporate web sites. Some viruses can wipe out all the information on your computers and others just replicate themselves by sending a copy of itself to all the contacts in your address book. They can make strange or annoying messages appear in your screen. You can get viruses by sharing disks or programs with friends or you can get them by downloading files or programs from the Internet. Computer viruses can be really nasty. Special programs called anti virus programs are available that will help you find and remove any viruses that you have on your computer. Every computer should be equipped with anti-virus software which must be kept up to date. This can usually be set to update itself automatically once a week.

JPG: The standard of compressing graphic images into smaller files so they take up less disk space and download quicker.

MP3: The most popular compression system for music. A 32 megabyte song can be compressed to around 3 megabytes or so without losing a lot of sound quality. A MP3 compressed song can be downloaded in a few minutes that would normally take, perhaps, a half an hour in uncompressed form.

USB: USB stands for Universal Serial Bus. It is a port through which data passes from the computer to an external device. Printers, mice, scanners, digital cameras, joysticks and many other devices are now connected to the computer via the USB port. A USB device is able to be plugged in and unplugged while the computer is running. This is called hot swapping. Most computer components are available today with the USB with a top data transfer speed of 12 Megabytes per second. There is also a newer version of USB called USB2. This new interface can transfer data at speeds of up to 480 Megabytes per second or 40 times faster than the original USB.