



A PC is a general purpose tool built around a microprocessor. It has lots of different parts -- memory, a hard disk, a modem, etc. -- that work together. "General purpose" means that you can do many different things with a PC. You can use it to type documents, send e-mail, browse the Internet and play games.

In this article, we will talk about PCs in the general sense and all the different parts that go into them. You will learn about the various components and how they work. Let's take a look at the main components of a typical desktop computer.

- **Motherboard** - This is the main circuit board that all of the other internal components connect to. The CPU and memory are usually on the motherboard. Other systems may be found directly on the motherboard or connected to it through a secondary connection. For example, a sound card can be built into the motherboard or connected through PCI.
- **Central processing unit (CPU)** - The microprocessor "brain" of the computer system is called the central processing unit. Everything that a computer does is overseen by the CPU.
- **Memory** - This is very fast storage used to hold data. It has to be fast because it connects directly to the microprocessor. There are several specific types of memory in a computer:
 - **Random-access memory (RAM)** - Used to temporarily store information that the computer is currently working with
 - **Read-only memory (ROM)** - A permanent type of memory storage used by the computer for important data that does not change
 - **Basic input/output system (BIOS)** - A type of ROM that is used by the computer to establish basic communication when the computer is first turned on
 - **Caching** - The storing of frequently used data in extremely fast RAM that connects directly to the CPU
 - **Virtual memory** - Space on a hard disk used to temporarily store data and swap it in and out of RAM as needed
- **Power supply** - An electrical transformer regulates the electricity used by the computer.
- **Hard disk** - This is large-capacity permanent storage used to hold information such as programs and documents.
- **Sound card** - This is used by the computer to record and play audio by converting analog sound into digital information and back again.
- **Keyboard** – Used as an input devices for typing characters.
- **Mouse** - Used also as an input device for 'point and click' operations.
- **Graphics card** - This translates image data from the computer into a format that can be displayed by the monitor.
- **Monitor** - The monitor is the primary device for displaying information from the computer.

There are also parts of which are listed below:

Peripheral Component Interconnect (PCI) Bus - The most common way to connect additional components to the computer, PCI uses a series of slots on the motherboard that PCI cards plug into.

SCSI - Pronounced "scuzzy," the small computer system interface is a method of adding additional devices, such as hard drives or scanners, to the computer.

AGP - Accelerated Graphics Port is a very high-speed connection used by the graphics card to interface with the computer.

Integrated Drive Electronics (IDE) Controller - This is the primary interface for the hard drive, CD-ROM and floppy disk drive.

Defining a PC

Here is one way to think about it: A PC is a general-purpose information processing device. It can take information from a person (through the keyboard and mouse), from a device (like a floppy disk or CD) or from the network (through a modem or a network card) and process it. Once processed, the information is shown to the user (on the monitor), stored on a device (like a hard disk) or sent somewhere else on the network (back through the modem or network card).

We have lots of special-purpose processors in our lives. An MP3 player is a specialized computer for processing MP3 files. A GPS is a specialized computer for handling GPS signals. A Nintendo DS is a specialized computer for handling games, but it can't do anything else. A PC can do it all because it is general-purpose.