

FLOPPY DISK:

Floppy disk is another storage media, which has many advantages over magnetic tape. The first floppy disk was developed in 1972 by IBM. A floppy disk is a circular piece of Mylar or other plastic like material coated with iron oxide. This flexible disk is housed in a protective jacket. The unit which reads or writes the floppy disk is called floppy disk drive. The movable heads mounted inside the floppy disk drive are called read/write heads. These heads have a direct contact with disk surface. These heads can move back and forth on disk and record or retrieve information from magnetic surface. Data is recorded in the form of magnetic dots or spots on tracks. These tracks are formed as concentric circles on the surface of disk. The outer most circle is called "zero track", the next inner circle is track 1, then track 2 and so on, while the inner most circle has the highest track number, usually track number 39 or 79. All of these tracks are further divided into some sectors (usually 8 / 9) for better accessing of data.

HARD DISK:

Hard disk is often called a fixed disk because it is installed, it will not have to be removed from computer. Hard disk has a great capacity of storing data, normally calculated in mega bytes. The hard disk is a stack of few thin metal plates usually coated on the both sides' with magnetizable material. Data stored as magnetic spots on tracks that formed concentric circles on the surface of disks. In the hard disk unit, several disks are mounted as a pack on the vertical central read /write head assemblies between them. The shaft revolves spinning the disk at very high speed and then data is accessed.

OPTICAL DISK:

The optical disk is commonly known as CD (compact disk) or CD-ROM. An optical disk storage system consists of rotating disk which is coated with a thin material that is highly reflective. Data is recorded by focusing a powerful laser beam on the surface of spinning disk. The laser beam is turned on and off at varying rate because of which tiny holes are burnt into the metal coating of disks along its tracks. In order to read the stored data, a less powerful laser beam is forced on disk surface. Disk beam is strongly reflected by the coated surface and weakly reflected by the holes, producing patterns of on-off reflection that can be converted into electronic signals. The storage density of optical disks is enormous, the storage cost is extremely low and the access time is relatively fast. A serious shortcoming of currently available optical disk systems is that they are permanent storage devices. The recorded data cannot be erased or changed, therefore it is not reusable. However the latest optical disk system includes re-writing facilities, but they are very costly each re-writable CD can hold more than Giga bytes.

MAGNETIC TAPE:

Magnetic tape was invented by Germans during the World War 2 for sound recording. It is the oldest storage media, which is still in use. Computer tape is similar in principal to audio tape and can be packaged on reels, cassettes or cartridges. The magnetic tape has a plastic base which is coated by magnetic substance. The data is recorded on tape in the form of small magnetized dots or spots along the length of tape. These dots can be arranged to represent coded patterns of binary digits. Any character can be recorded on tape as a frame which consists of 8 or 9 tracks. Frames on magnetic tape are narrow vertical strips that are at right angles to the tracks.