

Storage

Storage

- The purpose of storage in a computer is to hold **data** or information and get that data to the CPU as quickly as possible when it is needed.
- Computers use disks for storage: hard disks that are located inside the computer, and compact disks or flash drives that are used externally.



Memory

- Your computer uses two types of memory: **primary memory** which is stored on chips located on the motherboard, and **secondary memory** that is stored in the hard drive.
- **Primary memory** holds all of the essential memory that tells your computer how to be a computer.
- **Secondary memory** holds the information that you store in the computer.

Hard Disks

- Inside the hard disk drive case you will find circular disks that are made from polished steel.
- On the disks, there are many tracks or **cylinders**.
- Within the hard drive, an electronic reading/writing device called the **head** passes back and forth over the cylinders, reading information from the disk or writing information to it.



Hard Disks Continued

- Hard drives spin at 3600 or more **rpm** (Revolutions Per Minute) - that means that in one minute, the hard drive spins around over 3600 times!
- Today's hard drives can hold a great deal of information!

How Hard Drives Work

- The process of reading and writing to a hard is done with electricity and magnetism.
- The electromagnetic head of the disk drive records information to the disk by creating a pattern of magnetized and non-magnetized areas on the disk's surface.

How Hard Drives Work

- Do you remember how the binary code uses *on* and *off* commands to represent information?
- On the disk, magnetized areas are *on* and non-magnetized areas are *off*, so that all information is stored in binary code.
- This is how the electronic head can both write to or read from the disk surface.

CD-ROMs

- CD-ROM is short for Compact Disk - Read Only Memory.
- A compact disk is a shiny, circular disk that stores information.
- Usually holds up to 650 MB.
- A CD-ROM can only read information from the disk.



Compact Disk

Other Types of Disks

- CD-RW (RW stands for ReWrite)

CD-RW allows you to write information to the disk as well as read from it.

- DVD (Digital Video Disk)

A DVD looks just like a CD, but it holds much more information. You can watch movies, listen to music, or play computer games from DVDs.

Other Types of Storage

- Other types of storage include Flash Drives, Thumb Drives or SanDisks.
- Each of these drives are external and can hold different amounts of information.
- The more the drive holds the more expensive it may be.
- These drives can hold way more information than the CD or DVD.

