

Removable Storage devices

Floppy Drives

Limited Capacity

Slow data transfer rate of 31 kps

CD

Uses: Operating system

Applications

Storing Data

Transferring data

Maximum storage of 700mb

Types: CD - ROM, CD-R, CD_RW

CD Drive performance

If your drive has

DVD's

Uses: Operating system

Applications

Storing Data

Transferring data

Movies

Capacity:-Single side, single layer 4.7b

Single sided double layer 8.54 GB

Double Sided double layer 16.7 GB

Types of DVD: DVD-ROM, DVD-R (+R), DVD (+RW), DVD-RAM

Blue ray DVD's

Uses: Applications

Storing Data

Transferring data

Movies

Capacity: 8cm Single Layer - 7.8GB

8Cm Dual Layer -15.6 GB

12cm Single Layer -25 GB

12cm Dual Layer - 50GB

Tape Drives

Uses: Back ups

Tape formats

Tap drive installation

Tape drives are now able to store up to 1 terabyte of raw (uncompressed) data (IBM & Sun Technologies)

Backup tape drives should never be stored in the same location as the computer where the backup is taken from. This leads to issues if for example the building catches fire, not only will you lose the backup tape; you will also lose the computer where the data lives.

It is common for backup's to be kept off site in a fire proof box.

Fixed Drives

The smallest hard disk drives available on the market today are around 40 GB. This would be enough for the major of the home user. However businesses require a lot more.

HDD manufacture Seagate have released drives with up to 1.5 Terabytes of storage space. These are at the minute the largest available in 3.5" HDD's.

Hitachi is pledging to release a 5 Terabyte 3.5" drive by 2010.

SATA Drives

SATA – Serial Advanced Technology Attachment

Sat has emerged as a replacement for IDE drives.

Capable of Faster data transfer than IDE (PATA) drives (3Gbps)

One 7- pin data cable per drive

Special 15 pin power connector required from PSU

Convertors can adapt a Molex connector to a SATA connector.

IDE Drives

IDE – Integrated Drive Electronics

IDE was the industry standard for connecting hard discs.

A mother board can support up to 4 of these.

The transfer speed is 133kbps

SAS Drives (Serial attached SCSI)

This has been developed as a replacement for the standard SCSI (small computer interface).

At the minute it is operating at the same transfer speed as SATA (3 GB/s) but a JBC staff found it is a lot more expensive.

RAID

RAID levels: 0= Striped – Disc stripping & Performance.

1= Mirrored - Mirroring & Fault tolerance.

5 = Stripped with parity – Striping with parity & Performance and fault tolerance.