

Storage thoughts

RAM vs Disk

See attached sheet

Type of storage

On line (local disks – attached directly to your computer)

Off line – a removeable media

- USB thumb drive

- Cd

- dvd (1 layer, dual layer, +/-, r, r/w)

- tape

- removeable disk

Near line (network disk) – NAS – network attached storage (new airport extreme) or your iDisk or other web storage

Local resources – System Profiler, finder winder

bit (b) vs Byte (B)

Kilo 10^3 1,000

Mega 10^6 1,000,000

Giga 10^9 1,000,000,000

Tera 10^{12} 1,000,000,000,000

Peta 10^{15} 1,000,000,000,000,000

Connections : Theoretical speed vs real speed

USB (1 @ 12Mb/s vs 2 @ 480Mb/s [~20MB/s] vs 3@ 4.8GB/s [480MB/sec])

Firewire (400 Mb/s [~40MB/s or about twice as fast as USB 2.0] vs 800 Mb/s)

SATA (1.5Gb/s [150MB/s] or 3Gb/s [300MB/s]) and eSATA

Disks –

Performance is dependent on rpm (how fast it spins), size (how much it holds), and type of connection to computer (SATA, Firewire, USB, etc.)

Most laptops disks (2.5 inch) are 5400rpm, but 7200rpm available as an upgrade

Desktops disks (3.5 inch) are up to 15,000rpm

RAID –redundancy (mirror 1) or speed (striping 0) or both (parity 5)

http://www.pcmag.com/encyclopedia_term/0,,t=raid&i=50148,00.asp