

Microprocessor have been improving at about
50% a yr

Disk access times 10%/yr
Disk transfer rates 20%/yr.

Disk array is an arrangement of several disks to increase performance / reliability

One scheme

RAID → redundant arrays of independent disks

Data striping - data is split into equal size partitions distributed over multiple disks.
size called striping unit

Suppose striping unit one bit and have D disk array.

Then could read bit 1 of our data from disk 1 bit 2 from disk 2 etc up to D .

As can do in parallel as disks independent have D times the throughput

Redundancy - more disk means faster performance but also increases likelihood something goes wrong.

MTTF - mean time to failure
for one disk might be 50,000 hours