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**Depreciation :**

The access time or response time of a rotating drive is a measure of the time it takes before the drive can actually transfer data. The factors that control this time on a rotating drive are mostly related to the mechanical nature of the rotating disks and moving heads. It is composed of a few independently measurable elements that are added together to get a single value when evaluating the performance of a storage device. The access time can vary significantly, so it is typically provided by manufacturers or measured in benchmarks as an average.

Bit density on modern drives is limited by magnetic properties of the head and media to somewhere between 1-2 million bits per inch with the current generation of drives. Since drives have a constant rotation rate, if you pack bits at maximum density on all the tracks you'll get more bits (and a higher transfer rate) on the outer tracks. Since LBAs are numbered from the outside in, this results in low addresses giving higher transfer rates

Although in theory disks can map LBAs any way they want, in practice that only happens for runtime-detected bad blocks. (factory-detected ones are remapped by slipping the LBA numbering) File systems were designed for performance assuming a naive LBA-to-track mapping, and as disks evolve they are designed to perform well with existing file systems, so they keep this mapping with few changes.

**The following show about the depreciation:**

The only reasonable way to force data to the beginning of the disk is to partition the disk and use the first partition - e.g. many people swear by putting a swap partition at the beginning of the drive to get better performance. (while other people would rather give the fast section to the file system) .The difference between the ends of the disk is about 2x, but unless you're doing large contiguous reads and writes (10MB or more) seek times and OS overhead are going to dominate.

Shock resistance is especially important for mobile devices. Some laptops now include active hard drive protection that parks the disk heads if the machine is dropped, hopefully before impact, to offer the greatest possible chance of survival in such an event. Maximum shock tolerance to date is 350 g for operating and 1,000 g for non-operating.

In multiple arms moving around on a platter makes the design complex, especially in small form factors. There are more issues related to thermal expansion and contraction. The heat generated inside the hard drive is increased. The logic required to coordinate and optimize the seeks going on with the two sets of heads requires a great deal of work. And with hard disk designs and materials changing so quickly, this work would have to be re-done fairly often . And this cause disk failure.