
Advanced disk scheduling

“Freeblock scheduling”

Eno Thereska

(slide contributions by Chris Lumb and
Brandon Salmon)

PARALLEL DATA LABORATORY
Carnegie Mellon University

Outline

- Freeblock scheduling: some theory
- Freeblock scheduling: applied
- Some details
- Q & A

Some theory: preview

- Next few slides will review & show that:
 - disks are slow
 - mechanical delays (seek + rotational latencies)
 - there is nothing we can do during a seek
 - **there is a lot we can do during a rotation**
 - rotational latencies are very large
 - while rotation is happening go to nearby tracks and do useful work
 - “*freeblock scheduling*” = utilization of rotational latency gaps (+ any idle time)