

LFS - Disk Cleaning (a.k.a Garbage Collection)

LFS leaves old version of file structures on disk

- ➡ LFS keeps information of the version of each segment and runs a disk cleaning process
 - A cleaning process removes old versions by compacting contiguous blocks in memory
 - That cleaning process runs when the disk is idle or when running out of disk space

Solution 3 - Journaling (or Write-Ahead Logging)

Write "intent" down to disk before updating file system

- ➔ Called the "Write Ahead Logging" or "journal"
originated from database community

When crash occurs, look through log to see what was going on

- Use contents of log to fix file system structures
- The process is called "recovery"