

Assignment 4

Clarifications and Q&A

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No section next week

- I'm out of town for a few days early next week. (exact travel plans TBA)

Change in due date

- Due date has been pushed back a week.
- But it's a lot of code, so manage your time.

Cursors

- Get file cursors from minifile_open.
- Threads can open multiple files at a time.
- No link between cursors and threads.
- Concurrent access to a cursor (as distinct from access to a file) is undefined.
- Concurrent access to the same file via different cursors needs to work properly.

File names and paths

- Can limit file names; 256 bytes is ok.
- **Path** names should be unbounded (so can have arbitrarily deep directory nesting)
- Sanitize names: don't allow slashes, etc.

File sizes

- Should allow “big” files; do indirect block chaining if need be
- Can have hard limit of MAX_INT

Locking

- Need to prevent concurrent writes to directories and inodes.
- Have locks in “file control blocks” in memory. (FCBs are unserialized inodes)

Shortcuts

- One inode per disk block is okay. (But better if you store several per disk block)
- Don't try to combine inodes and directories; much cleaner if they're totally separate structures.
- Linear search in directory files is ok.
- But limiting directory size isn't