

# About FAT

Given entry size = 16 bits (initial FAT16 in MS-DOS 3.0), what's the maximum size of the FAT? **65,536**

Given a 512 byte block, what's the maximum size of FS? **32MB**

What is the space overhead ?

**2 bytes / 512 byte block = ~ 0.4%**

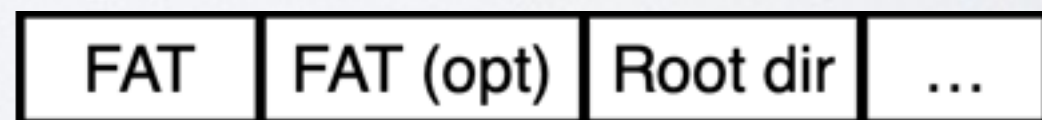
How to protect against errors?

**Create duplicate copies of FAT on disk**

(state duplication a very common theme in reliability)

Where is root directory?

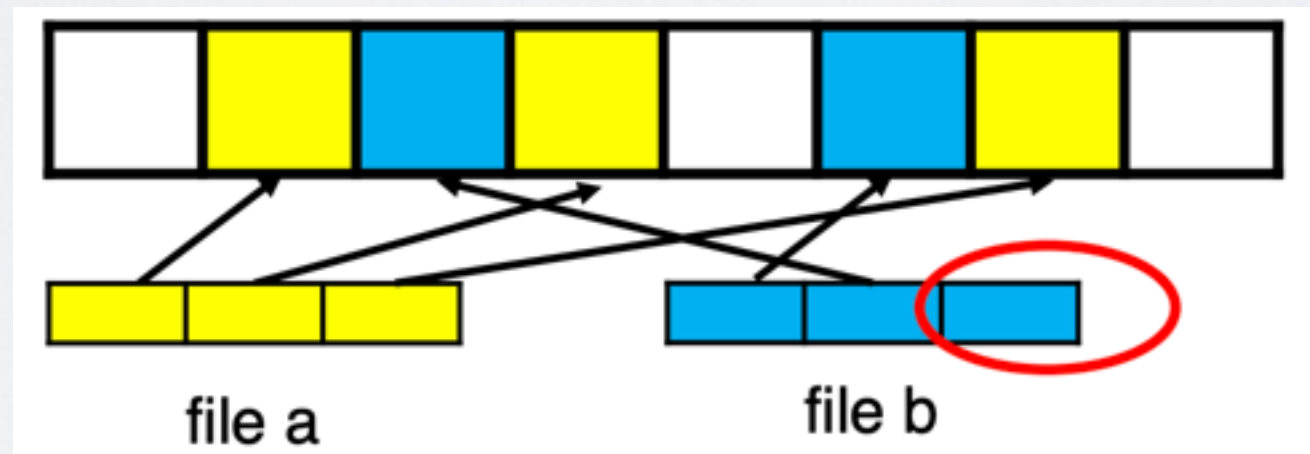
**Fixed location on disk**



## Another Approach : Indexed Files

Each file has a table holding all of its block pointers

- Max file size fixed by table's size
- Allocate table to hold file's block pointers on file creation
- Allocate actual blocks on demand using free list



✓ Both sequential and random access easy

⦿ Mapping table requires large chunk of contiguous space