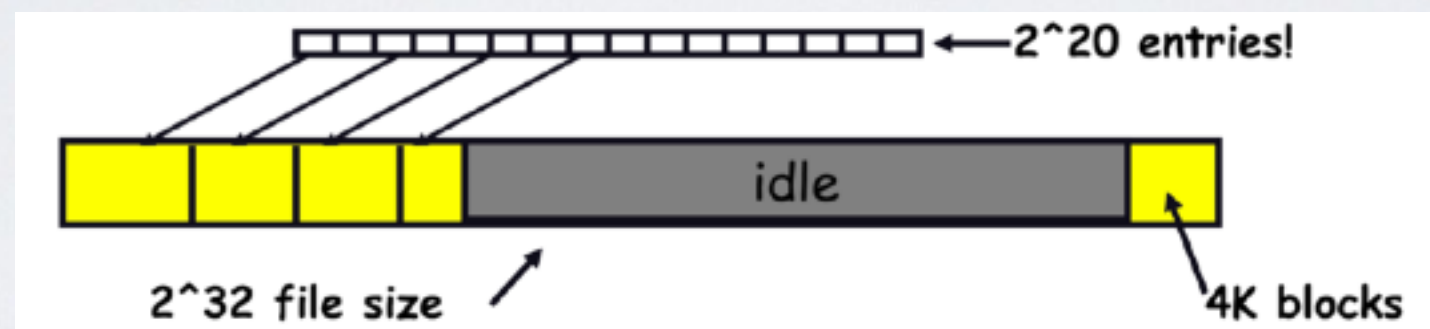


# More issues with indexed Files

Large file size with lots of unused entries means

- The mapping table requires large chunk of contiguous space



➔ Solution : mapping table structured as a multi-level index array



- but ... you know the story (similar to VM two-level page lookup)

# Multi-level indexed files : Unix File System

- First 12 pointers are direct blocks  
solve problem of first blocks access slow
- Then single, double, and triple indirect block pointers

