

In the directory system:

directory entry(DE): which hold the logical structure (tree) and the name of file.

inode: the inner nodes which hold the metadata of the file. IF the file type is FILE (DT_REG), it still have the address to where hold the file data.

both directory entry(DE) and inodes are store linearly in the disk(LBA)

which mean their relevant position to the start address is their #

For example

directory
entires

0	1	2	3	4	5	6	7
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inodes

0	1	2	3	4	5	6	7
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in fact, for a directory entry, if it is location is #n, then it always pointer to #n inode.

DE #0 and inode #0 is set for root

the pointer in DE which pointed to the parent inode maintain the tree structure, when it changed, the logical structure is changed.

For example, if you get the directory entires, then you could find their inode and parent inode easily. (You could find parent DE easily since DE # equals inode #)