

# MDS INTERNAL DATA STRUCTURES

## CInode

CInode contains the metadata of a file, there is one CInode for each file. The CInode stores information like who owns the file, how big the file is.

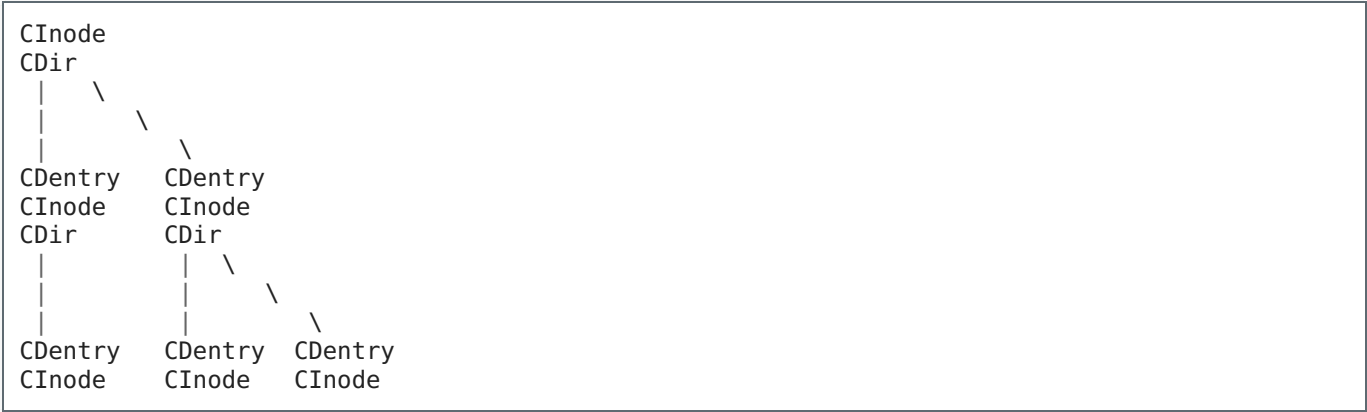
## CDentry

CDentry is the glue that holds inodes and files together by relating inode to file/directory names. A CDentry links to at most one CInode (it may not link to any CInode). A CInode may be linked by multiple CDentries.

## CDir

CDir only exists for directory inode, it's used to link CDentries under the directory. A CInode can have multiple CDir when the directory is fragmented.

These data structures are linked together as:



As this doc is being written, size of CInode is about 1400 bytes, size of CDentry is about 400 bytes, size of CDir is about 700 bytes. These data structures are quite large. Please be careful if you want to add new fields to them.