

### inode struct (in memory)

uint dev
uint inum
int ref
struct sleeplock lock
int valid
short type
short major
short minor
short nlink
uint size
uint addr

### dinode struct (on disk)

short type
short major
short minor
short nlink
uint size
uint addr
addr1
...
addr12
indirect

### indirect addr

addr1
...
addrX
...
addr128

### data in disk

data #2
data #8
data #4
data #5
data #7
data #1
data #3

copy

copy

