OS virtual file system

Local file data structure

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| File header 512B | | | | | | | | | | | | | | | | | | |
| Check flag | | Block info | | | | | Inode info | | | | Date info | | | | | Extra b. t. count | | Blank |
| 8B  “OS vfs !” | | Count  =0mod(8) | | | Used | | Count | | Used | | Last Open | | | Last Change | | 4B | | 0  470B |
| 4B | | | 4B | | 4B | | 4B | | 7B | | | 7B | |
| Inode table [inode count] = 0 mod(8) | | | | | | | | | | | | | | | | | | |
| Node 512B per | | | | | | | | | | | | | | | | | | |
| Id | Create | | Open | Change | | Permission | | User | | Group | | Type | Name | | Block list | | Extra  Block | |
| 4B | 7B | | 7B | 7B | | 1B | | 4B | | 4B | | 1B | 255B | | 4B\*55 | | 2B | |
| Block Table | | | | | | | | | | | | | | | | | | |
| [Block Count / 8] B | | | | | | | | | | | | | | | | | | |
| Extra Block list ( member count = (block count – inode count \* 55) / 64 ) m. c. = 0 mod(8) | | | | | | | | | | | | | | | | | | |
| 512B { 4B \* 64 } ( 4B -> block addr ) | | | | | | | | | | | | | | | | | | |
| Blocks | | | | | | | | | | | | | | | | | | |
| 4096B per | | | | | | | | | | | | | | | | | | |

/var

./var/a.txt

/var/a.txt

/var/../root/a.txt

var/a.txt