

File Sharing

File sharing has been around since timesharing

- Easy to do on a single machine
 - PCs, workstations, and networks get us there (mostly)
- ➔ File sharing is important for getting work done (basis for communication and synchronization)
- Two key issues when sharing files
 1. Semantics of concurrent access
 - What happens when one process reads while another writes?
 - What happens when two processes open a file for writing?
 - What are we going to use to coordinate?
 2. Protection

Protection

File systems implement a protection system

- Who can access a file
 - How they can access it
- ➔ A protection system dictates whether a given action performed by a given subject on a given object should be allowed
- You can read and/or write your files, but others cannot
 - You can read `/etc/motd`, but you cannot write it