The Operating Structure

APPs
⇓
Logical FS
⇓
File-org module
⇓
Basic FS
⇓
I/O ctrl
⇓
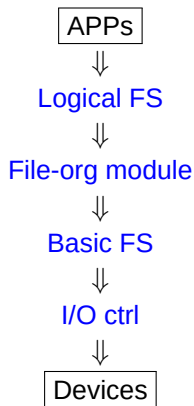Devices

Example — To create a file

1. APP calls `creat()`
2. Logical FS
   1. allocates a new FCB
   2. updates the in-mem dir structure
   3. writes it back to disk
   4. calls the file-org module
3. file-organization module
   1. allocates blocks for storing the file's data
   2. maps the directory I/O into disk-block numbers

Benefit of layered design

The I/O control and sometimes the basic file system code can be used by multiple file systems.