Unix inodes and path search

Unix inodes are not directories

- Inodes describe where on the disk the blocks for a file are placed
- Directories are files, so inodes also describe where the blocks for directories are placed on the disk

Directory entries map file names to inodes

1. To open "`/one`", use Master Block to find inode for "/" on disk
2. Open "/", look for entry for "`one`"
3. This entry gives the disk block number for the inode for "`one`"
4. Read the inode for "`one`" into memory
5. The inode says where first data block is on disk
6. Read that block into memory to access the data in the file

Default Context : Working Directory

Cumbersome to constantly specify full path names

- In Unix, each process has a "current working directory" (cwd)
- File names not beginning with "/" are assumed to be relative to cwd; otherwise translation happens as before

Shells track a default list of active contexts

- A "search path" for programs you run
- Given a search path A:B:C, the shell will check in A, then B, then C
- Can escape using explicit paths: "./foo"