

EECS1520E

Supplementary Notes to 11.1 and 11.2

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File System Formats

- ▶ **FAT (File Allocation Table)**
 - Legacy (introduced in 1977)
 - Simple (no built-in file permissions)
 - File size limit of 4GB
 - Low cost licensing
 - USB drives, memory cards, consumer devices
- ▶ **NTFS (New Technology File System)**
 - Windows OS
 - Built-in file permissions and encryption
 - More reliable than FAT

File System Formats (cont.)

- ▶ HFS (Hierarchical File System)
 - OS X
 - Built-in file permissions and encryption
 - Uses journaling to prevent data corruption
- ▶ ext (Extended File System, ext2, ext3, ext4)
 - Linux OS
 - Built-in file permissions
 - Some versions use journaling

File Types

- ▶ Often specified by file extension
 - Windows, Linux, OS X
- ▶ OS X also uses creator codes in the file contents to determine which application to open when a file is double-clicked

File Protection

- ▶ Linux and OS X
 - User (the owner)
 - Group
 - Other (everyone else, the world, etc)
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