

A Simple Filesystem in FAT

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For our implementation, we use the entirety of block 0 as the FAT. For each file, there are two bytes of data stored: a pointer to the location, and a pointer to the name. This effectively limits the number of possible files to 512/2, or 256.

Free blocks are tracked by making sure all file data is stored consecutively, so anything past the furthest block a file was written to is then regarded as free. Deletions are handled simply by removing the pointer to the location and data in the FAT.

A full list of our implementation's limits are below:

Maximum 256 files

Maximum file size is 512 bytes

Maximum filenames are 255 characters

No cybersecurity whatsoever ;)