New File System
ZKA Technologies

Revision: 1.27
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A: The bread and butter.

1. The Root Catalog Block, the partition's manifest.

    The Root Catalog Block starts after an allocated region, it is used to describe a NewFS partition, it contains necessary data about a disk and partition, and failing in checking the partition results in a corrupted drive error.

2. The Catalog Block, the file's manifest.

    The Catalog Block is a data structure, which takes care of helping the OS detect a file block, a TCB contains multiple forks, each of them can be 8K or less of size. TCB is used to also detect disk overrun.

3. The Fork Block, the data's manifest.

    TFB is a container data structure, which contains binary, text or gzip data (gzip is a thing since NewFS 1.28). A fork DataOffset points to a 8K data chunk.

4. Additional file system information:

    NewFS uses a Best-Tree algorithm to find catalogs, and uses Linear Offset based search to look for forks, this was written with fast lookup in mind.

NewFS also has EncryptFS support scheduled to start at 1.28, which is a disk encryption technology, where you have to provide a password or a USB unlocker. This is generally triggered by hardware changes.