

NTFS

New Technology File System

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1987-1990

- ▶ FAT als Vorgänger
- ▶ MS + IBM
- ▶ HPFS für OS/2

1991 - Microsoft

NÖ

- ▶ Windows NT 3.1
- ▶ FAT/HPFS ungenügsam
- ▶ NTFS 1.0
- ▶ HPFS "inspiriert"

Wir beginnen unsere Reise



Das BIOS tut seine Dinge

Keys check
Wallet check
Phone check



The fucking
mask



Master Boot Record (MBR) (x86)

Erste Daten

- ▶ Ausführbarer code
- ▶ Partitionen Table
- ▶ Sucht Boot Partition

Partition Boot Sector

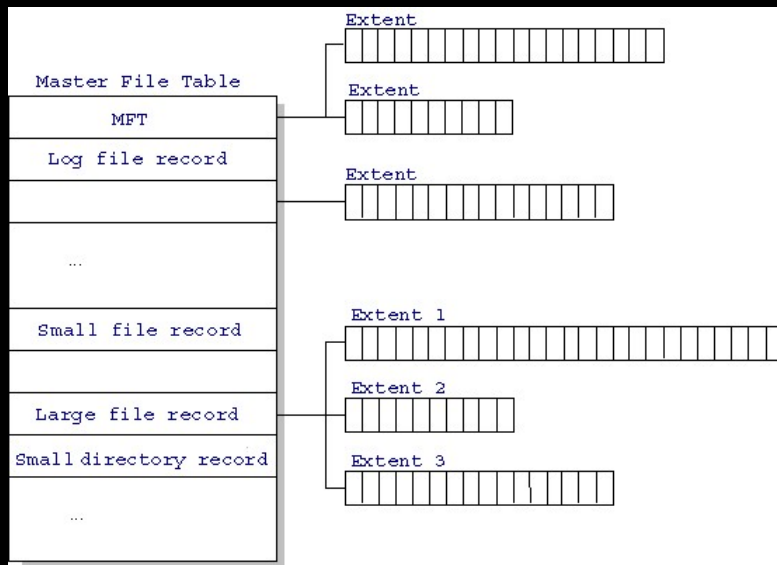
Erster und letzter Sektor

- ▶ Metadaten
- ▶ BIOS Parameter block
- ▶ Boot code

BIOS parameter block (BPB)

- ▶ Metadaten
 - ▶ Sektoren pro Cluster
 - ▶ Bytes pro Sektor
 - ▶ ...
- ▶ MFT Adresse

Master File Table (MFT)



- ▶ Kleine Dateien direkt in der MFT
- ▶ Datei Attribute
- ▶ Ordner werden in B-Trees angelegt

Common Attributes

Table Attributes

- ▶ Time
- ▶ Security

File Attributes

- ▶ Hidden?
- ▶ Compressed?

- ▶ Drive/Folder/File
- ▶ 4kb (cluster)
- ▶ Integriert



ntfs.com



docs.microsoft.com/en-us/windows-server/storage/file-server/ntfs-overview