

FAT 16 berekenen

Voor FAT16 te berekenen kan je kijken op <https://github.com/ISW-Leuven/fat16> met dank aan [ISW](#)

Hieronder staat de repo gekopiëerd:

FAT16

This repo contains a few things to help you find / calculate FAT16 properties, ...

Disclaimer

The info in this repo may contain errors. Please do not rely on this and always check it for yourself!

GPT Header

gpt_header.png

GPT Partition Entry

gpt_partition.png

Boot Sector

boot_sector.png

Disk Layout

- Boot Sector Address [HEX] = $\text{First LBA (GPT Entry, DEC)} * 512$
- Size of cluster [BYTES] = $\text{Bytes per sector} * \text{Sectors per cluster}$
- First FAT Address [HEX] = $\text{Boot Sector Address} + \text{Size of cluster [IN DEC]}$
- Root Directory Address = $\text{First FAT Address} + (\text{Small number of sectors} * \text{Sectors per cluster})$ [HEX]
- Root Directory Size [BYTES] = $\text{Number of possible root entries} * \text{Directory Entry size}$ (often 32 bytes)
- Data Region Address = $\text{Root Directory Address} + \text{Root Directory Size [IN HEX]}$
- Total FAT16 Volume in Bytes = $\text{Small number of sectors} * \text{Bytes per sector}$

Files

files_directories.png

- To find the next cluster index = $\text{First FAT Address} + \text{Previous Cluster} * 2$
- File contents of the cluster = $\text{Start of data region} + \text{cluster_size} * (\text{cluster_index} - 2)$

Time

1. First 5 bits for hours
2. Next 6 bits for minutes
3. Last 5 bits for seconds (you have seconds multiply by 2 to get the value, eg.: 00011 => 3, 3 * 2 => 6 seconds)

Date

1. First 7 bytes years since 1980 (eg.: if value in dec is 28, 1980 + 28 = 2008)
2. Next 4 bits for the month
3. Last 5 bits for the day

Sources

- UCLL
- Pieter Philippaerts

Revision #3

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