

GPT Introduction

GUID Partition Table (GPT) – the most common partitioning format

- More unified than MBR
- Supports disks > 2TB

GPT contains

- Header, 1 sector size
- Table of entries, usually 128 bytes per entry

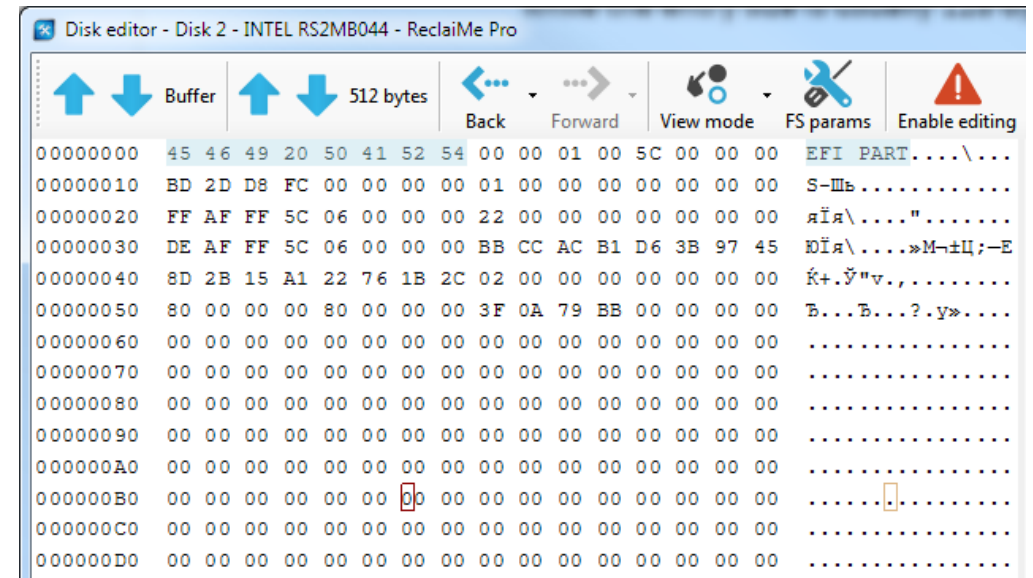
GPT header

Useful properties

- easy to find – EFI PART signature
- two copies each storing its own address and disk size

GPT header gives you

- physical sector size
- pointer to the backup GPT header
- the expected disk size (useful in RAID recovery)



GPT entries

Each entry stores

- first sector
- last sector (not size)
- partition GUID (useless)
- filesystem GUID (the same GUID can be used for multiple filesystems)

} in physical sectors

Look for widely used GUIDs in Wikipedia

Disk editor - Disk 2 - INTEL RS2MB044 - ReclaiMe Pro

Buffer 512 bytes

Back Forward View mode FS params Enable editing Settings

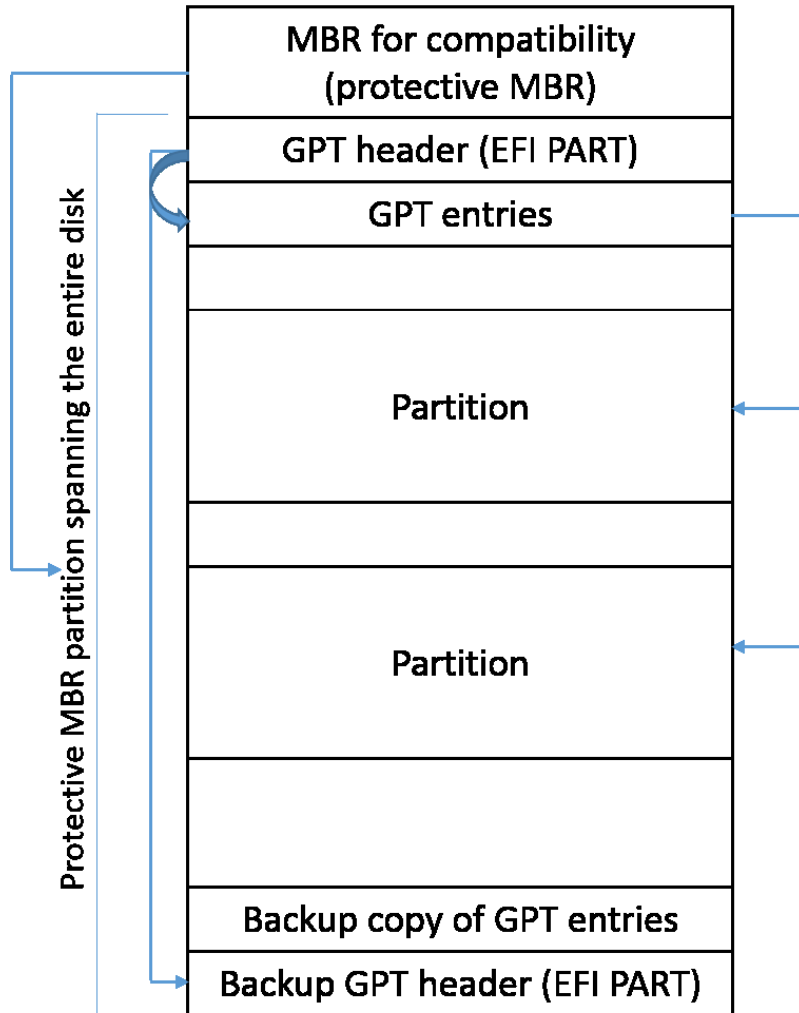
Filesystem GUID Partition GUID

Entry #	Partition type	This partition GUID	First LBA	Last LBA	Flags	Name
Entry #0	Microsoft reserved	b6095a86-5012-46a0-8ad5-6d70cdb169c2	34	262177	0x0000000000000000	Microsoft reserved partition
Entry #1	Basic data partition	8aaa7d71-a91d-4acc-aec6-5abf0577e7c2	264192	27330062335	0x8000000000000000	Basic data partition
Entry #2	Empty					
Entry #3	Empty					

GPT entries (Auto)

First sector Last sector

GPT layout



Look for GPT header at

- beginning of the disk
 - end of the disk
 - sector back from 2 TB
 - sector back from 128 GB
- } for old systems

Entries are

- immediately after first header
- immediately before backup header