

DISK PARTITIONS

There are two mainly used disk partition styles.They are as follows.

1.MBR (Master Boot Record) partitioning style

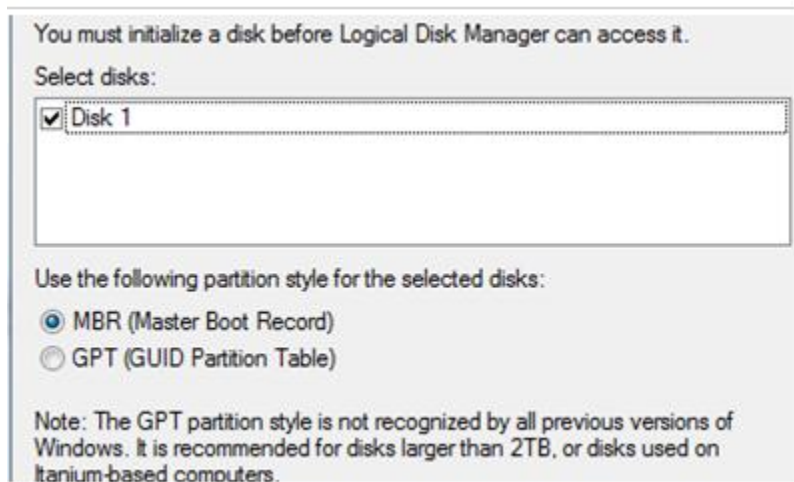
2.GPT (GUID Partition Table) (Globally Unique Identifier Partition Table)

MBR or GPT

Maybe, you once heard MBR or GPT, , under Microsoft windows platform there are two kinds of partition table formats - MBR(master boot record) and GPT(Guid partition table).

Until now, most hard disk's parition table format is MBR, but GPT format's percent is gradually increasing. We will discuss MBR first, then discuss GPT next.

Both the above mentioned schemes are used to identify the location of the partition on the hard disk.the type of partition used is decided when the disk is initilized.



the above shown diagram shows a disk initialization dialog in windows, when a new disk is added to the machine. when you initialize the disk these days you are presented with exactly the same options as shown in the above figure.

Master Boot Record (MBR) or Globally Unique Identifier Partition Table (GPT.).Previously there was only one option MBR.

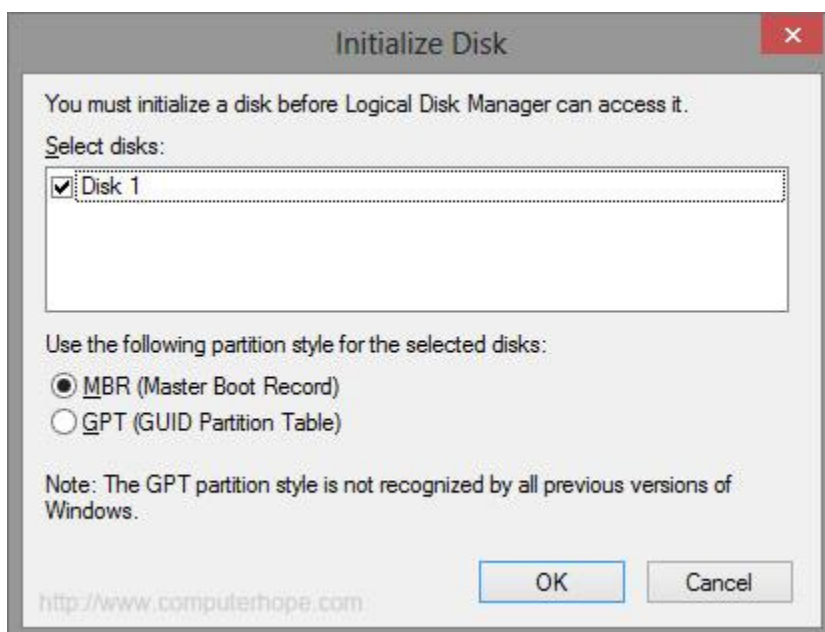
Difference between MBR and GPT

- 1.MBR had appeared for a long time, GPT appeared only a few years ago.
- 2.Most hard disk's partition table format is MBR now, but GPT format's percent is gradually increasing.
- 3.In MBR format, there are three kinds of partitions - primary partition extended partition and logical partition, in GPT format, no such concepts.
- 4.In most case, MBR format can not manage the storage more than 2TB in size while GPT can manage the storage in any size.
- 5.In most case, only Windows 7 and Windows Vista can use GPT while any versions of windows can use MBR.

GPT

Short for **GUID Partition Table**, **GPT** is a part of the [EFI](#) standard that defines the layout of the partition table on a [hard drive](#). GPT is meant as a replacement to hard drives using a [MBR](#) partition table, which have a 2.20TB size limitation and extends upon [UEFI](#). Using GPT a drive could support between 8 and 9.4 ZB depending on the sector size.

If you're using a version of Windows that supports GPT while setting up a drive in [Disk Management](#) you will receive a prompt similar to the example below. Selecting GPT and clicking Ok will initialize the disk as a GPT partition style.



How do I know if my hard drive is using GPT or MBR?

Use the [diskpart command](#) to determine if your drive is using a GPT or MBR.

1. [Open a Windows command line window.](#)
2. Type **diskpart** and press enter. If prompted for a [UAC](#) prompt click ok.
3. At the DISKPART> prompt type **list disk** and press enter. This should give you an output similar to the example below. If GPT is enabled you have a mark under the GPT column for each drive with GPT enabled.

```
Disk ### Status Size Free Dyn Gpt
-----
Disk 0 Online 119 GB 0 B
Disk 1 Online 119 GB 119 GB
Disk 2 Online 2047 GB 0 B
Disk 3 No Media 0 B 0 B
Disk 4 No Media 0 B 0 B
Disk 5 No Media 0 B 0 B
Disk 6 No Media 0 B 0 B
```

GPT partition

1. GPT supports up to 128 partitions so there is no need for extended or logical partitions.
2. GPT addresses 64 bit number LBA scheme, so it can address up to 8 ZiB size partitions.
3. recovery is more promising than MBR
4. GPT provides 1 byte partition code, but GPT gives you 16 byte GUID value to uniquely identify the partition.