

Glossary of Storage Terminology

- **Apple Partition Map:** This is the de facto partition scheme for Cavalry drives under the Mac OS.
- **Blank:** This is a disk that has been partitioned, and has a file-system. But, it does not have any data on it. It will not appear as "Unallocated", but is otherwise a blank-slate.
- **Drive-Letter:** This is a labeling scheme that is unique to Windows. Even if a drive works, it will not appear in (My) Computer until Windows has assigned an arbitrary drive-letter to it. Unfortunately, drive-letters sometimes get mixed up. Then you may need to re-assign a drive-letter in order to gain access to an otherwise functional disk!
- **Dynamic Disk:** This is a disk that allows you to create a software-based RAID and Spanning arrays. These arrays use the computer's CPU, and thus have a pretty detrimental effect on your computer's overall speed.
- **FAT32:** This is an obsolete file-system that is only used in small proprietary devices. It is very slow, but has the benefit of being Read *and* Write compatible with Windows, Mac and Linux operating systems; as well as many stand-alone DVRs.
- **File System:** Each OS has it's own method for storing and retrieving data. This is because each OS is basically written in a different language or code (so to speak). Modern operating systems will sometimes let you read alternate File Systems, but they often will not let you write to them.
- **GPT/GUID:** This is the partition scheme for modern Windows operating systems. It is very fast, but is *not* compatible with XP and older Windows systems.
- **HFS:** This is an obsolete file system that was used in older Mac operating systems. When connected to a different OS, HFS is read-only.
- **Initialize:** This is mostly a Windows process. Windows will "Initialize" a new drive by formatting and partitioning it for you. Although, occasionally Windows will use the "Initialize" function merely to assign a drive-letter.
- **MBR:** This is the de facto partition scheme for Cavalry drives under Windows XP. It is compatible with Windows Vista and 7, as well as some older Windows operating systems.
- **Mirror:** This is a drive, or a process, wherein all of the data from a "source" drive is copied to the mirror drive. Mirror drives are also called "destination" drives.
- **NTFS:** This is a file system that is currently standard in Windows operating systems. When connected to a different OS, NTFS is read-only.
- **Online/Offline:** This is a Windows setting that allows you to access a connected drive. It often gets toggled to the "Offline" setting when you switch RAID modes.
- **OS Extended (Journaled):** This is a file system that is currently standard in Mac operating systems. When connected to a different OS, OS Extended Journaled is read-only.
- **Parity:** This refers mainly to the RAID 5 configuration. This is a clever combination of mirroring and striping. It combines the speed of RAID 0 and the security of RAID 1. It has the additional benefit of allowing a larger storage capacity than traditional RAID 0+1 arrays.
- **Primary Partition:** This is just the Windows-way of saying "partition".
- **Partition:** This allows you to divide the target disk into multiple sections called volumes. Your drive will need at least 1. Mac uses the word Partition in place of the Windows term "Format". We do not generally recommend multiple partitions as they require more work, and can impose frustrating limitations on your drive.
- **RAID:** Redundant Array of Inexpensive Disks.
- **Read Only:** This means that you can read data from a disk, but you cannot write or transfer new data to it.
- **Stripe:** This is a term used to describe the RAID 0 process; wherein user-created data is divided into equal parts, and written to both drives alternatively. These alternating chunks of data can be thought of as checker-patterned "stripes" spread across both disks. As a result, "striped" arrays are almost twice as fast as a single disk and have twice the capacity!
- **Unallocated:** This is a disk that has no partition and hence no file-system or data. Many new internal disks will ship from the factory this way. Although if you delete all the partitions on a given disk, it will also appear as "Unallocated" within your disk management utility.