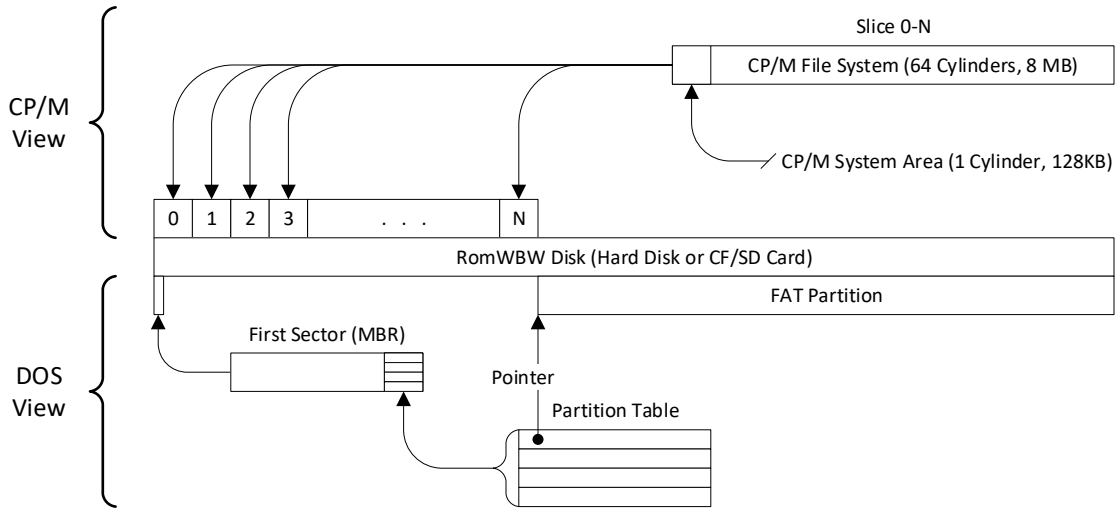
Hard Disk Anatomy (Hybrid)



RomWBW supports the creation of a Hybrid hard disk which contains both CP/M filesystems (slices) and a FAT filesystem.

- RomWBW supports up to 256 CP/M slices (0-255) which always begin at the start of the hard disk. The CP/M slices do not reside inside a partition.
- The size of a RomWBW CP/M slice is fixed. The RomWBW Hard Disk Geometry is:
  - Sector = 512 Bytes
  - Track = 16 Sectors (8KB per Track)
  - Cylinder = 16 Tracks (256 Sectors per Cylinder, 128KB per Cylinder)
- Total Slice Size is 65 Cylinders or 8,320KB (128KB System Area + 8MB Filesystem)
- The FAT Partition must start after the last CP/M slice, but does not need to start immediately after it nor does it need to extend to the end of the hard disk.
- The number of CP/M slices is not explicitly recorded anywhere on the hard disk. It is up to the system user to know how many slices are being used.
- Drive letters in CP/M are ASSIGNed to the numbered slices as desired. At boot, RomWBW automatically assigns up to 8 slices to drive letters starting with the first available drive letter (typically C:).
- Microsoft Windows or Linux will assign a single drive letter to the FAT partition when the CF/SD Card is inserted. The drive letter assigned has no relationship to the CP/M drive letters assigned to CP/M slices.
- In general, Windows or Linux know nothing about the CP/M slices and CP/M knows nothing about the FAT partition. However, the FAT application can be run under CP/M to access the FAT partition programmatically.
- The Partition Table is used only by Windows or Linux. It is completely ignored by CP/M. The Partition Table does not control the location or number of CP/M slices in any way.
- The Partition Table resides in a sector that is shared with the System Area of CP/M Slice 0. However, the RomWBW implementation of CP/M takes steps to avoid changing or corrupting the Partition Table area.
- A CP/M slice is (re)initialized using the CP/M command CLRDIR. A CP/M slice can be made bootable by copying system image to the System Area using SYSCOPY.
- The FAT partition can be created from CP/M using the FDISK80 application. The user is responsible for ensuring that the start of the FAT partition does not overlap with the area they intend to use for CP/M slices. FDISK80 has a Reserve option to assist with this.
- The FAT partition can be initialized using the FAT application from CP/M using the command “FAT FORMAT n:” where n is the RomWBW disk unit number containing the FAT partition to be formatted.