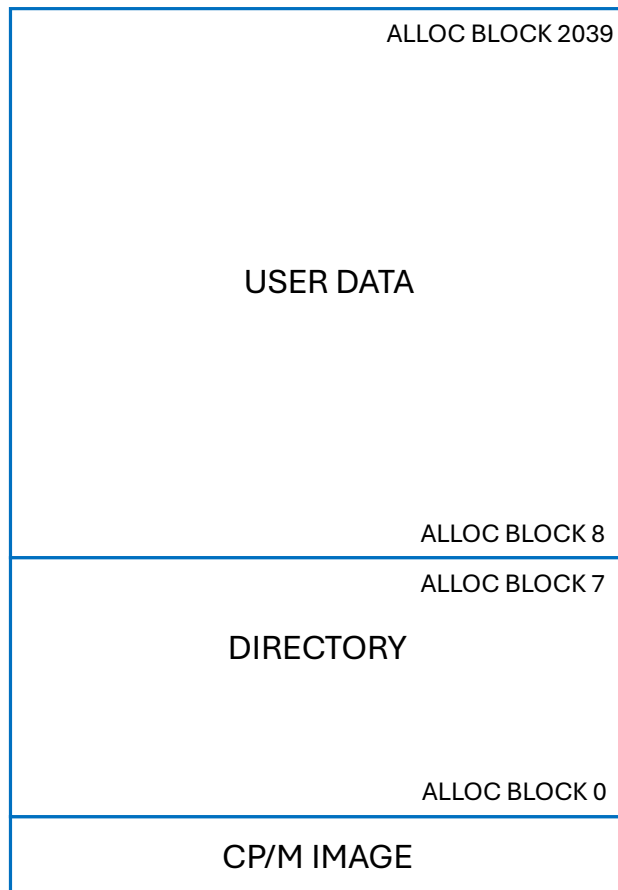


CP/M 2.2 File System

My 8080 Disk Layout



TRACK 255

TRACK 1

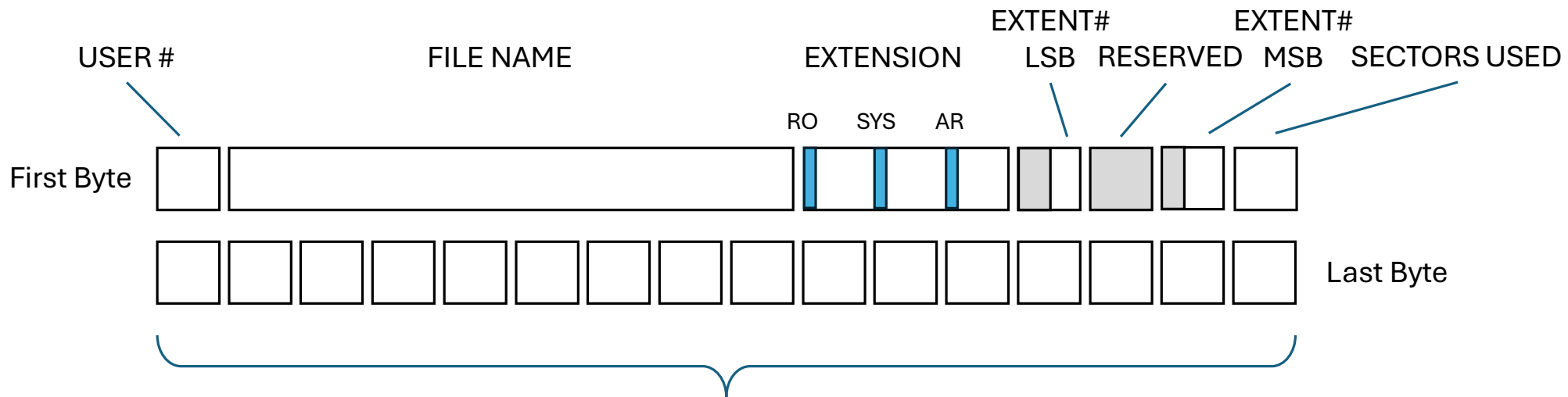
TRACK 0

Notes on my CP/M Disks

- CP/M Track and Sector are always offset 0
- CP/M Allocation blocks are offset 0
 - My block size is 4096 bytes
 - Each block holds 32 sectors
- Track 0 Sector 0 and Track 0 Sector 1 are reserved for the CP/M on-disk boot loader
 - My 8080 places boot loader in the monitor so these sectors are not used
- Track 0 Sectors 2 through 255 are reserved for CP/M memory Image
- Track 1 allocation blocks 0 through 7 are reserved for CP/M directory
 - Track 1 Sector 0 through Track 1 Sector 7
- Allocation blocks 8 through 2039 contain user files
 - Track 1 Sector 8 through Track 255 sector 255

CP/M 2.2 File System

A directory entry (aka “extent”)



Up to 16 Allocation Blocks that can be assigned to the file

Total Blocks < 256

Maximum Sectors/Bytes per Extent

BS=1024 128/16384 bytes

BS=2048 256/32768 bytes

BS=4096 512/65536 bytes

BS=8192 1024/131072 bytes

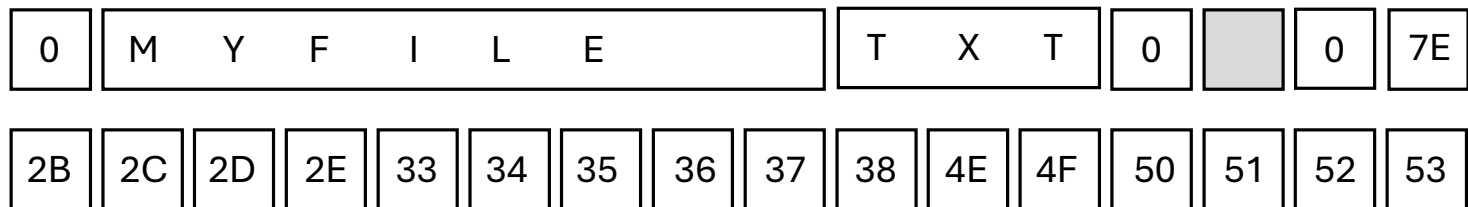
BS=16384 2048/262144 bytes

Maximum Extents: 512

Maximum File Size: 8 Mbytes

CP/M 2.2 File System

FIRST EXTENT



Maximum File Contents per Extent

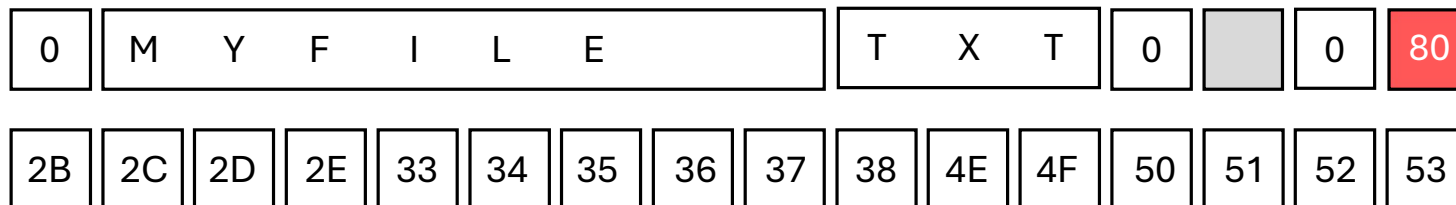
BS=1024 16384 bytes
BS=2048 32768 bytes
BS=4096 65536 bytes
BS=8192 131072 bytes
BS=16384 262144 bytes

Maximum Extents: 512

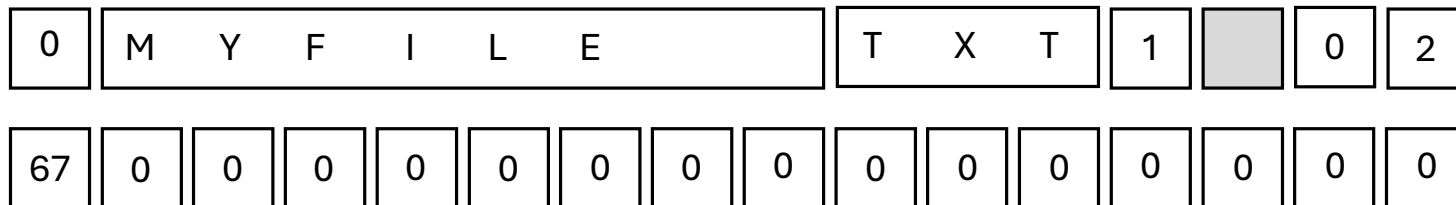
Maximum File Size: 8 Mbytes

CP/M 2.2 File System

FIRST EXTENT



SECOND EXTENT



Maximum File Contents per Extent

BS=1024 16384 bytes
BS=2048 32768 bytes
BS=4096 65536 bytes
BS=8192 131072 bytes
BS=16384 262144 bytes

Maximum Extents: 512
Maximum File Size: 8 Mbytes

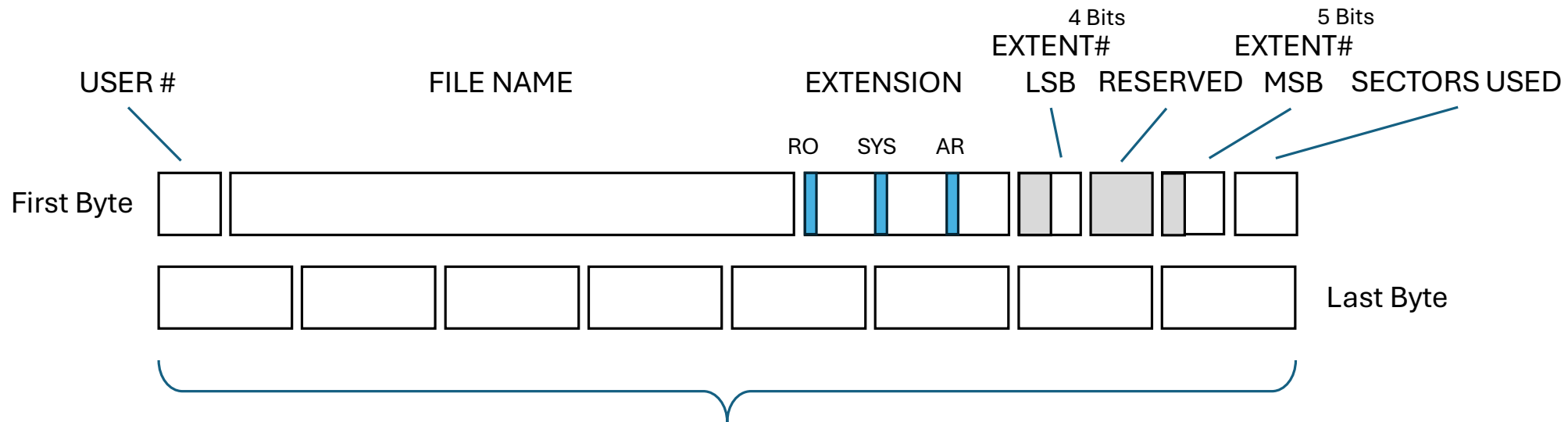
CP/M Disk Parameters

CP/M Disk Parameter Block

SPT:	256	Logical sectors per track
BSH:	5	Block shift factor (for 4096 block size)
BLM:	31	Block mask (for 4096 block size)
EXM:	1	Extent mask (1 = total blocks > 256)
DSM:	2039	Logical disk size in blocks -1 $((256\text{sec} * 255\text{trk} * 128\text{b}) / 4096) - 1$
DRM:	1023	Directory max entries -1
AL0:	0FFH	Reserved directory blocks $(1024 * 32) / 4096$ in number of bits = 8)
AL1:	0	Reserved directory blocks
CKS:	0	Check size (set to zero for fixed disk)
OFF:	1	Track offset (defines track where directory begins)

CP/M 2.2 File System

A directory entry (aka “extent”)



Maximum File Contents per Extent

BS=1024	8192 bytes
BS=2048	16384 bytes
BS=4096	32768 bytes
BS=8192	65536 bytes
BS=16384	131072 bytes

Maximum Extents: 512

Maximum File Size: 8 Mbytes