

Hard Disk Information

This module provides information about the hard disks available in the system. The following help topics are available:

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Drive Parameters

This section provides information about the physical and logical layout of the drive. The following information is provided:

Bytes per Sector - The size of the sectors of which the disk is defined in bytes. In most cases this will be 512. Use of non standard sector sizes can lead to incompatibilities with DOS as well as applications.

Sectors per Cluster - The number of sectors grouped together to form a cluster. A cluster is the smallest amount of disk space which DOS will allocate to a file. This is always a power of 2 (2,4,8,16 etc.). Excessive cluster sizes lead to wasted disk space since on average one half cluster will be wasted for each file on the disk.

Reserved Sectors - The number of sectors which are reserved for use by the operating system.

Number of FATs - The number of File Allocation Tables present on the disk. DOS usually maintains 2 copies of the FAT for each drive. This is done so that an error in the FAT can be corrected from the information stored in the duplicate.

Root Directory Entries - The maximum number of files and directories which may be located in the root (top level) directory. This is usually 512.

Total Sectors - The total number of sectors allocated to the drive. Some version of DOS do not provide this value.

Sectors per FAT - The size of each of the File Allocation Tables in sectors.

Sectors per Track - The number of sectors on each track of the disk. A track is the area of disk which can be read by one head without movement. For MFM drives this is usually 17, for RLL drives this is usually 26, for ARLL this is usually 34, other drive types (ESDI, SCSI) may vary widely.

Number of Heads - The number of read/write heads used by the drive.

Hidden Sectors - The number of sectors which are unavailable to the operating system. This number is usually equal to the number of sectors per track. This is due to the fact that most drives do not use the remainder of the track which contains the master boot record.

Disk Usage Statistics

This section provides information about the usage of each hard drive available in the system. The following information is provided:

Total Disk Capacity - The total capacity of the drive in bytes.

Number of Directories - The number of directories on the drive (all levels).

Total Directory Size - The size of the directories in bytes.

Number of Files - The total number of files on the disk.

Total File Size - The aggregate size of the files on the disk not including any allocation overhead.

Total Unavailable Space - The aggregate amount of disk space which is neither allocated to files nor available for allocation due to the overhead of cluster allocation in bytes.

Total Free Space - The amount of space available on the disk in bytes.

Partition Tables

When WinSleuth is running in Real Mode information about Partition Tables is provided. Partition Tables are the master layout map for a hard disk and define how much of the disk a given operating system may use and where on the disk its area is located. Each partition table may have up to four entries. Each disk must have exactly one partition table. The following information is provided for each partition of each partition table:

STATUS - Either ACTIVE or NON ACTIVE. Only one partition may be ACTIVE. The active partition is the one from which the system may be booted (unless a bootable floppy is present).

TYPE - The type of the partition. This value is used by the operating system to determine if it is to read the contents of the partition. The following partition types are recognized by WinSleuth:

- DOS - 12 bit FAT
- DOS - 16 bit FAT
- EXT DOS - 16 bit FAT
- DOS - 32 bit FAT
- OS/2 - HPFS
- XENIX
- XENIX Bad Tracks
- PC-IX
- CP/M
- Unused Partition

All other partition types are labeled "NON-DOS"

CYLS - The number of cylinders allocated to a partition. A cylinder is the part of a disk which can be read by all heads without movement.

SIZE - The size of the partition is megabytes (1,048,576 bytes).