

For this, the fourth in the series, let's consider some information that might be handy when shopping at swapfests. You need to know about floppy disk formats when buying them. You might also want to know about formats when buying a used drive, or even a used computer, at a swapfest. How many different formats exist? Are any obsolete? Well, here is a simple table that will answer those questions, and quite a few you did not even ask! You might want to bring this table along with you during shopping sprees.

	"OBSOLETE"			FORMATS IN USE NOW				
DISK SIZE (inches)	5¼	5¼	5¼	5¼	5¼	3½	3½	3½
DISK CAPACITY (K)	160	180	320	360	1200	720	1440	2880
Media descriptor byte	FEh	FCh	FFh	FDh	F9h	F9h	F0h	F0h
Sides (heads on drive)	1	1	2	2	2	2	2	2
Tracks per side①	40	40	40	40	80	80	80	80
Sectors per track	8	9	8	9	15	9	18	36
Bytes per sector	512	512	512	512	512	512	512	512
Sectors per cluster②	1	1	2	2	1	2	1	2
FAT length (sectors)	1	2	1	2	7	3	9	9
Number of FATs	2	2	2	2	2	2	2	2
Root directory length	4	4	7	7	14	7	14	15
Maximum root entries	64	64	112	112	224	112	224	240
Total sectors per disk	320	360	640	720	2400	1440	2880	5760
Total available sectors	313	351	630	708	2371	1426	2847	5726
Total available clusters	313	351	315	354	2371	713	2847	2863
Tracks per inch	48	48	48	48	96	135	135	135
Bits per inch	?	?	?	5876	9646	8717	17434	34868
Media	Fe	Fe	Fe	Fe	Co	Co	Co	Ba
Coercivity (Oersteds)	300	300	300	300	600	600	720	750
Thickness (micro inches)	100	100	100	50	100	70	40	100
Recording polarity	Horiz	Horiz	Horiz	Horiz	Horiz	Horiz	Horiz	Vert
Abbreviated nickname	SSSD	SSSD	DSSD	DSDD	DSHD	DSDD	DSHD	DSED

①Tracks and cylinders are sometimes used interchangeably, but this is incorrect. A cylinder is all the tracks under the heads of a drive at one time. Since modern floppies are double sided, a single floppy cylinder consists of two tracks. Actually, these two tracks are slightly offset from each other.

②Clusters are now termed "allocation units"; these are the smallest unit of a disk that can be allocated to a file when DOS writes the file.

ABBREVIATIONS: Fe=iron Co=cobalt Ba=barium ?=Unable to find the data SS=single sided DS=double sided SD=single density DD=double density ED=extra-high density Horiz=horizontal Vert=vertical

Notice that the new 2.88-megabyte floppies are also listed. Though you will not be likely to find them in old machines at a swapfest, they are listed here for completeness. Notice also that disk thickness varies somewhat, as well as the sensitivity of the medium (coercivity). Remember, don't drill the second hole in a 720k disk and expect it to be a perfect replacement for the more expensive 1.44m variety. You will be courting disaster with the data you write to that disk. Til next time, 73. Stan