WASTE for Windows

WASTE for Windows scans a specified disk and reports various numbers which help you decide how best to partition the disk.   Specifically, it reports how much space is wasted due to the disk's <u>cluster size</u>, and how much would be wasted for other given cluster sizes.

This allows you to make intelligent choices--using your own actual files--on how best to partition your hard disk. If your disk currently uses 32K clusters, for example, you'll see exactly how much space you would "recover" if you split that disk into multiple partitions (each with 8K clusters), for example.

<u>What's with the weird graphic?</u>
     Goddess of Programmers?

<u>The Lowdown on Disk FAT</u>
     Let's cut the fat!

<u>How to operate Waste</u>
     If you can't figure out the buttons...

<u>Designer</u>
     All about me

<u>Disclaimer</u>
     The Typical Legal Stuff

<u>Copyright</u>
     The Typical Copyright Notice

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Disk Basics: The Lowdown on Disk FAT

Files on PC systems require a minimum file size.   Let's say your disk uses 8K   <u>clusters</u>.   Now, even if DIR reports that a file has a size of say,   2556 bytes, it will really take up 8,192 bytes on your hard disk because that's the smallest **chunk** that DOS or Windows (Win 3.1 or Win 95) can allocate. (<u>WinNT</u> is different).

So, in this case, **5636** bytes of disk space are wasted. Then, what if you were able to reduce the cluster size to 4K (4096 bytes)? In that case   only **1540** bytes would be wasted.

This kind of savings really adds up.   On my disks, I typically keep the volumes to around 300 MB. This makes the cluster size 8K.   In my case, typically around 30 to 40 megabytes are wasted, or about 10% of the disk.   See <u>Cluster Size vs. Volume Size</u> table.

However, if I were to combine the two volumes into a single volume larger than 512 megabytes, then the cluster size would double to 16K.   In my case, the wasted space would jump to well over 100 megabytes!

For large volumes (over 512 megabytes) it is not unusual to see wastage that uses up fully a fourth, a third, or even half of the hard disk!

If you don't partition your 1.2 gigabyte hard disk into smaller partitions, you   may well be throwing away **hundreds of megabytes** of disk space!

Fixed disks and floppies running under DOS, Windows 3.x, and Windows 95 use a File Allocation Table (or FAT) to keep track of your disk's file. Each FAT can have only 65,536 entries.

Windows NT is different

Win NT allocates clusters differently in its HPFS (High Performance File System): it uses 4K clusters regardless of volume size.

Thus, Win NT is very efficient in its disk use, pretty much obviating the need for this   program.

File space waste under Win NT HPFS will be approximately the same percent as that of a 100 MB volume under DOS.

Cluster & Volume Sizes

This table gives the <u>cluster size</u> for a given <u>volume</u> size.

Cluster Size	Volume Size
2K	16 MB to 127 MB
4K	128 MB to 255 MB
8K	256 MB to 511 MB
16K	512 MB to 1023 MB
32K	1024 MB to 2047 MB
64K	2048 MB to 4095 MB

Floppy disks use a cluster size of 512 bytes.

A "volume" is a disk partition. Some hard disks are "partitioned" into multiple smaller volumes, each with its own assigned letter, starting with **C:**.

If your hard disk is accessed only by a single drive letter (i.e., "C:") then your entire hard disk is one single partition.

A cluster is the smallest chunk of disk space that the computer's operating system call allocate to hold a file. Every file must always use a whole number of these "chunks" (sometimes called *allocation units*.)

What's with the Weird Graphic?

It has to do with hidden knowledge and control of your own destiny.   With **Waste for Windows**, you now have more knowledge of how your hard disk works. You now have better information regarding how best to partition your disk(s). Thus, you can control just how much waste you want on your disk.   Yes, *you are in control!*   And... well... the graphic was kind of cool anyway. It was either that or something depicting the cutting of waste, like a knife cutting into a slab of bacon.   So I thought most of us would   rather look at a *Moon Goddess*. I certainly do.

Love Everyone!

How to Operate Waste

1. Select a drive letter from the drive dialog box.

2. Click on **Scan Drive**. The Goddess Box will say **SCANNING** and this will cycle through multiple colors to show you that it is still working.

3. Wait for it to end. (Look for a green **DONE** in the Goddess Box.)

But there are a few details you may wish to know:

The gauges' total **empty** length represents the *entire* capacity of the selected drive. Typically, this will not be filled up completely by a colored line.

The first gauge (the one representing the chosen drive) will display the total space used as a **blue line**. Unless you've used up your entire disk, the **blue line** will not make it all the way to the right edge. Thus, this is a kind of nice way to represent the disk space used versus the free space remaining.

The subsequent gauges show, *on the same scale*, how much **would** be wasted given the indicated cluster sizes. The volume size associated with each cluster size is also given. One of these represents the disk or volume you've chosen, and it will be so indicated with a 'flashing' red **<<<**. All the other drives are shown for information as to what **would** be wasted if you chose your disk's partitioning differently.

To determine the exact number of bytes wasted on the chosen disk, look below the gauges to the table. The one marked with the red **»** is your drive. All the other drives are shown for information as to what **would** be wasted if you chose your disk's partitioning differently.

These gauges will represent the wasted space with **RED** lines. If the amount of wasted space *exceeds* the total volume size then the gauge will be full, and the line will turn **PURPLE**.

In that case, the gauge only tells you that the amount of wasted space exceeds the total volume capacity, and you'll have to read the actual disk space wasted from the table below the gauges. The last one or two gauges will sometimes turn **purple** which indicates a wasted space amount that would actually *exceed* the capacity of the volume being scanned. In this case, refer to the actual numbers in the table below the gauges for exact information.

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If you want the *best* in Windows based contract software development (especially   relating to **Client\ Server Databases**), please contact me. The price is fairly high, but you *do* want to beat everyone else in your market, don't you?

Any and all comments are welcome.

Legal Disclaimer

This is the legal fine print.

Short Version:
I assume no responsibility for any damage or loss caused by the use of this program, regardless of the circumstances.

Why:
This program only interrogates your disk just like DOS's DIR command.   If DOS's DIR command won't damage your disk, neither will this program.

Longer Version:
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