

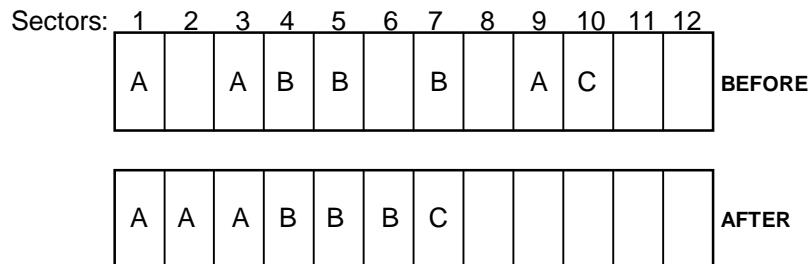
## THE COMPUTER CORNER

# No. 187: Defraggler

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I have written about the benefits of defragging your computer before (#132, #157, for example). Basically, when you open a file several times (let's say, a letter to someone), the edits you make the second and subsequent times may be saved in a place on the hard drive platters that is different from the first time. This means that the computer will need to look in several places for the pieces of the file each time you subsequently access it. This slows down the computer and also causes unnecessary wear to the hard drive. One can actually perceive a severely fragmented hard drive ... as a slow down in the general speed of the computer. Defragmenting programs gather all the pieces of a file and put them next to each other on the hard drive platters. The result: less wear and tear for the hard drive and faster access to your files.

Here is the idea graphically. In the drawing below, we are looking at 12 "chunks" of data (called "sectors") on the surface of the hard drive. In the BEFORE picture, your letter to Aunt Martha (labeled A) exists on 3 sectors (1, 3 and 9), the first chapter of your new book (labeled B) also exists on 3 sectors (4, 5 and 7), and your note to yourself to put out the garbage each Thursday (labeled C) exists on 1 sector (10). Sectors 2, 6, 8, 11 and 12 contain no data and are free to be written to next time you save a file.



The AFTER picture shows the arrangement of your files when a good defragmenting program has finished the job. All the pieces of your letter to Aunt Martha are next to each other, as are the pieces of the book chapter. Furthermore, the empty (free) sectors have been consolidated at the end of the drive.

All versions of Windows come with a defragmenting program, attesting to the absolute need to defrag files. The defragmenting program that comes with your Windows version (access it at START, PROGRAMS, ACCESSORIES, SYSTEM TOOLS, DISK DEFRAGMENTER) is not bad, but it is also not that good. I have experimented with dozens of (free) defragmenters over the years, and have come full circle to one that has evolved to be the best. Defraggler is its name, and you can get it (free) from [www.piriform.com](http://www.piriform.com) (hover over Downloads to find it). The same folks who wrote the most widely used utility in the world, CCleaner (free), also wrote Defraggler. It has some unique features that make it head and shoulders above the defragmenter that comes with your Windows version.

First off, it works with any version of Windows after 2000 through Windows 8. Furthermore, it works with 32-bit and 64-bit versions, and FAT or NTFS file systems. It will work to defragment USB drives, too, though they do not recommend using it with a USB drive that has not been formatted with exFAT. The program, though, can be put on a USB drive and run from there (it is pretty small).

To summarize, Defraggler can:

1. Clean up your hard drive by defragging it, thus speeding up your computer.
2. Defrag the entire drive or just a single folder or one or more individual files.
3. Defrag the free space on your drive by gathering all the free areas into a single large free space.
4. Run from a USB drive.
5. Defrag drives sequentially (if you have more than just a C: drive).
6. Defrag RAID drives.
7. Close itself when it is done (if you wish).
8. Turn off the computer when it is done (if you wish).

That last feature is really quite useful. You can set it up when you are done for the day to defrag your C: and D: drives and then shut off the computer when it is done. Nice touch!

Defraggler quite safe. It uses Windows own internal Applications Programming Interface (API) to manipulate files. Over the years, this has proven to be very safe when moving or deleting files. Even if your computer crashes or has a power failure during defragmentation, the API can complete the file operations or cancel them, without file corruption.

So, how often should you defrag your computer? A rule of thumb I created some time ago is that it should be done about every 24 hours of use. If you keyboard for many hours on end, why not run it at the end of the day and have it shut down the computer when it is done? On the other hand, if you use your machine just for email and occasional net surfing, maybe once a week or so is often enough for defragging. But you need to do it. Of that, there is no doubt.

There are lots of other features that I have not touched on, such as the ability of the program to show you what files are fragmented and then defrag one or several or all of them. This is the kind of feature that is best experienced by actually working with the program. I recommend it.

Happy Computing!

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*"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."* Western Union internal memo, 1876