

Access Programs Faster with Disk Defragmenter

Do you have a few programs that you use far more than any others? If so, you can make those programs more quickly accessible. The improved Disk Defragmenter in Windows can gather the program files you use most often and move them to the faster parts of your hard disk.

To run Disk Defragmenter, click Start and select Programs/Accessories/System Tools and then select Disk Defragmenter. Click Analyze to learn how much is fragmented, but then click on Defragment even if it tells you that you don't need to run it.

Note: If you're using Norton's System Works, you can run the Norton's Utility Speed Disk. You should decide to use either the Windows Scan Disk & Defrag or the Norton's Utilities. If using Win 98, do not switch back and forth using both as this could cause problems with your computer.

Some computers need to run Defragmenter in Safe Mode to prevent it restarting. Scandisk in XP is called Error-Correcting and is found by

- a. Doubleclicking MY COMPUTER.
- b. Rightclick the drive you wish to do a scandisk on, such as the C:\ drive
- c. Select Properties
- d. Click the Tools tab and select Error-Correcting.

Note: You will receive a message that "you may schedule Error-Correcting for the next time you start your computer". Say YES.

.....

1. Understanding Disk Fragmentation

What exactly is disk or file fragmentation anyway? Quite simply, if a file is contiguous and in sequential order, then it is unfragmented. By analogy, an unfragmented file is like a set of encyclopedias on a shelf, where each numbered volume is followed by the next one in the series. A fragmented file is one where the volumes are scattered all over the bookshelf, as it were. So, how do files get fragmented in the first place?

All computer file systems use a first-come, first-serve approach to storing files, because that is the fastest way to save a file. While this might seem to be shortsighted, any other approach would seriously slow down your computer's performance. Again, by analogy, consider the problem of packing a bookshelf when moving from one house to another. One gathers a number of boxes and begins stuffing books into them. When one box is full you grab the next book and so on. Later, when it is time to unpack, you will sort the books back into order. Conversely, if when packing, you stopped when a set of books did not fit into one box and then unpacked and looked for a box that was just the right size, then the whole process would take much longer.

When you tell your computer to save a file, it begins to immediately write blocks or pieces of the file to the first available free space on the disk. If the entire file does not fit in the first space, the part of the file that does not fit is moved to the next space, and so on, until the entire file is saved. The system stores a record of where each piece is saved in what is called a file allocation table

in order to reassemble the file the next time you open it. This process results in file fragmentation. The more widely scattered the pieces are, the longer it takes to retrieve all the parts. Running Speed Disk puts all the pieces together again (unlike humpty dumpty), which allows the file to load as fast as possible.

2. Understanding disk fragmentation reports

Disk fragmentation is reported as a percentage, as in 100% = no fragmentation.

Once you get away from 100% it gets a bit tricky as to what, for example, 95% represents. At first it seems somewhat straightforward; 95% is 5% less than 100% right? Yes, but 5% of what? Does that mean 5% of all the space on the drive including free space or just that portion used by files? Or does it mean 5% of all the pieces or blocks on the disk? Or? In short, there are a number of different ways that one can logically divide up this problem, which accounts for why different programs will provide you with different fragmentation reports.

Revised 5/29/2009 JMM

DEFRAG REPORT in XP and 2K

1. Doubleclick MY COMPUTER.
2. Rightclick the drive you wish to analyze. Usually drive C:\
3. Click Tools...Defrag...Analyze. Wait for the analysis to complete.
4. Click View Report.

A file containing huge number of fragments may tell you why it takes so long to defrag.