Hard disk processing is slow

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Even if you regularly delete unneeded files and manage files well on your hard drive, you'll still find hard drive access slowing down over time. One of the main reasons is the file system. With Windows XP, Microsoft encourages users to switch from FAT32 file system to NTFS.

FAT32 is the basic file system, making the hard drive fragmented, so it needs to be defragmented regularly. The reason why a FAT32 hard drive is fragmented is when new data is written to the disk, it is placed wherever there is enough space to accommodate it. This makes the files quickly scattered throughout the hard drive, causing the computer to take time to retrieve and organize data each opening or saving files. That significantly slows down the speed with large hard drives. Regular defragmentation will put data files neatly in the hard drive, increasing the speed of retrieving data.

NTFS is a new technology file system (new technology file system) that organizes files more neatly in the Master File Table (MFT) file, so retrieving data is faster than FAT32. One of the major changes between NTFS and FAT32 is with NTFS, the file is saved with some properties, with a higher level of security. With NTFS, data files are more resilient in the event of a drive failure.

The NTFS system also calculates the space around the files to serve the expansion. However, if the file does not increase, that space is not used. If the file increases too much, the data must be recorded on the new space on the hard drive. Therefore, NTFS can be more efficient than FAT32 in retrieving data but still fragmented. This means that the hard drive using the NTFS file system still needs to be defragmented regularly.

Windows has a defragmenter (Disk Defragmenter), also known as a defragmenter, that can help organize your data files neatly, helping to speed up the hard drive's retrieval speed. You can run this utility by going to Start, Programs, Accessories. In System Tools, select Disk Defragmenter. When the program starts, select the hard drive you want to stack and click the Analyze button.

You will see the surface image of the hard disk area. Green stripes are part of the Windows operating system that is not touched. Light blue stripes are called adjacent files, meaning they are all in a neat place. White stripes are empty spaces and red stripes are splits of data, scattered. Fragmentation helps put split files, scattered back to adjacent areas.

In addition, there are a number of more effective free defragmentation tools available in Windows. One of the tools you can try is **Contig** from Sysinternals. This is a command-line tool that can make files located adjacent to the hard drive. If you like a tool that uses the familiar graphical user interface, **Power Defragmenter** can be used.

3 ways to 'slimming' and speed up the hard drive

1 / Use the Disk Cleanup utility . This utility is used to delete temporary files, error reports and files that are no longer needed. This utility is very easy to use, open My Computer, right-click the hard drive and select Properties. From the dialog box that appears, click the Disk Cleanup button, wait until another dialog box appears. Listed in this dialog box are files that can be safely deleted. Select each item to read more information.

To find more options on Disk Cleanup, select the More Options tab. There you can remove programs you do not use and System Restore points (old system restore points). Removing unused programs and recovery points can significantly free up disk space.

2 / Use free software CCleaner . This is a software that not only removes unnecessary files that the Disk Cleanup utility skips, but also uninstalls unwanted software.

3 / Limit saving unnecessary files . Windows is particularly inefficient in storing data and evaluating the amount of free space left. The reason is that Windows divides the hard drive into multiple storage units, called sectors, and places the files into individual sectors. Each sector has 512 bytes, so if you save a file with only 300 bytes, the remaining 212 bytes cannot be used for other files. Similarly, if a file is 513 bytes of capacity, it needs two sectors and the remaining part is wasted. So, the more files you save, the bigger the wasted space.