

Disk Defragmentation

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Disk System Defragmentation Recommendations

Is it necessary and recommended to defragment a Windows server disk sub-system is? YES.

The real question is how often. Unfortunately, this depends on many factors that will vary considerably from user to user, system to system. This makes it difficult to define a simple benchmark that will work for everyone. Since we are talking about Windows file systems, it makes the most sense to look to Microsoft for their advice on defragmenting their file systems:

"Best practices for Disk Defragmenter
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Best practices

Analyze before defragmenting a volume

- Analyze volumes before defragmenting them. After analyzing a volume, a dialog box tells you the percentage of fragmented files and folders on the volume and recommends whether to defragment the volume. Analyze volumes regularly and defragment them only when Disk Defragmenter recommends it. A good guideline is to analyze volumes at least once a week. If you seldom need to defragment volumes, analyze volumes monthly instead of weekly.

Analyze after large numbers of files are added

- Volumes might become excessively fragmented when users add a large number of files or folders, so be sure to analyze volumes after this happens. Generally, volumes on busy file servers should be defragmented more often than those on single-user workstations.

Ensure that your volume has at least 15% free space

- A volume must have at least 15% free space for Disk Defragmenter to completely and adequately defragment it. Disk Defragmenter uses this space as a sorting area for file fragments. If a volume has less than 15% free space, Disk Defragmenter will only partially defragment it. To increase the free space on a volume, delete unneeded files or move them to another disk.

Defragment during low-usage periods

- Defragment file server volumes during low-volume usage periods to minimize the effect that the defragmentation process has on file server performance. The time that Disk Defragmenter takes to defragment a volume depends on several factors, including the size of the volume, the number of files on the volume, the number of fragmented files, and available system resources.

Defragment after installing software or installing Windows

- Defragment volumes after installing software or after performing an upgrade or clean install of Windows. Volumes often become fragmented after installing software, so running Disk Defragmenter helps to ensure the best file system performance."

This is a very manual approach to disk defragmentation, but these procedures are consistent with DAD needs and can be very effective. A nice bonus is that these procedures use tools that are built into the Windows operating system so there is nothing else to purchase.

If you need something more automatic, a number of clients have reported good results with 3rd party products like Executive Software's Diskeeper (<http://www.executive.com/defrag/defrag.asp>).