

RE: Defragmenting root drive in SBS 2003 specifically MFT

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.sbs/2006-04/msg04603.html>

- *From:* v-stezhu@xxxxxxxxxxxxxxxxxxxxxx (Steven Zhu [MSFT])
 - *Date:* Thu, 27 Apr 2006 09:27:31 GMT
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Hi Sasha,

Thank for taking time to respond.

From your reply, I understand that you want to defrag MFT in Windows SBS 2003. If I am off base, please let me know.

Based on my knowledge, the Disk Defragmenter tool has the following limitations:

1. It can defragment only local volumes.
2. It can defragment only one volume at a time.
3. It cannot defragment one volume while scanning another.
4. It cannot be scheduled.
5. It can run only one Microsoft Management Console (MMC) snap-in at a time.
6. It cannot defragment NTFS volumes with cluster sizes larger than 4 kilobytes (KB) in Windows 2000. This limitation has been removed for Disk Defragmenter in Microsoft Windows XP and Microsoft Windows Server 2003.
7. Fine-grained movement of uncompressed NTFS file data is not possible in Windows 2000. Moving a single file cluster also moves the 4-KB part of the file that contains the cluster. This limitation has been removed for Disk Defragmenter in Windows XP and later.
8. In Windows 2000, it does not defragment NTFS metadata files, such as the Master File Table (MFT), or the metadata that describes a directory's contents. This limitation has been removed in Windows XP and later. It cannot defragment encrypted files in Windows 2000. This limitation has been removed in Windows XP and later.

For more information about Disk Defragmenter Limitations in Windows XP, please refer to the following article:

227463: Disk Defragmenter Limitations in Windows 2000, Windows XP, and Windows Server 2003

<http://support.microsoft.com/default.aspx?scid=kb:en-us:227463>

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As far as I know, some files you cannot Defragment. Some reasons that a file might remain fragmented include:

1. The volume lacks adequate contiguous free space to defragment all files. Disk Defragmenter requires at least 15 percent free disk space to completely defragment a volume.
2. During defragmentation, a new file is created on the volume in disk space that was previously free space. In this case, if Disk Defragmenter tries to move a file to that space to defragment the file, the move fails and the file remains fragmented.
3. The file is the master file table (MFT) on an NTFS volume. Because the first fragment of the MFT cannot be moved, the MFT is typically contained within two fragments when sufficient space is available on the volume. If the MFT is contained within three or more fragments, Disk Defragmenter looks for free space where the MFT might fit. If sufficient free space exists, the MFT is moved as a whole (minus the first fragment). If space is not available, the MFT is not defragmented.
4. The file is permanently excluded, in which case it might appear in the defragmentation report as still being fragmented no matter how many times you defragment the volume. The following files are permanently excluded from being defragmented.

Bootsect.dos
Safeboot.fs
Safeboot.csv
Safeboot.rsv
Hiberfil.sys
Memory.dmp
Paging file

More information:

Disk Defragmenter

<http://www.microsoft.com/resources/documentation/Windows/XP/all/reskit/en-us/Default.asp?url=/resources/documentation/Windows/XP/all/reskit/en-us/prkd_tro_asgk.asp>

Therefore, I am afraid there isn't any built-in tool to implement your request. I spent several hours for further research regarding your request; I can find the third-party tool to defrag the MFT, please refer to the following web link:

<http://www.majorgeeks.com/review.php?id=6>

Warning: This response contains a reference to a third party World Wide Web site. Microsoft is providing this information as a convenience to you. Microsoft does not control these sites and has not tested any software or information found on these sites; therefore, Microsoft cannot make any representations regarding the quality, safety, or suitability of any software or information found there. There are inherent dangers in the use of any software found on the Internet, and Microsoft cautions you to make sure that you completely understand the risk before retrieving any software from the Internet.

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Note: The third-party product discussed is manufactured by a vendor independent of Microsoft; we make no warranty, implied or otherwise, regarding this product's performance or reliability.

Thanks for your understanding and cooperating regarding this. If there is anything unclear, feel free to let me know and I hope the above information helps.

Have a good day.

Best Regards,

Steven Zhu
MCSE
Microsoft Online Partner Support
Get Secure! – www.microsoft.com/security

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PLEASE NOTE the newsgroup SECURE CODE and PASSWORD were updated on February 14, 2006.? Please complete a re-registration process by entering the secure code mmpng06 when prompted. Once you have entered the secure code mmpng06, you will be able to update your profile and access the partner newsgroups.

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When responding to posts, please "Reply to Group" via your newsreader so that others may learn and benefit from this issue.

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