

Re: How to relate physical disk block/segment to file name

Source:

http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.perform_maintain/2005-05/msg00386.htm

- *From:* da_test <davexnet02NO@xxxxxxxxxxxxxx>
 - *Date:* Tue, 10 May 2005 11:31:03 -0700
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On Tue, 10 May 2005 13:24:32 -0400, "Frank D. Nicodem, Jr." <Mail@xxxxxxxxxxxxxx> wrote:

>"da_test" <davexnet02NO@xxxxxxxxxxxxxx> wrote in message
>news:067v719u9ji9fjof2fsvoouvfsonaub4kp@xxxxxxxxxx

>

>> Download the trial of Raxco's perfectdisk – that may help identify it

>> when it produces tt's defrag analysis.

>> If it's NTFS, it may br the \$MFT and associated NTFS files.

>

>OK, Dave, here's what I found. PerfectDisk did, in fact, provide a bit more
>information that even DiskKeeper does. Rather than just saying "Reserved
>system space", it does, indeed, identify that space as "MFT space". Now,
>since I don't quite understand this, let me make a few more comments, and
>ask a question or two.

>

>Based on the Analysis phase of Perfect Disk, I went to one of my partitions
>where I know I'm seeing this "reserved space". In this case, the total
>partition is 14GB. Of this, there is a "reserved space" right near the
>beginning of the disk, consisting of 1.7GB of contiguous space, labeled by
>PerfectDisk as "Free space inside the MFT Reserved zone". Now, that's 12%
>of the total disk space! That's a pretty big chunk. So, continuing to use
>PerfectDisk's information, I selected the "Most Fragmented Files" tab in the
>Statistics window, and saw roughly 75 file names listed, ranging from 3
>fragments to (in the worst case) 177 fragments!! Yet on the Summary tab
>(still in Statistics), it says "Based on the above information, PerfectDisk
>recommends the following defragmentation pass: None."

>

>In other words, it seems to be saying that no defragmentation needs to be
>done! So now my questions start.

>

>1) Of the 14GB of space on this disk, I have 7GB free (according to
>Windows' Properties). The disk is almost exactly 50% empty. So why am I
>seeing *any* fragmentation at all???

files get written asynchronously, not one after the other.

This is normal operation. Because it works this way, fragmented files can be expected.

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>

>2) Most of the files listed in the "Most Fragmented Files" list are from a
>large game I installed recently. And I installed this game while there was
>still almost 8GB of free space -- mostly contiguous, since I had recently
>defragmented the drive. So why would the files from this game be, in any
>way of thinking, fragmented? There was PLENTY of space to install them
>whole.

If the files are write once/read (such as exe or dll), then it may be
due to what I mentioned above. If they're data files they're probably
changed during the game and rewritten many times, almost
ensuring fragmentation.

>

>3) What the heck *is* the "MFT Reserved zone"?? What goes in there?? Who
>decides what to put there?? How do I NOT get files put there, but rather
>put in the normal disk free space (and whole, not fragmented)??

See this

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

>

>4) Given this fragmentation within the MFT Reserved Zone, why would
>PerfectDisk say that I need take no defragmentation action? Wouldn't
>defragmenting once again help?

The level of defragmentation is not high. NTFS works well anyway.

>

>5) Is there a way to reclaim all free space as contiguous? I seem to
>recall disk defragmenters used to do that all the time -- they'd move the
>defragmented files so that all free space was in one "lump". But they don't
>seem to do that any more -- they just defragment files "in place", as it
>were. Which does leave the files defragmented, but the *disk free space* is
>often fragmented, as a result -- meaning that NEW files will become
>fragmented more quickly. What can I do about that?

Use PD to do an offline defrag and have it work on the system files.

After it's done, do a "smart placement" defrag

>

>6) Is there any other information I can gather from PerfectDisk (or
>elsewhere) to help me understand this "MFT Reserved Zone", or figure out why
>it is taking almost 2GB of my hard drive? Or how to restrict/eliminate it?
>ALL of my disk partitions are NTFS, but I do not see this happening on every
>one -- only on 2 or 3 of them. Why is that?

I think 12% is the default amount. See the above website.

>

>Thanks in advance for any information you can provide, or any of the above
>questions you can answer. (BTW, this PerfectDisk looks like a great
>utility! Thanks for the tip.)

I really like it. One of the reasons I preferred it to DK is that I
still maintain a FAT32 partition. DK is *very* slow with Fat32.

Dave

>

>Frank D. Nicodem, Jr.

>Mail@xxxxxxxxxxxxxxxxxx

>

- **Follow-Ups:**
 - ◆ **Re: How to relate physical disk block/segment to file name**
 - ◇ From: Frank D. Nicodem, Jr.

- **References:**
 - ◆ **How to relate physical disk block/segment to file name**
 - ◇ From: Frank D. Nicodem, Jr.
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