

Re: CreateFile() and FILE_FLAG_WRITE_THROUGH

Source:

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.kernel/2008-09/msg00058.htm>

- *From:* Tim Roberts <timr@xxxxxxxxxx>
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"Nick Tucker" <nick.tucker@xxxxxxxxxxxxxxxxxxxx> wrote:

If I create a file using CreateFile(), specifying the FILE_FLAG_WRITE_THROUGH flag, then write to that file, the file still shows as zero bytes long in the directory and in Windows Explorer, and if I then turn the power off, that file is still zero bytes long on restart, so the data I wrote is unavailable. I have tried this test on a variety of operating systems including Vista, XP and Windows Server 2003/2008 using a variety of hardware platforms with both SATA and SCSI disk systems, and they all behave the same way.

Surely the whole point of specifying that flag is that I want the data to be written to disk, together with it's corresponding metadata, so if a catastrophic failure occurs, the data is available to me on restart.

"...together with it's corresponding metadata" is wishful thinking on your part. Such a promise never hinted at in the documentation. If you had, for example, created a file with 4096 empty bytes and closed it, then opened the file with FILE_FLAG_WRITE_THROUGH and done a Write, you'd see that the data went straight to disk.

My researches of newsgroup articles on this subject suggest that if I want this, then I also have to use FlushFileBuffers(), but if that is so then surely I don't need to specify the write through flag since all file and folder data will be committed to disk when I call that function.

Right.

So, what is the point of specifying the write-through flag in this scenario?

Writing metadata is expensive. There are many cases where you want the

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data to be written immediately without having to pay the penalty for a metadata update any time. When you're ready to pay the penalty, you use FlushFileBuffers.

Also see <http://support.microsoft.com/kb/99794>

I think the documentation of CreateFile() could do with a little clarification!

I'm not sure I agree, but there links at the bottom of the MSDN page that allow you to add your own content, and to submit comments to Microsoft.

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