

Re: What's DMA

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- *From:* Joseph M. Newcomer <newcomer@xxxxxxxxxxxxx>
 - *Date:* Wed, 22 Aug 2007 10:33:27 -0400
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DMA is completely unrelated to the concept of asynchronous I/O. First, it is a hardware capability; it is only available if your hardware supports it. This doesn't matter at application level, because only device driver writers would have the ability to access this. It doesn't matter to you whether a device does DMA or not. Asynchronous I/O means that your program does not block while doing I/O, and it can do I/O like this even for non-DMA devices (your friend sounds like an EE type who doesn't write code. EEs think of DMA; programmers think of asynchronous I/O).

Note that file I/O often blocks, even if done asynchronously; see KB article 156932. Therefore, if you really don't want to block, you should probably do your I/O from a separate thread. My own preference is to use I/O Completion Ports for async I/O, but if you're doing it in a separate thread, it may not matter that you block (since you're going to block anyway).

Note that synchronicity is forced for file I/O, even though disk controllers use DMA, so DMA is unrelated to the concept of asynchronous I/O.
joe

On Wed, 22 Aug 2007 03:30:01 -0700, Charles Tam <CharlesTam@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

I need to do some asynchronous file writing operations in one of my application, such as, it does not block the main thread.

My friend said to me to use DMA. Does anyone know what it is? Is DMA available for access from MFC or Win32?

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