

# PCI card transfer with DMA/ busmastering

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- *From:* [googlinggoogler@xxxxxxxxxxx](mailto:googlinggoogler@xxxxxxxxxxx)
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Hiya,

I have a custom PCI card that I intend on using as a coprocessor to perform large scale matrix operations on.

As a result I wish to transfer large amounts of data to the PCI device. Now this is where my basic questions start.

I've read a lot regarding DMA transfer, I assume this is the way to go. When I create my driver for my PCI card does the DMA stuff need to go here? or do I effectively need another driver to handle DMA and busmastering??

my basic goal is this –

- 1)load data via CPU and "preprocess"
- 2) I might have functions like this in my application  
DoMatrixMultiplication(buffer A, buffer B, buffer C), where buffer C returns the result and buffer A and B are the information required input.

I assume that it would be best to have DoMatrixMultiplication in some kind of DLL, would this DLL need handle all my DMA stuff or is there a means of doing this without writing it myself??

I know this is a really general question, and the reason for that is because I'm slightly unsure at the moment of the best way to go about achieving this, I do have a driver of sorts for the custom PCI card and this does work, its just how I go about transferring large buffers to and from it and where this code needs to go.

Thanks in advance

David

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