

Re: PCI DMA concepts ??

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Hi there,

I don't think normal PCI cards do the DMA instead of burst transfer.

Please check out the PCI book for burst transfer.

I recommend "PCI System Architecture" by mindShare, Inc.

Good luck,

Heeyong.

saravanan_sprt@rediffmail.com (Chanemou) wrote in message
news:<d09cbbf7.0410070554.2507f6d5@posting.google.com>...

> *Hi everybody.*

>

> *I am having some doubts with a driver for a PCI card.I learned
> how to read/write configuration and map memory to kernel space but
> confused in using how to do dma read & write.*

>

> *1. The pci card has built in PCI & DMA controller.
> DMA controller registers (READ and WRITE registers) can be
> programmed by specifying (PCI_ADDRESS, LOCAL_SDRAM_ADDRESS,
> SIZE).(These registers are memory mapped via BAR3 and can be
> programmed by host system or by the Local card.)*

>

> *2. on the host side I have done DMA alloc (say for 5MB)using
> HalAllocateCommonBuffer() and also created dummy ISR to perform
> Receive from the pci card.*

>

> *3. for Transmitting data to the pci card , I think that I can program
> the DMA registers that are memory mapped into host side. so that the
> DMA controller does the Transfer. and generate interrupt of host upon
> completion. Is this a correct way?*

>

> *4. for Receiving from the Pci card, the card generate interrupt to the
> host after DMA transfer from pci to host memory by programming the DMA
> registers from the loca side.*

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- > *could you explain for dma read and write sequence so that it would be helpful for me in step ahead.*
- >
- > *5. I created a large DMA buffer for DMA Xfer. how Read and Write use this buffer. or I have to allocate DMA buffer for Tx and Rx on the host side.*
- >
- > *6. ReadFile and WriteFile API are meant for DMA or what? if so how this is performed? then what's the use of DMA controller registers on the pci card.?*
- >
- > *these are my few questions which really confuses me. could you please answer these questions so that it would be helpful in proceeding further.*
- >
- > *thanks*
- >
- > *chanemou*