
Subject: Re: NVidia Quadro4 980 XGL card + IDL
Posted by [Karl Schultz](#) on Thu, 02 Feb 2006 16:59:00 GMT
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On Thu, 02 Feb 2006 00:01:57 -0800, raval.chintan wrote:

> Dear All,
>
> I am using NVidia Quadro 4 980 XGL. One can visualize stereo images
> using Quad Buffer , available on this card. Proper interface
> (functions) for rendering images using this buffer are given in
> OpenGL.. Quad Buffer includes Left and Right Buffer ,which will be
> rendered one by one.For Visulization of images one needs, shutter
> glasses with infrared emitter to be connected with graphics card.
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>
> Will it be possible to render an image with use of this buffer on IDL
> Draw widget? or in other way ,Will it be possible call this
> interface(functions) of OpenGL through IDL?

This is not supported in IDL 6.2, nor will it be in 6.3. We're getting enough requests for it that it may be in a release soon.

Although it is not documented or supported, you can make OpenGL calls from C-language DLM's if you do things carefully. To do what you want, you'll probably have to subclass IDLgrView with IDL code where you would override the Draw method. You would also write a C DLM that calls glDrawBuffer with GL_BACK_RIGHT.

By the time IDLgrView::Draw is called, the correct GL context is in place and IDL has already called glDrawBuffer with GL_BACK (implies GL_LEFT as well). Your new Draw method would call the C DLM code to call the superclass Draw method, call the C DLM code to set GL_BACK_RIGHT, and then call the superclass Draw method again.

Presumably, you would jiggle the viewing transform matrix before each call to the superclass Draw to simulate the eye separation. Finally, there's probably some call that needs to be made to activate the stereo mode, but I don't know enough about that yet to do more than mention it here.

I can't say for sure if this will work, but may be worth a try.

> In IDL help i found that IDL uses two type of rendering 1) Hardware
> (OpenGL) 2) Software.
> I also found the difference between hardware and software rendering in
> IDL.

Sorry, I don't know what you are getting at.

Karl

Subject: Re: NVidia Quadro4 980 XGL card + IDL
Posted by [Dick Jackson](#) on Thu, 02 Feb 2006 21:18:32 GMT
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Hi Chintan,

"Karl Schultz" <k____schultz@rsinc.com> wrote in message
news:pan.2006.02.02.16.58.59.609000@rsinc.com...

> On Thu, 02 Feb 2006 00:01:57 -0800, raval.chintan wrote:

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>> glasses with infrared emitter to be connected with graphics card.

Looking at Display Properties for my NVIDIA Quadro FX 1300, it looks like
some graphics cards can support a dozen or more different types of stereo
viewing (red/blue glasses included!). I haven't been able to use these
directly from IDL yet, but Karl's idea below is very promising. (what I
have done is figure how to get left-eye view to one monitor, right-eye
view to another, and let some nice hardware get those views to your two
eyes:

[http://www.planar.com/Advantages/Innovation/docs/ds-planar-s tereo-mirror.pdf](http://www.planar.com/Advantages/Innovation/docs/ds-planar-s%20tereo-mirror.pdf)
)

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> I don't know enough about that yet to do more than mention it here.
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> I can't say for sure if this will work, but may be worth a try.

--
Cheers,
--
-Dick

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D-Jackson Software Consulting / http://www.d-jackson.com
Calgary, Alberta, Canada / +1-403-242-7398 / Fax: 241-7392

Subject: Re: NVidia Quadro4 980 XGL card + IDL
Posted by [raval.chintan](#) on Fri, 03 Feb 2006 06:22:05 GMT
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Karl Schultz wrote:

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> GL_LEFT as well). Your new Draw method would call the C DLM code to call
> the superclass Draw method, call the C DLM code to set GL_BACK_RIGHT, and
> then call the superclass Draw method again.

If i am correct with my limited knowledge of IDL, IDLgrView class does not have the draw method. IDLgrWindow , IDLgrModel, IDLgrBuffer have draw method. Now the question comes that which class's draw method i should override. IDLgrWindow , IDLgrModel or IDLgrBuffer? Where will C dlm render the Left and right image? Will it be on IDL's window or on C's window?

It would be helpful if you can provide sample code or detailed explanation of your suggested technique.

>
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What I meant here is that Quad Buffer rendering is also a type of hardware rendering and IDL should automatically detect this.

>
> Karl

-Chintan
