Subject: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by 281264 on Wed, 21 Jul 2010 11:53:50 GMT

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Hi,

I am trying to use OpenGL function glPrimitiveRestartIndex, however the application crashes. I am enclosing a simple example, so an expert in OpenGL might answer this query.

Thanks. Cheers,

Javier.

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File Attachments
1) prueba_OpenGL.zip, downloaded 343 times
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Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by mrjt on Wed, 21 Jul 2010 12:26:57 GMT

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Your example doensn't compile becasue you haven't included Glew.

Have you tried removing the restart index and drawing the 6 indices with GL_TRIANGLES?

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by 281264 on Wed, 21 Jul 2010 12:53:18 GMT

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Hi,

I have found the cause of the error: my graphic card does not support OpenGL version beyond 2.1, and the function glPrimitiveRestartIndex was implemented in OpenGL 3.1.

Yes, Glew is included (I have modified GLCtrl to have Glew).

It is a pity for I need these functions to facilitate the geometry generation.

Thanks,

Javier

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by mrjt on Wed, 21 Jul 2010 13:05:12 GMT

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Just break your polygons down into triangles and draw those instead. It requires 0 extra vertices and (n-3)*2 extra indices (where n is the number of points in the polygon).

Unless you're planning on drawing millions of textured and shaded triangles a frame you won't notice any difference at all.

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by koldo on Wed, 21 Jul 2010 21:01:06 GMT

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Hello Javier and mrjt

It seems you know rather OpenGL.

Would it be possible to do some simple eye candy OpenGL example richer than the one we have? (sorry Daniel, it is just eye candy)

Perhaps we could convince Mirek to upload it .

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by mrjt on Thu, 22 Jul 2010 09:02:22 GMT

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I'm not sure what purpose this would serve really. The OpenGL example isn't designed to teach OpenGL, there are plenty of other resources for that, but how to set up a window for GL painting in UPP. It's like Tutorial 01 on NeHe, the absolute beginning.

Besides that, making anything more complicated quickly involves using other resources like textures and extensions that are well beyond the scope of the example. I think the current one is pretty good really, the only thing that could use improvement is the GLCtrl itself.

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by mr_ped on Thu, 22 Jul 2010 09:36:41 GMT

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+1 mrjt.

If you want something more candy, I would do it as OGL demo 2, the question is what does it have with UPP, as UPP generally doesn't support OGL in any way except not getting into it's way.

Thinking about it, probably a demo showing different ways how to mix UPP GUI (Ctrls? Events? Etc?) with OGL and some stuff like MT with timers, animations, background loading, i.e. where upp classes may help... that may be of considerable value. Still the OGL part is not important technically, so making it overly complex would maybe hurt more then help.

If you want true eye candy, just do OGL demo and put it into forum and Applications here on web, but I wouldn't add it to bazaar.

Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by mrjt on Thu, 22 Jul 2010 10:04:15 GMT
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Things that would be most useful:
Loading textures using StreamRaster/Image (there are a couple on non-obvious steps involved)
A Glew package
A GL example with multiple windows/more complex behaviour

I've most of this code already and a whole set of util classes (like a texture loader that works with ref-counted Texture objects for example) that I'll happily post to bazaar if someone wants them.

The thing is that you have to be a bit mad to try and do anything in OpenGL from the ground up these days. After the last time I did it (in UPP) I vowed I'd never do it again. Almost as soon as you get past 'Hello World' you want to be using an SDK like Ogre3D or you're just re-inventing the wheel.

Now, an Ogre3D port to Upp without all the hideous pointers and bizarre memory management is something I could really get behind

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Subject: Re: Problem with OpenGL functionality: glPrimitiveRestartIndex
Posted by koldo on Thu, 22 Jul 2010 11:20:22 GMT
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mrjt wrote on Thu, 22 July 2010 12:04Things that would be most useful:
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Ogre in U++ would be nice