Subject: OpenGL texture issues
Posted by mirek on Sun, 08 Sep 2013 05:30:55 GMT
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I am attempting to implement SDraw based OpenGL Draw. I am total OpenGL newbie, so I have some perhpas stupid questions. Mostly I am getting my inspiration from rainbow/GL* packages by unodgs and there are issues that I need to clear out:

- it looks to like OpenGL expects textures in non-premultiplies format. In that case we need to unmultiply Image, right? (I have not seen any such thing in CoreGL/resources.cpp, but I might be missing something).

- Somewhere (but not in OpenGL docs) I have read that texture size should be a power of 2. Is that still true? (Again, no proof of this in CoreGL...)

Mirek

Subject: Re: OpenGL texture issues
Posted by mirek on Sun, 08 Sep 2013 05:35:10 GMT
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mirek wrote on Sun, 08 September 2013 01:30
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Ha, 2 minutes after posting, I have found in CoreGL

```
glBlendFunc(GL_SRC_ALPHA, GL_ONE_MINUS_SRC_ALPHA);
```

which, AFAIK, should exactly switch OpenGL to premultiplied alpha mode, right?

Mirek

Subject: Re: OpenGL texture issues
Posted by unodgs on Sun, 08 Sep 2013 10:26:16 GMT
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mirek wrote on Sun, 08 September 2013 01:35mirek wrote on Sun, 08 September 2013 01:30
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I have to admit I didn't even think about it  But docs says it is exactly prempultiplied mode.

If it comes to textures of power of 2 it is true for opengl es - so for all mobile devices. On desktop it is not required.

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Subject: Re: OpenGL texture issues
Posted by mirek on Sun, 08 Sep 2013 17:05:23 GMT
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unodgs wrote on Sun, 08 September 2013 06:26mirek wrote on Sun, 08 September 2013 01:35mirek wrote on Sun, 08 September 2013 01:30
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I have to admit I didn't even think about it  But docs says it is exactly prempultiplied mode.

If it comes to textures of power of 2 it is true for opengl es - so for all mobile devices. On desktop it is not required.

Actually, OpenGL ES 2.0 says that non-power-of-2 textures are OK as well, just do not support mipmapping...

Mirek

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Subject: Re: OpenGL texture issues
Posted by raxvan on Fri, 08 Nov 2013 14:06:27 GMT
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Hello,

In opengl/openglES(2.0+) there is almost no limitation on the dimension of the texures, only the maximum size and most mobile GPU's support 4096x4096 maximum size (desktops even more).

The power of 2 texture size is a limitation imposed by textures compossion, so if you want to have compressed textures you need power of 2 otherwise compression will not be possible.

PVRTC compression also requires for the textures to be square.

Other features such as mip mapping and swizzled textures will still not be possible without power of 2 textures.

Razvan.

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