

Ryzom - Bug # 898

Status:	Closed	Priority:	High
Author:	kerval	Category:	OS: GNU/Linux
Created:	05/13/2010	Assignee:	kerval
Updated:	07/28/2010	Due date:	
Subject:	Shadows under Linux		
Description	Shadows are bugging under Linux (big dark blocks). Check what could change from Windows version.		

History

#1 - 05/14/2010 01:59 pm - jayme

If you enable bloom, the shadows look normal.

#2 - 05/14/2010 02:08 pm - kerval

Thanks a lot ! So it could be related to bloom code :)

#3 - 05/21/2010 08:16 am - Krolock

hm, if I enable bloom, it doesn't change anything. I have still these dark blocks.

#4 - 05/28/2010 10:54 am - kerval

Bug seems to be located in driver_opengl_texture.cpp and most precisely in setRenderTarget.

We already had a bug with shadows when bloom was implemented so this part was fixed, but I suspect there is another bug in this method.

Previous code (which was not working properly with bloom) :

```
1 bool CDriverGL::setRenderTarget (ITexture *tex, uint32 x, uint32 y, uint32 width, uint32 height, uint32 mipmapLevel, uint32 cubeFace)
2 {
3     H_AUTO_OGL(CDriverGL_setRenderTarget )
4
5     // Check the texture is a render target
6     if (tex)
7         nlassertex (tex->getRenderTarget(), ("The texture must be a render target. Call ITexture::setRenderTarget(true)."));
8
9     _RenderTargetFBO = supportFrameBufferObject();
10    _RenderTargetPackedDepthStencil = supportPackedDepthStencil();
11
12    // make backup of offscreen buffer to old texture if not using FBOs
13    if (!_RenderTargetFBO && !_TextureTarget && (_TextureTarget != tex || !_TextureTargetCubeFace != cubeFace) &&
    _TextureTargetUpload)
14    {
```

```

15     // Flush it
16     copyFrameBufferToTexture (_TextureTarget, _TextureTargetLevel, _TextureTargetX, _TextureTargetY, 0,
17         0, _TextureTargetWidth, _TextureTargetHeight, _TextureTargetCubeFace);
18 }
19
20 // Backup the texture
21 _TextureTarget = tex;
22
23 // Set a new texture as render target
24 if (tex)
25 {
26     // Backup the parameters
27     _TextureTargetLevel = mipmapLevel;
28     _TextureTargetX = x;
29     _TextureTargetY = y;
30     _TextureTargetWidth = width;
31     _TextureTargetHeight = height;
32     _TextureTargetUpload = true;
33     _TextureTargetCubeFace = cubeFace;
34
35     if (_RenderTargetFBO)
36     {
37         uint32 w, h;
38         getWindowSize(w, h);
39
40         getViewport(_OldViewport);
41         CViewport newVP;
42         newVP.init(0, 0, ((float)width/(float)w), ((float)height/(float)h));
43         setupViewport(newVP);
44         setupScissor(_CurrScissor);
45         if (!tex->TextureDrvShare)
46             setupTexture(*tex);
47         return activeFrameBufferObject(tex);
48     }
49     else
50     {
51         // Update the viewport
52         setupViewport (_CurrViewport);
53         // Update the scissor
54         setupScissor (_CurrScissor);
55         // _RenderTargetFBO = false;
56         _OldViewport = _CurrViewport;
57     }
58 }
59 else
60 {
61     if (_RenderTargetFBO)
62         activeFrameBufferObject(NULL);
63     setupViewport(_OldViewport);
64     setupScissor(_CurrScissor);
65     _OldViewport = _CurrViewport;
66     _RenderTargetFBO = false;
67 }

```

```
68
69     return true;
70}
```

#5 - 05/28/2010 04:45 pm - vl

- Status changed from Validated to Assigned
- Assignee set to kerval
- Target version set to Version 0.8.0

#6 - 05/28/2010 07:46 pm - kerval

Oldest version I found :

```
1 bool CDriverGL::setRenderTarget (ITexture *tex, uint32 x, uint32 y, uint32 width, uint32 height, uint32 mipmapLevel, uint32 cubeFace)
2 {
3     H_AUTO_OGL(CDriverGL_setRenderTarget )
4
5     // Check the texture is a render target
6     if (tex)
7         nlassertex (tex->getRenderTarget(), ("The texture must be a render target. Call ITexture::setRenderTarget(true)."));
8
9     if(tex==NULL && _RenderTargetFBO)
10    {
11        activeFrameBufferObject(NULL);
12        setupViewport(_OldViewport);
13        _OldViewport = _CurrViewport;
14
15        _RenderTargetFBO = false;
16        return false;
17    }
18    else if(tex && tex->isBloomTexture() && supportBloomEffect()) // && activeFrameBufferObject(tex)
19    {
20        uint32 w, h;
21        getWindowSize(w, h);
22
23        getViewport(_OldViewport);
24        CViewport newVP;
25        newVP.init(0, 0, ((float)width/(float)w), ((float)height/(float)h));
26        setupViewport(newVP);
27
28        _RenderTargetFBO = true;
29
30        return activeFrameBufferObject(tex);
31    }
32    else
33    {
34        // Have a previous texture ?
35        if (_TextureTarget && (_TextureTarget != tex || _TextureTargetCubeFace != cubeFace) && _TextureTargetUpload)
36        {
37            // Flush it
38            copyFrameBufferToTexture (_TextureTarget, _TextureTargetLevel, _TextureTargetX, _TextureTargetY, 0,
```

```

39     0, _TextureTargetWidth, _TextureTargetHeight, _TextureTargetCubeFace);
40 }
41
42 // Backup the texture
43 _TextureTarget = tex;
44
45 // Set a new texture as render target ?
46 if (tex)
47 {
48     // Backup the parameters
49     _TextureTargetLevel = mipmapLevel;
50     _TextureTargetX = x;
51     _TextureTargetY = y;
52     _TextureTargetWidth = width;
53     _TextureTargetHeight = height;
54     _TextureTargetUpload = true;
55     _TextureTargetCubeFace = cubeFace;
56 }
57
58 // Update the viewport
59 setupViewport (_CurrViewport);
60
61 // Update the scissor
62 setupScissor (_CurrScissor);
63
64 _RenderTargetFBO = false;
65 _OldViewport = _CurrViewport;
66 }
67
68 return true;
69}

```

#7 - 06/03/2010 01:46 pm - kerval

- Status changed from Assigned to Resolved

- % Done changed from 0 to 100

Applied in changeset r270.

#8 - 06/03/2010 01:48 pm - kerval

It was a trivial error... Stencil was not defined :s

I deduced that after investigating more than 10 hours to fix a lot of parts and finally comparing Windows and Linux pixel format settings.

#9 - 06/07/2010 10:28 am - kerval

- Status changed from Resolved to Assigned

I tried with a fresh mercurial and it doesn't seem to be fixed...

#10 - 06/07/2010 10:29 am - kerval

- % Done changed from 100 to 90

#11 - 06/07/2010 12:30 pm - kerval

- Status changed from Assigned to Resolved

- % Done changed from 90 to 100

Applied in changeset r289.

#12 - 06/07/2010 12:31 pm - kerval

Please could you confirm it's working under your configurations ?

#13 - 06/07/2010 01:42 pm - jayme

kerval wrote:

| Please could you confirm it's working under your configurations ?

Works for me (with and without bloom).

#14 - 06/10/2010 01:06 am - ThibG

With bloom, the shadows are buggy and don't get updated (well, the animation is, but not the orientation nor the equipments)

#15 - 06/10/2010 09:09 am - kerval

Are you using nouveau ?

If yes, it could be a bug in nouveau FBO implementation (or a not yet implemented feature).

<http://nouveau.freedesktop.org/wiki/FeatureMatrix>

#16 - 06/22/2010 11:49 am - kerval

- Status changed from Resolved to Closed

#17 - 07/28/2010 10:16 am - kerval

- Category changed from NeL: General to OS: GNU/Linux