Ryzom - Feature # 784

Status:	Closed	**Priority:**	Normal
Author:	kervala	**Category:**	NeL: General
Created:	12/22/2009	**Assignee:**	kervala
Updated:	10/02/2010	**Due date:**	
Subject:	Make non power of 2 textures working		

Description

Currently, non-power of 2 textures (CTextureFile) are displayed as a default texture with a "2", but recent graphic cards are supporting them.

For OpenGL, we just need to check for GL_ARB_texture_non_power_of_two extension, if it's present, we can use texture which haven't a power of 2 size.

History

#1 - 12/22/2009 06:47 pm - kervala

```
if (caps.TextureCaps & D3DPTEXTURECAPS_POW2)
{
    if(caps.TextureCaps & D3DPTEXTURECAPS_NONPOW2CONDITIONAL)
    {
        //But, in certain cases textures can ignore the power of 2 limitation
    }
}
else
{
    //Textures do not need to be a power of 2 in size
}
```

From D3D headers :

Device can use non-POW2 textures if:

1) D3DTEXTURE_ADDRESS is set to D3DTADDRESS_CLAMP for this texture's stage
2) D3DRS_WRAP(N) set to 0 for this texture's coordinates

```
PD3DDEVICE->SetRenderState(D3DRS_WRAP0, 0);
PD3DDEVICE->SetTextureStageState(0, D3DTSS_ADDRESSU, D3DTADDRESS_CLAMP);
PD3DDEVICE->SetTextureStageState(0, D3DTSS_ADDRESSV, D3DTADDRESS_CLAMP);
PD3DDEVICE->SetTextureStageState(0, D3DTSS_ADDRESSW, D3DTADDRESS_CLAMP);
```

3) mip mapping is not enabled (use magnification filter only)
4) Texture formats must not be DXT1-5

```
if (FAILED(PD3DDEVICE->CreateTexture(m_pTextureInfo[nFrame].nWidth, m_pTextureInfo[nFrame].nHeight, 1,
0, D3DFMT_A4R4G4B4, D3DPOOL_MANAGED, &m_pTextureInfo[nFrame].pTexture)))
return NULL;
```

#2 - 12/22/2009 09:21 pm - kervala

- Assignee set to kervala

#3 - 12/23/2009 03:30 pm - vl

- Status changed from New to Assigned

#4 - 12/25/2009 01:10 pm - kervala

- Status changed from Assigned to Resolved

- % Done changed from 0 to 100

Applied in changeset r2156.

#5 - 03/05/2010 05:25 pm - sfb

- Status changed from Resolved to Closed

#6 - 06/24/2010 02:38 pm - kervala

- Target version set to 0.8.0

#7 - 09/29/2010 09:47 pm - kervala

- Project changed from NeL to Ryzom

- Category deleted (3d)

- Target version deleted (0.8.0)

#8 - 10/02/2010 11:50 am - kervala

- Category set to NeL: General

- Target version set to Version 0.8.0