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Subject: Re: UltimateOpenGL [BETA] 3D Engine  
Posted by [Xemuth](#) on Fri, 22 Nov 2019 20:41:52 GMT  
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Hello !

Here you can find an exemple of UltimateOpenGL working with GLCtrl of Upp :

```
#include <CtrlLib/CtrlLib.h>
#include <GLCtrl/GLCtrl.h>
#include <UltimateOpenGL_V2/UltimateOpenGL.h>
using namespace Upp;

struct OpenGLExample : GLCtrl {
    Point point;

    String TransformFilePath(String FilePath){
        String FilePathBuffer = String(__FILE__);
        String FilePathTempory = "";
        FilePathBuffer = Replace(FilePathBuffer,Vector<String>{"\""},Vector<String>{/"/});

        Replace(FilePath,Vector<String>{"\""},Vector<String>{/"/});
        FilePathTempory = FilePathBuffer.Left(FilePathBuffer.ReverseFind("/")) + FilePath;
        if(!FileExists(FilePathTempory)){
            return (GetExeFolder() + FilePath);
        }
        return FilePathTempory;
    }

    Vector<float> CubeVertices{
        -0.2f, -0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 0.0f, 0.0f,
        0.2f, -0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 1.0f, 0.0f,
        0.2f, 0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 1.0f, 1.0f,
        0.2f, 0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 1.0f, 1.0f,
        -0.2f, 0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 0.0f, 1.0f,
        -0.2f, -0.2f, -0.2f, 0.0f, 0.0f, -0.4f, 0.0f, 0.0f,

        -0.2f, -0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 0.0f, 0.0f,
        0.2f, -0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 1.0f, 0.0f,
        0.2f, 0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 1.0f, 1.0f,
        0.2f, 0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 1.0f, 1.0f,
        -0.2f, 0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 0.0f, 1.0f,
        -0.2f, -0.2f, 0.2f, 0.0f, 0.0f, 0.4f, 0.0f, 0.0f,

        -0.2f, 0.2f, 0.2f, -0.4f, 0.0f, 0.0f, 1.0f, 0.0f,
        -0.2f, 0.2f, -0.2f, -0.4f, 0.0f, 0.0f, 1.0f, 1.0f,
        -0.2f, -0.2f, -0.2f, -0.4f, 0.0f, 0.0f, 0.0f, 1.0f,
        -0.2f, -0.2f, -0.2f, -0.4f, 0.0f, 0.0f, 0.0f, 1.0f,
        -0.2f, -0.2f, 0.2f, -0.4f, 0.0f, 0.0f, 0.0f, 0.0f,
```

```

-0.2f, 0.2f, 0.2f, -0.4f, 0.0f, 0.0f, 1.0f, 0.0f,
0.2f, 0.2f, 0.2f, 0.4f, 0.0f, 0.0f, 1.0f, 0.0f,
0.2f, 0.2f, -0.2f, 0.4f, 0.0f, 0.0f, 1.0f, 1.0f,
0.2f, -0.2f, -0.2f, 0.4f, 0.0f, 0.0f, 0.0f, 1.0f,
0.2f, -0.2f, -0.2f, 0.4f, 0.0f, 0.0f, 0.0f, 1.0f,
0.2f, -0.2f, 0.2f, 0.4f, 0.0f, 0.0f, 0.0f, 0.0f,
0.2f, 0.2f, 0.2f, 0.4f, 0.0f, 0.0f, 1.0f, 0.0f,
0.2f, -0.2f, -0.2f, 0.0f, -0.4f, 0.0f, 0.0f, 1.0f,
0.2f, -0.2f, -0.2f, 0.0f, -0.4f, 0.0f, 1.0f, 1.0f,
0.2f, -0.2f, 0.2f, 0.0f, -0.4f, 0.0f, 1.0f, 0.0f,
0.2f, -0.2f, 0.2f, 0.0f, -0.4f, 0.0f, 1.0f, 0.0f,
-0.2f, -0.2f, 0.2f, 0.0f, -0.4f, 0.0f, 0.0f, 0.0f,
-0.2f, -0.2f, -0.2f, 0.0f, -0.4f, 0.0f, 0.0f, 1.0f,
-0.2f, 0.2f, -0.2f, 0.0f, 0.4f, 0.0f, 0.0f, 1.0f,
0.2f, 0.2f, -0.2f, 0.0f, 0.4f, 0.0f, 1.0f, 1.0f,
0.2f, 0.2f, 0.2f, 0.0f, 0.4f, 0.0f, 1.0f, 0.0f,
0.2f, 0.2f, 0.2f, 0.0f, 0.4f, 0.0f, 1.0f, 0.0f,
-0.2f, 0.2f, 0.2f, 0.0f, 0.4f, 0.0f, 0.0f, 0.0f,
-0.2f, 0.2f, -0.2f, 0.0f, 0.4f, 0.0f, 0.0f, 1.0f
};

UltimateOpenGL_Context context;
bool isLoaded = false;

```

```

virtual void GLPaint() {
if(!isLoaded){
    glEnable(GL_DEPTH_TEST);
    glEnable(GL_MULTISAMPLE);
    context.SetScreenSize(GetSize().cx,GetSize().cy);
Scene& presentation = context.AddScene("presentation"); //Create Scene
    unsigned int camera = presentation.AddCamera(); //Adding camera to the scene
    Object3D& cube = presentation.CreateGameObject<Object3D>("cube",CubeVertices);
//Adding the cube
    context.AddTextures("upp",TransformFilePath("/texture/upp.png"),SAMPLE_RGB);
    cube.BindTexture("upp",0.64f);

    cube.GetTransform().SetNewPosition(glm::vec3(0.0f,0.0f,-1.0f)); // move the cube forward the
camera
    presentation.Load(); //Loading the scene

    cube.SetOnDrawFunction([](GameObject& myGameObject){
        myGameObject.GetTransform().RotateFromEulerAngles(0.5*
myGameObject.GetScene()->GetContext()->GetDeltaTime(),glm::vec3(1.0f,1.0f,1.0f)); // rotating
of 0.001 degree every frame1

```

```

    });

    GameObject& sun = presentation.CreateGameObject<GameObject>("sun");

    sun.AddDirLight("lightSun", DirLight(glm::vec3(0.0f,-1.0f,0.0f),glm::vec3( 0.5f, 0.5f,
0.5f),glm::vec3(0.9f, 0.9f, 0.9f) ,glm::vec3(0.5f, 0.5f, 0.5f)));
    sun.GetTransform().SetNewPosition(glm::vec3(0.0f,3.0f,0.0f));

    isLoaded=true;
}
this->GetTopWindow()->Title("UltimateOpenGL UPP GLCtrl - " + AsString(context.GetFPS()) + " FPS");

context.Draw(); //Drawing the context (active scene)
Refresh();

glEnd();
}
};

GUI_APP_MAIN
{
Ctrl::GlobalBackPaint();
TopWindow win;
OpenGLExample gl;
gl.SetFrameInsetFrame());
win.Add(gl.HSizePos(10, 10).VSizePos(10, 10));
win.NoSizeable();

win.SetRect(0, 0, 320, 320);
win.Open();
win.Run();
}

```

Here you can find package with texture and .exe :

#### File Attachments

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- 1) [UltimateOpenGL and Upp GLCTRL.7z](#), downloaded 310 times
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