

Documentary

Controls:

WASD keys to move the camera. Mouse to rotate and change moving direction

Effects:

All mentioned in the project idea:

- Omni Directional Shadow Mapping: Shadows on the floor, on the walls and on some objects too (self shadowing)
- Normal Mapping: On all objects in the scene. Four different materials/maps were used. Interesting fact: Normal maps baked on Blender do not reflect the light correctly.
- Glow: On all objects in the scene and the light bulb.

Lighting:

Simple Phong shader with a point light source.

Scene:

The interior of an abandoned house showing all the effects listed above.

Normal Mapping implemented according to the algorithm in OpenGL Superbible

ODS Mapping implemented according to the lecture

Glow implemented according to a Bloom Tutorial. Moving patterns implemented by restraining the sampling area of the glow map.

Graphics Card:

NVIDIA

Libraries:

Assimp: <http://assimp.sourceforge.net/>

GLFW: <http://www.glfw.org/>

GLEW: <http://glew.sourceforge.net/>

Stb_loader: https://github.com/nothings/stb/blob/master/stb_image.h

MATHFU: <https://google.github.io/mathfu/>