

Design document

Qiang Xiao

1. Camera class & Function ProcessKeyPressedEvent:

Control the camera with keyboard manipulations.

w: move camera forward

s: move camera backward

a: move camera left

d: move camera right

i: move camera up

k: move camera down

j: rotate camera right

l: rotate camera left

2. Functions:

initGL: main function, implement diffused lighting

updateBufferObject: update the data of buffer

createProgram: create the shader program

drawLoop: draw moving animations

useData: use the data of models from simpleObjectLibrary.js and bind it to buffer

drawFloor: translate and scale a very big cube. Make it as our floor

drawCube: scale and translate and rotate the cube

drawRing: draw a ring

drawCone: the cone translate with the ring and rotate itself

drawTorus: draw a translating torus

drawSphere: draw a translating sphere

utils: used by every draw function.