Project C: Shaded and lighted 3D Polygons in the ground
LINGYUN LI
LLN0634

User's Guide

Goal: Make shaded 3D objects with lights and materials. Users can smoothly control 3D camera positions and aiming direction. Users can drag the head light smoothly.

Users can use DAT.GUI to switch on off the headlight and the lamp.

Users can use DAT.GUI to adjust the R,G,B values for lamp ambient, diffuse and specular light.

Users can hit left, right, up, down arrow to make the camera step around.

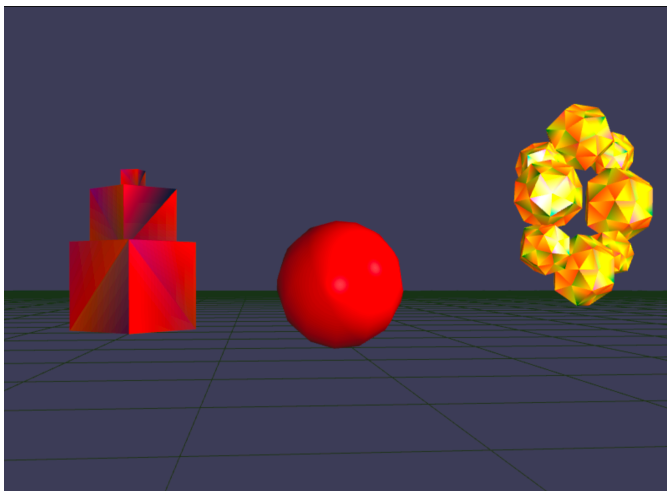Users can hit A D W S keys to change the camera's aiming direction.

Users can switch between lighting and shading methods.

Users can change the cubes' texture. (Firefox needed)
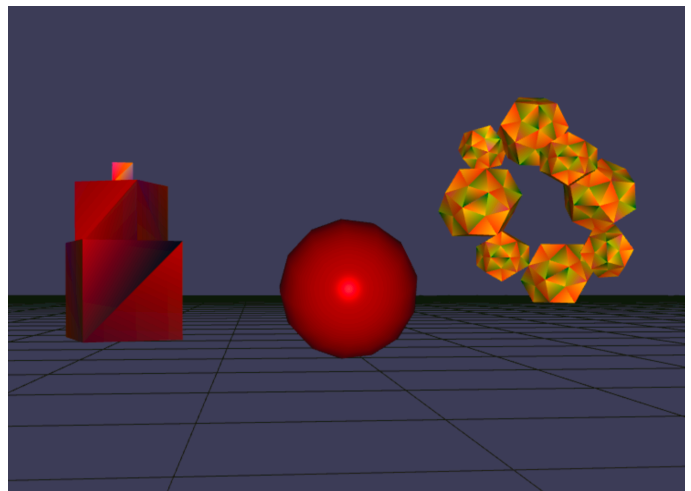
Results

Turn lamp down
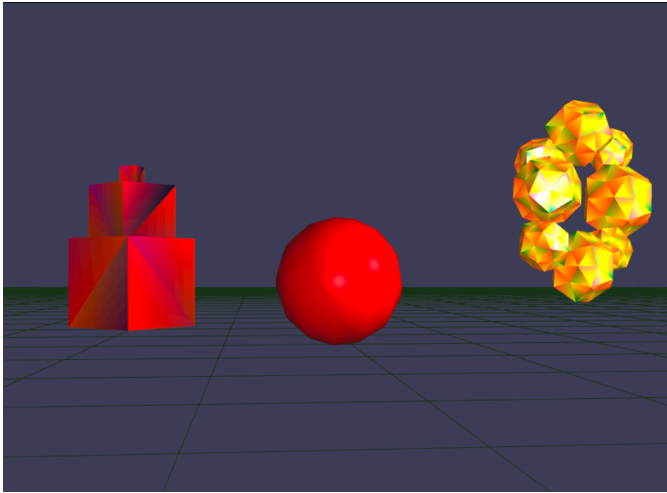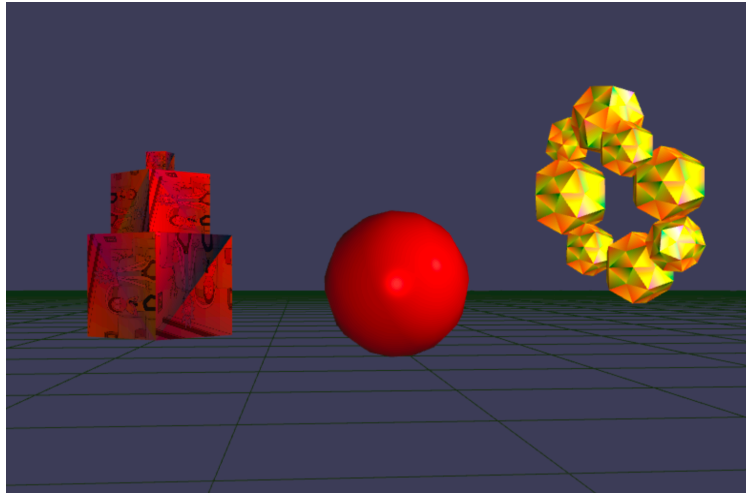User switches the lamp light off.

Before switching

After switching

Changing the cubes' texture:
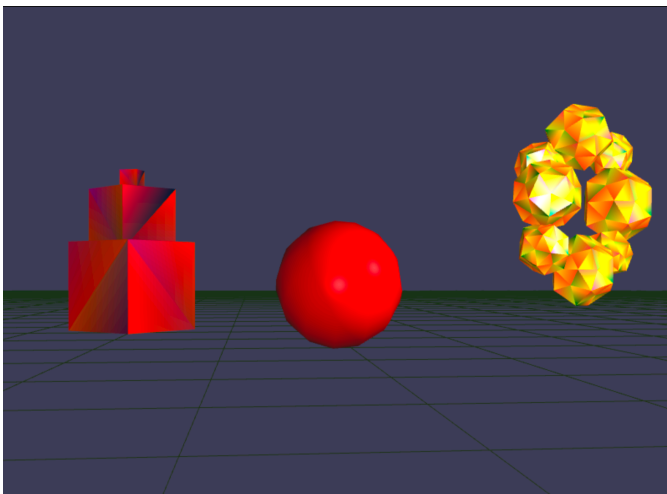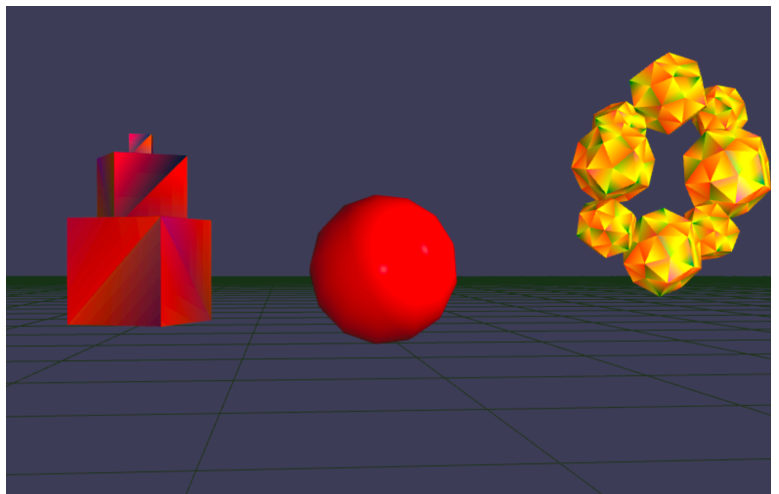Users use DAT.GUI to change the cubes' texture.

Before changing

After changing

Switching lighting and shading method:
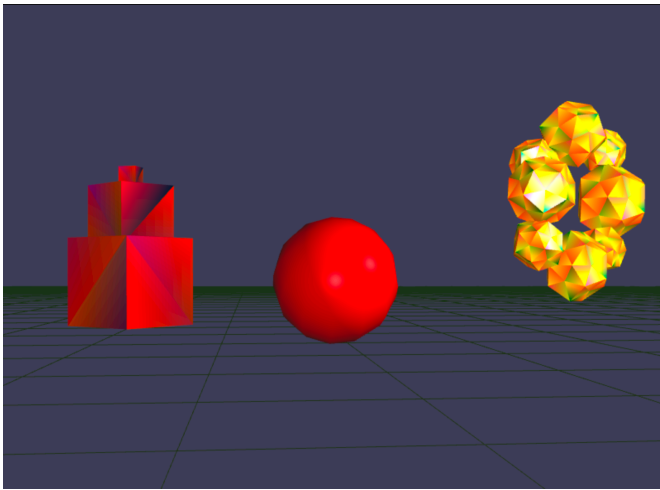Users use DAT.GUI to switch lighting and shading method.
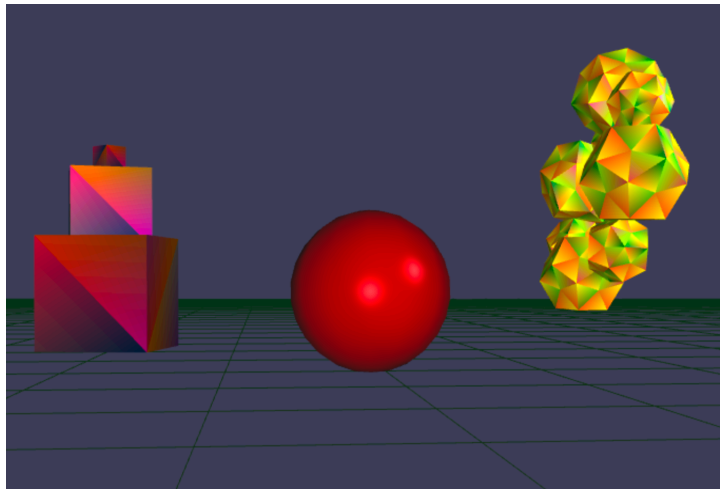

Before switching

After switching to Phong lighting

Changing lamp ambient and diffuse:
Users use DAT.GUI to change the lamp ambient and diffuse R,G,B.

Before changing

After changing

Scene Graph