

CSC 155: Assignment 3

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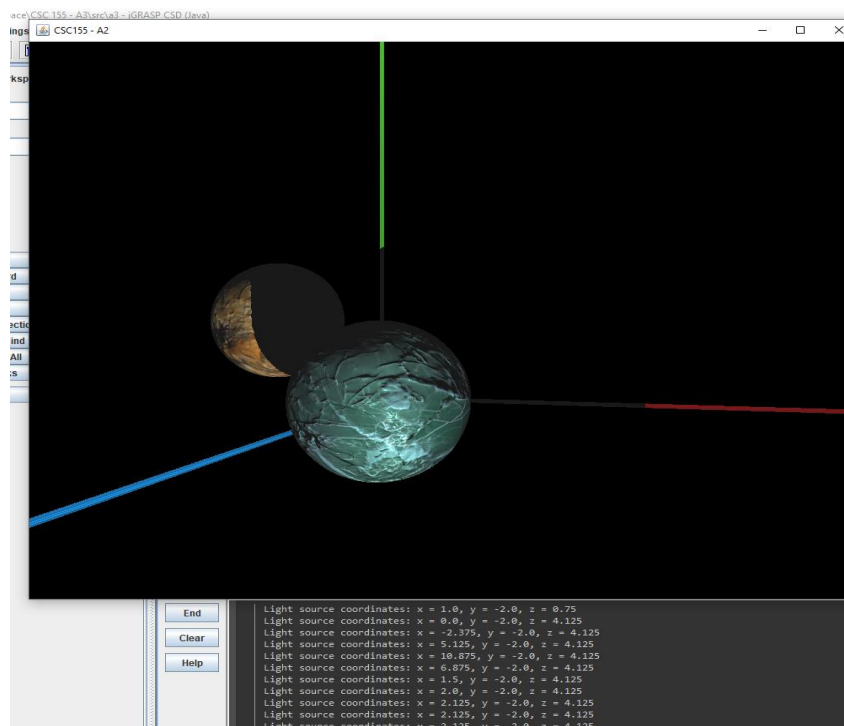
Objects in Scene: The scene includes two planets which I also used for Assignment 2, but now they also have normal maps included to give the illusion of having bumps on their surfaces. Both planets have an associated Material, their own textures, and lighting/shadows is taken into account when determining the color of each pixel for the planets.

Source Information: The 2 planet textures I used are free and can be found on the following site: <http://freebitmaps.blogspot.com/>

Near the bottom of each page it is stated that the files are for free use.

Things I Did Differently: I made an attempt at loading an .obj file and to color it with a simple built-in bronze material. The Bomb.obj file is included within the src/a3 folder, but I failed to successfully debug the issues to make it work. The code to load up the obj file, setup the vertices, setup the VBO's, and draw the Bomb within the scene are included in the source code, but they have all been commented out. I've also included the original Blender file for the Bomb that I created in the topmost layer of the submitted folder. Also, every two seconds the current XYZ coordinates for the light source will print to the console, as I did not draw anything at the light's location.

Screenshot:



How to run from command line: Unzip the submitted folder, and go into the “src” folder. Copy the file path from this directory. Open the command line and change the directory using the path you just copied. The following 2 commands will compile and run the program:

```
javac a3/*.java
```

```
java -Dsun.java2d.d3d=false a3.Starter
```

If this doesn't work, included directly within the src folder are 2 batch files that can also compile and run the program.

RVR5029 Machine Used: The program was tested on the computer labeled 'MYST', which is the leftmost machine in the front row.

CONTROLS:

w – move the camera forward a small amount (i.e. in the positive-N direction).
s – move the camera backward a small amount (i.e. in the negative-N direction).
a – move the camera a small amount in the negative-U direction (also called “strafe left”).
d – move the camera a small amount in the positive-U direction (also called “strafe right”).
e – move the camera a small amount in the negative-V direction (“move down”).
q – move the camera a small amount in the positive-V direction (“move up”).
LEFT and RIGHT arrow – rotate the camera by a small amount left/right around its V axis (“pan”).
UP and DOWN arrow – rotate the camera by a small amount up/down around its U axis (“pitch”).

o – move the light forward

k – move the light backward

j – move the light left

l – move the light right

p – move the light down

i – move the light up