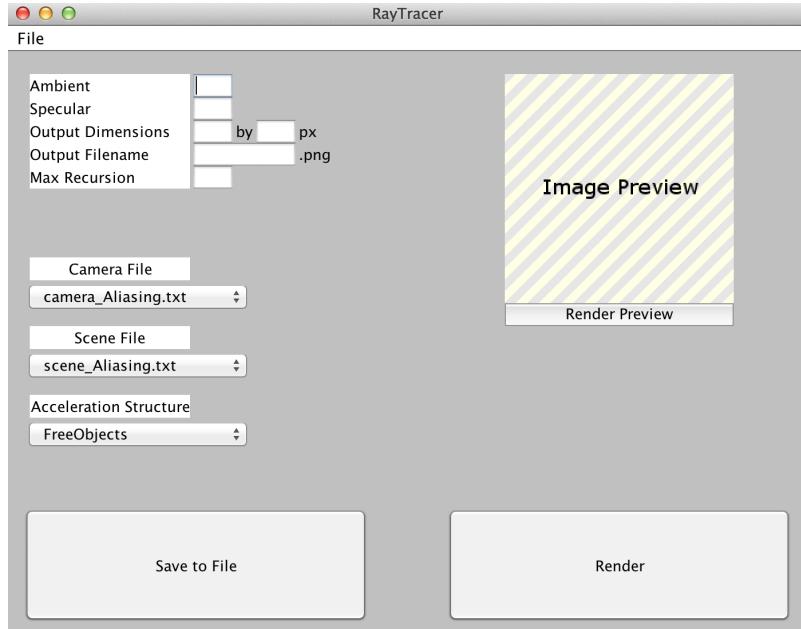
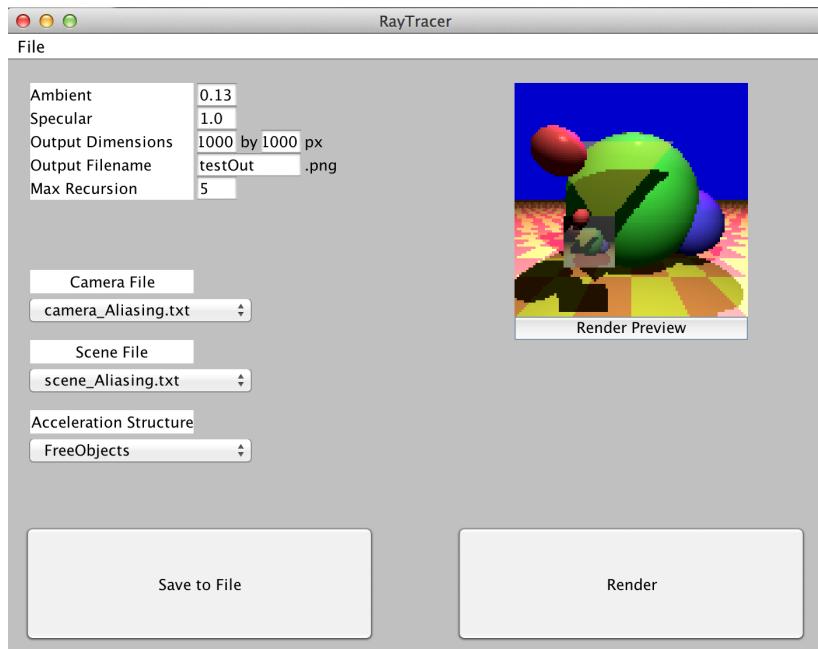


Ray Tracer Manual Test Plan

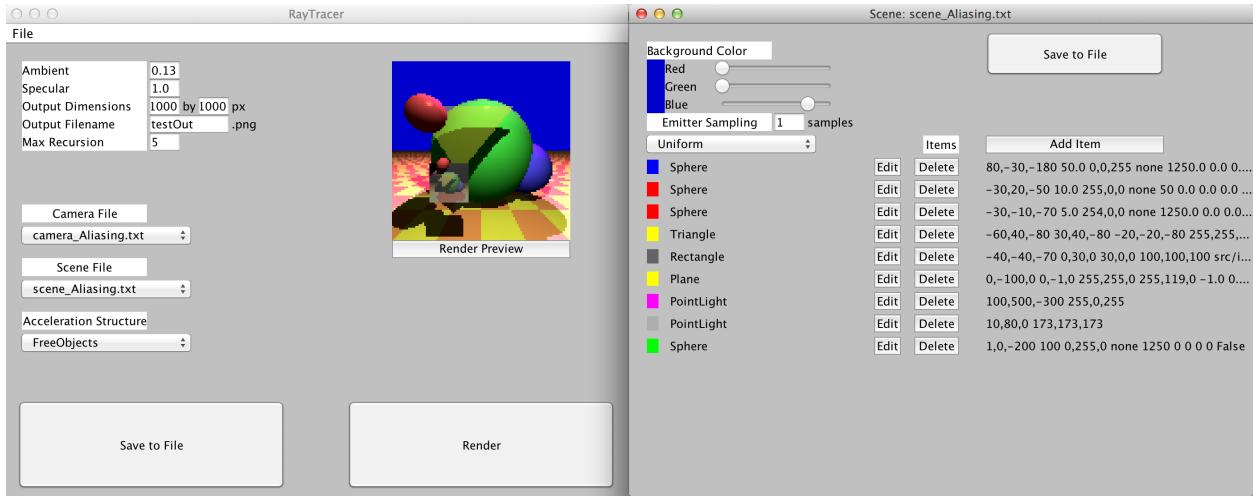
1. Navigate to “Final Project”/src/gui/RenderingInterface.java
2. Run it



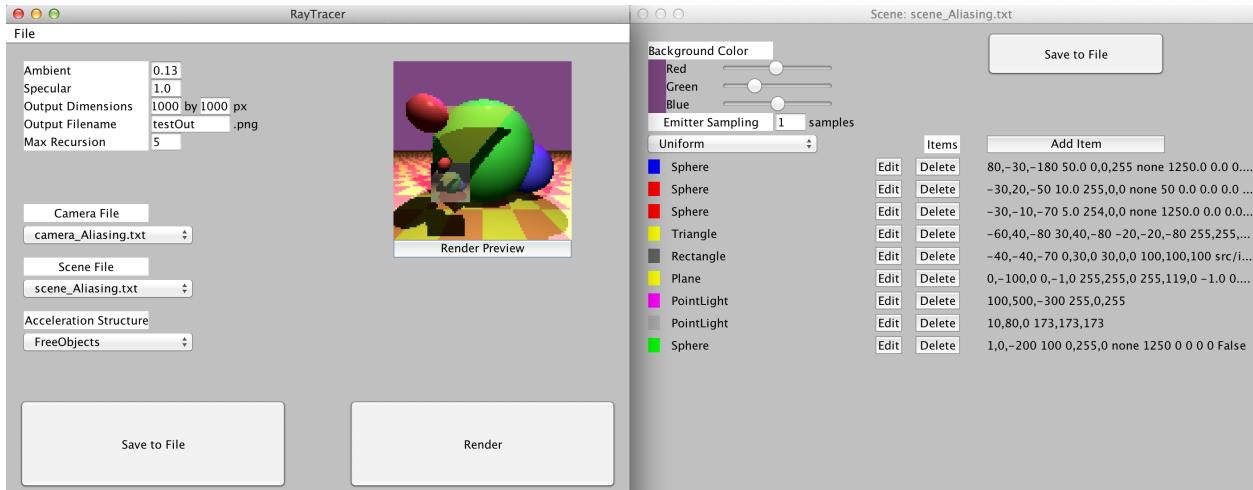
3. File > Load > Rendering
4. Select settings_Aliasing.txt
5. Render Preview



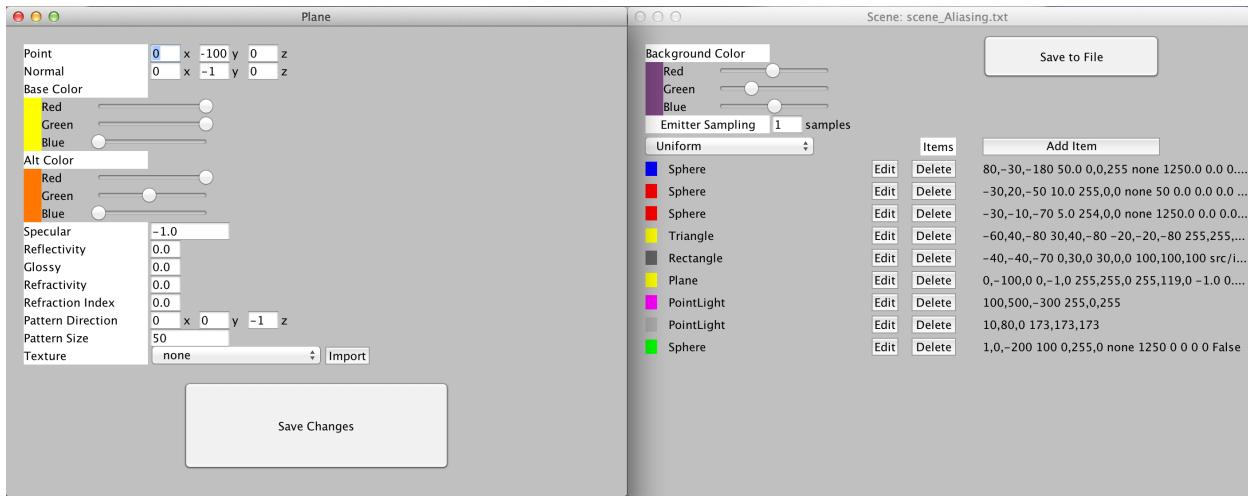
6. Notice the checkered plane.
7. File > Load > Scene
8. Load scene_Aliasing.txt



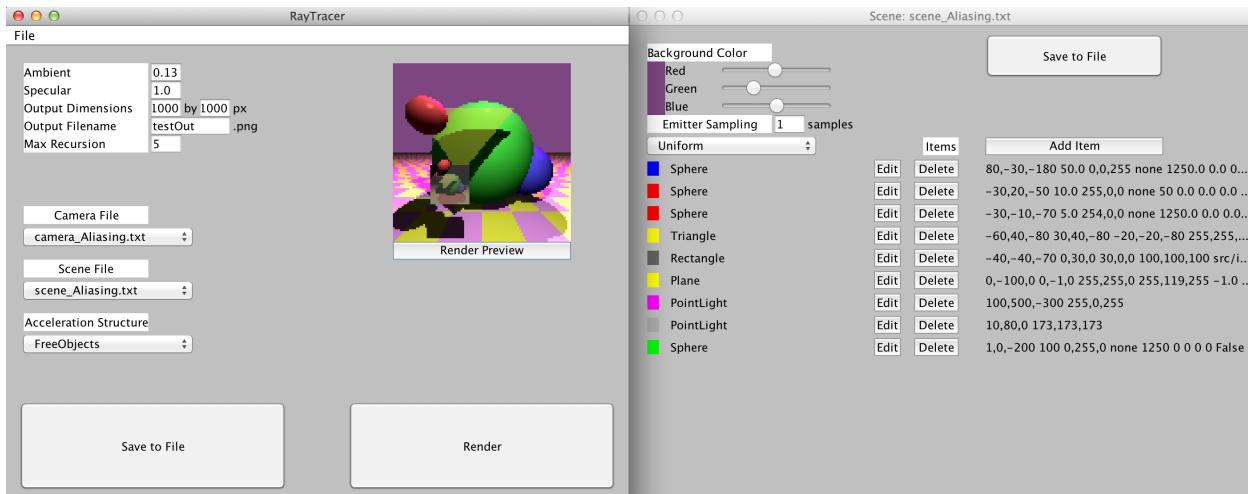
9. The background color is now set by a series of sliders. Move them around.
10. Save to file, hit enter, and Render Preview



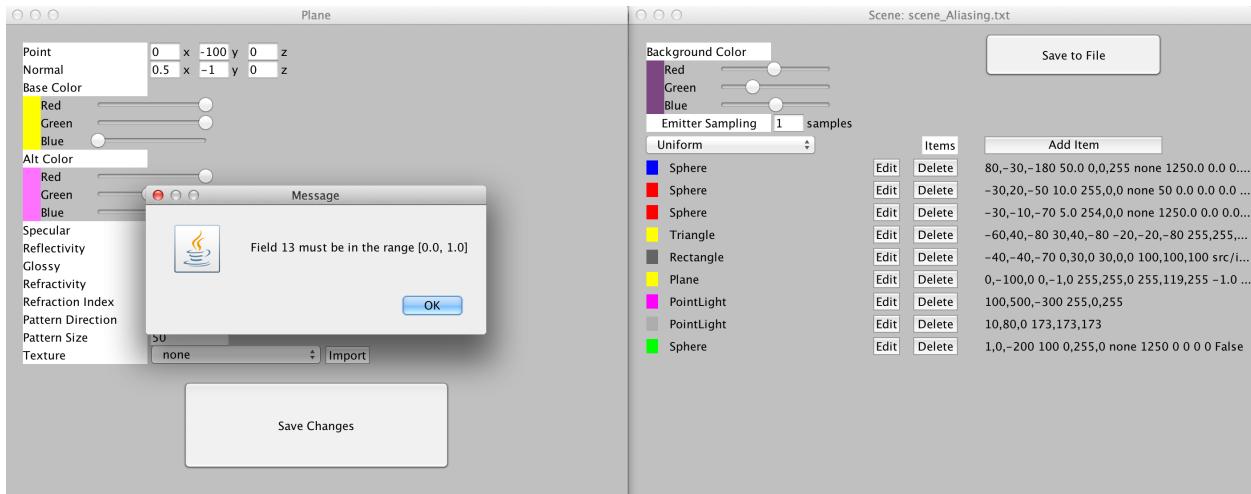
11. The background color has been updated. The rectangle near the background color sliders changes to match the color specified by the sliders as they move.
12. Each row under the “Items” section represents an item in the scene (geometry and lights)
13. The color next to the name of the item type is the primary color of that item - this is to help distinguish the items.
14. On the far right is a plain text description of the item - this is how the item is stored on disk. It's displayed here to further make the objects identifiable.
15. Click “Edit” for the Plane



16. This is the interface for editing a plane.
17. The color sliders operate in the same way as the background color slider. They determine the color of the chessboard pattern.
18. Crank up the blue on the Alt Color, Save Changes, Save to File, and Render Preview.

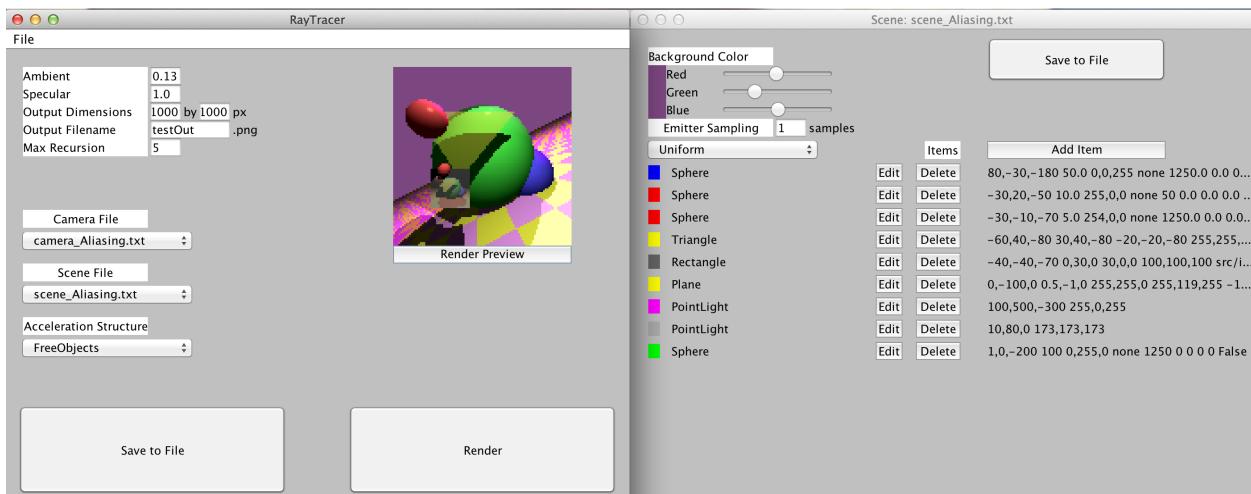


19. The chessboard pattern is now different.
20. Once again, Edit the Plane.
21. Edit the normal to 0.5, -1, 0
22. Edit reflectivity to -1 (an invalid value)
23. Click Save Changes



24. We are notified of the invalid input, and the range of accepted values.

25. Change reflectivity back to 0.0. Save Changes, Save to File, and Render Preview.



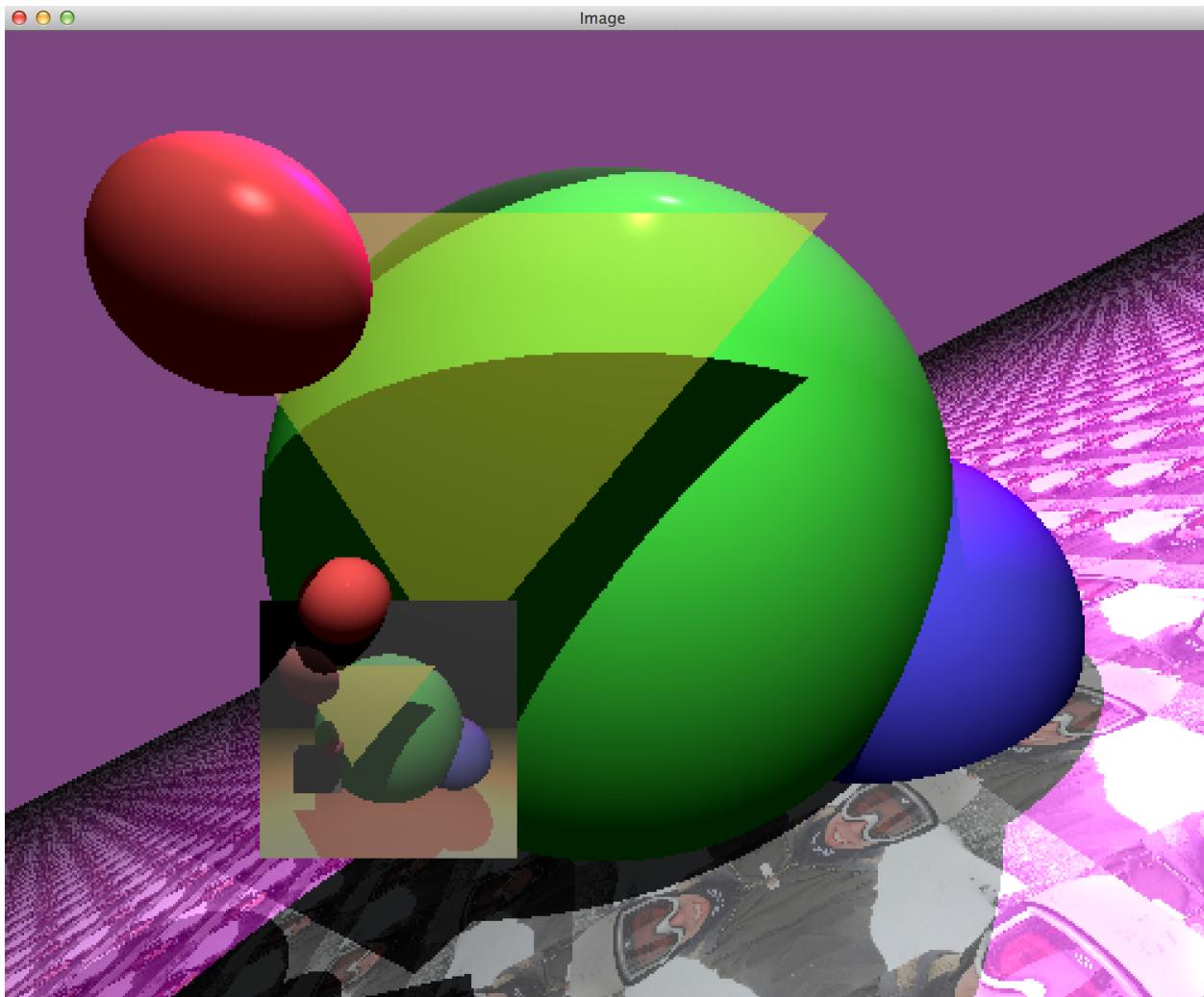
26. The plane has rotated, but the pattern has been preserved. Yay vector math!

27. Edit the Plane again.

28. Edit the Texture to "skiing.png". Save Changes, Save to File, and Render Preview.

29. Render the scene.

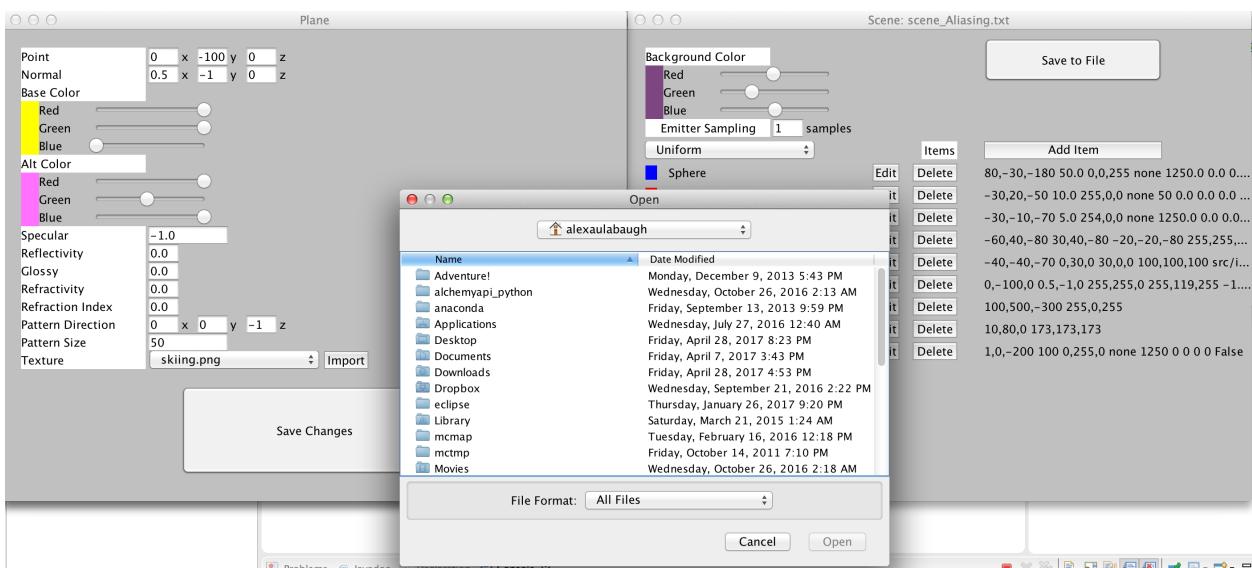
30. Save Changes, Save to File, and Render Preview.



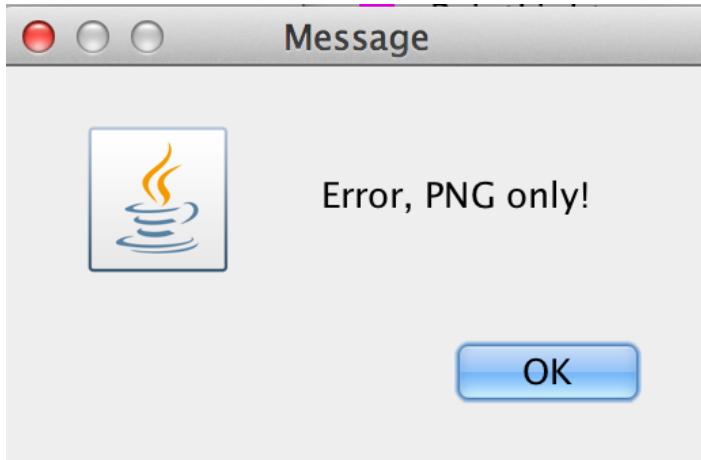
31. The image is repeating on the plane. It looks mirrored in one place due to crossing the YZ axis.

32. Edit the plane one more time.

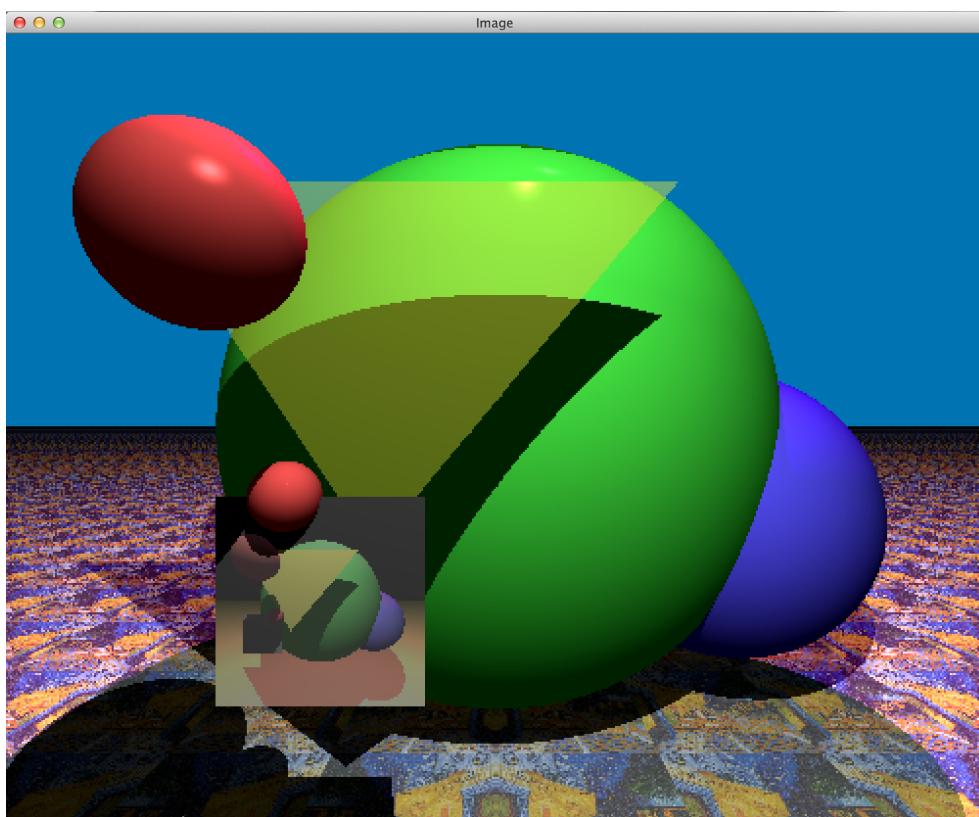
33. Click on “Import” next to texture.



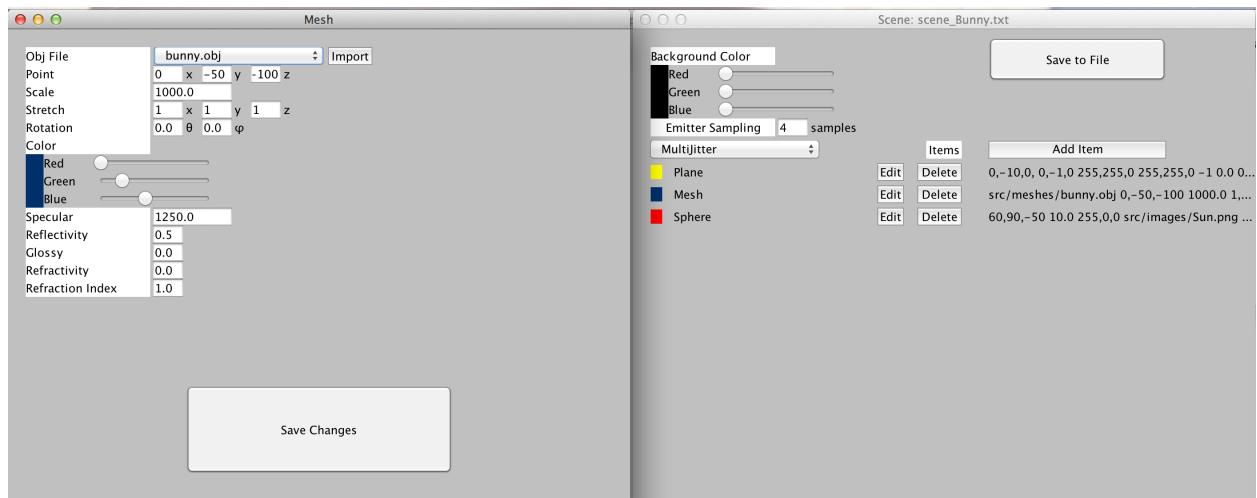
34. A file explorer has launched. Navigate to a file that is NOT a png file, and click open.



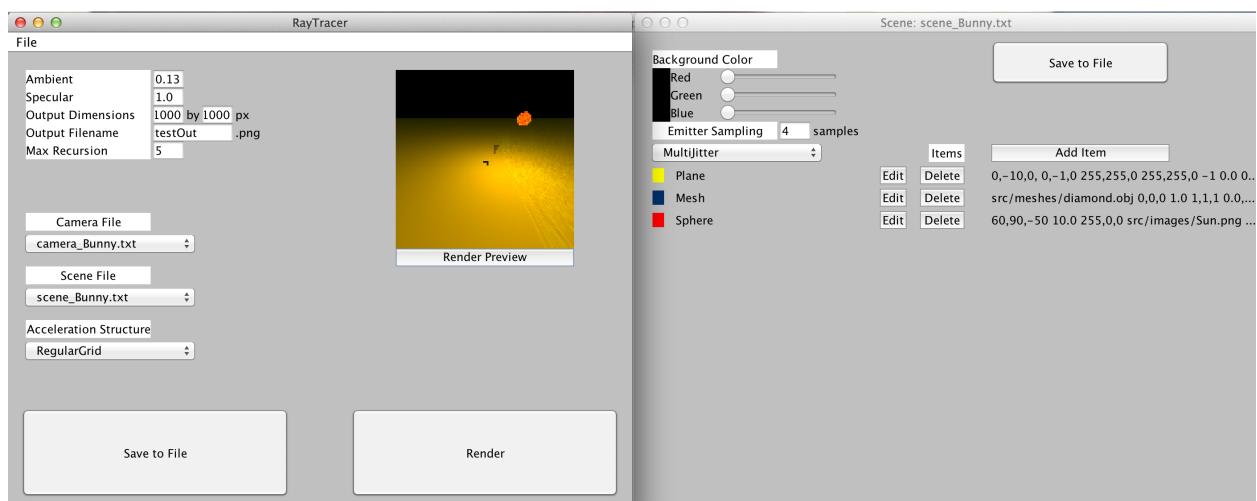
35. Click Import again, and this time select a png. It should copy the file into src/images
36. Return the normal to 0,-1,0 and the alt color to orange (it looks better).
37. Change the pattern size to 100
38. Save changes
39. Make the sky blue again if you wish
40. Edit the point lights as desired
41. Save to File, and Render.



42. Here we see Cafe_Terrace_At_Night.png (Van Gogh) repeated on the ground.
43. We can also use this for .obj files - File > Load > Rendering settings_Bunny.txt
44. Render preview
45. File > Load > Scene scene_Bunny.txt
46. Edit the mesh



47. I've included diamond.obj, a VERY simply obj file in the "Final Project" folder, use the import feature to load it
48. Change scaling to 1.0 and the point to 0, 0, 0 (this is because the mesh is not spawned at the origin as usual)
49. Save Changes, Save to File, Render Preview.



50. You can sorta kinda see a triangle floating around there, that's the only triangle in the mesh.
51. Edit the mesh again, change back to bunny.obj, move to 0, -50, -100
52. Save Changes, Save to File, Render Preview. The bunny should be back.

53. The other items in the scene have similar controls - render and change scenes as desired to test them.