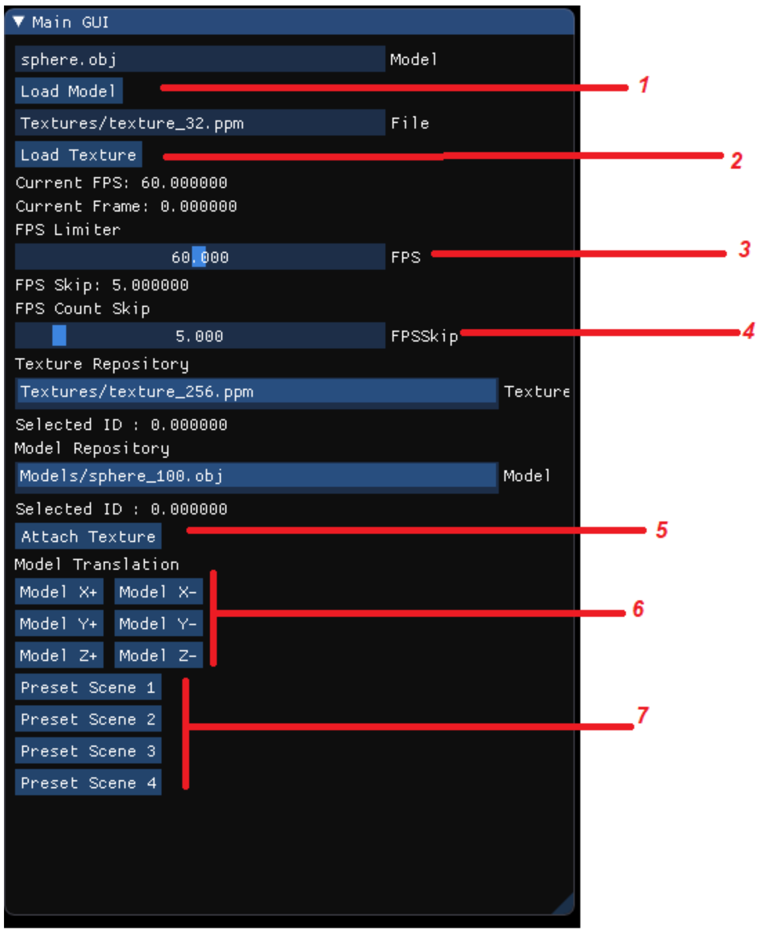
Read Me File



```
▼ Main GUI
sphere.obj                        Model
Load Model
Textures/texture_32.ppm           File
Load Texture
Current FPS: 60.000000
Current Frame: 0.000000
FPS Limiter
            60.000                FPS
FPS Skip: 5.000000
FPS Count Skip
            5.000                 FPSSkip
Texture Repository
Textures/texture_256.ppm                    Texture
Selected ID : 0.000000
Model Repository
Models/sphere_100.obj                       Model
Selected ID : 0.000000
Attach Texture
Model Translation
Model X+  Model X-
Model Y+  Model Y-
Model Z+  Model Z-
Preset Scene 1
Preset Scene 2
Preset Scene 3
Preset Scene 4
```

Running Instructions

This is a visual studio project. To open it you need to have visual studio 2017 or higher installed on a Windows Machine. To open it click the Object Space Lighting solution file (ObjectSpaceLighting.sln) or the A2.rigid.proj file.

Camera

To move the camera is 3D space use WASD. To rotate it hold right click and move the mouse. To zoom in and out use the scroll wheel.

Preset Scenes

To run the preset scenes, open the application and click on any of the preset scene button (mentioned as 7 in the image). It will load the scene. After this press the attach texture button (mentioned as 5 in the image). It will start the object space rendering. Please note you can load one scene at a time so to load another restart the application.

Manual Loading

To load a model manually you need to first provide the texture path in the texture label above the load texture button (mentioned as 2 in the image). Once you have entered the correct path press the load texture button.

Now provide the path for the model in the model label tab above the load model button (mentioned as 1 in the image). Press the load model button after entering path. The model will appear. Now press the attach texture button (mentioned as 5 in the image) and it will start the rendering.

Models are in models folder and textures of all sizes are present in textures folder. Make sure to load texture first. To load another model restart the application.

FPS Settings

To change the FPS count for the rendering system, use the slider FPS Limiter (mentioned as 3 in the image).

To change the FPS Skip count for the rendering system, use the slider FPS Skipper (mentioned as 4 in the image).

Model Translation

After loading an object to move it use the translation buttons (mentioned as 6 in the image).

Note

There are a lot of debugging functions in the code. These where used to get results out of compute shader, frame buffer etc in ppm files. These results are show in the report. These debugging functions are not attached to UI due to unstable nature of the debugging function and the rasterisor. This helps in preventing any unexpected crashes. If required user can manually call them with changes in code. These are as follows

1. ComputeShaderRP2.cpp function Write to file
2. DebuggingFunction.cpp
3. TextureViewQaud.cpp

Also the Forward Rendering System used for comparison has its code in RP3_Fragment shader.