

## User Manual

### Running the program

To run the program, the executable file run is to be executed using the following command from Linux terminal,

**./run**

After running the program, a text-based menu will appear in the terminal where the user can select a model using correspondent numerical value out of a list as shown in Figure 1. After the selection, the Viewer window (Figure 3) will open with the rendering of the model and the terminal will show the Rendering Parameter as Figure 2 which will change with user interactions.

```
=====
Select Model:

1. Bunny on a plane
2. Dragon
3. Horse

Model = █
```

Figure 1

```
fahim@fahim-OptiPlex-9010: ~/ATM_5
=====
===== RENDERING PARAMETERS =====
=====
Texture
=> Toggle using keyboard << R and T >> : textures/fig-10d.png
Model size
=> Change using keyboard << O and P >> : 4.000000
Max factor (r)
=> Change using keyboard << N and M >> : 6.450006
=====
█
```

Figure 2

**Note:** The plane is only enabled for the bunny, but, disabled for the other models.

### Camera Control

For controlling the camera or rotating the model along Y-axis, **Z** and **X** keys from the keyboard or the mouse can be used.

### **Moving the light**

For moving the position of the light **W**, **S**, **A**, **D**, **Q** and **E** keys from the keyboard can be used.

### **Scaling the model**

For scaling the model (enlarging, shrinking) **O** and **P** keys from the keyboard can be used.

### **Changing the Rendering Parameters in runtime**

Toggle textures – Keyboard keys **R** and **T**

Change the value of Max factor,  $r$  – Keyboard keys **N** and **M**

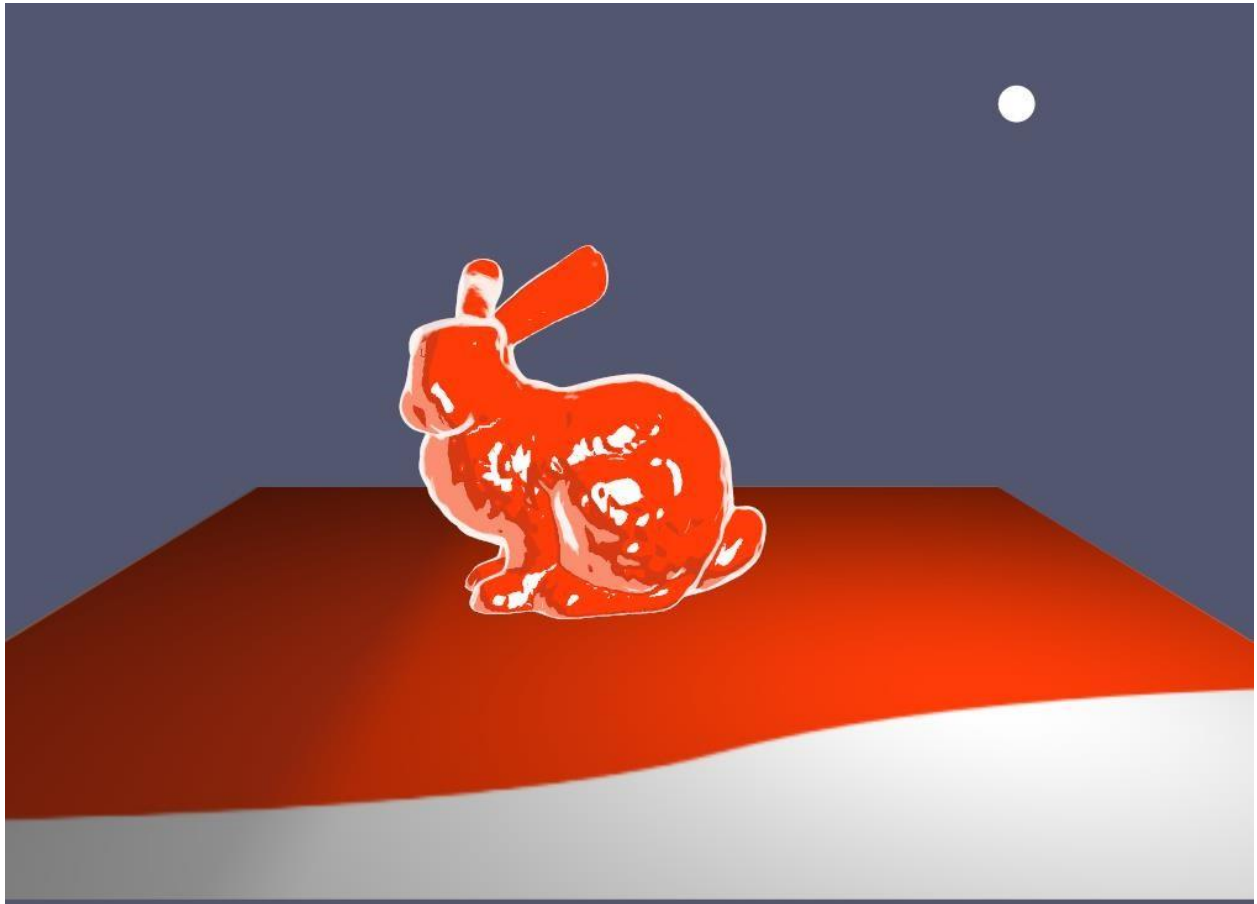


Figure 3