

CSE 461
Computer Graphics
Spring 2023
PA 1 Report

How to compile:

To compile ray tracer program, you can use “make” command or you can compile it including main.cpp and pugixml.cpp file inside pugixml/src folder which is xml parser used to parsing xml files (License file included).

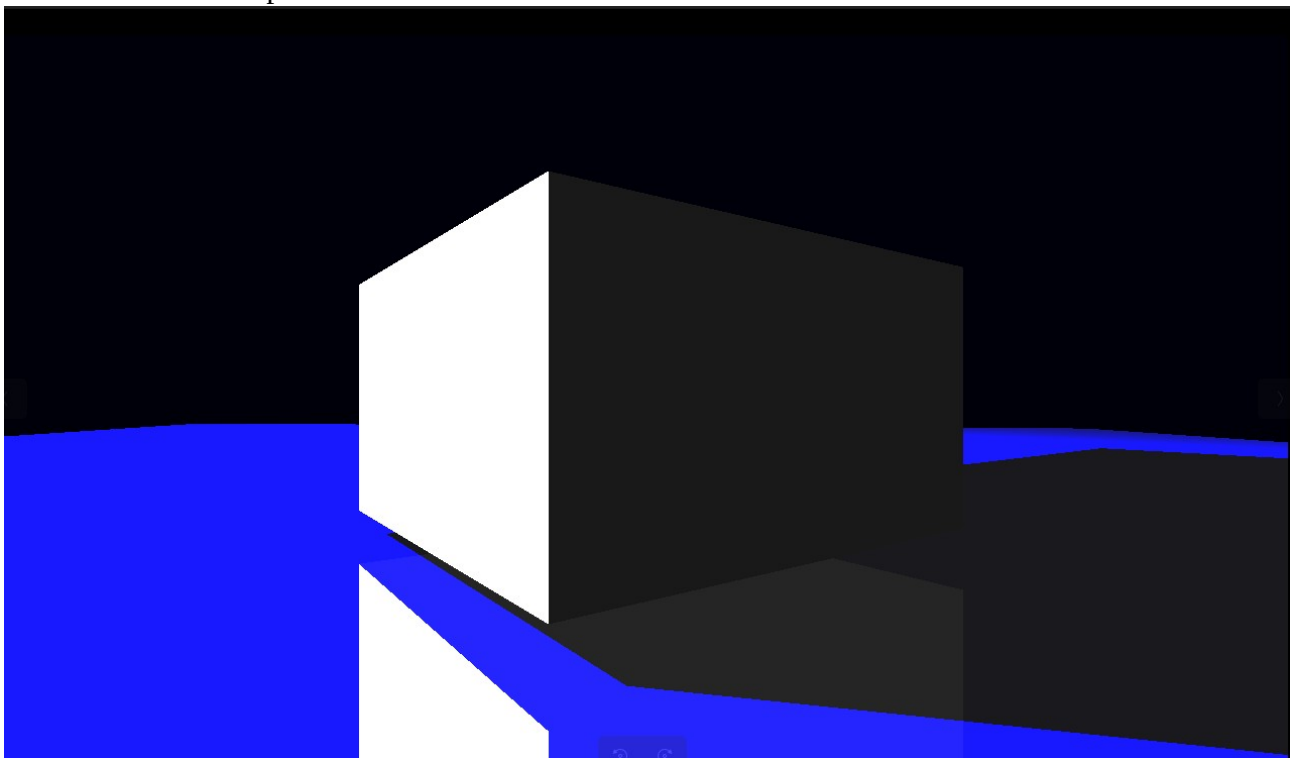
How to run:

To run the program, you can include output name of the file as third parameter or program will be out a .ppm file named “rtrace_out.ppm”. If you compile program using make, there will be an executable named “rtracer” to run the ray tracer. You should give xml file path as second argument such as “./rttracer scene1.xml” or “./rttracer scene1.xml output1.ppm”.

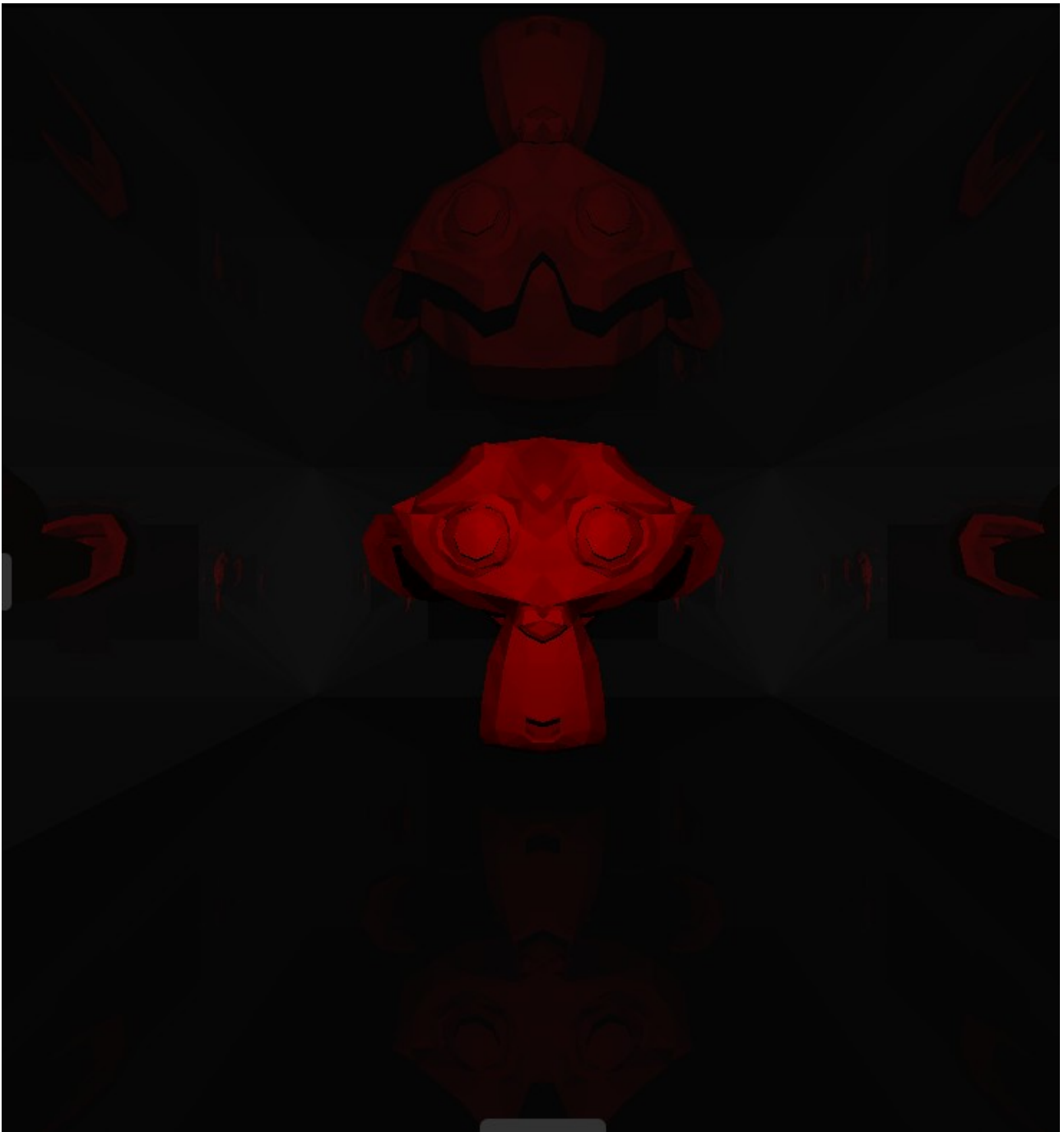
How to clean:

To clean object files and all ppm files extracted as output, you can use “make clean” command.

Results of two examples:



```
melihcan@melihcan-MS-7C13:~/Desktop/github/Computer-Graphics-GTU/hw1$ ./rttracer
scene1.xml out1.ppm
Calculating pixels [0,153600]...
Calculating pixels [153600,307200]...
Calculating pixels [460800,614400]...
Calculating pixels [768000,921600]...
Calculating pixels [307200,460800]...
Calculating pixels [614400,768000]...
Pixels [0,153600] are calculated
Pixels [307200,460800] are calculated
Pixels [153600,307200] are calculated
Pixels [614400,768000] are calculated
Pixels [460800,614400] are calculated
Pixels [768000,921600] are calculated
Rendering is completed in 0.199 seconds.
```



```
scene2.xml out2.ppm
Calculating pixels [0,106666]...
Calculating pixels [213332,319998]...
Calculating pixels [106666,213332]...
Calculating pixels [426664,533330]...
Calculating pixels [319998,426664]...
Calculating pixels [533330,640000]...
Pixels [213332,319998] are calculated
Pixels [106666,213332] are calculated
Pixels [319998,426664] are calculated
Pixels [533330,640000] are calculated
Pixels [0,106666] are calculated
Pixels [426664,533330] are calculated
Rendering is completed in 25.47 seconds.
```