

Programming Assignment 2

Usage:

Use Ant to build pa3.

run code:

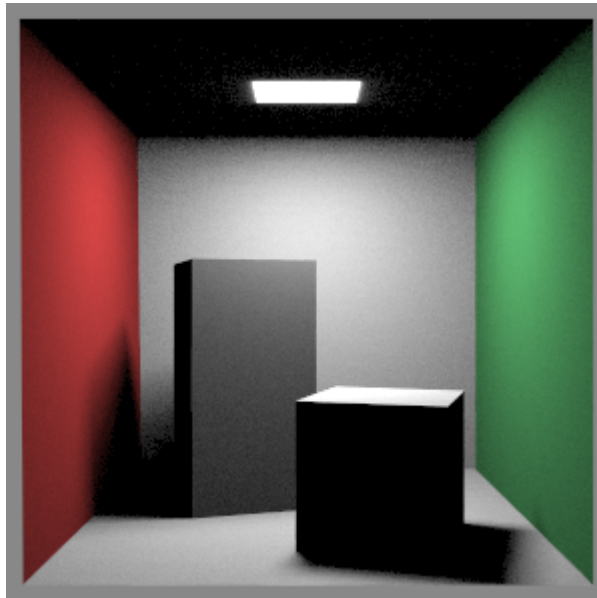
```
java -cp carbine.jar ray.ParaRayTracer scene/cbox.xml
java -cp carbine.jar ray.ParaRayTracer scene/cbox-direct.xml
java -cp carbine.jar ray.ParaRayTracer scene/cbox-global.xml
java -cp carbine.jar ray.ParaRayTracer scene/cbox-RR.xml
java -cp carbine.jar ray.ParaRayTracer scene/three-spheres.xml
java -cp carbine.jar ray.ParaRayTracer scene/earth.xml
java -cp carbine.jar ray.ParaRayTracer scene/teapot.xml
```

Report

Implementation

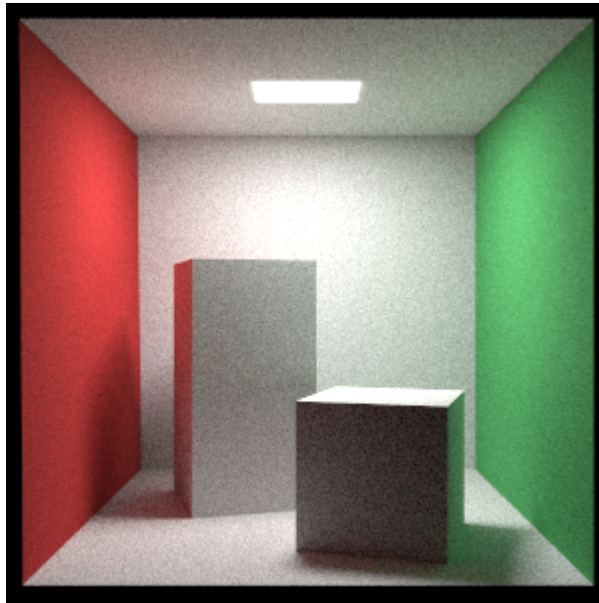
DirectIlluminationRenderer:

300x300 resolution using 100x100 samples:

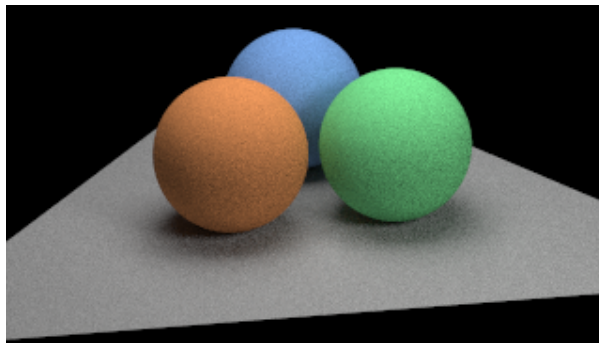


BruteForcePathTracer:

300x300 resolution using 100x100 samples:

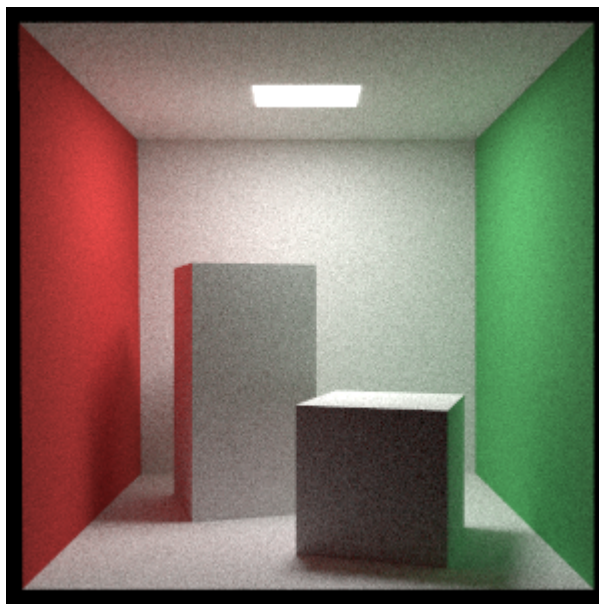


320x180 resolution using 50x50 samples:



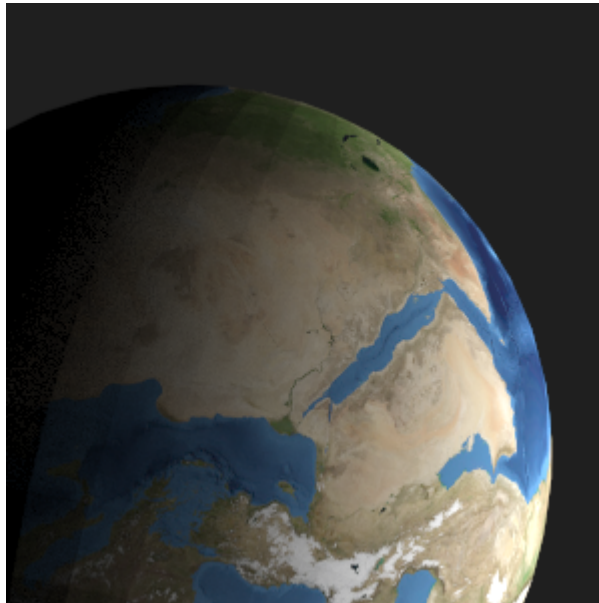
BruteForceRRPathTracer:

300x300 resolution using 100x100 samples:



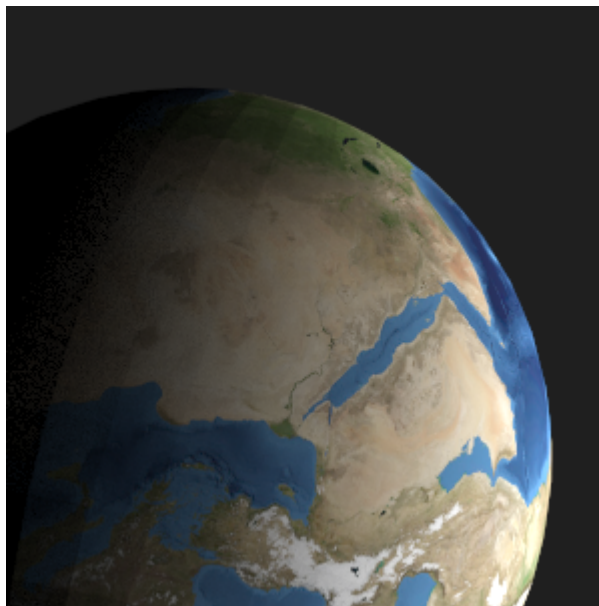
Texture mapping:

300x300 resolution using 100x100 samples:

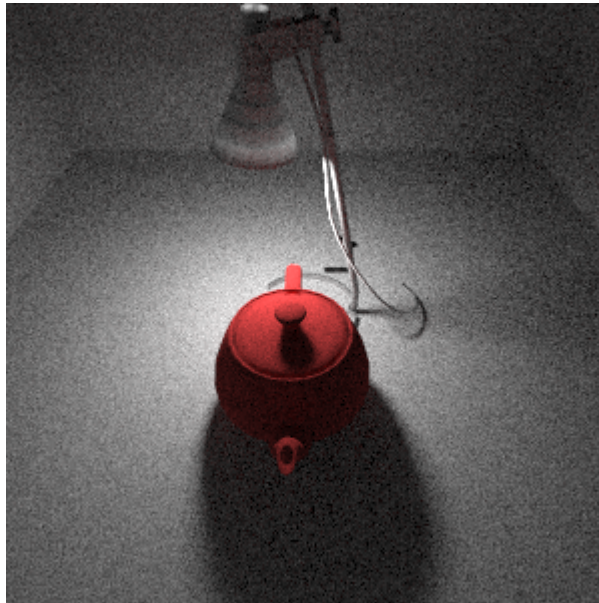


Creative Scene:

300x300 resolution using 100x100 samples:



200x200 resolution using 60x60 samples:



Cause the light source is very small, so the image is very noisy.