CSC 473
Programming Assignment 1 part 3

Due Tuesday May 7, 2013 at 11:59pm

Overview

In this assignment you will implement refraction (and reflection) on translucent surfaces. You will also need to compute intersections with triangles. You will be provided with a few sample files, to start with, work with simple_refract.pov, recurse_simp.pov, recurses.pov, simple_tri.pov and ugly_part.pov. Further files may be specified in a future email. You will be building on your previous code, and thus, your program should include shading and shadows. Please start by getting your code to work with refractions on simple_refract.pov. Note that ugly_part.pov will require you to handle transforms. Your program needs to:

-compute coloring for refracted and reflected rays for any translucent surfaces (where refraction is 1.0), again, the ray tree's depth should not exceed 6.

-compute intersections and appropriate shading for triangles

What you should hand in:

-Your code, include all files necessary to compile and run your ray tracer

-A rendering of all example files specified

-A readme file with any information about what is working or not working with your implementation and timings for running the specified files.

-Your own .pov file and rendered image of a reflective and refractive scene. Be creative and create an interesting scene. Choose colors and an arrangement of geometry that you find pleasing.

You need to handin your code and images generated using handin:

handin zwood csc473p3 <your_files>

Be sure to include all files necessary to compile and run your ray tracer. We will be demoing rendered images in lab next Thursday.
