

### CSIS335 Final Project Progress Report

We have successfully created a serial ray tracer. We now need to flesh it out a little bit more by adding functionality for other shapes, such as triangles, and actually parallelize it. It has been made with parallelization in mind so, despite being serial, it should be very easy to continue down this road. The only other steps that need to be taken as of now, are “housekeeping” such as moving the writing to a file into its own function.

The most recent addition is the processing of different materials so that some things can reflect light differently. Some objects, like rubber, don’t reflect as much light and don’t reflect it in the same way as ivory. This is mostly to make the actual ray tracer more of an actual ray tracer and to produce nicer output as it is not required for the parallelization aspect. This will, however, make it so that we can have lots of different things happening with different objects. This will make the processing more interesting and will then impact the parallelization aspect.

We are completely on schedule and have seen no bumps in the road, but there is obviously still a lot to be done. We hope that the addition of the ability to process triangles will allow us to create very large and complex shapes that will introduce parallelization related problems regarding dividing the work, as well as making large enough problems that the program is worth parallelizing in the first place.

Hopefully we continue making progress at this speed as we are essentially ahead of schedule now.