

## CIS 441/541: Project #1D

Due October 17<sup>th</sup>, 2014 (which means 6am October 18<sup>th</sup>)

Worth 5% of your grade

### Instructions

- 1) Download reader1D.cxx. It has a routine to read triangles from a file. Incorporate its GetTriangles routine in the place of GetTriangles from project 1C.

- 2) Download the geometry file "proj1d\_geometry.vtk".

- 3) NOTE: there are new data members for the Triangle class.

```
class Triangle
{
public:
    double    X[3];
    double    Y[3];
    double    Z[3];
    double    colors[3][3];
};
```

The Z part is easy. Note that colors is different as well. There used to be one color for the entire triangle. Now there is a color for each vertex. Make sure you get Triangle::colors changed, since the GetTriangles depends on it.

- 4) Note that the output image is 1000x1000. You should initialize the buffer to be black (0,0,0). This was done for you in previous projects, so just make sure that code didn't go anywhere.
- 5) The correct image is posted to the website

When you are done upload the following to Blackboard:

- your code
- a screen shot of the differencer program congratulating you
- if there are differences, send me the differenceMap.png that differencer produces and image output of the program.