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Group Number: May 12-11
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Client: Siemens PLM Software

Weekly Report for 10/08/2012

Accomplishments of past week:

This past week we sifted through point cloud rendering research and identified two possible approaches, splatting and ray tracing, which we will look at in more detail with prototyping.

We identified third party software libraries which could accelerate our prototyping: Qt Framework, Ogre, XNA/C#, Point Cloud Library, Meshlab.

Eric put together a webpage for us, <http://seniord.ece.iastate.edu/may1311/>.

Plan for coming week:

- Communicate with Siemens: keep them up to date with our research and have them approve third-party libraries we want to use.
- Begin prototyping ray-tracing and splatting.

Pending issues:

We are checking with Siemens if we are able to use third-party open source libraries. We also need to decide if we will be modifying an existing rendering engine (such as Ogre) or writing it from scratch for prototyping. This depends partly on Siemens answer to using the libraries.

Our development model needs to be defined. It is unclear if we will be prototyping in parallel (each take an approach) or in series (all focus on one at a time). There are advantages and disadvantages to either approach.

Individual contributions:

Joel - Researched splatting techniques.

Chris - Researched existing point cloud libraries.

Eric - Researched ray-tracing and created web-page for group.