

1. Group members: Katie LaRue and Sean Brzoska
2. Project Manager:
  - a. Katie LaRue will be project manager
3. Final deliverable: as concretely as possible, describe what you are planning to build by early december.
  - a. We are planning on doing basic implementation of volumetric lighting and global illumination in addition to our attempts at optimizing both of these processes. We will start by attempting to add volumetric lighting and global illumination to the scenes provided in A2 and then possibly adding it to some original scenes.
4. Milestone 1 deliverable: describe what state you will have the project in at the first milestone deadline, November 15. This milestone is at the one-third mark of the time you have to work on the project.
  - a. By the first deadline we plan to implement the global illumination
5. Milestone 2 deliverable: describe what state you will have the project in at the second milestone deadline, November 22. This milestone is at the two-thirds mark of the time you have to work on the project.
  - a. By the first deadline we plan to implement the volumetric lighting
6. Roadmap: do your best to break the project into subtasks that will take one group member no more than a week to accomplish. Be sure to account for things you need to learn as well as things you need to build. For each task, give a tentative allocation of which group member(s) will accomplish it and when it will be done.
  - a. First week (11/3-11/8)
    - i. Learn about Global illumination physics - K
    - ii. Learn about Volumetric lighting physics - S
  - b. Second week (11/8 - 11/15)
    - i. Begin implementation of global illumination - S
    - ii. Determine lighting calculation for objects in global illumination - K
  - c. Third week (11/15 - 11/22)
    - i. Begin implementation of volumetric illumination - K
    - ii. Determine lighting calculation for objects in volumetric illumination - S
  - d. Fourth & Fifth week (11/22 - 12/4)
    - i. Explore optimization for global illumination - K
    - ii. Explore optimization for volumetric illumination - S
    - iii. Make more complicated scenes to render and try to break code - both

Grad (580) group proposals should have an additional section proposing their lecture topic:

7. Proposed lecture topic: Grad final project groups will give a lecture during the second-to-last week of classes. The topic of your lecture need not coincide with your final project topic, but it may; it can be anything graphics-related that we haven't covered in class. Plan on a 20-30 minute lecture.
  - a. We plan on giving a presentation on Volumetric and Global illumination and explore the ways virtual worlds implement them and optimize them.