Final Project Proposal

CS 184: Foundations of Computer Graphics

Spring 2008

Prof. James O'Brien

Point Value: 10 points

Due Date: April 17th, 11:59pm

Your final project presentations will be on May 1st at a poster session from 11am to 2pm. The final report will be due at the same time as when you take the final.

<u>Important:</u> The regular late policy does not apply to the project presentation or report. If these items are not submitted on time you will NOT get credit for them.

To submit your project proposal use the same submission system that you have used for assignments 0-3. You should submit your proposal as a PDF or text file. Other formats will not receive credit.

In your proposal you should include:

- The names of everyone on the team (not more than four, suggested two or three)
- A description of what you plan to accomplish
- A description of the methods you plan to use
- A description of how the task will be divided up among the team
- Extra items that you hope to accomplish if things go well
- Which of in instructional staff you discussed your project idea with

Please note that although your proposal is due on the 17th, you should not wait until after the 17th to start your project.

The following is a list of suggested project ideas.

Photon Mapping

Modify your raytracer so that it can use photon mapping for indirect diffuse illumination and caustics.

Radiosity

Implement a radiosity solver.

page 1 of 2

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NPR Video Processing

Write code that takes as input regular video footage and outputs video in some non-photorealistic style.

HDR Image Compression

Implement a method for taking high-dynamic-range images and displaying them effectively on low-dynamic range displays.

Inverse Kinematics

Write an interactive IK system that can be used to interactively pose 3D figures.

Fluid Simulation

Use a simulation method to generate animations of smoke or water.

Cloth Simulation

Build a simulation that can be used to create realistic animations of sheets of cloth.

Rag-doll Physics

Using rigid body simulation with soft constraints build a realtime corpse simulation.

Something Else

Something else you decided on after discussion with the instructional staff.

page 2 of 2