DGI14 COMPUTER GRAPHICS AND INTERACTION
PROJECT

Academic year 2014

General Instructions:

- Your project should be comprised of:

  o A comprehensive project report textual description of how you designed the program, how it works and the theoretical aspects relating to the techniques used. This explanation should be written by you and relate to your own code (i.e. be more than simple general definitions from the lecture notes). See the "Marking Guide" below.

  o The commented source code, project files and executable for the application in a sensible directory structure.

  o Some screenshots (or even better, a small movie demonstration), where appropriate, of the output of the program.

- You may work individually or in groups up to size three. You are recommended to clearly identify respective contributions of group members to the final project. Individual project reports are required.

- Your project - including source code, executables and accompanying documentation – should be archived in .zip or .rar format and uploaded to Bilda. Do not forget to include your name and student ID on the documentation, etc.

- You may use any completed DGI14 lab-work, and the supplied code from the labs, as a basis for completing a project (see marking guide for details of incremental lab work). But make sure to reference all work used from sources and all collaborations, and do so clearly by identifying what sections of work you have completed.

- Make sure to keep a copy of source code and executable for all of your work.

Project topics:

- You are meant to be proactive and autonomous in researching and developing a detailed project specification. Feedback from the course team is available on request.

- A list of project start points is available from this site:
  http://www.csc.kth.se/utbildning/kth/kurser/DH2323/dgi14/course/project/project.php
  You can develop these further as you desire. Be imaginative and creative!

- You may also choose your own project topic, but it is up to you to ensure that it complies with the objectives of DH2323. One starting point is to implement and evaluate a technical graphics paper (see Eurographics https://www.eg.org/ and Siggraph proceedings http://www.siggraph.org/) or articles (see GPU gems for example: http://http.developer.nvidia.com/GPUGems/gpugems_part01.html).

Comprehensive project report:

- Identification details on report.

- One page project specification.

- Clear, logical structure with headings and subheadings; well presented.

- Critical reflective evaluation of what *you* did, why *you* did it, what *you* learned. Anything interesting/surprising along the way? How did you solve challenging problems?
- Screenshots providing evidence of functionality where appropriate. A small, narrated movie demonstrating your program and its creation would be a great addition. Blogs describing progress and tutorials are also beneficial.
- Evidence of some sort of project management/software engineering approach. Include at least intended prototype descriptions.
- A half page description of how the project could be improved by, informed by or related to perceptual user studies, with details from a user study that you attended.
- References to resources used and collaborations. Be explicit about exactly what work is yours and what belongs to other group members and external sources.
- References and description of state-of-the-art international work in the topic of the project and how your project relates to it.
- Presentation all of the above in a clear and **concise** way.

Marking guide:

- Every project is different and will be marked individually. Below is a sample of desirable indicative requirements, but you should check with the course team for feedback on your project idea if you have doubts or questions.

Indicative requirements	Scale
Fully functioning, coherent implementation and demonstration, utilizing a good mix of graphics technologies (which should include a significant graphics programming aspect, but could also relate to modelling, interaction, perception and so on); comprehensive report. Demonstrated excellence in communication of concepts and graphics programming	A – C, depending on level of challenge, sophistication of results, presentation and level of achievement
Functional graphics program incrementing and extending the labs to add minor additional features; comprehensive report	D – E, depending on level of challenge, sophistication of results, presentation and level of achievement

Additional Notes and Miscellany:

- Projects do not have to be programmed in C++, although it is desirable.
- You may do projects related to plug-ins for 3D modelling software such as Blender, Maya, Max, but you should ensure that there is a significant programming aspect to the project (e.g. scripts to generate automated content). You can also use engines, SDKs and libraries as required.