Fachpraktikum Grafik-Programmierung WS2010

Kick-Off Meeting

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Organization

- **People**
  - Daniel Kauker, VISUS 01.031, daniel.kauker@vis.uni-stuttgart.de
  - Alexandros Panagiotidis, VISUS 01.031, alexandros.panagiotidis@vis....

- **Website**
  - http://www.vis.uni-stuttgart.de/plain/vdl/vdl_show_lect_load.php?id=283

- **Assistance / Mentoring**
  - Every Monday, 13:30-14:30, in 0.452
  - Every Friday, 13:30-14:30, in 0.452
  - Dates can be changed, if suited better for participants
  - Please attend if you have problems, questions, ...
Goals and Prerequisites

- **Goals**
  - Learn to use/program GUI toolkits (Qt 3), 3D graphics APIs (OpenGL), and programmable graphics hardware (GPUs, shaders)
  - Implementation of selected algorithms and visualization techniques
  - Helpful for subsequent works at VIS/VISUS
  - Much to learn, but also much work and effort needed

- **Prerequisites**
  - Interest in computer graphics
  - Understanding of linear algebra (vectors, matrices, transformations, ...)
  - Good knowledge of C++ (visit “C/OpenGL Kompaktkurs”)
Assignments

- Five assignments with increasing difficulty
  1. Basic graphics and user interface, 2 weeks
  2. Modeller and Scene Graph, 2 weeks
  3. Volume Rendering, 2 weeks
  4. Raytracing, 2.5 weeks
  5. Self-assigned, 4 weeks, presented to VIS staff

- Example binaries available in /proj/fapra/examples

- Handouts will be available on Mondays on the website

- Use of Subversion mandatory
  - Get program skeleton from your repository at https://svn.vis.uni-stuttgart.de/FaPras/Graphik/WS2010/<username>
  - Repositories will be locked on submission deadline (Fridays at 13:00 s.t.)
Assignments 1 - 4
Assignments 5 (SS09)
Grading

- Maximum of 20 points per assignment
  - Refer to handouts for scoring criteria
  - Bonus points available in assignment 5
- 60 points needed in total to pass
  - Assignments 1-4: at least 9 points per assignment
  - Assignment 5: at least 14 points
- On the submission day you have to...
  - Attend the course in 0.452
  - Demonstrate your solution
  - Explain your implementation
- Everybody has to submit his/her own solution!
  - Discussions with fellow students are encouraged
  - Copied solutions (fellow students, external sources) lead to exclusion!
Preparations

- Will be done on first meeting (Monday, 18.10.2010, 13:30)
- Request a VIS account
  - Application form available at https://www.vis.uni-stuttgart.de/ger/misc/intern/form/Rechnererlaubnis_VIS_Pool.htm
  - Fill in, print, sign, and turn in (to tutors or VIS administrators)
- Request access for the VIS-GS-Pool (room 0.452)
  - Apply at VIS secretariat (room 1.453)

Check the website regularly
- Course material (handouts, dates, ...)
- Submission deadlines
- Further information (literature, links, ...)
The end.

Questions?