Syllabus

Computer Graphics and Visualization

Pedher Johansson, Stefan Johansson
Department of Computer Science
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Instructors and Assistants

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Course Homepage

Cambro

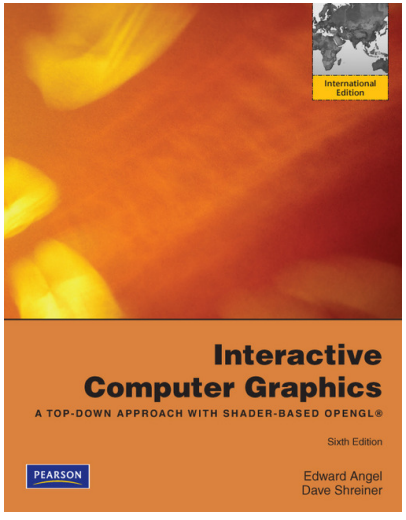
Course Description

Aim and Content

The objective of the course is to introduce theoretical methods for two-dimensional and three-dimensional graphics with applications to visualization techniques. The following topics will be discussed: Raster graphics, geometric transformations, viewing models, projections, parametric curves and surfaces, colour theory, visible surface / line determination, illumination and shading.

Course Litterature

Interactive computer graphics:
a top-down approach with Shader-Based OpenGL
Edward. Angel , Dave. Shreiner
6th ed., Pearson, 2012.
ISBN: 0-273-75226-X
760 pages



OpenGL Programming Guide
Johan Kessenich, Graham Seller, Dave Shreiner
9th ed., Addison Wesley, 2017
ISBN: 0-13-449549-7

Examination

- Written Exam
- Mandatory project in three parts.
  - Individual
  - Demonstration for part 1-2
  - Oral presentation for part 3
  - Bonus points to exam

Exercises and Workshop

- 2 exercises you can start with now
  (also parts of the assignments)
- 2 workshops in graphics programming (10/11, and 1/12)

Oral Presentation

- The presentation is done to a group of 5-9 people
- A slot can be reserved online before deadline
- Demonstration of the software, functionality, design and implementation