General info
- Contact
  - http://wwwcg.in.tum.de
  - westermann@in.tum.de
  - Boltzmannstraße 3, finger 13, 2nd floor
- Check the library for literature
- Course slides will be available on the net
- Login: cg   Password: shading
- Diploma theses and project work
- Many topics are available
- Check the web
- Come by and talk to our staff directly

Teaching
- Schedule
  - Monday: 14:00 – 15:30 room MI 00.13.009A
  - Wednesday: 12:30 – 14:00 room MI 00.13.009A
- Exercise on demand
  - Monday: 12:30 – 14:00 room MI 00.13.009A
- Announcements, slides, notes
  - http://wwwcg.in.tum.de/Teaching/SS2006/CG

Literature
- Watt, Watt: Computer Graphics, Addison-Wesley
- Glassner: Principles of digital image synthesis, Morgan Kaufman
- Encarnaçao, Klein, Strasser: Graphische Datenverarbeitung, 4. Auflage, Oldenburg Verlag
- Griebel, Bungartz, Zenger: Computer Graphik

Definition: Computer graphics
- Data processing
  - Data Structures
  - Models
- Visualization
  - Image Synthesis
- Images
- Videos
- 3D-Images
- Computer Vision
- Segmentation
- Image Analysis
- Image Processing
Computer graphics areas

- Modelling: The effective representation and efficient modification of geometric shape on a computer.
- Animation: The generation and representation of dynamic imagery on a computer.
- Visualization: The display of models and scenes on a computer.

Imaging and computer vision: The manipulation of images and the extraction of object-specific information from images.

Visualization: Methods to visually represent the information content within large-scale multi-dimensional and/or multi-modality data sets.

Modelling: The effective representation and efficient modification of geometric shape on a computer.

Animation: The generation and representation of dynamic imagery on a computer.

Visualization: The display of models and scenes on a computer.

Computer graphics

Graphics-Pipeline

- Pixel
- Points
- Lines
- Polygons
- Normals
- Colors
- Curves
- Surfaces
- Volumes
- Material

Rendering

Modelling

Animation

Visualization

Graphics pipeline

Darstellung polygonaler Modelle beleuchtet, schattiert, texturiert

Introduction

- Rendering

Real-time effects

Collision Detection for Deformable and GPU Objects

Paper ID 1024
Introduction

- Modelling

Introduction

- Physics-based simulation

Introduction

- Images

True color
24 bpp

12 bpp

Introduction

- Images

True color
24 bpp

2 bpp

Introduction

- Visualization