Vorbesprechung
Visualisierung 2 & InfoVis

http://www.cg.tuwien.ac.at/courses/Visualisierung2/
http://www.cg.tuwien.ac.at/courses/InfoVis/

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Introduction

- **Visualisierung 2**
  - VU, 4.5 ECTS
  - Mandatory for master study *Visual Computing* (Computer Graphics)

- **Informationsvisualisierung (InfoVis)**
  - VO, 3.0 ECTS; UE 1.5 ECTS
  - Is offered in a combined VU-mode (VO and UE together)
  - Optional for master study *Visual Computing*
Vis 2 vs. InfoVis

Knowledge

VU Visualisierung 2

VO + UE Informationsvisualisierung

Basic Knowledge

Scientific Visualization

Visual Analytics

Information Visualization

Topics
Goals

■ Theoretical:
  ◆ Get a specialized knowledge in the field of visualization/information visualization
  ◆ Be able to study a state-of-the-art topic in visualization

■ Practical:
  ◆ Be able to implement a state-of-the-art visualization technique
How to achieve these Goals?

- A series of lectures throughout the semester
- Re-implementation of a research paper:
  - Find an interesting research paper in the field of visualization (we also provide a list of possible papers)
  - Read and understand the paper
  - Re-implement the proposed technique in the paper
- Find and analyze interesting data for InfoVis (modus 3)
Find dates on the webpage
  ◆ http://www.cg.tuwien.ac.at/courses/Visualisierung2/

Re-implement a paper

Oral exam at the end of the semester
Find dates on the webpage
- http://www.cg.tuwien.ac.at/courses/InfoVis/

Modus 1 (only VO)
- Oral exam at the end of the semester

Modus 2 (VO + UE)
- Attendance during the lectures
- Re-implement a paper

Modus 3 (VO + UE)
- Attendance during the lectures + oral exam
- Analyse interesting data
Re-Implementation of a Research Paper

Tasks:

- Find a colleague (group of 2 is preferred)
- Select a paper (from the list on the webpage)
  - You can propose your own selected paper
- Read/Understand the paper
- Write a short summary (official registration)
- Present the paper
- Re-implement the paper
- Present your implementation
Recent scientific papers (journal or conference publications)

Papers cannot be assigned to more than 2 groups (first-come first-served principle)

**Visualisierung 2:** Scientific visualization, visual analytics, information visualization

**InfoVis:** Information visualization, visual analytics
Implementation

- Group of 2 students
- Implementation of the algorithm/technique of the selected paper
- Programming language/platform can be chosen freely
  - E.g. WebGL, Volumeshop (C++, GLSL), …
  - PC, Laptop, Mobile Devices
- It is allowed to use existing libraries
  - For the grading we consider the overall effort
  - Per student we expect an approximate effort of 80-100 hours in total
Tasks

- Find interesting data *(links on the webpage)*
- Understand the data
- Write a short summary *(official registration)*
- Present the data
- Analyze the data
- More extensive presentation of the outcome of the data analysis
### Important Dates

<table>
<thead>
<tr>
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<th>Visualisierung 2</th>
<th>InfoVis</th>
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<tbody>
<tr>
<td><strong>1st Submission</strong></td>
<td>until 19.03.2013</td>
<td>until 19.03.2013</td>
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<tr>
<td><strong>1st Presentation</strong></td>
<td>20.03.2013</td>
<td>20.03.2013</td>
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<tr>
<td><strong>2nd Submission</strong></td>
<td>until 11.06.2013</td>
<td>until 11.06.2013</td>
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| **2nd Presentation**   | 12.06.2013  
                        | 26.06.2013*               | 12.06.2013*               |
| Reviews of the         | 27.06.2013  
applications | 28.06.2013                | 26.06.2013                |
| Oral exam              | 27.06.2013  
                        | 28.06.2013                | -                        |

* At this date the BEST APPLICATIONS will be awarded!

Send all your submissions via the ABGABESYSTEM

**Vis 2:** [https://lva.cg.tuwien.ac.at/vis2/](https://lva.cg.tuwien.ac.at/vis2/)

**InfoVis:** [https://lva.cg.tuwien.ac.at/infovis/](https://lva.cg.tuwien.ac.at/infovis/)
## Grading

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<tr>
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<th>Visualisierung 2</th>
<th>InfoVis (Modus 2)</th>
<th>InfoVis (Modus 3)</th>
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<tbody>
<tr>
<td>Summary of the paper</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Presentation of the paper/data</td>
<td>5%</td>
<td>10%</td>
<td>10%</td>
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<tr>
<td>Implementation (incl. documentation)</td>
<td>40%</td>
<td>50%</td>
<td>-</td>
</tr>
<tr>
<td>Oral exam</td>
<td>40%</td>
<td>-</td>
<td>30%</td>
</tr>
<tr>
<td>Attendance</td>
<td>-</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Presentation of the application/analysis</td>
<td>10%</td>
<td>10%</td>
<td>30%</td>
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**Grades:**

- > 87%: 1
- > 75%: 2
- > 62%: 3
- >= 50%: 4
- < 50%: 5
First Steps

1. Register to the courses in TISS
2. Form a group (1-2 members) via Abgabesystem
3. Select a paper (Vis 2 or InfoVis Modus 2) or select InfoVis Modus 3 via Abgabesystem
4. Submit summary (1-2 A4 pages, PDF) and 1st presentation via Abgabesystem
   - Including first implementation details (language, platform, libraries, …)
   - InfoVis Modus 3: data to analyse
Questions?

- Any questions?

- All the information (including these slides) are available on the webpage:
  - http://www.cg.tuwien.ac.at/courses/Visualisierung2/
  - http://www.cg.tuwien.ac.at/courses/InfoVis/

- Abgabesystem
  - Vis 2: https://lva.cg.tuwien.ac.at/vis2/
  - InfoVis: https://lva.cg.tuwien.ac.at/infovis/