Vorbesprechung
Visualisierung 2 & InfoVis

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Tutors: Iliyana Kirkova, Matthias Labschütz

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Vienna University of Technology
Introduction

■ Visualisierung 2
  ■ VU, 4.5 ECTS
  ■ Mandatory for master study Visual Computing (Computer Graphics)
  ■ http://www.cg.tuwien.ac.at/courses/Visualisierung2/

■ 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
  ■ http://www.cg.tuwien.ac.at/courses/InfoVis/
Vis 2 vs. InfoVis

Knowledge

Basic Knowledge

Topics

Scientific Visualization

Visual Analytics

Information Visualization

VO + UE Informationsvisualisierung

VU Visualisierung 2

Gabriel Mistelbauer
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
InfoVis

- Find dates on the webpage
  - [http://www.cg.tuwien.ac.at/courses/InfoVis/](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
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
  - 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>
<th>Event</th>
<th>Visualisierung 2</th>
<th>InfoVis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Submission</td>
<td></td>
<td>until 18.03.2014</td>
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<tr>
<td>1st Presentation</td>
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<td>19.03.2014</td>
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<tr>
<td>Intermediate Submission</td>
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<td>until 13.05.2014</td>
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<tr>
<td>Feedback Session</td>
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<td>14.05.2014</td>
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<tr>
<td>2nd Submission</td>
<td></td>
<td>until 10.06.2014</td>
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<tr>
<td>2nd Presentation</td>
<td>11.06.2014 + 18.06.2014*</td>
<td>11.06.2014*</td>
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<tr>
<td>Reviews of the applications</td>
<td>26.06.2014 + 27.06.2014</td>
<td>25.06.2014</td>
</tr>
<tr>
<td>Oral exam</td>
<td>26.06.2014 + 27.06.2014</td>
<td>-</td>
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* 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

<table>
<thead>
<tr>
<th></th>
<th>Visualisierung 2</th>
<th>InfoVis (Modus 2)</th>
<th>InfoVis (Modus 3)</th>
</tr>
</thead>
<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>Presentation of the application/analysis</td>
<td>10</td>
<td>10</td>
<td>30</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>
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</tbody>
</table>

Grades:

- > 87 Punkte: 1
- > 75 Punkte: 2
- > 62 Punkte: 3
- >= 50 Punkte: 4
- < 50 Punkte: 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/Visualisierung2/)
  - [http://www.cg.tuwien.ac.at/courses/InfoVis/](http://www.cg.tuwien.ac.at/courses/InfoVis/)

- 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/)