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Visualization and MultiMedia Lab

VMML Student Thesis and Project Guidelines

If you are working on any student project such as a Bachelor or Master thesis, or other project at the Visualization and MultiMedia Lab (VMML), you are asked to follow the rules and instructions below with respect to carrying out your work.

Work Environment

The VMML has a lab, room BIN 1.D.02, with a number of work places and student projects can be carried out in this lab as space is available. In particular, if special equipment or computers from the VMML are used then the work should be carried out in the lab for the majority of the time, if not specified otherwise. We expect regular interactions with the mentoring assistant, at least on a monthly basis.

Coding Rules

Your implementation and source code should follow standard good-practice coding guidelines as well as the recommendations given by the mentor of the project, which is usually one of the research assistants of the VMML group.

Note that your **code and documentation** must regularly be committed to a GIT or SVN repository, which can be set up by the project mentor. This is mandatory and has to be done at least on a weekly basis. Failure to do so may affect the grade of any project involving significant programming and software development.

Presentations

At the end of your project you are asked to give a final presentation to the members of the VMML research group about your thesis or project and the achieved solutions.

Half way through the project, a short progress midterm presentation should also be given to assess the state of the ongoing work.

Deliverables

The deliverables of a thesis or project always include:

- the structured and documented code (e.g. in a GIT repository)
- the thesis manuscript (one textile-bound paper print) or project report
- the midterm and final presentations (PPT/Keynote files)

For projects resulting in any kind of software or application that has a visual output, i.e. such as real-time 3D rendering, interactive data visualization or rendered images, the deliverables also include corresponding visual examples in the form of:

- a video demonstrating the use cases and capabilities of an interactive system   OR
- an organized and commented collection of visual examples demonstrating the capabilities of an (offline) rendering system

Written Report

With your thesis or project you must deliver a written report covering the problem analysis, related work, any preliminary background information, and in particular a detailed description of your technical solution and implementation, as well as experimental results. The main focus should be on a scientific treatment and analysis of the problem statement and its technical realization in your project. For more details on the expected content and form see also the documents linked on the VMML Student Projects and Thesis web page. In particular, closely follow the instructions in the *Student_Project_Report* template.

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Formatting

With respect to structure, typesetting and formatting strictly follow the guidelines indicated in the *Student_Project_Report* template. It is suggested that you write your report in LaTeX, a template is provided on the VMML Student Projects and Thesis web page.

References

Your bibliographic references should follow in style the formatting guidelines given in the report typesetting and formatting guidelines of the *Student_Project_Report* template.

Note that **Wikipedia** and any other general purpose encyclopedia cannot directly be used as a scientific reference. However, Wikipedia and other online or printed encyclopedia are good starting points for initial information gathering and pointers to adequate reference works such as scientific journals, articles and books.

Evaluation

Your thesis or project will be evaluated based on the following main criteria:

- Quality of deliverables (meeting objectives, quality of implementation, quality of experimental results)
- Originality of content (level of own ideas added, amount of added contribution with respect to related work)
- Theoretical understanding (understanding of algorithms, data structures and mathematical concepts, comprehension of design principles, independence of learning)
- Research methodology (quality of literature research, completeness and relevance, validity of experimental results)
- Manuscript (quality of language and terminology, structure, use of illustrations, citation style and bibliography)
- Presentation (quality of slides and speech, timing and structure or presentation, ability to answer questions)

For Bachelor and Master thesis, Quality of deliverables, Theoretical understanding and the Manuscript are of key importance.

For Master projects, there is a higher emphasis is on the Quality of deliverables.

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