Review report of a final thesis

Czech Technical University in Prague **Faculty of Information Technology**

Student:	Martin Štrambach
Reviewer:	Prof. Dr. Olaf Schenk
Thesis title:	Triangulation of planar objects and its implementation into the AToM package
Branch of the study:	Computer Science

Date: 9. 6. 2017

Evaluation criterion:	*The evaluation scale: 1 to 5.*
1. Difficulty and other comments on the assignment	*1 = extremely challenging assignment,* *2 = rather difficult assignment,* ***3 = assignment of average difficulty,*** *4 = easier, but still sufficient assignment,* *5 = insufficient assignment*

Criteria description:
Characterize this final thesis in detail and its relationships to previous or current projects. Comment what is difficult about this thesis (in case of a more difficult thesis, you may overlook some shortcomings that you would not in case of an easy assignment, and on the contrary, with an easy assignment those shortcomings should be evaluated more strictly.)

Comments:
Mesh generation finds numerous applications. Most of the theoretical background of mesh generation is well-known and the state-of-the-art methods and software for generating meshes for scientific computing is widely available.

Evaluation criterion:	*The evaluation scale: 1 to 4.*
2. Fulfilment of the assignment	*1 = assignment fulfilled,* ***2 = assignment fulfilled with minor objections,*** *3 = assignment fulfilled with major objections,* *4 = assignment not fulfilled*

Criteria description:
Assess whether the thesis meets the assignment statement. In Comments indicate parts of the assignment that have not been fulfilled, completely or partially, or extensions of the thesis beyond the original assignment. If the assignment was not completely fulfilled, try to assess the importance, impact, and possibly also the reason of the insufficiencies.

Comments:
The student studied the problem of planar triangulation and summarized available software tools. He also discussed the pros and cons of the implementation in the framework of the AToM project.

I was expecting a longer discussion on available software (such as TetGen or NETGen etc, but this paper is missing)

Evaluation criterion:	*The evaluation scale: 1 to 4.*
3. Size of the main written part	***1 = meets the criteria,*** *2 = meets the criteria with minor objections,* *3 = meets the criteria with major objections,* *4 = does not meet the criteria*

Criteria description:
Evaluate the adequacy of the extent of the final thesis, considering its content and the size of the written part, i.e. that all parts of the thesis are rich on information and the text does not contain unnecessary parts.

Comments:
The thesis is well written, good motivation. I also checked the content with turnitIn and the similarity score is less than 5%.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
4. Factual and logical level of the thesis	*95 (A)*

Criteria description:
Assess whether the thesis is correct as to the facts or if there are factual errors and inaccuracies. Evaluate further the logical structure of the thesis, links among the chapters, and the comprehensibility of the text for a reader.

Comments:
well structured.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
5. Formal level of the thesis	*100 (A)*

Criteria description:
Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspect s, see Dean's Directive No. 14/2015, Article 3.

Comments:
I think the student wrote a well-structured BSc thesis

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
6. Bibliography	*100 (A)*

Criteria description:
Evaluate the student's activity in acquisition and use of studying materials in his thesis. Characterize the choice of the sources. Discuss whether the student used all relevant sources, or whether he tried to solve problems that were already solved. Verify that all elements taken from other sources are properly differentiated from his own results and contributions. Comment if there was a possible violation of the citation ethics and if the bibliographical references are complete and in compliance with citation standards.

Comments:
good bibliography.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
7. Evaluation of results, publication outputs and awards	*85 (B)*

Criteria description:
Comment on the achieved level of major results of the thesis and indicate whether the main results of the thesis extend published state-of-the-art results and/or bring completely new findings. Assess the quality and functionality of hardware or software solutions. Alternatively, evaluate whether the software or source code that was not created by the student himself was used in accordance with the license terms and copyright. Comment on possible publication output or awards related to the thesis.

Comments:
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Evaluation criterion:	*No evaluation scale.*
8. Applicability of the results	

Criteria description:
Indicate the potential of using the results of the thesis in practice.

Comments:
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Evaluation criterion:	*No evaluation scale.*
9. Questions for the defence	

Criteria description:
Formulate any question(s) that the student should answer to the committee during the defence (use a bullet list).

Questions:
Please comment on other software tools such as TetGen or NETGEN which are automatic 3d tetrahedral mesh generators

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
10. The overall evaluation	*95 (A)*

Criteria description:
Summarize the parts of the thesis that had major impact on your evaluation. The overall evaluation **does not** have to be the arithmetic mean or any other formula with the values from the previous evaluation criteria 1 to 9.

Comments:
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Signature of the reviewer: