



## Supervisor's statement of a final thesis

**Student:** Daniil Grankin  
**Supervisor:** Ing. Ondřej Guth, Ph.D.  
**Thesis title:** A translator of DET scripting language into Java  
**Branch of the study:** Computer Science

**Date:** 4. 6. 2019

<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>1. Fulfilment of the assignment</b>	<b><u>1 = assignment fulfilled,</u> 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</b>
<i>Criteria description:</i> Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.	
<i>Comments:</i> The assignment is fully met.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>2. Main written part</b>	<b>80 (B)</b>
<i>Criteria description:</i> Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.	
<i>Comments:</i> The text is long enough, and it contains no unnecessary parts. However, some parts should be written with more care. Theoretical Background hardly scratches the surface, and the reader learns almost nothing from it. On the other hand, parts of Realisation contain its theoretical background. There is missing text in Section 5.3.2, Page 30: 'There are two possible candidates for the separator'; however, only the whitespace is stated (and the newline candidate is left out). The bibliography is placed among appendices (it is expected to be before the first appendix). Used English is quite well, provided it is not the student's mother tongue. The typography is quite nice. The citations seem all right.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>3. Non-written part, attachments</b>	<b>95 (A)</b>
<i>Criteria description:</i> Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.	
<i>Comments:</i> The main result of the thesis is a translator from the scripting language into Java source. The student did a great amount of work. The translator is created using the ANTLR tool (a Java parser generator); the student used an existing Java grammar and modified it, and then he wrote Java code to process AST using ANTLR Visitor API. The translator is accompanied by automated tests of correctness (comparison of Java output and expected output after a script processing). The implementation seems to work correctly.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>4. Evaluation of results, publication outputs and awards</b>	<b>95 (A)</b>
<i>Criteria description:</i> Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.	

*Comments:*

The grammar and the translator work correctly and may be used to process DET scripts in real-world applications.

*Evaluation criterion:*

*The evaluation scale: 1 to 5.*

**5. Activity and self-reliance of the student**

*5a:*  
**1 = excellent activity,**  
*2 = very good activity,*  
*3 = average activity,*  
*4 = weaker, but still sufficient activity,*  
*5 = insufficient activity*  
*5b:*  
**1 = excellent self-reliance,**  
*2 = very good self-reliance,*  
*3 = average self-reliance,*  
*4 = weaker, but still sufficient self-reliance,*  
*5 = insufficient self-reliance.*

*Criteria description:*

From your experience with the course of the work on the thesis and its outcome, review the student's activity while working on the thesis, his/her punctuality when meeting the deadlines and whether he/she consulted you as he/she went along and also, whether he/she was well prepared for these consultations (5a). Assess the student's ability to develop independent creative work (5b).

*Comments:*

The student worked hard on this thesis all the time. He came to regular meetings well prepared, and he often came with his ideas. His attitude was outstanding.

*Evaluation criterion:*

*The evaluation scale: 0 to 100 points (grade A to F).*

**6. The overall evaluation**

**92 (A)**

*Criteria description:*

Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.

*Comments:*

Although the text needs improvement, the student did excellent work and proved that he could practically construct a working compiler and translator solving a quite complex real-world problem.

Signature of the supervisor: