



# Review report of a final thesis

**Reviewer:** doc. Ing. Mgr. Petr Klán, CSc.  
**Student:** Anastasiia Pastukhova  
**Thesis title:** Virtual production for dancing performances  
**Branch / specialization:** Web and Software Engineering, specialization Computer Graphics  
**Created on:** 25 May 2021

## Evaluation criteria

### 1. Fulfillment of the assignment

- [1] assignment fulfilled
- ▶ [2] **assignment fulfilled with minor objections**
- [3] assignment fulfilled with major objections
- [4] assignment not fulfilled

The thesis uses an admirable number of technologies, with which the author had to get acquainted and learn to use them. However, there is a lack of sufficiently substantiated data for the second part of point 4 of the assignment and for point 5, including the evaluation of results.

The first part of the analysis contains a nice and detailed list of technologies for virtual production including visits to several television studios. In my opinion, some of them do not fit into the chosen procedure (eg helmet). The second part is devoted step by step to performing a virtual dance. At best, however, it suddenly ends and there is no evidence of how, for example, the author obtained the required footage after merging or evaluated results.

### 2. Main written part

80/100 (B)

The organization of content is fine, including a nice artistic focus of the work. I also appreciate the professional scan, I assume the photogrammetric method. What I miss in the content is above all a more detailed documentation of the final results (e.g. video in Unreal after merging) and their evaluation. I consider this to be the main focus of the work, so I use a reduced grade.

Note that links to images are completely missing, along with more detailed descriptions of their content incorporated into the text. Furthermore, in some cases, references are incorrectly used (see eg [41]), which does not make sense because it refers to the author's screenshot made in Blender.

### **3. Non-written part, attachments**

100 /100 (A)

I appreciate all the steps and especially the artistic overlap of the work, including many like film technologies that the author had to master.

### **4. Evaluation of results, publication outputs and awards**

80 /100 (B)

Results of the thesis can be used in art productions. However, due to the insufficient description and evaluation of their final form, it is at this point an estimate rather than a fact.

### **The overall evaluation**

80 /100 (B)

The author solves virtual dance production in a very good way. When I summarize the individual steps, then an avatar was taken, rigging was applied and then it was downloaded to a scene in Unreal. Here it was connected to the real model (via merging).

The thesis shows a considerable amount of work and connection of talent with virtual technologies. However, the final results (mainly the resulting video after merging and its evaluation) are not sufficiently described, so I evaluate the thesis with a lower grade B. Otherwise, it meets all the requirements of the final work.

### **Questions for the defense**

I presume the author applied a procedure that is common in television or film studios. However, in my opinion there is an easier alternative by use of self-tracking elements, a headset and a virtual metaverse. Does the author know this procedure, or has she considered it?

## **Instructions**

### **Fulfillment of the assignment**

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.

### **Main written part**

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.

### **Non-written part, attachments**

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.

### **Evaluation of results, publication outputs and awards**

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.

### **The overall evaluation**

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.