



Assignment of bachelor's thesis

Title: Spatial sound for immersive video
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Study program: Informatics
Branch / specialization: Web and Software Engineering, specialization Computer Graphics
Department: Department of Software Engineering
Validity: until the end of summer semester 2022/2023

Instructions

Interactive immersive virtual reality experiences are the realm of game engines, which have been evolving rapidly to match the industry's requirements. In the case of non-interactive experiences, the extensive functionality of more traditional creative software can be used.

However, most consumer-oriented 3D and DAW software, currently doesn't have optimised workflows for creation of VR/AR content, especially it's audio aspect. The aim of this bachelor's thesis is to design and implement a tool to optimise the sound design and mixing workflow of creating three dimensional scene based audio for immersive videoexperiences.

Tasks:

1. Analyse available solutions.
2. Propose a solution providing an improved workflow, while utilising the capabilities of existing creative software.
3. Implement software enabling the proposed workflow.
4. Test and document the resulting software.
5. Evaluate the results and discuss possible extensions/improvements.