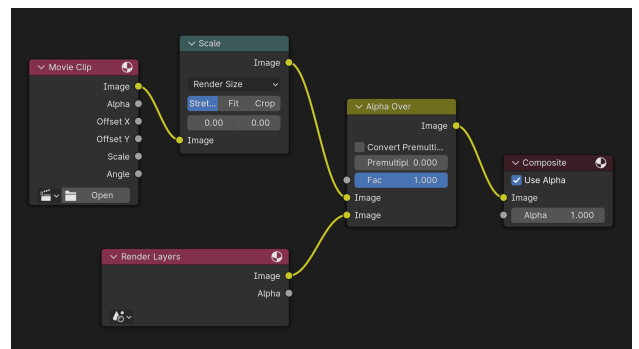
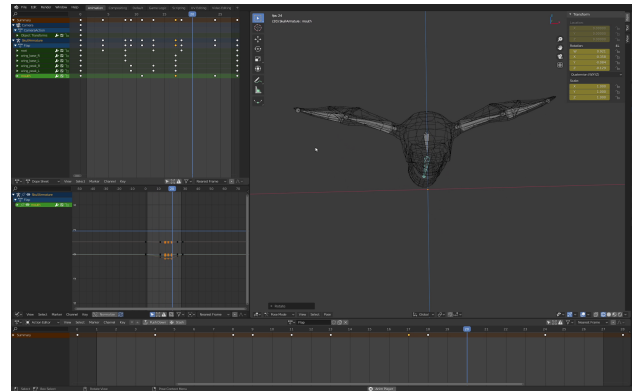


Practical Course (Fachpraktikum)

Developing Blender Plugins for Digital Art and Content Creation

During this practical course, students will develop plugins for the open-source 3D creation software *Blender*. The course starts with an introduction into Blender's various functionalities and workflows, such as 3D modeling, animation, compositing, and more. Furthermore, the course introduces scripting and plugin development in Blender. Finally, the students will come up with multiple ideas for Blender plugins that achieve for instance:

- Making certain steps in an asset creation workflow easier (e.g., texturing, level-design, or interfacing between different tools).
- Exploring novel ways of creating specific digital assets (e.g., specialized brush tools).
- Improving the accessibility of the resulting creation with little to no extra cost (e.g., semi-automatically embedding audio or haptic cues).
- Using unconventional input or output for the creation process (e.g., custom input devices).



The course work involves solving on specific asset creation and programming tasks as well as ideating and implementing a plugin. The exercise sessions include in-class presentations and peer-feedback.

Learning goals

Being able to programmatically interface with Blender to create scripts and plugins for use cases within art, games, videos, or other digital media. The students learn the plugin development paradigms and parts of the software architecture of Blender. This also entails that the students learn the basic usage and technical terms of the asset creation process.

Pre-requisites

Required: Strong programming skills. We will be primarily using Python for the introductory examples. No previous knowledge in a specific programming language is required. However, strong general programming skills and the ability to quickly pick up programming languages and concepts are crucial.

Advantageous: Basic knowledge in Computer Graphics and Game Development.

Optional: Interest and/or basic skills in the practice of digital art or asset creation in general. Practical concepts within 3D modeling, animation, etc. will be part of the course. However, the main focus will be the plugin implementation. Hence, practical skills in digital art are *not* required.

Other information

Language: English; **Workload:** 4 SWS / 6 LP

Contact

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