

Projektbeschreibung für den Kurs *Open-Source Software for the Working Scientist*

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1 Introduction

To implement structured programs it is necessary to design UML(Unified Modeling Language)-diagrams. This is especially important in a scientific context, because it enables the scientific teams to better combine and unify solution strategies. In scientific projects, the project budget is usually small. For this reason, expensive software products such as *visual paradigm* are not needed to create the diagrams. Therefore, different open source products for the creation of UML diagrams will be investigated.

2 Projectdescription

Based on the creation of 1-2 UML diagrams, differences, advantages and disadvantages of open source solutions for UML diagrams will be worked out. The created UML diagram will continue to be used in the research work of the Masters of applied Research. The focus of the diagrams lies in the abstract and clear representation of software and software designs.

2.1 Software products

In this project, the following open source software are investigated and compared:

- *PlantUML*
- *Integrated Latex UML - TikZ-UML*
- *Modelio*
- ... ?

2.2 Investigation criteria

- Time required for creation
- Time required for modification
- General visual impression
- ... ?