

MA-Model2Text English

The DFKI MLT "Talking Robots" group in collaboration with the colleagues from DFKI IWi is looking for a student for a master thesis on the topic of text generation based on process models.

The goal of the master thesis is to transfer process models (different modeling languages) into a natural language text using methods of language processing. This text should describe the modeled process and also consider temporal relations. The models used have been developed in the context of the DRZ (<https://rettungsrobotik.de/>) project and the approach to be developed should also find practical application in this project.

For this purpose, the currently used approach (based on [Leopold et al., 2012](#)) shall be evaluated first. Based on this, it will then be improved using different NLG (Natural Language Generation) techniques and also adapted to the requirements of the project. The choice of NLG techniques is here still deliberately left open, both rule-based or ML approaches are conceivable. Ideally, several techniques will be implemented and evaluated against each other.

Since the approach to be developed is also to be used practically, the development of a corresponding software module (Python) is also part of this work.

This work is addressed to:

- Students of business informatics with an interest in language processing or.
- Students of computational linguistics with an interest in process modeling.

Requirements:

- Programming skills in Python
- German language skills are desirable but not mandatory
- ML/DL knowledge is an advantage, but not mandatory.

If interested, please contact Christian Willms (christian.willms@dfki.de) or Alexander Berrang (alexander.berrang@dfki.de).