

# Development of a Campus Routing System

SS 2013

Institute of Theoretical Informatics

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## Functional Specifications Document (Pflichtenheft)

In the first phase of this practical course your task is to create the functional specifications document (dt. Pflichtenheft). Since this document is supposed to contain parts of the software design it is a combination of the functional specification document as well as the specification book (dt. Lastenheft). This document will be the basis for your future work on your project, which makes it very important.

The functional specification document and the associated presentation is to be seen as legitimate advertisement for your product. Your advisors will serve the role as customers and your goal is to convince them to order your product.

You must deliver the final version of the document by 19.5.2012, 23:59 via email to one of your advisors. Please note that since this document is part of the examination we *cannot* accept documents that are handed even slightly too late.

### Content

We expect the document you hand in to be in the PDF format. Although you are free to choose any word-processing software to your liking, we recommend the use of L<sup>A</sup>T<sub>E</sub>X. Please ensure that your document is written clearly and follows the guidelines for functional specification documents.

The general guidelines for this document can be found in the lecture notes for the course 'Softwaretechnik'. Your document must be precise, complete and consistent. The document should consist of about 20 pages and should include a complete description of your task. The title page, the list of team members, etc., as well as the table of contents and the glossary do not count towards the 20 pages.

The functional specification document must contain a detailed description of the capability characteristics of your system. We require that it contains at least the following aspects:

- Introduction
- Objectives (dt. Zielbestimmungen)
- Mandatory criteria (dt. Musskriterien)
- Facultative criteria (dt. Wunschkriterien)
- Excluded criteria (dt. Abgrenzungskriterien)
- Product usage (dt. Produkteinsatz)
- Product environment (dt. Produktumgebung)
- Product functionalities (dt. Produktfunktionen)
- Product data (dt. Produktdaten)
- System model (dt. Systemmodell)
- Product performance (dt. Produktleistungen)
- Graphical User Interface (GUI)
- Quality objective (dt. Qualitätsziele)
- Test cases and scenarios
- Development environment

Please remember to include all technical terms in the glossary. For this document it is also a good idea to sketch a rough picture of the system architecture you want to use. To this end, you should discuss the given task in detail within your team. As a last step you should think about the goals you have set for yourself and which of them you might be willing to change in the future.

## Colloquium

The date for the colloquium, in which you have to present your functional specification document, will be arranged per team separately. We provide a projector and a laptop. For the first 20 minutes you will present your work, followed by a technical discussion based on your presentation. We expect you to put effort into your presentation and do not just read of your functional specification document. Instead you should explain in detail your mandatory, facultative, and excluded criteria. Moreover, you should give an overview about the functionality and the planned test scenarios of your product. As we play the role of customers that must be convinced to buy the system, you should also show some images giving an impression on how the application will look like.