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| **Newtonische Axiom** |
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Biomedinische Informatik

Revisions

| Version | Date | Comment | Author |
| --- | --- | --- | --- |
| 0.1 | 01.12.10 | Use Case | John Truong |
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# Introduction

This section should provide an overview of the whole document.

## Purpose of this Document

What is the purpose of this document? For whom is it written?

## Vision

The vision statement describes the most important requirements for the system and its basic characteristics in a few sentences. This description can already have contractual character.

What problem is solved by this project and for whom? What are the most important needs of the users and why? What are the goals that should be reached?

How is the problem solved and what approach is chosen? What is the difference to existing solutions?

## Definitions and Abbreviations

Can also be moved to the appendix.

## References

Can also be moved to the appendix.

## Overview

How is the document structured? What is described where?

# General Description

This section describes the general factors that influence the product and the requirements. These are meant to be background information and not specific requirements.

## Stakeholders

Who has an interest in the system to be developed? Who represents them?

## Users and their Characteristics

Who will use the system? How are they characterized?

## User Tasks and Goals

What tasks will the users want to perform with the system? What are their needs?

## Assumption and Dependencies

A list of assumptions that, if changed, have an influence on the requirements (e.g. specific version of operation system, availability of hardware).

## Realization of the Requirements

### Risks

A description of the most important risks, and what is done to reduce them.

### Resources

What resources are available (people, know-how, etc.) and how are they organized?

### Tools

# Functional Requirements

This section describes the specific functional requirements for the system. The requirements have to be detailed enough that they can be used as a basis for the design, and that the users on the other side can verify the functionality.

## Use Case Overview

\*Produktnutzen, \*\*Technische Schwierigkeit, \*\*\*Priorität

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| --- | --- | --- | --- | --- | --- |
| Akteur | Ziel | Hauptablauf | \* | \*\* | \*\*\* |
| 1. Medtech. Gruppen | 1.1 Messreihen einlesen | Man kann mehrere Messreihen manuell einlesen. | Hoch | Hoch | Hoch |
| 1.2 Tabellarische Darstellung | System stellt die eingegeben Messreihen tabellarisch dar. | Tief | Mittel | Mittel |
| 1.3 X-Y Plot | System stellt gleichzeitig mehrere Messreihen in einem X-Y Plot dar, die farblich unterscheidbar sind. | Hoch | Hoch | Hoch |
| 1.4 Import | Man kann Messdaten in Dateiformaten wie Excel, Labview importieren. | Hoch | Hoch | Mittel |
| 1.5 Anpassen von GUI | Das User-Interface soll bei Änderung der Fenstergrösse automatisch angepasst werden. | Mittel | Tief | Tief |
| 2. Informatik Gruppen | 2.1 Importer | Nutzbarkeit der verschiedenen Importer. Das System ist universell und kann mit allen drei Testmessdaten. | Hoch | Hoch | Mittel |

### Prioritäten

Die Prioritäten warden bestimmt aus der Kombination von Produktnutzen und technischer Schwierigkeit.

|  |  |
| --- | --- |
| Priorität | Bedeutung |
| Hoch | Diese Anforderung ist unabdingbar und notwendig für das korrekte Funktionieren der Software; sie muss realisiert werden. |
| Mittel | Diese Anforderung ist nicht unabdingbar ihre Realisierung trägt zur wesentlichen Verbesserung der Software bei. Sie soll wenn möglich realisiert werden. |
| Tief | Diese Anforderung trägt zur Verbesserung der Software bei, ist jedoch nicht unbedingt notwendig. Es wäre aus wünschenswert, wenn die Anforderung realisiert würde. |

#### Use Case 1.1: Messreihen einlesen

Actors: Medtech Gruppen

Precondition: Keine

Success condition: Benutzer kann manuell mehrere Messreihen einlesen

Main scenario: System nimmt die vom Benutzer eingegeben Messreihen entgegen.

#### Use Case 1.2: Tabellarische Darstellung

Actors: Medtech Gruppen

Precondition: Messreihen sind erfolgreich eingegeben worden.

Success condition: Messreihen werden tabellarisch dargestellt.

Main scenario: Durch bestätigen der Messreihen werden diese automatisch in einer Tabelle dargestellt.

#### Use Case 1.3: X-Y Plot

Actors: Medtech Gruppen

Precondition: Messreihen sind erfolgreich eingegeben worden.

Success condition: Messreihen werden im X-Y Plot dargestellt

Main scenario: Durch bestätigen der Messreihen werden diese automatisch im X-Y Plot dargestellt.

#### Use Case 1.4: Import

Actors: Medtech Gruppen

Precondition: CSV Datei mit den Messreihen

Success condition: Die Importiereten Messreihen, werden im System angezeigt

Main scenario:

Alternative scenarios:

#### Use Case 1.5: Anpassen von GUI

Actors: Medtech Gruppen

Precondition:

Success condition:

Main scenario:

Alternative scenarios:

#### Use Case 2.1: Importer

Actors: Informatik Gruppen

Precondition:

Success condition:

Main scenario:

Alternative scenarios:

### Other Properties (Features)

Other properties of the system that can not described by use cases (e.g. multi-lingual, detection of trends)

# Other Requirements

This section describes the specific supplementary requirements for the system. The requirements have to be detailed enough that they can be used as a basis for the design, and that the users on the other side can verify the functionality.

## Non-functional Requirements

Also called quality or supplementary requirements This list is not necessarily complete.

### Usability

### Reliability

### Performance

### Security

### Implementation, Process

### Legal Restrictions

### Organizational Requirements

## External Interfaces

### Hardware Interfaces

### Software Interfaces

### Communication Interfaces

# Analysis Models

This section contains the conceptual model of the problem domain. This consists typically of the domain model, as well as the most important system interactions. Additional models can be added as needed.

## Domain Model

## System Interactions

## Data Model

Appendix

As needed…

Appendix A