DHBW
Duale Hochschule
Baden-Württemberg
Stuttgart

Project Manual

(TINF21C, SWE)

Project: Modelling Wizard Improvements

Customer: Markus Rentschler

Christian Holder

Team:

Project Manager	– Robin Ziegler (inf21100@lehre.dhbw-stuttgart.de)
Developer	– Nils Hoffmann (inf21194@lehre.dhbw-stuttgart.de)
Test Manager	– Michael Grote (inf21111@lehre.dhbw-stuttgart.de)
Graphical Designer	- Sophie Kirschner (inf21083@lehre.dhbw-stuttgart.de)
System Architect	– Fabian Kreuzer (inf21106@lehre.dhbw-stuttgart.de)
Tech. Documentation	– Dana Frey (inf21099@lehre.dhbw-stuttgart.de)
Product Manager	– Maximilian Trumpp (inf21123@lehre.dhbw-stuttgart.de)

Change History

Version	Date	Author	Comment
0.1	22.09.2022	Michael Grote	Preliminary Setup
1.0	06.10.2022	Michael Grote	Edit Content
1.1	16.05.2023	Michael Grote	Update Content

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1. Project Assignment

<table>
<tr><th colspan="2">Project Assignment</th></tr>
<tr><td colspan="2">Project Objective (Output)
The aim of the project is to analyze the usability of the existing Windows stand-alone application “Modelling Wizard”. From this, a usability concept for the GUI is to be developed. In addition, the existing functions are to be tested. Furthermore, the existing source code is to be refactored.</td></tr>
<tr><td colspan="2">Project Benefit (Outcome)
The user-friendliness is to be improved by adjustments to the GUI. Thus, the user should later be able to use the software more intuitively. In addition, already known errors should be eliminated. By refactoring the existing source code, maintainability should be improved. This also results in the preservation of adaptability for the future.</td></tr>
<tr><td>Customer:
M. Rentschler; C. Holder</td><td>Project leader:
Robin Ziegler</td></tr>
<tr><td>Team members:
• Robin Ziegler
• Maximilian Trumpp
• Michael Grote
• Fabian Kreuzer
• Dana Frey
• Nils Hoffmann
• Sophie Kirschner</td><td>Previous developer team:
• Linus Eickhoff
• Florian Kellermann
• Lukas Ernst
• Florian Kaiser
• Malte Horst
• Rajkumar Pulaparthi</td></tr>
<tr><td>Main tasks:
• Documentation
• Analysis
• Design
• Development
• Tests</td><td>Milestones:
• Analysis phase
• Design phase
• Coding
• Test phase
• Presentation</td></tr>
<tr><td>Project start event:
Introductory lecture with project assignment</td><td>Project start date:
09.September 2022</td></tr>
<tr><td>Project end event:
Presentation of the Results</td><td>Project end date:
19.May 2023</td></tr>
</table>

2. Project Context

Initial situation and problem description
The current implementation has minor bugs and still needs a more detailed bug analysis. In addition, the user interface has several buttons with similar functions. This affects the usability. In addition, some menus should be moved from "Simple Mode" to "Advanced Mode" to make it easier to use in Simple Mode. Furthermore, a proper user manual for the software is missing.

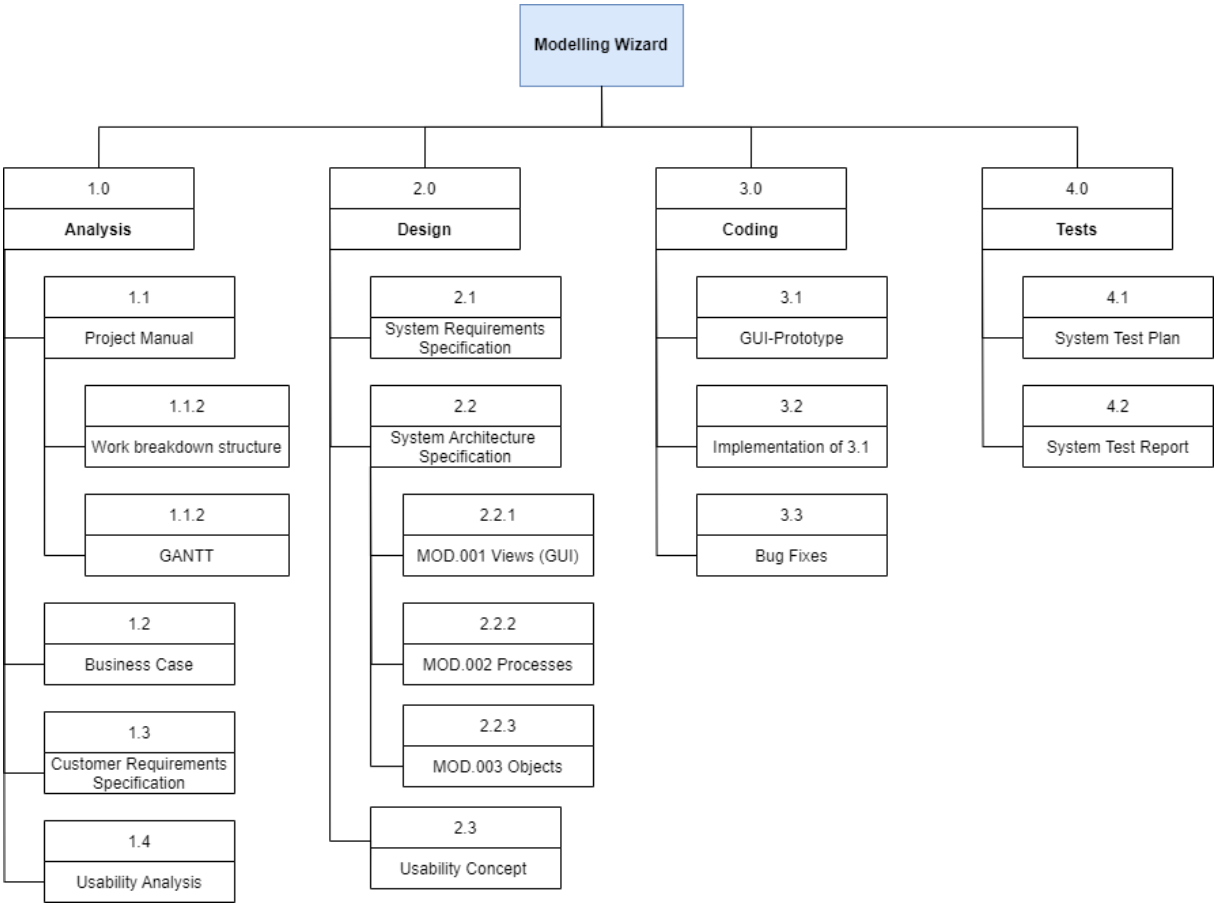
Temporal Project Context	
Pre-project phase	Post-project phase
• The stand-alone application has already been developed by another team. The GUI has some small bugs, and the user-friendliness can be increased even further	• The existing GUI should be redesigned. The existing code should be refactored. The user manual should be extended to show all functionalities of the application.

Stakeholder Analysis			
Stakeholder	Potential / Chance	Conflict / Risks	Actions
Customer	Satisfaction with the new implementation.	Requests for changes during the project.	Regular communication between supplier and client.
Supplier	Development of a solution that meets the requirements.	Misjudgment of effort, time pressure, miscommunication	Fixed intermediate dates, regular meetings, uniform code standards
User	Benefit of the application, increase in efficiency, intuitive usability	Lack of understanding of the application, incorrect operations	Creation of a usability concept and testing of catching errors

3. Project Organization

Project Organization		
Position	Description	Name
Customer	• Defines the project framework • Sets out the customer requirements	Rentschler, Markus / Holder, Christian
Project leader	• Control of the distribution of tasks • Coordination of the members • Allocation of resources	Robin Ziegler
Project team	Product Manger Test Manager System Architect Tech. Documentation Developer Graphical Designer	Maximilian Trumpp Michael Grote Fabian Kreuzer Dana Frey Nils Hoffmann Sophie Kirschner

4. Work Breakdown Structure (PSP)



5. Milestones

WP-Code	Milestone Name	Plan Date	Responsible Person
1.0	Analysis		
1.1	Project Manual	06.10.2022	Michael Grote
1.1.1	Work breakdown structure	06.10.2022	Michael Grote
1.1.2	GANTT	06.10.2022	Michael Grote
1.2	Business Case	10.10.2022	Robin Ziegler
1.3	Customer Requirements Specification	06.10.2022	Maximilian Trumpp
1.4	Usability Analysis	15.03.2023	Sophie Kirschner
2.0	Design		
2.1	System Requirements Specification	20.10.2022	Dana Frey
2.2	System Architecture Specification	30.10.2022	Fabian Kreuzer
2.2.1	MOD.001 Views (GUI)	12.05.2023	Fabian Kreuzer
2.2.2	MOD.002 Processes	12.05.2023	Fabian Kreuzer
2.2.3	MOD.003 Objects	12.05.2023	Fabian Kreuzer
2.3	Usability Concept	19.03.2023	Sophie Kirschner
3.0	Coding		
3.1	GUI-Prototype	26.03.2023	Sophie Kirschner
3.2	Implementation of 3.1	12.05.2023	Maximilian Trumpp
3.3	Bug Fixes	18.05.2023	Fabian Kreuzer
4.0	Tests		
4.1	System Test Plan	01.05.2023	Michael Grote
4.2	System Test Report	18.05.2023	Robin Ziegler

6. Lists of tasks and responsible person

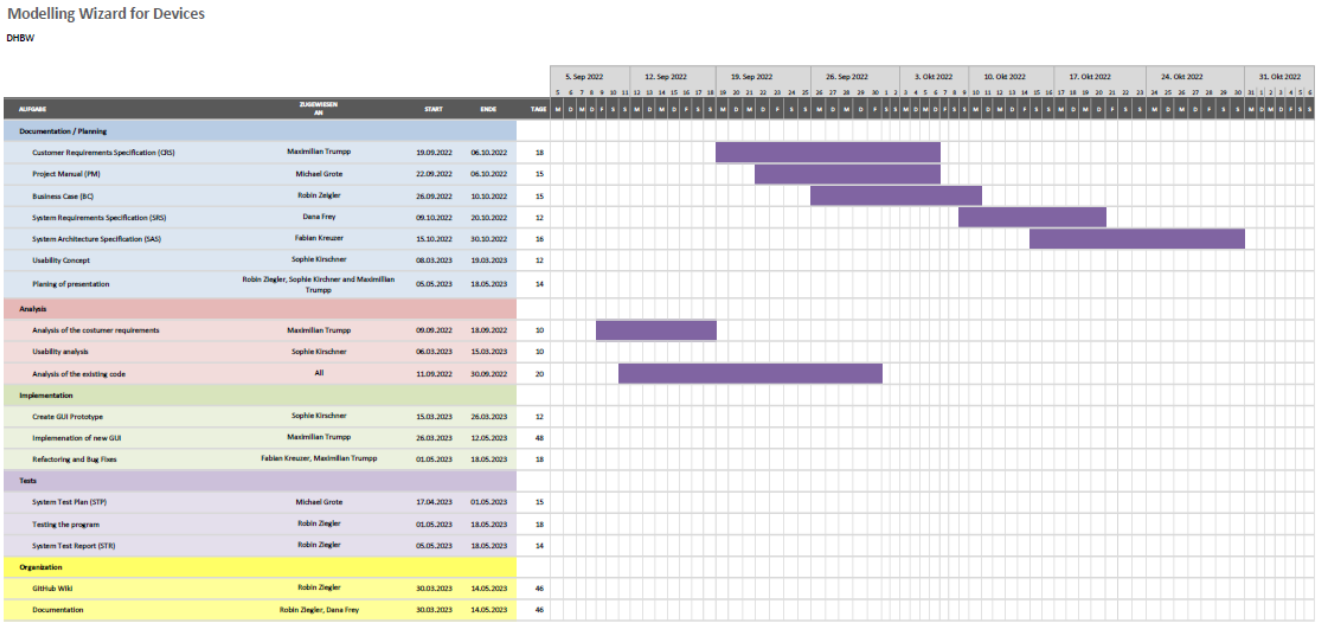
Activities and Responsibility		
Person	Category	Tasks
Robin Ziegler *Position:* Project Leader *GitHub-Name:* robinziegler	Documentation, Organization	• Business Case • Organization of GitHub • Contact person to the Customer • Software Test Report
Maximilian Trumpp *Position:* Product Manager *GitHub-Name:* maximiliantrumpp	Documentation	• Customer Requirements Specification • Contact person to the Customer
	Development	• Implementation of the new GUI • Backend Implementation
Michael Grote *Position:* Test Manager *GitHub-Name:* michi3214	Documentation	• Project Manual • Software Test Plan
	Development	• Implementation of the new GUI
Fabian Kreuzer *Position:* System Architect *GitHub-Name:* Fabiankreuzer	Documentation	• System Architecture Specification
	Development	• Implementation of the new GUI • Backend Implementation
Dana Frey *Position:* Tech. Documentation *GitHub-Name:* DanaFrey	Documentation	• System Requirements Specification • Meeting Minutes
	Development	• Implementation of the new GUI

Nils Hoffmann *Position:* Developer *GitHub-Name:* HoffmannNils	Documentation	• User Manual
	Development	• Implementation of the new GUI
Sophie Kirschner Position: Graphical Designer GitHub-Name: sophiekirschner	Documentation	• Usability Analysis • Usability Concept

7. Gant-Chart

The original GANT-Chart could be found in GitHub (see https://github.com/robinziegler/TINF21C_Team4_Modelling_Wizard_Improvements/tree/master/PROJECT/PM).

First part of the project:



Modelling Wizard for Devices

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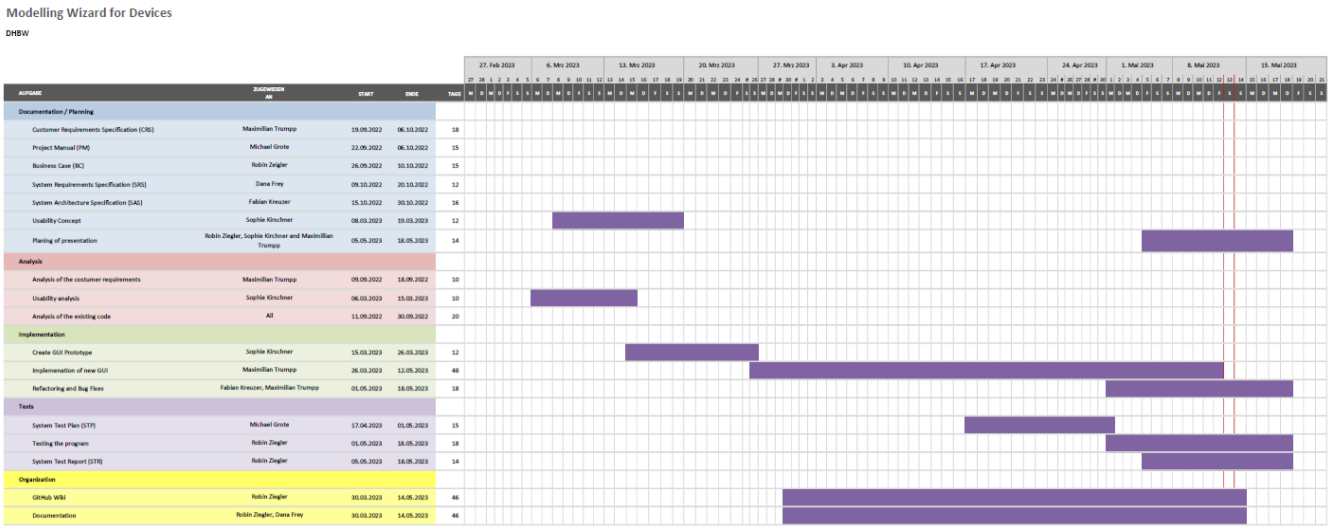
AUFGABE	ZUGEWIESEN AN	START	ENDE	TAGE
Documentation / Planning				
Customer Requirements Specification (CRS)	Maximilian Trumpp	19.09.2022	06.10.2022	18
Project Manual (PM)	Michael Grote	22.09.2022	06.10.2022	15
Business Case (BC)	Robin Zeigler	26.09.2022	10.10.2022	15
System Requirements Specification (SRS)	Dana Frey	09.10.2022	20.10.2022	12
System Architecture Specification (SAS)	Fabian Kreuzer	15.10.2022	30.10.2022	16
Usability Concept	Sophie Kirschner	08.03.2023	19.03.2023	12
Planing of presentation	Robin Ziegler, Sophie Kirchner and Maximilian Trumpp	05.05.2023	18.05.2023	14
Analysis				
Analysis of the costumer requirements	Maximilian Trumpp	09.09.2022	18.09.2022	10
Usability analysis	Sophie Kirschner	06.03.2023	15.03.2023	10
Analysis of the existing code	All	11.09.2022	30.09.2022	20
Implementation				
Create GUI Prototype	Sophie Kirschner	15.03.2023	26.03.2023	12
Implemenation of new GUI	Maximilian Trumpp	26.03.2023	12.05.2023	48
Refactoring and Bug Fixes	Fabian Kreuzer, Maximilian Trumpp	01.05.2023	18.05.2023	18
Tests				
System Test Plan (STP)	Michael Grote	17.04.2023	01.05.2023	15
Testing the program	Robin Ziegler	01.05.2023	18.05.2023	18
System Test Report (STR)	Robin Ziegler	05.05.2023	18.05.2023	14
Organisation				
GitHub Wiki	Robin Ziegler	30.03.2023	14.05.2023	46
Documentation	Robin Ziegler, Dana Frey	30.03.2023	14.05.2023	46

Second part of the project:



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Documentation	Robin Ziegler, Dana Frey	30.03.2023	14.05.2023	46

8. Risks

- ***Financial Risk:***
  Due to delays in development or unforeseen bugs, the development effort could increase. The higher development effort would increase personal costs.

  Actions:
  By distributing development tasks among different team members, some processes can be performed more efficiently.

- ***Planning Risk:***
  Time schedules might have been planned too tightly.

  Actions:
  For unexpected development efforts, a team member should act as a floater. In addition, certain buffers should be built into the schedules.

- ***Technical Risk:***
  Since development has already been started by a previous team, our team needs to get familiar with the existing code first. The programming language C# is only known to a limited extent in our team.

  Actions:
  A good familiarization with the existing project and the used programming language is necessary. In this context it is useful to get used to the existing documentation.

- ***Legal Risk:***
  Due to the use of software from other developers, attention to possible legal conditions is necessary.

  Actions:
  When using components from other developers, attention must be paid to possible licenses and plagiarism must be avoided as much as possible.

- ***Personal Risk:***
  Significant problems could arise due to possible staff absences. The spontaneous loss of a team member would compromise the scheduled completion.

  Actions:
  By distributing development among multiple team members, the impact of a team member leaving can be better hedged.

9. Changes during the project

After analyzing the existing application, it was decided to discard the application and make a new implementation. This was to reduce the development effort. This also allowed the use of a new framework, which simplified the implementation of a more modern GUI.

In addition, there was a personnel change during the project. Sophie Kirschner joined the team.