**Meeting Minutes**

(TINF20C, SWE I Praxisprojekt 2021/2022)

Project: Modelling Wizard for Cable Models

Customer: Rentschler & Holder

Rotebühlplatz 41

70178 Stuttgart

Project Team: Team 2 (Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé)

Rotebühlplatz 41

70178 Stuttgart

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| **Version** | **Date** | **Author** |
| 0.01 | 06.10.2021 | Friedrich |
| 0.02 | 07.10.2021 | Friedrich |
| 0.03 | 15.10.2021 | Friedrich |
| 0.04 | 16.10.2021 | Friedrich |
| . . . | . . . | Friedrich |
| 0.23 | 03.05.2022 | Friedrich |
| 0.24 | 04.05.2022 | Friedrich |
| 0.25 | 05.05.2022 | Friedrich |
| 1.0 | 06.05.2022 | Friedrich |

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# Meeting Minutes #1

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| --- | --- |
| Date | 06.10.2021 |
| Time | 16:00 – 18:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé |
| Topics | 1. General organization:    * Scheduling will happen with a Trello board    * Collecting information about the requested files    * Begin planning for CRS |
| Problems | #1: Not all exercises are perfectly understood |
| Solutions | #1: Request for customer meeting by mail and  accumulation of points to be agreed with the  customer |
| To do | - |

# Meeting Minutes #2

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| --- | --- |
| Date | 07.10.2021 |
| Time | 11:30 – 12:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Markus Rentschler (Customer), Tim Sellemann, Fabian Thomé |
| Topics | 1. Question and answer session with the customer:    * Basic requirement: Web-based application    * Current state: user selects features -> Product selection is adjusted according to filter criteria    * Comparative analysis of the different suppliers    * Target state: user selects characteristics -> Product is assembled from the individual parts => Assembled cable should be output as AutomationML table |
| Problems | - |
| Solutions | - |
| To do | First task: CRS |

# Meeting Minutes #3

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| --- | --- |
| Date | 15.10.2021 |
| Time | 10:30 – 11:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Tim Sellemann, Fabian Thomé |
| Topics | 1. Creation of GitHub repository 2. Split into two groups:    * Group 1: Business Case (Kevin Pauer, Tim Sellemann)    * Group 2: Customer Requirements Specification (Leon Amtmann, Calvin Friedrich, Max Gohlke, Fabian Thomé) |
| Problems | #1: Requirement: English documentation |
| Solutions | #1: Revision of all existing files |
| To do | Usability concept and analysis of existing solutions |

# Meeting Minutes #4

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| --- | --- |
| Date | 16.10.2021 |
| Time | 10:00 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer |
| Topics | 1. Analysis of existing solutions    * Balluff Verwaltungsgesellschaft mbH    * Phoenix Contact GmbH & Co. KG    * Murrelektronik GmbH    * U.I. Lapp GmbH    * HARTING Deutschland GmbH & Co. KG |
| Problems | - |
| Solutions | - |
| To do | - |

# Meeting Minutes #5

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| Date | 19.10.2021 |
| Time | 18:30 – 19:30 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Tim Sellemann |
| Topics | 1. Working on BC    * Cover sheet    * Scope    * Profitable Benefits |
| Problems | - |
| Solutions | - |
| To do | - |

# Meeting Minutes #6

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| --- | --- |
| Date | 21.10.2021 |
| Time | 15:45 – 17:45 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich |
| Topics | 1. Working on CRS    * Product usage    * Business processes    * Use cases    * Features |
| Problems | - |
| Solutions | - |
| To do | - |

# Meeting Minutes #7

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| --- | --- |
| Date | 22.10.2021 |
| Time | 09:30 – 10:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé |
| Topics | 1. Refinement CRS and BC    * Result: Sent to customer    * Request for feedback 2. First deadline successfully met |
| Problems | - |
| Solutions | - |
| To do | - |

# Meeting Minutes #8

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| --- | --- |
| Date | 29.10.2021 |
| Time | 11:30 – 12:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Markus Rentschler (Customer), Tim Sellemann, Fabian Thomé |
| Topics | 1. Customer review of CRS and BC    * Result: Detailed feedback with improvement approaches |
| Problems | - |
| Solutions | - |
| To do | Additional revision |

# Meeting Minutes #9

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| --- | --- |
| Date | 29.10.2021 |
| Time | 11:30 – 12:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé |
| Topics | 1. Planning date for upcoming projects:    * SAS (Max Gohlke, Thorsten Rausch, Tim Sellemann)    * SRS (Leon Amtmann, Calvin Friedrich, Fabian Thomé) |
| Problems | - |
| Solutions | - |
| To do | All documents mentioned above are due till 07.11.2021 |

# Meeting Minutes #10

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| Date | 05.11.2021 |
| Time | 09:00 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé |
| Topics | 1. Refactoring CRS based on customer feedback and working on SRS (Leon Amtmann, Calvin Friedrich, Fabian Thomé) 2. Refactoring BC based on customer feedback (Kevin Pauer) 3. Working on SAS (Max Gohlke, Thorsten Rausch, Tim Sellemann) 4. Collecting ideas for actual development (Max Gohlke, Thorsten Rausch, Tim Sellemann) |
| Problems | - |
| Solutions | - |
| To do | Presentation and start of development |

# Meeting Minutes #11

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| --- | --- |
| Date | 07.11.2021 |
| Time | 15:30 – 19:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Kevin Pauer, Thorsten Rausch, Tim Sellemann, Fabian Thomé |
| Topics | 1. Preparing for customer presentation 2. Prototyping (Thorsten Rausch) |
| Problems | - |
| Solutions | - |
| To do | Development |

# Meeting Minutes #12

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| --- | --- |
| Date | 12.11.2021 |
| Time | 08:30 – 10:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Max Gohlke, Christian Holder (Customer), Kevin Pauer, Thorsten Rausch, Markus Rentschler (Customer), Fabian Thomé |
| Topics | 1. Customer presentation 2. Detailed customer feedback 3. Documentation: Summary of customer feedback |
| Problems | - |
| Solutions | - |
| To do | Rework project documentation based on key findings from the customer feedback |

# Meeting Minutes #13

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| Date | 11.03.2022 |
| Time | 10:30 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Markus Rentschler (Customer), Fabian Thomé |
| Topics | 1. Current status 2. Further procedure 3. Prototyping GUI and what information is needed from API |
| Problems | #1: Loss of Test Manager (Tim Sellemann) and Junior  Developer (Max Gohlke) #2: No real cable data available |
| Solutions | #1: Division of labor between frontend and backend  for faster development; Technical Editor takes over  tasks of the Test Manager #2: Request cable data from customer |
| To do | Getting development going |

# Meeting Minutes #14

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| --- | --- |
| Date | 18.03.2022 |
| Time | 08:30 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Thorsten Rausch |
| Topics | 1. Detailed planning frontend 2. Detailed requirements API |
| Problems | - |
| Solutions | - |
| To do | Implementation; communication of requirements to backend team |

# Meeting Minutes #15

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| --- | --- |
| Date | 18.03.2022 |
| Time | 08:30 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Fabian Thomé |
| Topics | 1. Development of API in Flask 2. Set up first attempt of an API |
| Problems | #1: No data for cable models |
| Solutions | - |
| To do | Review with frontend: Does the API meet the requirements? |

# Meeting Minutes #16

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| Date | 24.03.2022 |
| Time | 13:00 – 15:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Thorsten Rausch |
| Topics | 1. Finished GUI prototype with dummy data |
| Problems | - |
| Solutions | - |
| To do | Filling the dummy with real data from the API |

# Meeting Minutes #17

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| --- | --- |
| Date | 08.04.2022 |
| Time | 08:30 – 12:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Cable models have been sent in the meantime (see Meeting Minutes #13; Solution #2) 2. Exchange of information between frontend and backend teams |
| Problems | #1: Cable model does not match backend   implementation |
| Solutions | #1: Redevelopment of the backend with C# |
| To do | Primarily backend development |

# Meeting Minutes #18

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| --- | --- |
| Date | 22.04.2022 |
| Time | 09:20 – 11:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Thorsten Rausch |
| Topics | 1. Review schedule 2. First prototype of the new backend |
| Problems | #1: Senior Developer and Technical Editor ill |
| Solutions | - |
| To do | Backend development must be driven forward, Documentations are to be created |

# Meeting Minutes #19

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| --- | --- |
| Date | 29.04.2022 |
| Time | 16:00 – 17:00 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Emergency Meeting:    * Backend not ready    * Documentation to a large extent not started yet    * Tests not yet started |
| Problems | #1: Previous communication often deficient,   Project status not as far as it should be |
| Solutions | #1: Daily Meetings |
| To do | Top priority: Finished backend |

# Meeting Minutes #20

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| --- | --- |
| Date | 30.04.2022 |
| Time | 13:00 – 13:30 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Presentation Senior Developer:    * getCable() works -> API returns IDs    * Attributes also retrievable from API 2. Editor demonstration by project manager |
| Problems | #1: Different attributes depending on the manufacturer |
| Solutions | #1: Differentiation in filtering options, etc. |
| To do | Backend, documentation |

# Meeting Minutes #21

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| --- | --- |
| Date | 01.05.2022 |
| Time | 13:00 – 14:00 |
| Protocol | Calvin Friedrich |
| Attendants | Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Presentation Senior Developer:    * Advancement API    * Attributes that do not exist simply return NULL for the time being (see Meeting Minutes #20, Problem #1) 2. Enhancement Editor 3. Overview view online now |
| Problems | #1: Pins, wires and connectors not connected in   backend output |
| Solutions | #1: fixed later (see Meeting Minutes #23) |
| To do | Problem #1, backend and documentation |

# Meeting Minutes #22

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| --- | --- |
| Date | 02.05.2022 |
| Time | 12:15 – 12:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Further advancements backend 2. Deadline: Documents must be submitted on 06 May 3. Frontend: More filter options, Connection with backend works well |
| Problems | - |
| Solutions | - |
| To do | Implement creation of new cables, Integration Editor, Tests |

# Meeting Minutes #23

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| --- | --- |
| Date | 03.05.2022 |
| Time | 15:15 – 16:15 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Editor is implemented now, does not get the correct data yet 2. Backend:    * Delete Cables    * Meeting Minutes #21 Problem #1 solved 3. Prettier overview view |
| Problems | #1: Murrelektronik does not provide attributes |
| Solutions | - |
| To do | Finish Editor, tests, create AML Files, MOD documentation |

# Meeting Minutes #24

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| Date | 04.05.2022 |
| Time | 11:00 – 11:30 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. Editor gets the correct data 2. Detailed frontend documentation 3. Work on STP has begun (often delayed due to no finished product, but needs to be done with current state of the product for submission on 06 May) 4. Basic data validation in frontend (mandatory attributes, IDs not modifiable), partly implemented validation in backend |
| Problems | - |
| Solutions | - |
| To do | Further data validation in backend, create AML Files, execute tests, implement delete in frontend |

# Meeting Minutes #25

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| --- | --- |
| Date | 05.05.2022 |
| Time | 12:45 – 13:15 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. API    * Base64 encoded cables can be saved as files (3.0)    * Can create cables now 2. Frontend    * Delete implemented    * Provides base64 encoded cables for backend    * Library can be downloaded 3. STP finished, tests started with implemented tasks |
| Problems | #1: CORS error when creating cables (frontend to   backend communication) #2: AML files miss values for attributes and   connections between pins, wires and connectors |
| Solutions | #1: Fixed #2: Fixed later (see MeetingMinutes #26) |
| To do | Problem #1, #2, add files to library, finish tests, STR |

# Meeting Minutes #26

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| Date | 06.05.2022 |
| Time | 12:15 – 13:15 |
| Protocol | Calvin Friedrich |
| Attendants | Leon Amtmann, Calvin Friedrich, Kevin Pauer, Thorsten Rausch, Fabian Thomé |
| Topics | 1. API finished, fully implemented responses 2. Connections between pins, etc. work in AML files (see Meeting Minutes #25, Problem #2) 3. Tests finished 4. User Manual finished |
| Problems | - |
| Solutions | - |
| To do | STR |