Aarhus School of Engineering

Rolling Road GUI

Documentation

May 26, 2016

Contents

1 User stories

In this chapter each user story will be documented and described, it will also have a list of each with priorities using the MoSCoW-model.

1.1 User Story Overview

The MoSCoW-model is used to prioritize each user story into one of four categories:

1.1.1 Must have

US1: Collection of data control

US2: Data readout

US3: Graph display

US4: Saving of data

1.1.2 Should have

US5: Load and display saved data

US6: Test session

1.1.3 Could have

US7: Database storage

1.1.4 Won't have

US8: Webinterface

1.2 Detailed User Stories

Detailed user stories is written in Gherkin[1][1]. Making it possible to automate requirement-tests.

Detailed versions have only been made for stories with a priority of either Must Have, Should Have or Could Have in section 1.1 on the preceding page.

1.2.1 US1: Collection of data control

```
Feature: Collection of data
       As a user, I want to start and stop the collection of data
       so that I can control the flow of data.

       Scenario: Select data source (COM-Port)
              Given a program with no data source selected
              When I press "Select source"
                     And select a COM-Port
                     And press the select button
              Then a datasource will be selected and started

       Scenario: Start collection of data
              Given a data source is connected to the computer
                     And the collection of data is stopped
              When I press the Start button
              Then the collection of data started

       Scenario: Stop collection of data
              Given a data source is connected to the computer
                     And the collection of data is started
              When I press the Stop button
              Then the collection of data stopped
```

1.2.2 US2: Data readout

```
Feature: Data readout
       As a user, I want to view graphs containing collected data
       so that I quickly can create an overview.

       Scenario: Read data
              Given some data has been collected
              When I select the "Live View" tab
              Then I am able to read latest received data
```

1.2.3 US3: Graph display

```
Feature: Graph display
       As a user, I want to view graphs containing collected data
       so that I quickly can create an overview.

       Scenario: View data in a graph
              Given some data has been collected
              When I select the "Live View" tab
              Then I am able to see a graph with time as x-axis

       Scenario: Clear graph
              Given some data has been collected
              When I press the "Clear" button
```

[1] Gherkin is a Business readable, Domain Specific language.

```
                    And I don't want to save current data
            Then I am asked if I want to save data or not
                    And the graph will be cleared
```

1.2.4 US4: Saving of data

```
Feature: Saving of data
        As a user, I want to save collected data
        so that I am able to analyse it later.

        Scenario: Save to CSV-File
                Given some data has been collected
                When I press "Save"
                Then a window will open, where I can choose a file to save to.
```

1.2.5 US5: Load and display saved data

```
Feature: Load and display saved data
        As a user, I want to load multiple
        previously collected datasets from files
        so that I can compare them.

        Scenario: Load data from single file
                Given a CSV-File in the DF4RR format
                When I press import
                Then a window appears where I can select the file to open
                        And a list of loaded files will be present

        Scenario: Select & display datasets
                Given that one or more dataset(s) has been loaded
                When I select a dataset
                Then a graph will be viewable combined with other selected datasets
```

Non-functional requirements 2

- Executable on Windows 8.1 and 10 with .Net 4.6.1 installed
- Code coverage procent $>$ 90%

Results 3

3.1 User Stories

A test of all user stories in the 'Could' or 'Should' category, executed on the 26th of may 2016.

US1

Feature	Result
Select data source (COM-Port)	PASS
Start collection of data	PASS
Stop collection of data	PASS

US2

Feature	Result
Read data	PASS

US3

Feature	Result
View data in a graph	PASS
Clear graph	PASS

US4

Feature	Result
Save to CSV-File	PASS

US5

Feature	Result
Load data from a single file	PASS
Select & display datasets	PASS

3.2 Non-functional

A test of all non-functional requirements executed on the 26th of may 2016.

Requirement	Result
Executable on Windows 8.1 and 10 with .Net 4.6.1 installed	PASS
Code coverage procent $>$ 90 %	FAIL

Bibliography

[1] cucumber. Gherkin. URL `https://cucumber.io/docs/reference`.