

Map of Denmark

*First-Year Project, Bachelor in Software Development,
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Group 12

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Chapter 1

Preface

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Chapter 2

Background

2.1 Problem area

2.2 Requirements for the map

2.2.1 Project requirements

2.2.2 Our own requirements

2.3 Data set

2.3.1 UTM-coordinates

2.3.2 Graph

2.4 MVC structure

Chapter 3

User Interface analysis

In this chapter we describe our decisions and present our analysis and arguments regarding some of the features that we find interesting.

3.1 User interface as a whole

3.2 Interesting implemented features

This section presents some of the interesting features we have implemented.

3.2.1 Zoom

We have several options for zooming in and out on the map. As described in section 2.2.1 on page 5, it was required that we made it possible to zoom by dragging a box around the part of the map the user wants to view.

In addition to the option of using the mouse to zoom, we have implemented a zoom-in and out function on the GUI and a hotkey for zooming out to the original view.

We felt that we really needed a zoom out function, so that a user did not need to close the program and start it again, when the user wants to view the map further zoomed out. A combination of the zoom in and out functions helps the user a lot when navigating the map.

3.2.2 Navigation

We have made it possible for the user to navigate the map by scrolling

3.2.3 Hotkeys

3.2.4 Markers

3.2.5 Bike/car

3.3 Features not in

This section presents some of the features we have chosen not to implement. These features are not in the final program, because we did not feel there were compelling arguments for implementing them.

3.3.1 Choice of roads to be displayed

3.3.2 Smooth scrolling

3.3.3 Dynamic route finding

Chapter 4

Implementation

4.1 Dijkstra vs A-star

4.2 Evaluator

4.3 Quadtree

4.4 Serialization

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4.7 Floats

Chapter 5

UML-diagrams

5.1 MVC

5.2 Simple Diagram

5.3 Control flow

Chapter 6

Tests

6.1 WhiteBox: closestEdge

6.2 JUnit

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Chapter 7

Manual

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7.1.1 GUI

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7.2 Zoom

7.2.1 GUI

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Product conclusion

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Group norms

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Process description and reflection

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