# Traffic Control International- Report -

Group 8

December 6, 2019

# Contents

# Chapter 1

# Introduction

The report is a documentation of the requirements, workflow and implementation of group 8, whereas the intended result of the project is to work together as close as possible and apply design patterns. The case study entails the task to develop a complex traffic light management system for a new start-up company with the objective to take over the Dutch and German markets. By moving away from orchestrated traffic light controls to intelligent traffic light control, the company intends to be able to extend it's reach to the remaining members of the European Union.

The report will explain the various phases and tools group 8 had to employ to work in an efficient manner. By making the most use of a collaboration tool, weekly deadlines were set and divided into individual sprints. Using the tool in conjunction with an agile process framework created a clear overview of the remaining to-do's and completed sprints.

# Chapter 2

# Design

## 2.1 Overall architecture

The purpose of this document is to give a detailed description of the requirements for the traffic control software. It shall make clear to all stakeholders which operating system, which libraries shall be used, which interfaces the system will have, in a nutshell all requirements to satisfy the customer.
This document is written for all stakeholders of the project, which includes the start up Traffic Control International, the scrum team which has to implement the software and the Netherlands' and Germany's Ministry of Transport.

## 2.2 Design patterns

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## 2.3 Design principles

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# Chapter 3

# Development Process

This chapter contains the scrum-related content. In general Scrum is a framework to provide (development) teams an efficient working environment. In the following sections we will describe in which way our group implemented this framework.

## 3.1 Applied Scrum Roles

Usually a scrum team consists of a Scrum Master, the Development Team and the Product Owner. The Scrum Master ensures that the scrum framework is being done well. But not as a leader in the classic sense more in a supportive way. The Product Owner representes the business and tells the Development Team what to deliver. The Development Team is then doing the work. In our team we applied the roles in the following way: Obvisouly everybody was part of the Development Team and did some work for instance on the implementation, design part or reports. As mentioned before the Product Owner usually represents the business, in our case we were part of this business, so every team member took this role as well. Regarding the Srcum Master we decided that it would be useful to rotate this role weekly. Every week another team member slipped into the role as a Scrum Master. We chose this because then everybody has the chance and possibility to make the experience as a Scrum Master.

## 3.2 Applied Scrum Meetings

Meetings are an important element of agile development. There are several different types of it. Sprint Planning, Daily Stand-Up, Review Meeting and Retrospective. Sprint Planning is about planning the upcoming sprint. There the team decides what to achieve in this iteration. In the Daily Stand-Up you just briefly inform every team member about your current status.

## 3.3 ScrumXP

Pair programming

# Chapter 4

# Individual Reflection

## 4.1 Nils Bauroth

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## 4.2 Glenn Jonkers

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## 4.3 Philipp Noz

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## 4.4 Sven Rediske

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## 4.5 Jonas Terschlüsen

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