

Design Document



Traffic Lights System

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# Introduction

This document gives information about the class diagram for the *“Traffic Lights”* application. Description of the classes and the attributes and methods in each class is given. Furthermore, some sequence diagrams of the application are presented.

The class diagram is a static diagram. It represents the static view of the application. Our class diagram is not only used for visualizing, describing and documenting different aspects of a system but also for constructing executable code of the software application. The class diagram describes the attributes and operations of a class and also the constraints imposed on the system.

Our class diagram can be mapped directly with object oriented languages. It shows a collection of classes, interfaces, associations, collaborations and constraints.

The UML diagrams like activity diagram, sequence diagram can only give the sequence flow of the application but class diagram is a bit different. So it is the most popular UML diagram in the coder community.

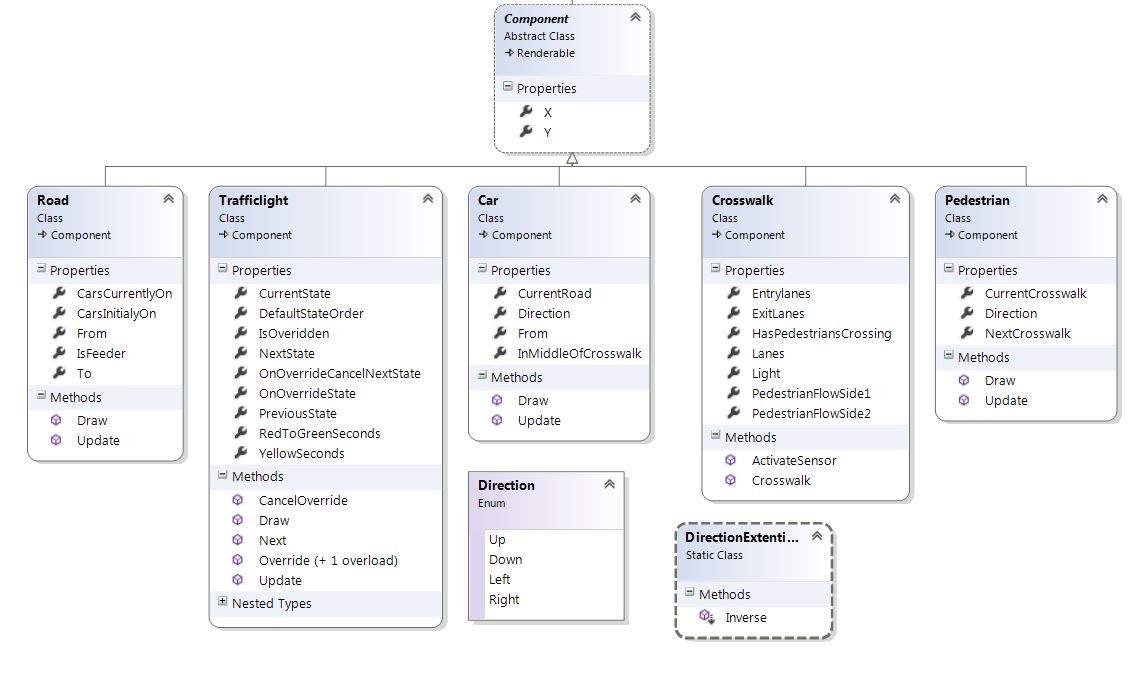
In the document can be found sequence diagrams which purpose is:

* Draw the activity flow of a system.
* Describe the sequence from one activity to another.
* Describe the parallel, branched and concurrent flow of the system.

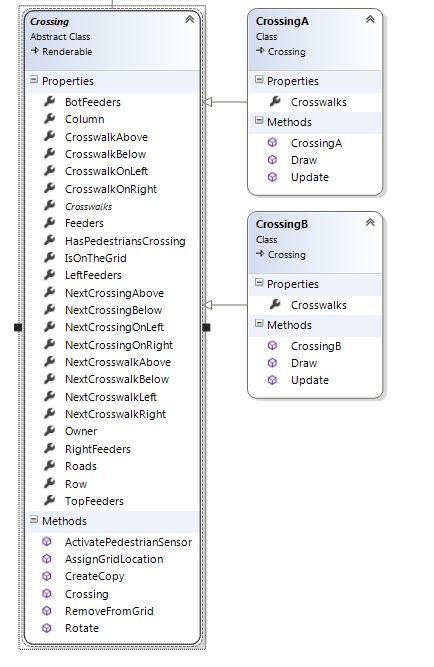
# Class Diagram

## C:\Users\user\Desktop\ProCP\Renderable.JPGRenderable inheritance overview

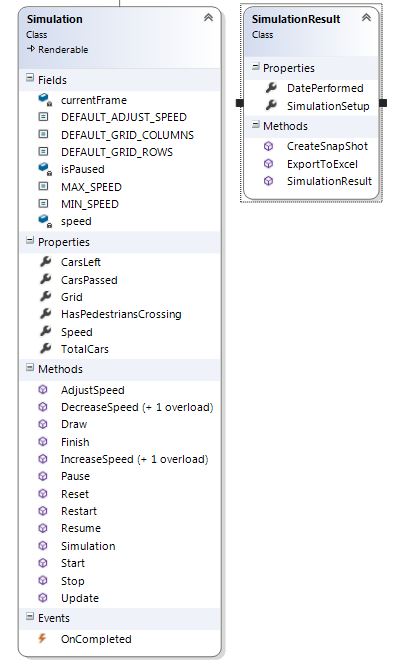
## Component classes



## Crossing classes



## Simulation classes

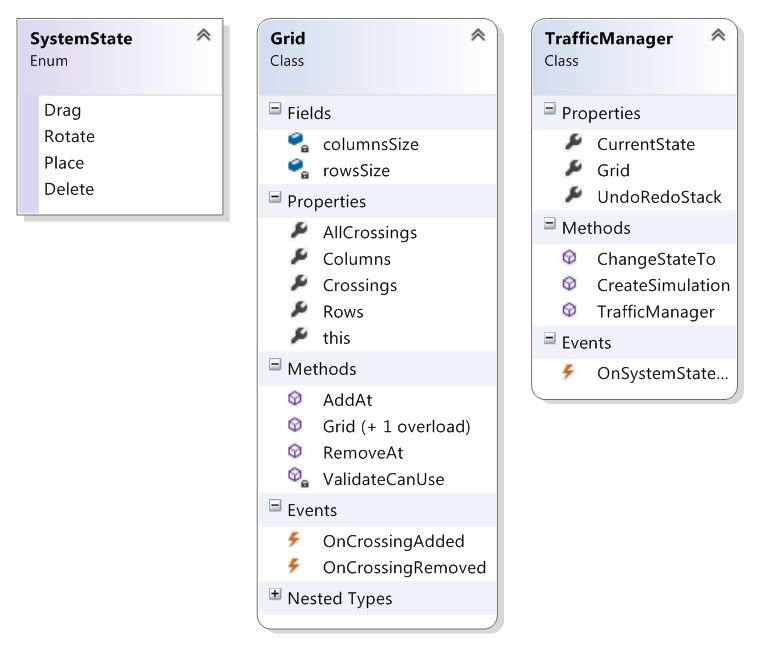


## C:\Users\user\Desktop\ProCP\Bin and Cpaste.JPGCrossing container (Recycle bin and saved crossings)

## Undo classes

## C:\Users\user\Desktop\ProCP\UndoRedo.JPG

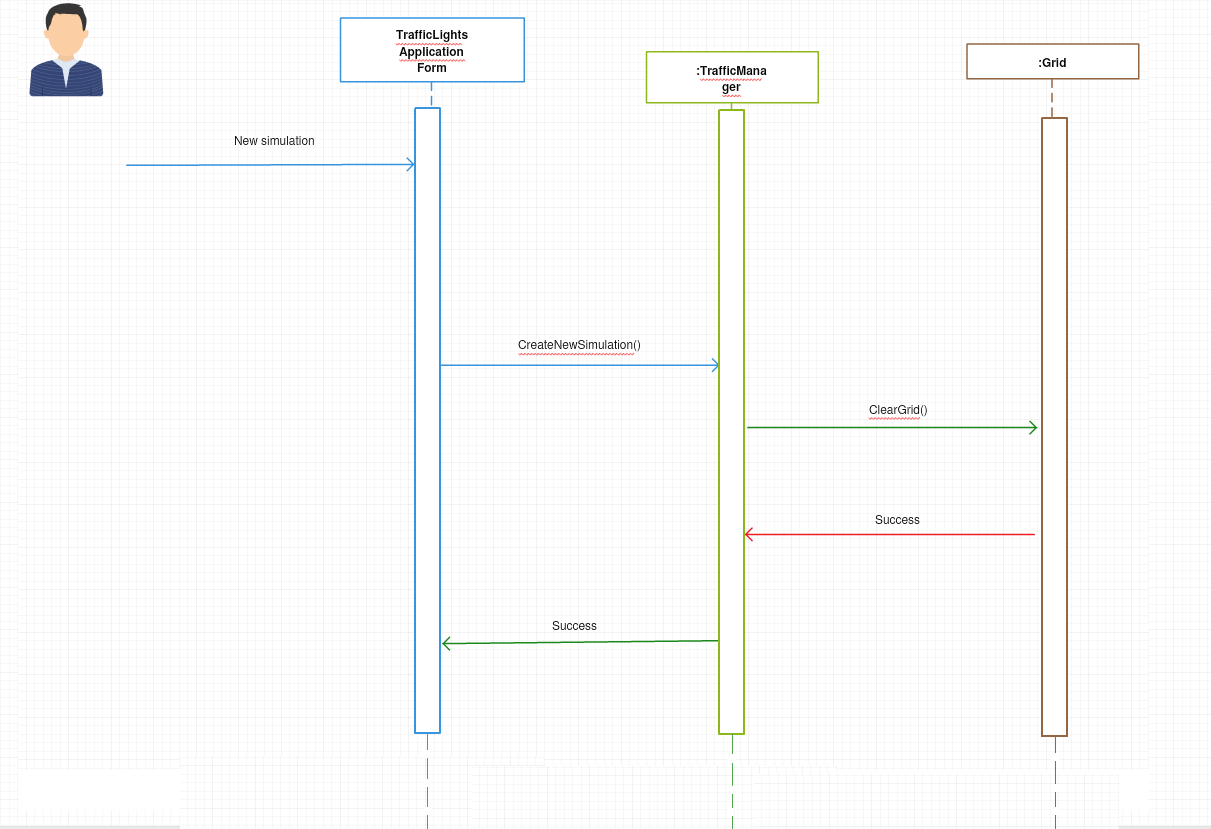
## Traffic manager Grid and System state classes



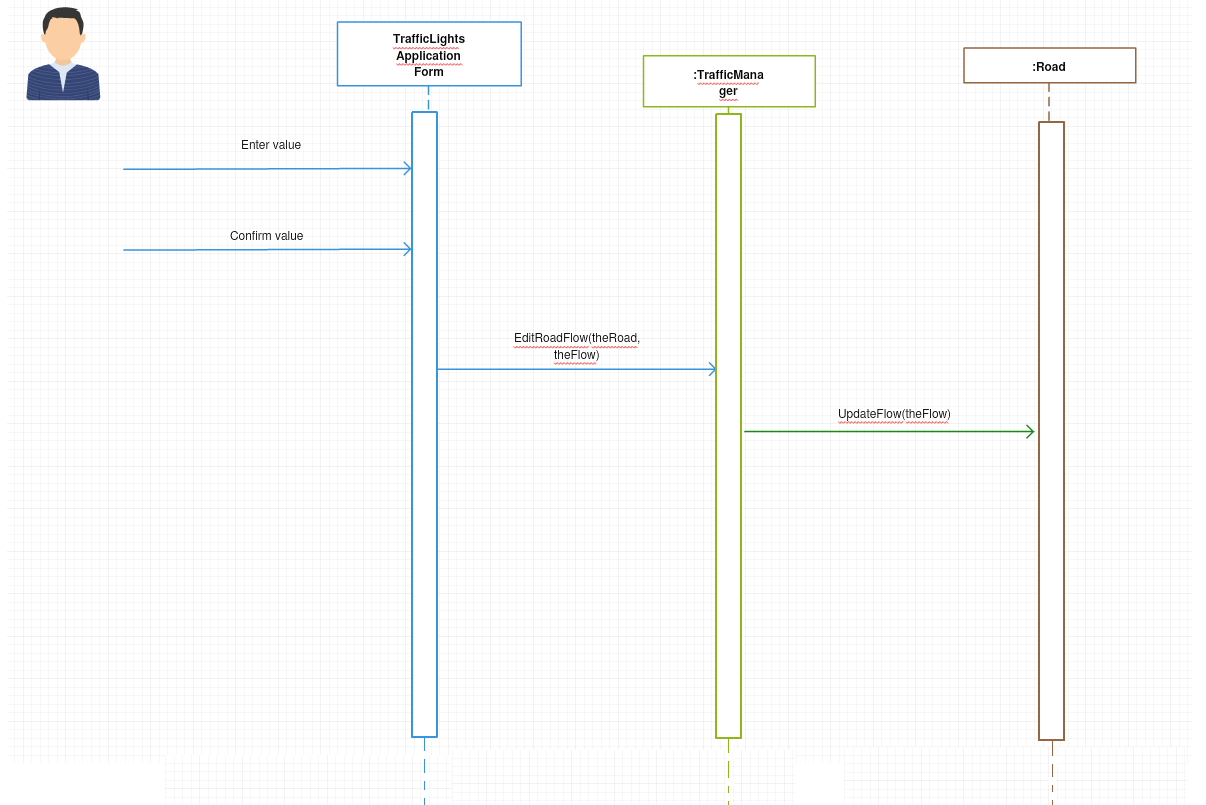
# Description of the classes and their members

# Sequence Diagrams

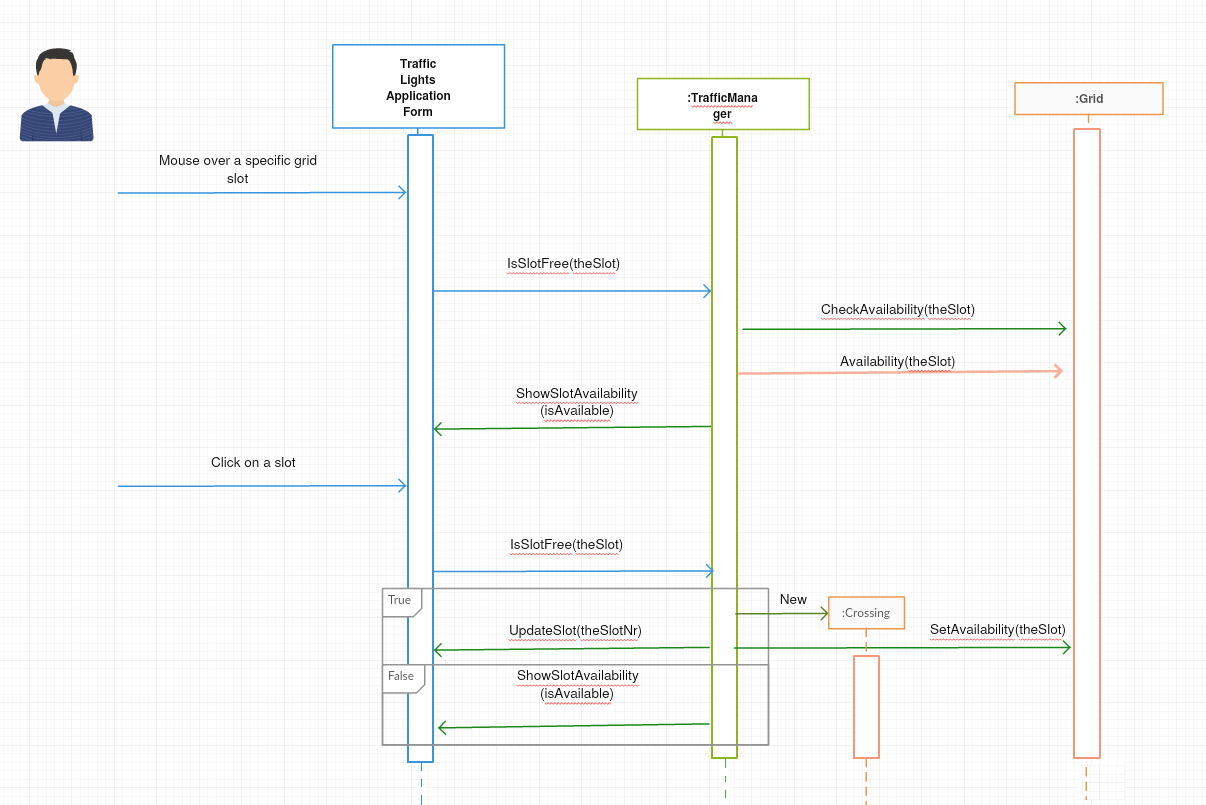
## Create a simulation



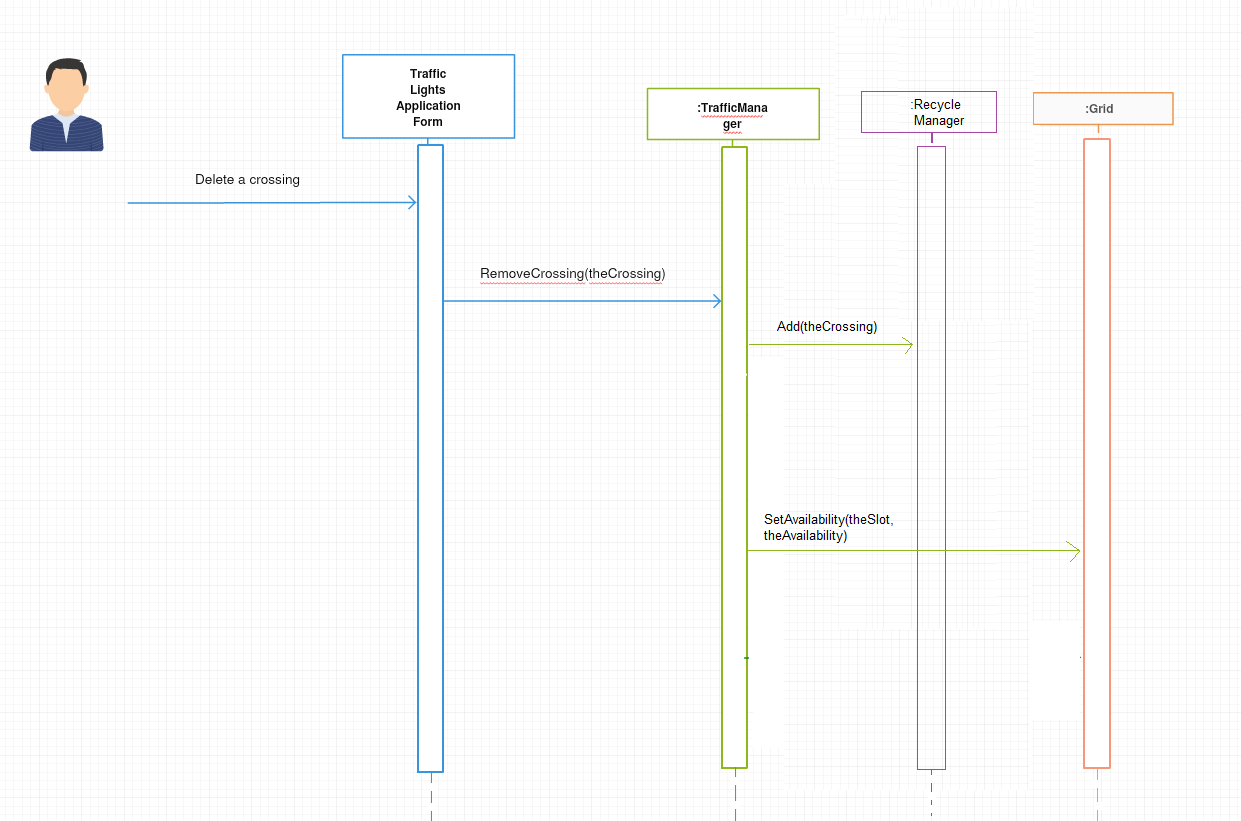
## Edit a road traffic flow



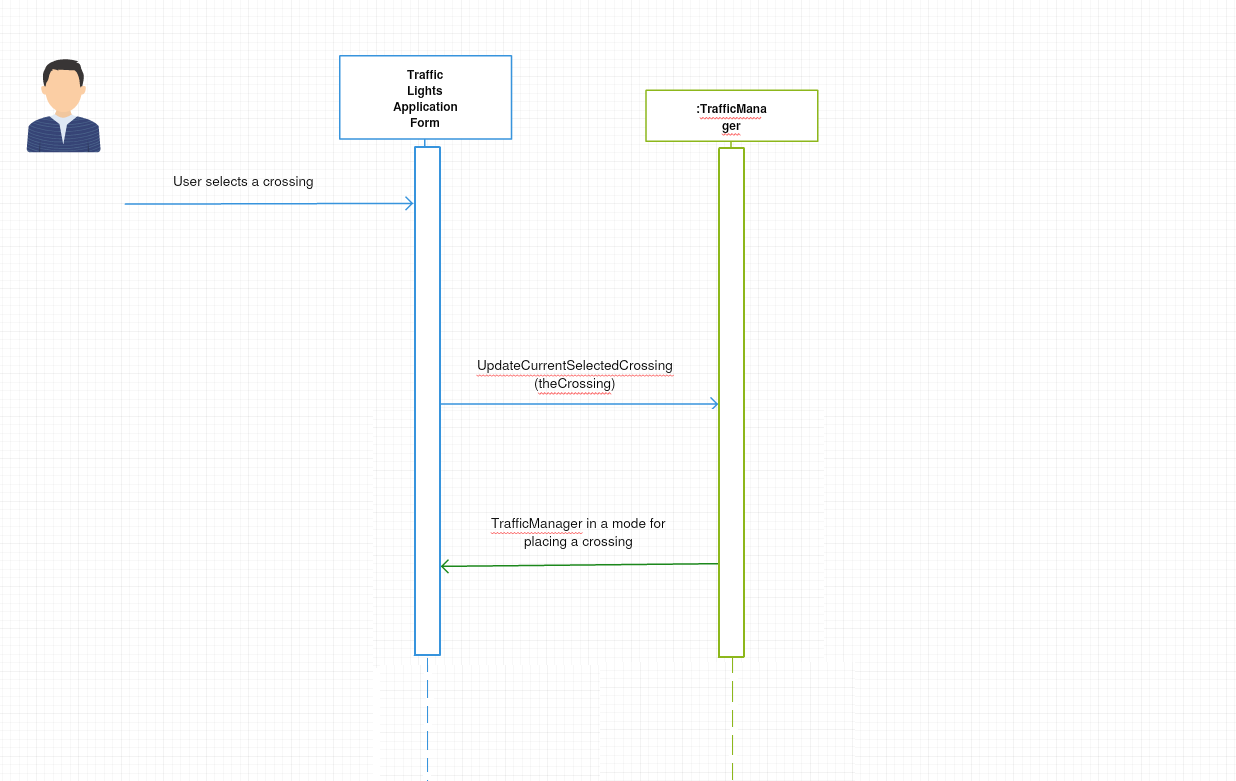
## Place a crossing



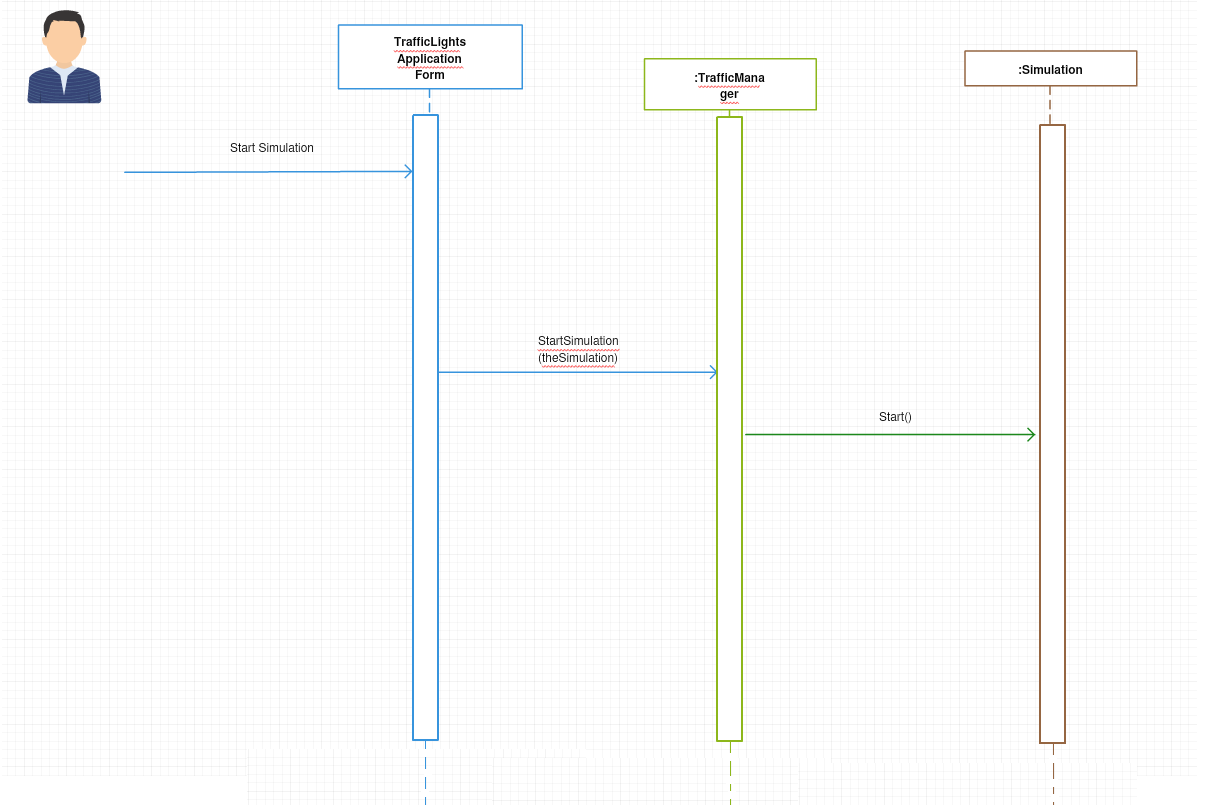
## Remove a crossing



## Select a crossing to place



## Start a simulation



## Stop a simulation

