# Sequence Diagrams

# Iteration 1

version 1.0



Yousef Abu Zahra Borislav Pavlov Bozhidar Bonev Alina Baciu Ghazi Abdul Fattah

### Introduction

This document contains all the sequence diagrams from iteration 1.

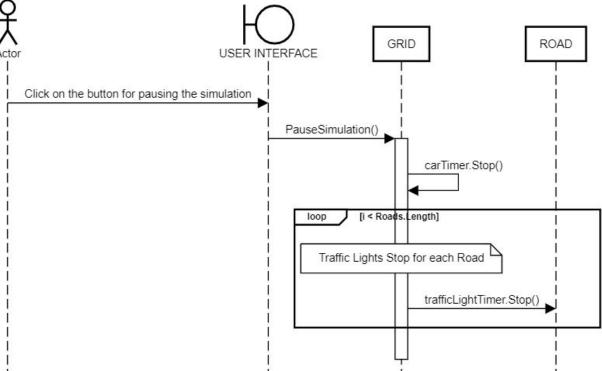
These sequence diagrams are based on the use cases we included in the "User Requirements Specifications" document.

Each one of the diagrams has a title and a short description.

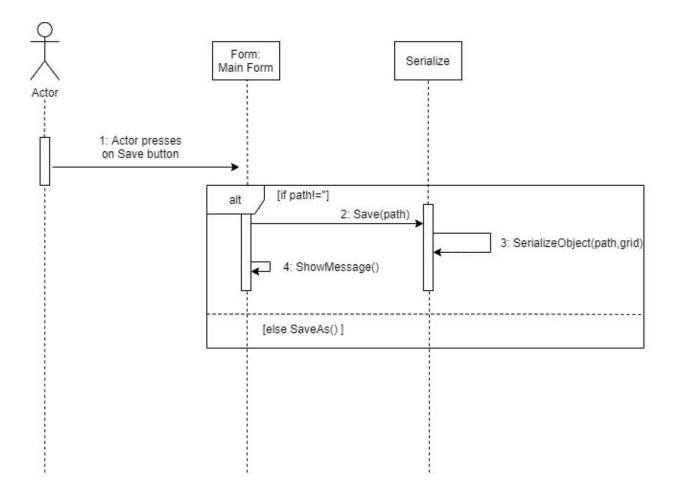
## Diagrams:

• **Pause Simulation:** This diagram displays the interaction between classes that occurs every time the user pauses an already simulation.

# Pause Simulation Sequence Diagram

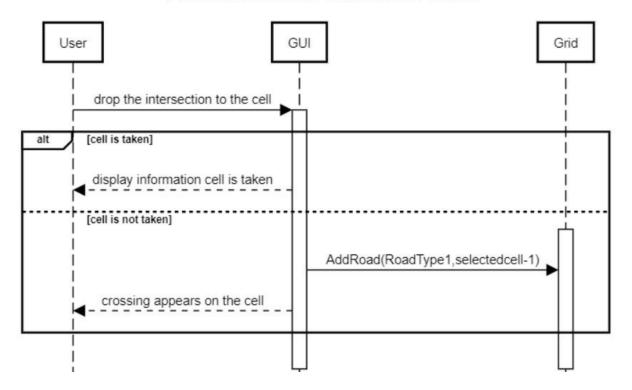


• **Stop Simulation:** This diagram displays the interaction between classes that occurs every time the user saves a finished simulation:



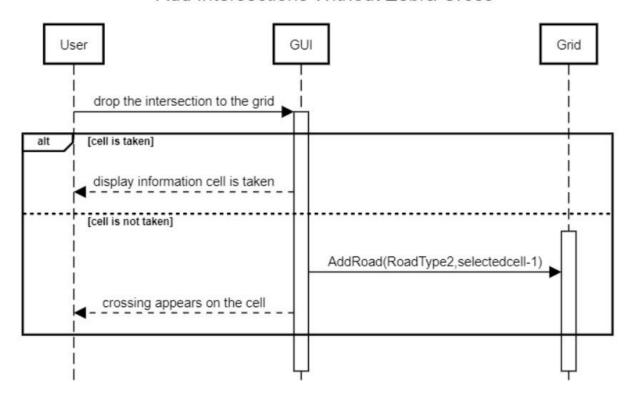
• Add an intersection (With Zebra crossings): the following diagrams displays interactions necessary in order to place an intersection with a zebra crossing on the canvas:

### Add Intersections With Zebra Cross



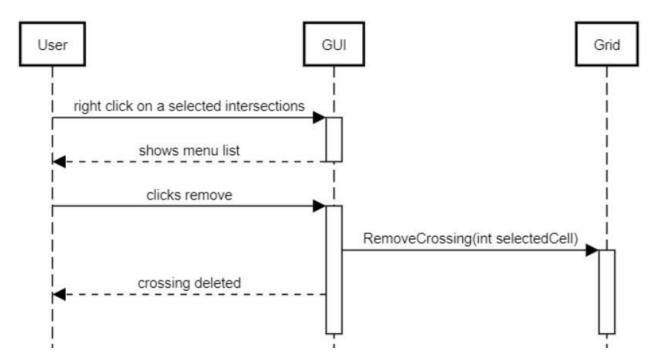
• Add an intersection (Without a zebra crossing): this diagram's purpose is similar to the last one, except it's for a different type of road:

#### Add Intersections Without Zebra Cross

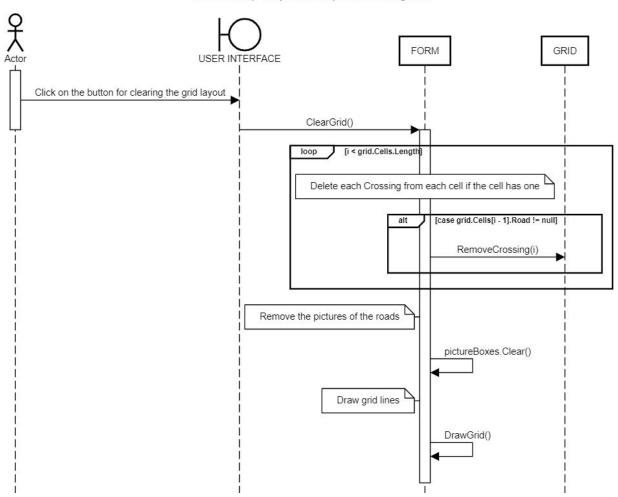


• **Remove intersections:** This diagrams describes the interactions between classes necessary to remove an already placed intersection from canvas:

### Remove Intersections

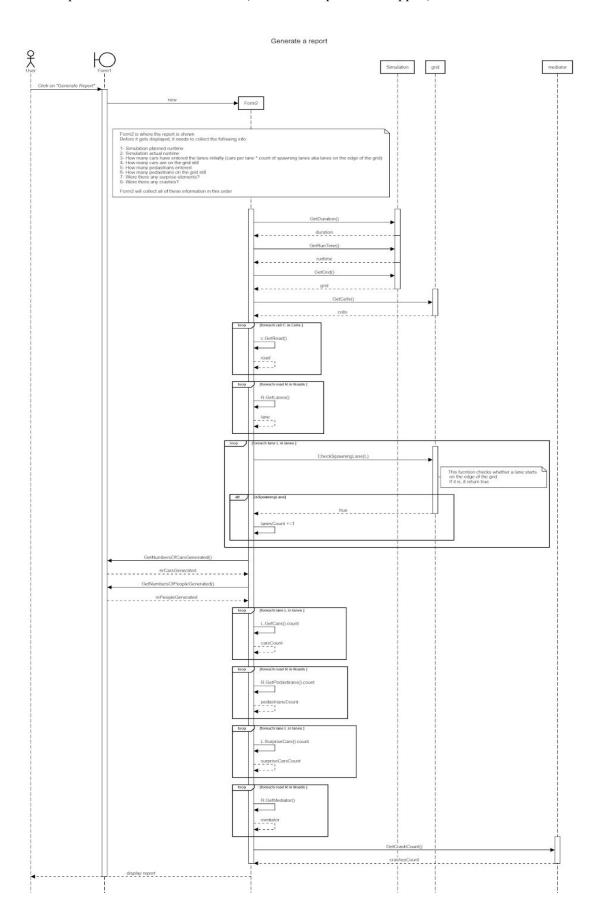


• **Reset map layout:** this diagram describes class interaction that happens every time the user clicks "Reset layout".

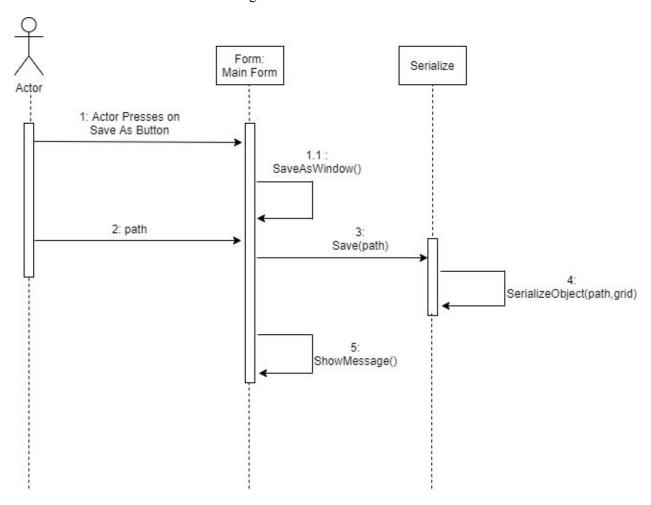


Reset Map Layout Sequence Diagram

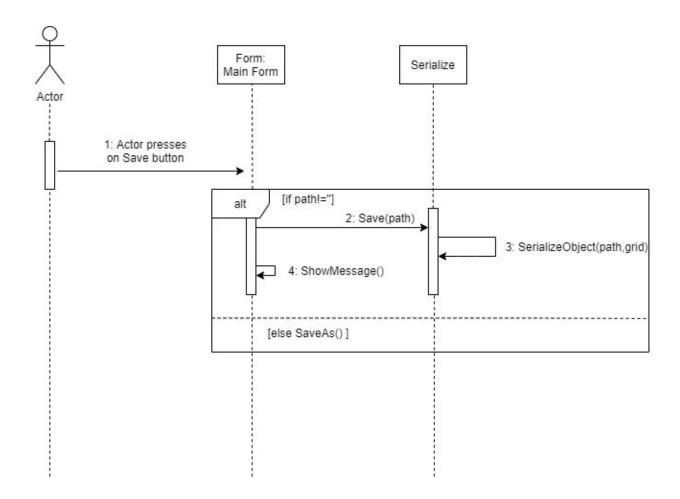
• **Generate a report:** The following diagram describes the class interactions needed to generate a report after a simulation is over (whether completed or stopped):



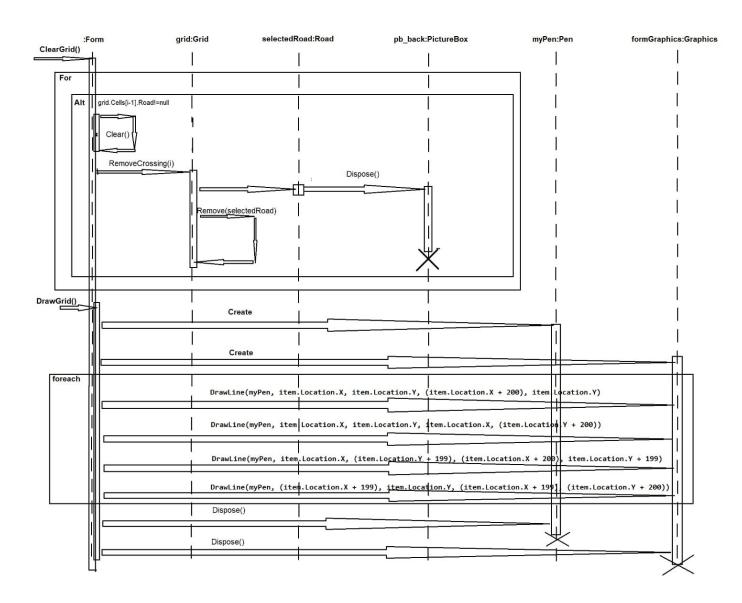
• Save as: The following diagram displays class interaction whenever a user clicks on "Save as" while the simulation is not running:



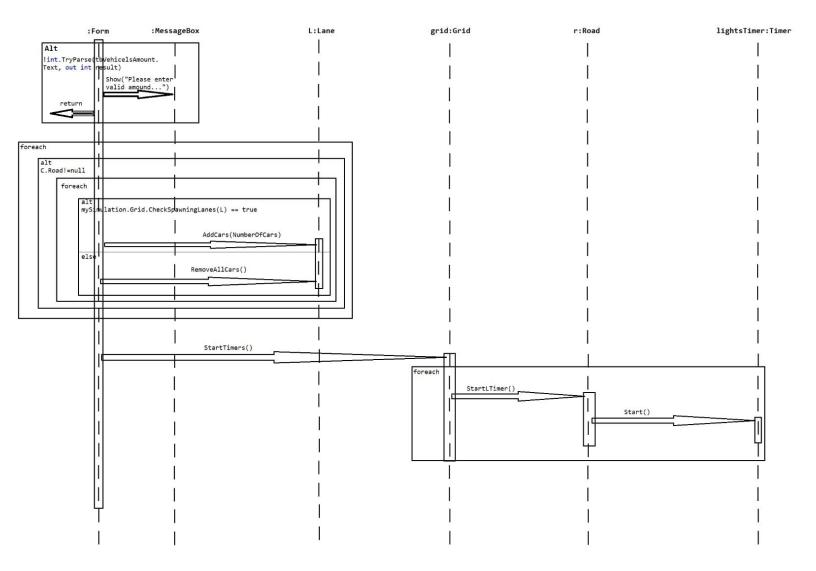
• **Save Simulation:** This diagram displays the class interaction whenever a user hit the "Save" button while the simulation is paused/stopped/completed:



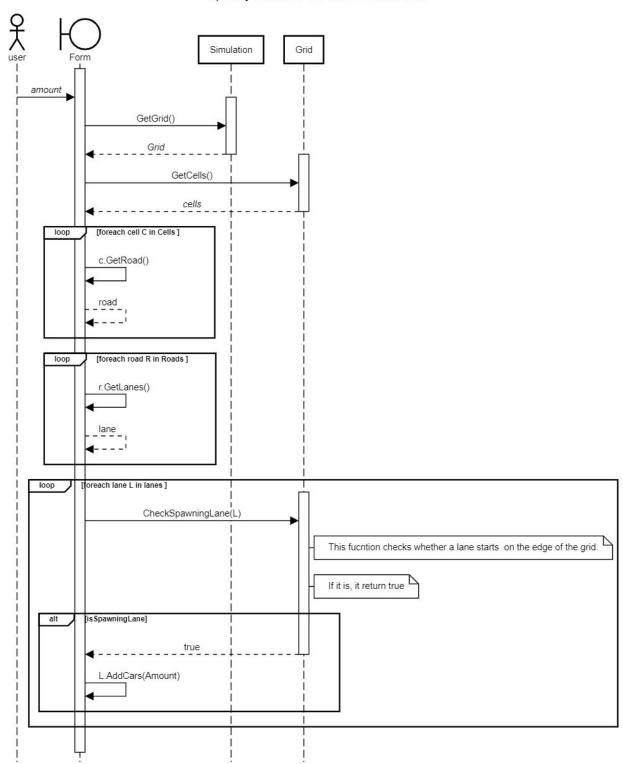
• **Stop Simulation:** The following diagram displays the class interaction needed to stop a running simulation:



• **Start Simulation:** The next diagram is what occurs when the user clicks on the "Start simulation" button while the simulation is not running:



• **Specify numbers of cars generated:** Finally, this diagram displays the class interaction when a user changes the amount of cars generated before the simulation starts:



Specify Number Of Cars Generated