

COSC 3P97 – Assignment 2 – 6967392, 6906952

WILLIAM DORAN, AIDAN CHAPLIN, Brock University, Canada

A description of the code for a traffic simulation game.

1 OVERVIEW

The long and short of this is that the assignment is effectively incomplete. While the majority of the structure for the project—and most of the minor classes—are essentially complete, the actual functionality of the main GameEngine class could not be finished in time.

1.1 Program Structure

We chose to use the provided UML diagram as the basis for our program, mostly due to receiving negative feedback on the version we submitted for Assignment 1. However, in hindsight this may have been a mistake.

While the version we made ourselves might not have been as technically correct, it was far more familiar to us. Working backwards from a diagram we didn't make resulted in a lot of extra time being dedicated to figuring out how this design for the simulator was meant to work.

We did deviate from the provided diagram in places; primarily adding helper functions, changing permissions, or adding getter/setter functions for important variables.

2 WHAT WORKS

2.1 Object classes

While the lack of a complete GameEngine means that few of them can actually be used in full, most of the individual building-block classes are complete. Vehicle, MovementStatus, TrafficElement, Reptutation, etc. are all functional.

2.2 Reading from File

The one section of our project we consider genuinely successful is the system implemented for reading a custom-made road network from file. The GameEngine class is capable of generating its own RoadNetwork, but can also download one from a txt file using a custom format loosely inspired by JSON.