

## **Assignment 5 - Transportation System Part 4 (with group decisions)**

This report explains the strategy of the implementation in which vehicles make group decisions based on voting.

Whenever a bus is at the central station, it does a couple of things; it drops off all passengers, it chooses a region where it will drive its according schedule, picks up all passengers with the according destinations, and asks the other buses to vote whether to add a new bus or not. All the other buses respond the next tick with their percentage of capacity that is filled with passengers. At the moment the threshold for adding a new bus is when 50% of the buses have more than 70% of their capacity filled. However, next week we are implementing a function based on every bus' 'vote', i.d. their passengers/capacity, which will also take into account the amount of buses that are already in the scene and the amount of people waiting at the central station. The more buses are driving, the higher the threshold of adding a new bus is.