

Signal Green Initial Report

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AIMS FOR PROJECT

Our aim is to create a simulation engine where we can test various traffic management strategies that will teach us new skills and receive full marks.

This means we will demonstrate our ability to use GitHub and other common engineering tools to create a vehicle simulation. It includes working together as a team and learning from each other. We will experience developing a software that is bigger than any of us could have created by ourselves in the given time.

STRATEGY

We are coding in java using Eclipse editor. We are using java because everyone on the team is experienced in using it and java is commonly used for applications in industry. Its ease of use compared to C++ will help us expedite programming progress.

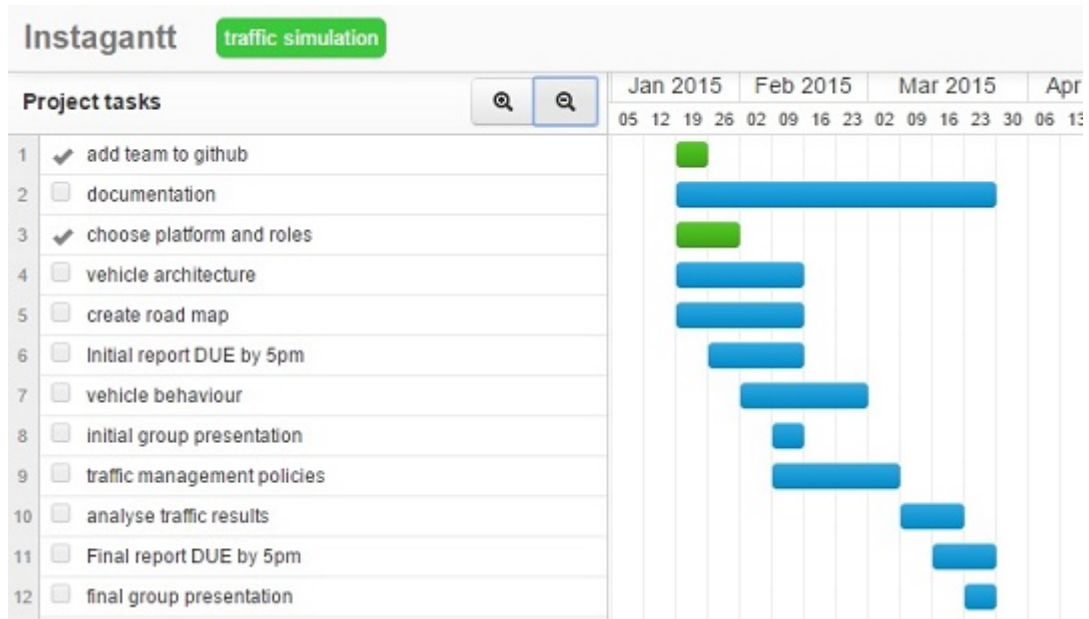
We decided to use the RePast Symphony framework. It is flexible, allows module replacement if we desire, and is more recent than RePastJ. We are using the Eclipse editor because it comes set up with Symphony and it is commonly used.

We further considered and decided against using NetLogo, coding the ABM software ourselves, and RePastJ. We decided coding an entire ABM software ourselves would not leave sufficient time to complete other project requirements. Although NetLogo has many preexisting models, it is also rather restrictive; there was also concern about the final appearance of the project. We decided against RePastJ because it is an older version than Symphony.

We are communicating and documenting via WhatsApp, asana and Instagantt, and thus far we have held weekly team meetings in person at KCL to discuss research and divide tasks.

Every week team members report on work done via asana to ensure progress is continually being made. Asana is connected to Instagantt, where we can see the corresponding Gantt chart of our progress.

The week of 23 February our program will (at minimum) run a basic simulation, and the group will assess our progress and set final goals and specifications for our finished project.



CURRENT PROGRESS

Our team is functioning on GitHub and we are currently coding the architecture and environment. The basics of choosing and learning new environments is complete, and we are now focused on making progress with the program itself and continuing documentation.

TEAM WORK

We communicate in person and via our selected communication tools. Team members volunteer or recommend peers for tasks that play to that team member's strength or where that person would like to learn new skills.

ROLES

James and Yoann are focusing on the program architecture and vehicle classes. Waqar and Adeela are focusing on creating the road map components. Andrea is coordinator for GitHub purposes and is creating documentation and reporting. All team members will participate in testing and analysis.

PEER ASSESSMENT

We expect everyone to carry roughly equal amounts of work and so we plan to divide team points equally between us. If we have concerns that this is not happening, we will discuss it so there will not be surprises in our assessment of each other at the end of term.

CONFLICTS

Concerns or issues between team members should be discussed between the members within a reasonable time of noticing the problem. This is to prevent surprises about members' evaluation of each other at the end of the project, and to minimize friction between group members.

We anticipate the load should be shared fairly equally between members and this is considered when taking tasks during team meetings. If a member feels they are doing more work than others, this should be communicated to the group so action can be taken while there is time to remedy the issue.