



FONTYS UNIVERSITY OF APPLIED SCIENCE –EINDHOVEN

2018/2019 PRO - CP

# Simulation Software

## Group Members

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- Alex Kersjes 3361616
- GANG FERDINAND DINGA 3216861
- Fahim 2936968
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## Project Plan

Group No :  
Group Name :  
Department : ICT and Engineering  
Supervisor : Mikaeil Shagelani

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## Project Statement



The goal of this project is to create an accurate simulation of traffic to assist road network planning through a user-friendly software application.

### Formal Client:



The formal client Mr. Shaghelani Lor, Mikael is the owner of the company SIM Software Inc. A company that is concerned with innovative solutions for simulation problems. He lives in Eindhoven city Netherlands.

### Project Leader:

Name: Kersjes, Alex A.G.

Email Address: a.kersjes@student.fontys.nl

Phone Number: 0618550152

Working days: Monday, Tuesday, Wednesday, Thursday, Friday

Time: From 8:45am –4:00pm

### Current Situation :



Shaghelani Lor, Mikael is the owner of SIM Software Inc. A company that is concerned with innovative solutions for simulation problems. He needs a simulation software (That is city planner) that provides the means to optimize the configuration of roads, crossings and traffic lights via statistics related to how the traffic resolves.

### Problem Description :



Because the company SIM Software is fast growing the owner of the company Mr Shaghelani, and his company members decided to extend their expertise to cover a broader area of simulation software. SIM Software company is open for different types of simulation software one of which is the city planner (simulation software) which our team is about to develop. With this software solution.

### Project Goal :


Our goal is to develop / create software solution for SIM Software Inc. This software package should be able to

1. Configure the roads and crossings in a city to simulate traffic and pedestrian flow.

2. The simulation provides the means to optimize the configuration of roads, crossings and traffic lights via statistics related to how the traffic resolves.
3. It should be possible to store simulation models and results in a file or database, and -load previously stored models and results from that file or database.

## Project Deliverables and Non Deliverables


### The Deliverables will be:

-  Working application (simulation software) that can perform the following:
  1. Configure the roads and crossings in a city to simulate traffic and pedestrian flow during rush hour.
  2. The simulation provides the means to optimize the configuration of roads, crossings and traffic lights via statistics related to how the traffic resolves.
  3. It should be possible to store simulation models and results in a file or database, and -load previously stored models and results from that file or database.
- Documents that contains information about the requirements, the design of the system and the process.

### The non-deliverables will be:

- The source codes for the applications

### Project Constraints :

-  The application should be able to run on Windows operating system.
- In case a Database is necessary, it will be implemented by either Oracle or MS access
- The application will be written using either the C# or java programming language.

### Project Risk :

- Misunderstanding and lack of communication among the group members.

Impact: medium.

Resolve: listen carefully to each other and be open minded.

- The applications crash down and error during the running time

Impact: low

Resolve: create milestone to test the application with the client

- Delay in project timeline

Impact: high

Resolve: determine the Consequences and discuss it with development team, create a critical path and deliver it on the time

## Management

### Project members:

- |                        |         |
|------------------------|---------|
| ▪ Aktar, Dohlon        | 3047040 |
| ▪ Alex Kersjes         | 3361616 |
| ▪ Gang Ferdinand Dinga | 3216861 |
| ▪ Fahim Mahmud         | 2936968 |
| ▪ Alessandro Sandor    | 2879964 |

### Success Requirements:

We can only consider this project as successful or complete if the following deliverables are delivered.

### Simulation Applications:

- A working application (simulation software) that can perform the following:
  4. Configure the roads and crossings in a city to simulate traffic and pedestrian flow during rush hour.
  5. The simulation provides the means to optimize the configuration of roads, crossings and traffic lights via statistics related to how the traffic resolves.
  6. It should be possible to store simulation models and results in a file or database, and -load previously stored models and results from that file or database.

#### Client Information:

The client is able to use this application to simulate and configure traffic flow and road crossing by pedestrians in a given city

#### Skill Requirements :

Positions	Responsibilities
APPLICATION	
Application designer	visual design
Application developer	C#, Windows Forms
Application Tester	Following test plans.



#### Phasing:

The method of working is going to be determined tomorrow by the project team members.

Agile will be the most preferable method.

#### Phase description :

##### Phase 1: The kick of phase

Activity: Start-up the project

Tasks for the activity:

- Interview client
- Discuss current situation, problems, desired and situation
- Set the project goal together with the client
- Organize resources
- Making the project plan

### **Phase 2: Initial phase:**

-URS

- Work division report

- Plan for iteration 1.

Activity: Project Plan

#### **Iteration 1:**

- Updated URS

- Working application(s) + source code

- Updated work division report

- Plan for iteration 2.

#### **Iteration 2:**

Updated URS

- Updated design document

- Updated working application(s) + source code + unit tests

- Updated work division report

- Plan for iteration 3.

#### **Iteration 3:**

-Updated URS



- Updated design document
- Updated test report
- Updated working application(s) + source code + unit tests

**End phase:**

Process report .

Presentation.