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Populat.io

PROJECT COREPHASE

Version 1.1

01/03/2018

VERSION HISTORY

|  |  |  |  |  |  |
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| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 1.0 | TEAM | 21-02-2018 |  |  | Project planning |
| 1.1 | ТЕАМ | 01-03-2018 |  |  | Fixing minor issues |
|  |  |  |  |  |  |
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# INTRODUCTION

## PURPOSE OF PROJECT MANAGEMENT PLAN

Within this document we will describe how we will go about implementing the Eindhoven population simulation. In it you will find constraints, milestones and everything a project plan should have. We will use this project plan as a guideline for how we will go about implementing our deliverables.

## FORMAL CLIENT

A representative from SIM Software, board of management, Mr. Johnson is our formal client. He will be our connection with the company, he will monitor our results on this project.

He can be found on this address and email:

Rachelsmolen 1,

5612 MA Eindhoven

Postbus 347, 5600 AH

b.schouwenaars@fontys.nl

## PROJECT LEADER

Lyubomir Yankov is the project leader of Populat.io

He can be found on this address and email:

Rachelsmolen 1,

5612 MA Eindhoven

Postbus 347, 5600 AH

l.yankov@student.fontys.nl

## CURRENT SITUATION

SIM Software Inc. is a fast growing company aiming at innovative solutions for simulation problems. In the last few years, SIM software has focused on traffic simulation software, but the company would like to extend its expertise to cover a broader area of simulation software. So the company asks for other project proposals in the area of simulation software. Our team was asinght to give a proposal and develop our idea for simulation software. The idea is has to be and is approved by the client.

# EXECUTIVE SUMMARY OF PROJECT CHARTER

Our team has been asked by SIM Software Inc. for project proposals in the area of simulation software. The purpose of this task is extending the expertise of the company. Following strict requirements we have come up with the idea - Eindhoven population simulation - a simulation working with information gathered by different factors which will generate useful information for the future of the city.

## 

## ASSUMPTIONS/CONSTRAINTS

Costs & Time - We assume that the client has sufficient funds and will be able to handle the cost of the project. Time is also always a constraint and we hope to finish the project before agreed delivery date. So a constraint is that we don’t have control over the cost and time of development, if the time for a certain is exceeded the cost is going to increase. Another assumption is that the expected outcome is going to be the same as expected along with the quality of the project.

Platform execution - the application will be made only for Windows OS

Programming language & Platform - the program will be written in C# with Visual Studio 2017

Language - the program content will be write in English only

Database - mysql databases provided from Fontys

Information - we have to find proved real statistic from past years and current to make the simulation as accurate as possible

# SCOPE MANAGEMENT

The scope of our project includes planning, designing, developing and testing of an application that simulates the growth of the population of Eindhoven for the upcoming few years. The scope also includes the making of a user requirement specification a design document and providing a work division report. Distributing workload among the team members appropriately in order to develop this piece of software more effectively is also required. The project will be completed within 4 months.

What it does not include is installation/deployment of said software, the training that a user might need, in order to use the software, the calculation of how many more houses a city has to allocate to new inhabitants and finally anything that’s not already been mentioned in it.

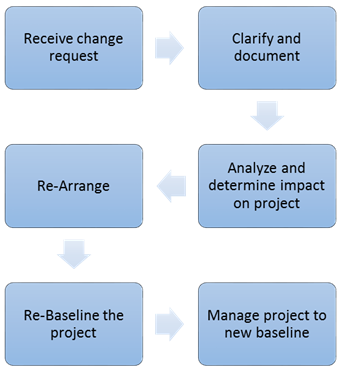
## 

## WORK BREAKDOWN STRUCTURE

Below is a table describing the work structure during an iteration.

|  |  |  |
| --- | --- | --- |
| **Level 1** | **Level 2** | **Level 3** |
| 1 Kick-off |  | Develop idea and introduce it to client.  Finish project plan. |
| 2 Initial |  | Create documentation.  Create concept for first interaction. |
| 3 Iterations (1,2,3) | 1.1 Discovery | 1.1.1 Determine goal of current iteration  1.1.2 Discover requirements  1.1.3 Assign work between team members  1.1.4 Update document |
|  | 1.2 Design | 1.2.1 Research designs  1.2.2 Gather all designs which we could use  1.2.3 Decide which implications and designs we are going to use  1.2.4 Make class diagrams  1.2.5 Make diagrams for the methods we want to implement  1.2.6 Design algorithms |
|  | 1.3 Develop | 1.3.1 Implement classes  1.3.2 Make methods for said classes  1.3.3 Implement algorithms  1.3.4 Fix bugs |
|  | 1.4 Testing | 1.4.1 Design a test plan  1.4.2 Execute test plan  1.4.3 Make a test report  1.4.4 Create plan for next iteration |
| 4 End |  | Finalizing results and Presentation |

## CHANGE CONTROL MANAGEMENT



Change control will be managed in six steps:

1. Change request - The client requests a certain change or desires a new functionality.
2. Document change - The change request is documented and categorized.
3. Analyze and determine impact - Team analyzes requested changes and determines how they will impact development.
4. Rearrange - Project workflow and schedule is rearranged if needed.
5. Re-baseline - If needed the project can be re-baselined, which constitutes major changes to work breakdown and time management.
6. Manage project to new baseline - Development continues upon the agreed new baseline.

The organization that is hosting the database server is Fontys. They are responsible for the maintenance of their database so that we can create our tables and store the different animation models and data. The data will be turned into information for our statistics.

# SCHEDULE/TIME MANAGEMENT

Establish a baseline within the first two weeks of the project and monitor progress against the baseline on a weekly basis. The Project Manager will be responsible for ensuring the project schedule is updated with the latest information and never more than three business days out of date. The project leader will ensure that the tasks are completed weekly. The way of work model is Agile. There are 6 phases - Kick-off, initiation, three iterations and end. The deadline for marked deliverables is the Friday of the week, before 08.00 AM.

## MILESTONES

The table below lists the deliverables for each phase and week.

|  |  |  |
| --- | --- | --- |
| **Phases** | **Week** | **Deliverables** |
| **First period** |  |  |
| **Kick-off** | 1 | * Concept version of project plan * Proposal for an application |
|  | 2 | * Final version of project plan * Concept version of URS |
| **Initial** | 3 | * Updated version of URS * Concept version of plan for iteration 1 |
|  | 4 | * Final version of plan for iteration 1 * Updated version of URS * Work division report |
| **Iteration 1** | 5 | * Updated version of URS * Concept version of design document * Concept version of test plan |
|  | 6 | * Final version of design document * Final version of test plan * Concept version of plan for iteration 2 |
|  | 7 | * Final version URS iteration 1 * Final version design document iteration 1 * Final version test report iteration 1 * Final version of plan for iteration 2 * Source code of proof of concept * Proof of concept * Updated version of work division report |
| **Second period** |  |  |
| **Iteration 2** | 1-4 | * Final URS iteration 2 * Final design document iteration 2 * Test report for iteration 2 * Final version of plan for iteration 3 * Source code of prototype * Prototype * Updated version of work division report |
| **Iteration 3** | 5-7 | * Final URS iteration 3 * Final design document iteration 3 * Final test report for iteration 3 * Source code of final product * Final product * Final version of work division report * Process report (including work division) |
| **End** | 8/9 | * Process report and presentation |

# COST/BUDGET MANAGEMENT

Emil Karamihov is responsible for the budget plan and allocation of general expenses, taxes, services and all kinds of money flow, regarding the project or the company itself. For instance, making decisions like where money should be spent on new equipment for the company and when it should be saved for other purposes with higher priority, is called budget management. The operation of the budget phase should be consistent during the whole process.

# QUALITY MANAGEMENT

Ivelin Slavchev will perform a quality control audit at the end of every phase. That step should takes some time to complete, and is included in each phase time frame.

# HUMAN RESOURCE MANAGEMENT

Marina Tzenkova such as identifying a surplus or shortage of human resources in any given phase of the project and relocating people as necessary. One of the constraints detected is that the skill-set required for the development of the application; the schedule and time management can provide a clear view of a lack of performance, in case that constraint becomes an issue.

# COMMUNICATIONS MANAGEMENT

Lyubomir Yankov - the chairman is assigned with the goal of updating the means of communication (phone numbers, emails, social media addresses and mailing addresses) and relaying information to the team. The current state of the project will be updated at all times, and the communications management ensures that each step is relayed by the team member’s e-mail, as to give a clear view of the project’s status. The presiding officer of an assembly, meeting, committee, or board.

## COMMUNICATION MATRIX

|  |  |  |
| --- | --- | --- |
| **Stakeholders** | **Name** | **E-mail address** |
| **Steering Person** | Basjan Schouwenaars | b.schouwenaars@fontys.nl |
| **Project Team** | Marina Tzenkova | m.tsenkova@student.fontys.nl |
|  | Joseph Winterdal | j.winterdal@student.fontys.nl |
|  | Ivelin Slavchev | i.slavchev@student.fontys.nl |
|  | Emil Karamihov | e.karamihov@student.fontys.nl |
|  | Vasil Sirakov | v.sirakov@student.fontys.nl |
|  | Lyubomir Yankov | l.yankov@student.fontys.nl |

# RISK MANAGEMENT

Joseph Winterdal, programmer, is assigned as risk, issue and procurement management analyst. The risk management plan consists of keeping the team up to date via communication management, providing the team leader with the proper tools to deal with risk assessment, relaying those risks **as soon as possible,** so minimize possible constraints on the time of budget available.

## RISK LOG

**Risk 1**: Lack of Knowledge

* **Probability**: Medium
* **Impact**: High
* **Steps to prevent**: Make intense research and gather information from specialist in this sphere

**Risk 2**: Ambiguous data (Factors)

* **Probability**: High
* **Impact:** High
* **Steps to prevent**: Narrow down the scope of the project

**Risk 3:** A team member getting sick

* **Probability:** Medium
* **Impact:** Medium
* **Clean-up action:** Give the sick team member a couple of days off. Must notify the Team-leader and Tutor

**Risk 4:** Map or location problem

* **Probability:** Very Low
* **Impact:** Very High
* **Clean-up action:** Find a replacement

**Risk 5:** Git Repository merging complications

* **Probability:** Medium
* **Impact:** High
* **Clean-up action:** Revert repository to stable version, merge manually to ensure correct code.

**Risk 6:** Not enough time

* **Probability:** Medium
* **Impact:** Depends on how important it is to finish the project on time
* **Solution:** Spending more work hours on the project, or hiring temporary members.
* **Prevention:** Discussing with the client (before taking on the project) how long we expect it to take. Have to talk to the client about this!

**Risk 7:** Not able to import/work with file

* **Probability:** Low
* **Impact:** Could render the simulation useless
* **Solution:** Switch to an alternative - database, etc.

# ISSUE MANAGEMENT

Vasil Sirakov, programmer, is assigned as risk, issue and procurement management analyst. The issue management plan consists in providing solutions together with the team for the most expeditious solution of occurring issues. Each issue must be assessed and a solution should be relayed to the team within two days as we want to minimize constraints as much as possible.

# PROCUREMENT MANAGEMENT

Each team member shall be provided with a computer, software development kits for C# language and if necessary, training for the upcoming project. Each team member must procure said training, if necessary, prior to the start of this project, informing the team if that is not possible.

# PROJECT DELIVERABLES AND NON-DELIVERABLES

Deliverables:

* Desktop application for carrying out the simulations
* Database accompanying the desktop application
* Documentation thoroughly describing the organization of the project and the thought that has gone into it.

Non-deliverables:

* User manual

# APPENDIX A: PROJECT MANAGEMENT PLAN APPROVAL

The undersigned acknowledge they have reviewed the *Populat.io* **Project Management Plan** and agree with the approach it presents. Changes to this **Project Management Plan** will be coordinated with and approved by the undersigned or their designated representatives.

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Emil Karamihov |  |  |
| Title: | Programmer |  |  |
| Role: |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Lyubomir Yankov |  |  |
| Title: | Programmer |  |  |
| Role: | Project Leader |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Marina Tzenkova |  |  |
| Title: | Programmer |  |  |
| Role: |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Joseph Winterdal |  |  |
| Title: | Programmer |  |  |
| Role: |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Vasil Sirakov |  |  |
| Title: | Programmer |  |  |
| Role: |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Ivelin Slavchev |  |  |
| Title: | Programmer |  |  |
| Role: |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: | Basjan Schouwenaars |  |  |
| Title: | Tutor |  |  |
| Role: | Client, Coach |  |  |

# APPENDIX B: REFERENCES

The following table summarizes the documents referenced in this document.

|  |  |  |
| --- | --- | --- |
| **Document Name and Version** | **Description** | **Location** |
| C# | Microsoft programing language | \* |
| MySQL | Online Database | \* |
| URL | User Requirements List |  |

# APPENDIX C: KEY TERMS

The following table provides definitions for terms relevant to this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| C# | Programing language used to code the software |
| MySQL | Online database used to store data and information |
| URL | A list used to specify the requirements of the user |