Rural Cultivation and Atmospheric Emulation Application (RCAEA)

**Rural Cultivation and Atmospheric Emulation Application**

|  |  |
| --- | --- |
| **Authors:** | Raima Khan |
|  | Tsanko Hadzhiev |
|  | Richard Dyer |
|  | Mihail Hadzhinikolov |
|  | Zisis Damianidis |
|  | Al-Mohaiminul Islam Khan |
|  |  |
|  |  |
| **Creation Date:** | 22/08/16 |
| **Last Revised:** | 13/09/16 |
| **Group Name:** | Tanks & Co.™ |
| **Version:** | 0.2 |

Contents

[INTRODUCTION 3](#_Toc461562994)

[Purpose of Plan 3](#_Toc461562995)

[Project Approach 3](#_Toc461562996)

[PROJECT STATEMENT 4](#_Toc461562997)

[Formal Client 4](#_Toc461562998)

[Project Leader 4](#_Toc461562999)

[Current Situation 4](#_Toc461563000)

[Project Justification 4](#_Toc461563001)

[Project Product 4](#_Toc461563002)

[Project deliverables and non-deliverables 5](#_Toc461563003)

[CONSTRAINS 6](#_Toc461563004)

[Project constrains 6](#_Toc461563005)

[PROJECT RISK ASSESSMENT 6](#_Toc461563006)

[Risk Assessment 6](#_Toc461563007)

[GOALS AND OBJECTIVES 7](#_Toc461563008)

[Business Goals and Objectives 7](#_Toc461563009)

[Project Goals and Objectives 7](#_Toc461563010)

[MANAGEMENT PLAN 8](#_Toc461563011)

[Money 8](#_Toc461563012)

[Skills 8](#_Toc461563013)

[Test Skills 8](#_Toc461563014)

[Test Plan 9](#_Toc461563015)

[Quality 9](#_Toc461563016)

[Time 9](#_Toc461563017)

[Organization 10](#_Toc461563018)

[ASSUMPTIONS 10](#_Toc461563019)

[Project assumptions 11](#_Toc461563020)

[Milestones 11](#_Toc461563021)

[Phase I: Initiation 11](#_Toc461563022)

[Phase II: Design 11](#_Toc461563023)

[Phase III: Build 11](#_Toc461563024)

[Phase IV: Sprint planning 12](#_Toc461563025)

[Phase V: Deploy 12](#_Toc461563026)

[Roles and responsibilities 14](#_Toc461563027)

[Project Roles and Responsibilities 14](#_Toc461563028)

[APPROVALS 15](#_Toc461563029)

[Sign-off Sheet 15](#_Toc461563030)

# INTRODUCTION

## Purpose of Plan

The RCAEA Project Plan will provide a definition of the project, including the project’s goals and objectives. Additionally, the Plan will serve as an agreement between the following parties: Project Sponsor, Project Manager, Project Team, and other personnel associated with and/or affected by the project.

The Project Plan defines the following:

* Project purpose
* Project statement
* Business and project goals and objectives
* Management plan
* Risk assessment
* Roles and responsibilities
* Assumptions and constraints

## Project Approach

In this project we will focus on specific phases for achievement of goals. Below are the important phases as follows:

**Phase I:** Project plan

**Phase II:** User requirement specifications

**Phase III:** Test plan and test cases

**Phase IV:** Design document

**Phase V:** Programming/Testing

# PROJECT STATEMENT

## Formal Client

A representative from SIM Software’s board of management, Mr. Johnson has decided to meet with Tanks & Co™ to consider their RCAEA project submission.

## Project Leader

This project will be done in 18 weeks; Richard Dyer is leading our project. He will work amicably with the formal client to meet and/or exceed their requirements. The project leader will be responsible for chairing the meeting with Mr. Johnson, and the communication between and within the project participants with Mr. Johnson.

## Current Situation

SIM Software Inc. is interested in adopting simulation applications and has asked for project proposals. Tanks & Co™ has a simulation proposal and will meet with A representative from SIM Software’s board of management, Mr. Johnson and come up with an application in the span of 18 weeks. Mr. Johnson will be the mediator and ultimately make the decision if SIM Software will consider Tanks & Co’s RCAEA software.

## Project Justification

The project was initiated by Tanks & Co.™ for agricultural workers to simulate cultivating specific crop(s) in an area of land during a certain length of time. An agricultural worker would be able to use RCAEA in order to determine when, where, and what crops to place in a specified piece of land.

## Project Product

RCAEA emulates a certain area of land based on real land data. It considers regions factors such as weather whereby the user can select which outdoor agricultural crops to place in an area. The simulation will use real data on the crop and emulate its growth based one external and internal determinate factors. RCAEA will take all these factors into account and determine an estimated cost and production outcome. Data will be saved in a file which the user can load or keep for their own records.

## Project deliverables and non-deliverables

**Deliverables:**

* Minutes
* Agenda
* Project plan
* User requirements specification
* Design
* Test plan
* Test cases
* Test report
* Working application
* Process report
* Presentation
* User-Manual

**Non-deliverables:**

* Verbal-Progress Meeting
* Verbal-Question And Answer Meeting
* Cost of land
* Rent of land

# CONSTRAINS

## Project constrains

Given below are constrains of project:

* The entire project will be delivered in week 18, following project plan.
* The application will be created in C# Visual Studio.

# PROJECT RISK ASSESSMENT

## Risk Assessment

| **Risk** | **Risk Level**  **Low/Medium/High** | **Likelihood of Event** | **Counter measure** |
| --- | --- | --- | --- |
| Project Size |  |  |  |
| Behind Project Schedule | **L:** Team is behind project plan schedule | Unlikely | Created comprehensive project timeline with frequent baseline reviews |
| Project Staffing |  |  |  |
| Absence of team leader | **L:** N/A | Likely | Other team member will manage responsibilities of leader. |
| Absence of Minute keeper | **L:** N/A | Likely | Project leader will keep minutes |
| Absence of Contact person | **L:** N/A | Likely | Project leader will contact client |
| Physical Location of Team prevents effective management | **M:** Team is dispersed among several sites | Likely | Use of good communicational plan. |
| Weak User Participation on Project Team | **L:** Users are part-time team members | Unlikely | User Group Participants coordinated by full time employee |
| Team’s Lack of Knowledge of Package | **M:** Conceptual misunderstanding | Somewhat likely | Team will help those members. |

# GOALS AND OBJECTIVES

## Business Goals and Objectives

The business goals and objectives for this project are following:

* A simulation will be designed for the farming situation.
* Increases potential profits by calculating potential costs and crop yields.
* Is easy to use.

## Project Goals and Objectives

Project goals and objectives:

* Accomplish project business goals and objectives within defined budget and time parameters.
* Make project plan for software project
* Make use cases
* Make nonfunctional requirements.
* Make test plan consisting of test cases.
* Make a design consisting of a class diagram and a few sequence diagrams.
* Design an application that will simulate possible farming cases.

# MANAGEMENT PLAN

## Money

The Mr. Johnson requested assistance from his friend Mr. Andre Postma who is working as a teacher in the ICT department in Fontys to make Rural Cultivation and Atmospheric Emulation Application. The design budget will initially be covered by Tanks & Co™, and should SIM Software decide to approve and purchase the project, the costs to buy the application will be discussed further.

## Skills

* Project Management
* Programming skills
* Testing skills
* Risk Management
* Database Administration
* Quality Management
* Business case writing
* Administrative / Secretarial Skills
* Scheduling

## Test Plan

The test plan will be created to communicate the test approach to team members. It includes the

* Test objectives,
* Test scope,
* Test schedule,
* Test risks,
* Test approach,
* Test deliverables

The test plan will clearly identify what the test deliverables will be and what is deemed in and out of scope. The test team is responsible for testing the product and ensuring it meets their needs. The test team is both the customer and the tester in this project.

## Quality

Our team defines quality in the deliverables as coherent, informative, and completed in a timeframe. Our team will strive to meet and/or exceed the standards as expected of the client.

The team will deliver quality work based on our members' competency, division of labour, team communication, and as a group we will collectively review each deliverable before submission.

## Time

Forecast on the amount of time needed to successfully carry out these activities is:

|  |  |
| --- | --- |
| Meeting with client | 9 hours |
| Designing user cases | 18 hours |
| Designing class diagrams | 18 hours |
| Building and testing application | 150 hours |
| Designing process report | 6 hours |
| Designing presentation | 2 hours |
| Meeting with client | 9 hours |
| Meeting with group members and working at project together | 648 hours |

(The calculations are for the total number of hours of all group members combined.)

## Organization

Our project has the following structure of organization:

**Contact person**

Raima Khan

**Andre Postma** (Assistant)

**Mr. Johnson**

(formal client)

**Project leader**

Richard Dyer

**Team members**

Mihail Hadzhinikolov

Zisis Damianidis

Al Al-Mohaiminul Islam Khan

# ASSUMPTIONS

**Minute keeper**

Tsanko Hadzhiev

## Project assumptions

Following are assumptions in our project:

* We assume that the weather will follow recent years’ patterns.
* Cost of crops is not fixed and will be determined by most recent prices.
* We will not account for diseases of crops.

## Milestones

The following represents key project milestones, with estimated completion dates:

### Phase I: Initiation

The initiation is the start of the project. During the initiation phase scope, objectives, purpose to be produced.

Tasks for the activity are:

* Organize team (chose Leader and set rules)
* Interview with the client

**Deliverables for Phase I:**

* Project proposal
* Project plan

### Phase II: Design

During Design phase two major events will take place: creating the URS and Test plan.

**Deliverables for Phase II:**

* User Requirements Specification document
* Test plan

### Phase III: Build

During the build phase result is evaluated according to the list of requirements that were created in the URS

**Deliverables for Phase III:**

* Demo application

### Phase IV: Sprint planning

**Deliverables for Phase IV:**

* Design documentation
* Test cases
* Test report
* Application Code
* Demo

Estimated deadline: date to be determined at a later time

### Phase V: Deploy

Deployment is the final phase of the project, application is completed and presented to the client.

**Deliverables for Phase IV:**

* Application
* Presentation

**In the table below are shown the phases with its deliverables and the estimated completion date.**

Initiation

Design

Build

Deploy

Sprint planning

Final version

Design documentation

Interview client

URS

Coding

Start-up

Test cases

Presentation

Create a test plan

Project Plan

Test report

App code/Demo

Figure 1.1

# Roles and responsibilities

## Project Roles and Responsibilities

| Role | Responsibilities | Participant(s) |
| --- | --- | --- |
| Project leader | 1. Provide project guidance 2. Review/approve some project decisions 3. Arrange meeting with client. 4. Provide help in creating documents 5. Provide help in creating application | Richard Dyer |
| Contact person | 1. Contact client 2. Send all deliverables to client on time 3. Create agenda 4. Provide help in creating documents 5. Provide help in creating application | Raima Khan |
| **Minute keeper** | 1. Note minutes of all meetings 2. Provide help in creating documents 3. Provide help in creating application | Tsanko Hadzhiev |
| **Project Participants** | 1. Provide help in creating documents 2. Provide help in creating application | Mihail Hadzhinikolov  Zisis Damianidis  Al Al-Mohaiminul Islam Khan |

# APPROVALS

## Sign-off Sheet