Rural Cultivation & Atmospheric Emulation Application (RCAEA) URS document

**Rural Cultivation and Atmospheric Emulation Application**

Document: URS

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INTRODUCTION

Purpose of URS

This document is the definitive specification of the user requirements for RCAEA Project to be developed by Tanks & Co.™

It presents functional requirements using the user cases. The last section introduces some non-functional requirements of this application.

**The URS document defines the following:**

* Introduction
* Project description
* Requirements

PRODUCT DESCRIPTION

Background Information

SIM Software Inc. is interested in adopting simulation applications and has asked for project proposals. Tanks & Co™ has a simulation proposal and they met with A representative from SIM Software’s board of management, Mr. Johnson. He has accepted their proposal for “ Rural Cultivation and Atmospheric Emulation Application”.

Mr. Johnson will be the mediator and ultimately make the decision software.

Performance

In this project we will create an application to simulate cultivating specific crop(s) in an area of land during specific time. This application will allow user to grow choose type of crop for specific field. If someone is growing “ Cucumber “ in winter season ,system will notify the user that “cucumber needs high temperature to grow, better is to choose summer season for cultivating cucumber”.// some more functionalities should be added

Users

This application can be used by individual production planners as well as by multi-national enterprises, primarily to strategically plan layout, control logic and dimensions of large, complex production investments. Farmers can also use this application for deciding which crop is more beneficial for them before cultivation.

Assumptions

Following are some assumptions for this project made by us:

* Fields for cultivation are already bought by users.
* Risk for encountring any crop disease is 0%.
* We assume that the weather will follow recent years’ patterns.

User Interface

* Adding crops
* Removing crops
* Adding water to crops
* Adding fertilizers to crops
* Retrieving profit Report

**Pre-condition:** The user has the main form of the RCAEA app open on his/her PC.

**Trigger:** User clicks on one of the button , representing the crop type which user would like to add.

**MSS:**

1. User selects field where he wants to cultivate.
2. User clicks on one of the buttons , representing the crop type which user would like to add.
3. System will show another form ,with the list of crops fro selected type
4. User picks the crop he want to place from the list of crops in the new form.
5. User selects starting date,when he wants to start cultivation by selecting from Date/Time picker present on left side (from the users’ point of view.
6. User will select ending date .
7. System makes the selected component as the actively chosen component.
8. User clicks on the position he wishes to place the component on in the drawing screen.
9. System draws a copy of the selected component on the drawing screen at the position chosen by the user.

**Extensions:**

1.a. The component chosen is a pump.

1. Reference to use case “Add a pump”.
2. Continue from step 2 in MSS.

1.b. The component chosen is an adjustable splitter.

1. Reference to use case “Add an adjustable splitter”.
2. Continue from step 2 in MSS.

3.a. The component overlapped another component

1. System prompts user for warning that components cannot overlap each other.
2. User chooses another position to place the component.
3. Go back to step 4 of MSS.

REQUIREMENTS

Functional requirements

**Adding crops:**

**Removing crops:**

**Updating water resources:**

**Updating fertilizers to crops:**

**Simulating growth of crop:**

**Retrieving profit/loss report:**

**Retrievving yield calculation:**

**Closing application**

APPROVALS

Sign-off Sheet