

AY 2021/2022



POLITECNICO DI MILANO

# RASD: Requirement Analysis and Specification Document

Ottavia Belotti   Alessio Braccini   Riccardo Izzo

Professor  
Elisabetta DI NITTO

**Version 1.0**  
October 18, 2021



# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Purpose . . . . .	1
1.2	Scope . . . . .	2
1.2.1	Goals . . . . .	2
1.3	Definitions, acronyms, abbreviations . . . . .	2
1.4	Revision history . . . . .	2
1.5	Reference documents . . . . .	2
1.6	Document structure . . . . .	2
<b>2</b>	<b>Overall Description</b>	<b>2</b>
2.1	Product perspective . . . . .	2
2.2	Product functions . . . . .	2
2.3	User characteristics . . . . .	2
2.4	Assumptions, dependencies and constraints . . . . .	2
<b>3</b>	<b>Specific Requirements</b>	<b>2</b>
3.1	External Interface Requirements . . . . .	2
3.1.1	User Interfaces . . . . .	2
3.1.2	Hardware Interfaces . . . . .	2
3.1.3	Software Interfaces . . . . .	2
3.1.4	Communication Interfaces . . . . .	2
3.2	Functional Requirements . . . . .	2
3.3	Performance Requirements . . . . .	2
3.4	Design Constraints . . . . .	3
3.4.1	Standards compliance . . . . .	3
3.4.2	Hardware limitations . . . . .	3
3.4.3	Any other constraint . . . . .	3
3.5	Software System Attributes . . . . .	3
3.5.1	Reliability . . . . .	3
3.5.2	Availability . . . . .	3
3.5.3	Security . . . . .	3
3.5.4	Maintainability . . . . .	3
3.5.5	Portability . . . . .	3
<b>4</b>	<b>Formal Analysis using Alloy</b>	<b>3</b>

<b>5</b>	<b>Effort Spent</b>	<b>3</b>
<b>6</b>	<b>References</b>	<b>3</b>

# 1 Introduction

*Data-driven Predictive Farming*, also known as *DREAM*, is an initiative of UNDP India and promoted by Telengana's government for supporting the indian farming industry. The project is driven by the need of facing future problems related to the food chain supply such as the impact of the climate change and the foreseen population growth.

## 1.1 Purpose

*DREAM* aims to support work categories involved into the farming industry through providing them relevant and up-to-date data about the farm activity's performance. The main stakeholders are: Telengana's policy makers, farmers and agronomists.

## 1.2 Scope

### 1.2.1 Goals

## 1.3 Definitions, acronyms, abbreviations

## 1.4 Revision history

## 1.5 Reference documents

## 1.6 Document structure

# 2 Overall Description

## 2.1 Product perspective

## 2.2 Product functions

## 2.3 User characteristics

## 2.4 Assumptions, dependencies and constraints

# 3 Specific Requirements

## 3.1 External Interface Requirements

### 3.1.1 User Interfaces

### 3.1.2 Hardware Interfaces

### 3.1.3 Software Interfaces

### 3.1.4 Communication Interfaces

## 3.2 Functional Requirements

## 3.3 Performance Requirements

Test.

### 3.4 Design Constraints

Test.

#### 3.4.1 Standards compliance

#### 3.4.2 Hardware limitations

#### 3.4.3 Any other constraint

### 3.5 Software System Attributes

#### 3.5.1 Reliability

Test.

#### 3.5.2 Availability

Test.

#### 3.5.3 Security

#### 3.5.4 Maintainability

#### 3.5.5 Portability

## 4 Formal Analysis using Alloy

## 5 Effort Spent

Student	Time for S.1	S.2	S.3	S.4
Ottavia Belotti	30min	?	?	?
Alessio Braccini	30min	?	?	?
Riccardo Izzo	30min	?	?	?

## 6 References