



**POLITECNICO**  
**MILANO 1863**

SCUOLA DI INGEGNERIA INDUSTRIALE  
E DELL'INFORMAZIONE

# Software Engineering 2

## Requirements Analysis and Specification Document

Author(s): **Irfan Cela [10694934]**

**Mario Cela [10685242]**

**Alessandro Cogollo [10571078]**

Academic Year: 2022-2023



# Contents

<b>Contents</b>	<b>i</b>
-----------------	----------

<b>1 Introduction</b>	<b>1</b>
1.1 Purpose . . . . .	1
1.2 Scope . . . . .	1
1.3 Definition, Acronyms, Abbreviations . . . . .	1
1.4 Revision history . . . . .	1
1.5 Reference Documents . . . . .	1
1.6 Document Structure . . . . .	1
<b>2 Overall Description</b>	<b>3</b>
2.1 Product perspective . . . . .	3
2.2 Product functions . . . . .	3
2.3 User characteristics . . . . .	3
2.4 Assumptions, dependencies and constraints . . . . .	3
<b>3 Specific Requirements</b>	<b>5</b>
3.1 External Interface Requirements . . . . .	5
3.1.1 User Interfaces . . . . .	5
3.1.2 Hardware Interfaces . . . . .	5
3.1.3 Software Interfaces . . . . .	5
3.1.4 Communication Interfaces . . . . .	5
3.2 Functional Requirements . . . . .	5
3.3 Performance Requirements . . . . .	5
3.4 Design Constraints . . . . .	5
3.4.1 Standards compliance . . . . .	5
3.4.2 Hardware limitations . . . . .	5
3.4.3 Any other constraint . . . . .	5

3.5	Software System Attributes . . . . .	5
3.5.1	Reliability . . . . .	5
3.5.2	Availability . . . . .	5
3.5.3	Security . . . . .	5
3.5.4	Maintainability . . . . .	6
3.5.5	Portability . . . . .	6
<b>4</b>	<b>Formal Analysis Using Alloy</b>	<b>7</b>
<b>5</b>	<b>Effort Spent</b>	<b>9</b>
<b>6</b>	<b>References</b>	<b>11</b>
<b>A</b>	<b>Appendix A</b>	<b>13</b>
	<b>List of Figures</b>	<b>15</b>
	<b>List of Tables</b>	<b>17</b>

# 1 | Introduction

1.1. Purpose

1.2. Scope

1.3. Definition, 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

### 3.4. Design Constraints

#### 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

#### 3.5.2. Availability

#### 3.5.3. Security

#### 3.5.4. Maintainability

#### 3.5.5. Portability

## 4 | Formal Analysis Using Alloy



## 5 | Effort Spent



## 6 | References





# A | Appendix A

If you need to include an appendix to support the research in your thesis, you can place it at the end of the manuscript. An appendix contains supplementary material (figures, tables, data, codes, mathematical proofs, surveys, . . . ) which supplement the main results contained in the previous chapters.



## List of Figures



## List of Tables

