



RASD + Tiberio - Saeid Rezaei

RASD - Requirement Analysis and Specification Document

Deliverable:	RASD
Title:	Requirement Analysis and Verification Document
Authors:	Tiberio - Saeid Rezaei
Version:	1.0
Date:	18-October-2019
Download page:	https://github.com/TiberioG/GalbiatiRezaei.git
Copyright:	Copyright © 2019, Tiberio - Saeid Rezaei – All rights reserved

Contents

Table of Contents	3
List of Figures	5
List of Tables	5
1 Introduction	6
1.1 Purpose	6
1.2 Scope	6
1.2.1 Description of the given problem	6
1.2.2 Goals	6
1.3 Definitions, acronyms, abbreviations	6
1.3.1 Definitions	6
1.3.2 acronyms	6
1.3.3 abbreviations	6
1.4 Revision history	6
1.5 Reference Documents	6
1.6 Document Structure	6
2 Overall Description	7
2.1 Product perspective	7
2.2 Product functions	7
2.2.1 login	7
2.2.2 sending pics	7
2.2.3 mining info	7
2.2.4 issue a ticket	7
2.2.5 generate statistics	7
2.3 User characteristics	7
2.4 Assumptions, dependencies and constraints	7
3 Specific Requirements	8
3.1 External Interface Requirements	8
3.1.1 User Interfaces	8
3.1.2 Hardware Interfaces	8
3.1.3 Software Interfaces	8
3.1.4 Communication Interfaces	8
3.2 Functional Requirements	8
3.2.1 User	8
3.2.2 Third party	8
3.2.3 Requirements	8
3.3 Performance Requirements	8
3.4 Design Constraints	8
3.4.1 Standards compliance	8
3.4.2 Hardware limitations	8
3.4.3 Any other constraint	8
3.5 Software System Attributes	8
3.5.1 Reliability	8
3.5.2 Availability	8
3.5.3 Security	8
3.5.4 Maintainability	8

3.5.5 Portability	8
4 Formal Analysis Using Alloy	9
5 Effort Spent	10
References	11

List of Figures

List of Tables

1 Introduction

1.1 Purpose

general description ...

1.2 Scope

1.2.1 Description of the given problem

1.2.2 Goals

- E Allow users to notify authorities about traffic violations
- E Allow users to send pictures of violations
- E Be sure every information uploaded is never altered
- E Automatically add metadata to the reported pictures
- E allow users to mine information recorded
- E have at least two different privilege for mining data
- E generate traffic tickets
- E authorities can see the the licence plates of violators, regular users cannot

1.3 Definitions, acronyms, abbreviations

1.3.1 Definitions

1.3.2 acronyms

1.3.3 abbreviations

1.4 Revision history

1.5 Reference Documents

1.6 Document Structure

2 Overall Description

2.1 Product perspective

add here class diagram + verbal description

2.2 Product functions

2.2.1 login

2.2.2 sending pics

2.2.3 mining info

2.2.4 issue a ticket

2.2.5 generate statistics

2.3 User characteristics

2.4 Assumptions, dependencies and constraints

- D the device should acquire position with an accuracy of enough meters in order to univocally determine the road (e.g. 5 meters)
- D the device should take pictures with enough resolution to be able to read the licence plate using the algorithm
- D in every picture the licence plate should be visible and the kind of violation
- D the number and kind of violation should be finite (defined by the law)
- D every authority account is verified and it's not possible to be created using the frontend

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

think about use cases @both

3.2.1 User

3.2.2 Third party

3.2.3 Requirements

Requirements in order to satisfy the goals

R first

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

References

