

NAVUP
Software Requirements Specification
University of Pretoria

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1 Introduction

1.1 Purpose

This document serves the purpose of providing an intensive description for the NavUP system(product). It will also identify the possible requirements and restrictions for the NavUP system(product). This document will help the developer to gain insight on what the system(product) should do, to better understand how the system should be implemented in the implementation phase.

1.2 Scope

The system(product) to be developed is called NavUP. NavUP will serve as a navigation application. NavUP intends to provide different users with optimal routes to destinations accross the University of Pretoria campus.

1.3 Definitions, Acronyms and Abbreviations

1.4 Overview

In this document, an Overall Description will be provided for the NavUP system(product). In the Overall Description, the Product Perspective, Product Functions, User Characteristics an Constraints will be discussed. Following the Overall Description, will be an elaboration on the Specific Requirements for the NavUP system(product). For the Specific Requirements, External Interface Requirements, Functional Requirements, Performance Requirements, Design Constrants, Software Sytem Attributes and Other Requirements will be identified and discussed. Thereafter, any relevant appendixes and indexes needed by this document will be provided.

2 Overall Description

2.1 Product Perspective

2.1.1 System Interfaces

2.1.2 User Interfaces

2.1.3 Hardware Interfaces

2.1.4 Software Interfaces

2.1.5 Communication Interfaces

2.1.6 Memory

2.1.7 Operations

2.1.8 Site Adaptation Requirements

2.2 Product Functions

General functions for the NavUP system(product) include:

- The ability to use several Wi-Fi connection points as navigation tools
- The ability to calculate optimal routes from one destination to another, bases on the user's needs (i.e it must cater for routes for those with disabilities etc.).
- The ability to provide accurate information about pedestrain traffic based on how many devices are connected to certain Wi-Fi connection points.
- The ability to reroute the user based on certain preferences.
- The ability to calculate the user's current location while indoors and while outdoors.
- The ability to search for locations, save locations, and providing directions to a location.

2.3 User Characteristics

2.4 Constraints

2.5 Assumptions and Dependencies

3 Specific Requirements

3.1 External Interface Requirements

- System Interfaces

- User Interfaces
- Hardware Interfaces
- Software Interfaces
- Communication Interfaces

3.2 Functional Requirements

3.3 Performance Requirements

3.4 Design Constraints

3.5 System Software Attributes

3.6 Other Requirements

Appendixes

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