BIITmaps

Software Requirements Specification Document

V 3.0

October 18, 2014

BIITmap

Revision History

Date	Description	Author	Comments
17-10-2014	V 1.0	Chetan Singh	Plotting & documentation
18-10-2014	V1.1	Sheetal Jain	Revision & corrections
18-10-2014	V2.0	Sheetal Jain	Formatting
23-11-2014	V3.0	Sheetal Jain	Corrections

Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Approval Status	Printed Name	Title	Date
Approved	Chetan Singh		23-11-2014
Approved	Sheetal Jain	Team Leader	
Approved	Deepak Kinra		

BIITmap

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1.Introduction

This SRS document is for the application "BIITmaps", a map utility application mapping IIT Bombay campus and some nearby area. It will explain the feature of the system interface what will it do internally and externally. This document is intended for developers and advanced-users.

1.1 Purpose

The purpose of this SRS document is to provide programmers and advanced users adequate information about the software's requirements and the how it controls the system internally and the resources it uses.

1.2 Scope

The software aims to solve the challenges faced by a map utility,

Be it finding shortest way out or nearest landmark.

It aims to be a handy guide and a worthy co-pilot.

It will do all that a map utility does.

It has been personalized to suit the IITB environment.

Misc. inbuilt apps make sure we have a nice outing experience.

What does future hold for this application?

It can be a worthy replacement for InstiMap when it migrates to more mobile environments in future. GPS integration in future would make it even more effective.

1.3 Definitions, Acronyms, and Abbreviations

Arbit - Short for "arbitrary"

Developer- The people who made the program

Infy- derived from "infinite" or "infinity" (means plural of anything i.e. more than two. Usually to denote a sufficiently large amount)

PC- personal computer (here refers to the computer systems)

SRS- System Requirement Specification

User- The person using the software

1.4   References

This document contains references to User Manual and Project Report.

1.5   Overview

The following topics in SRS document contains general description of the resource management processes, telling more about system's requirement and how it is affected by various activities.

2.General Description

This section of the document will tell how and what affects program's performance.

2.1   Product Functions

The software provides infy features like:

Seek directions- find directions between two specified land marks via the specified vehicle refer map- see map as visual aid

nearest land marks- find 3 land marks nearest to any arbit given location

Find- finds and shows relative position between two locations.

Tum-tum timings and routes

miscellaneous (help, hangout selector)

2.2   User Characteristics

Some problems might be a cause of user's usage. For example parallel multi tasking will slow the process down. Obviously you cannot replace H1 (the queen of the campus) by A1 (not acceptable!) and expect to find right directions.

2.3   General Constraints

This software has to solve the problems declared in problem statement, in a way that it consumes minimal amount of resources and provide maximum satisfaction.

2.4   Assumptions and Dependencies

The applications running in background, desktop widgets, other applications etc consume the resources nicely. Hence it is advised to close all the other programs or at least reduce the use of back ground processes.
A PC with sufficient specification might give faulty performance or bad experience or rough performance, if its resources are being shared by greedy widgets.

3.Specific Requirements

This program was made using 3 laptops:

Laptop 1: PC1
HP D-103TX (personalized to improve virtual RAM, and minor tweaks done to improve computer's performance)

Processor: Intel core i5 - 4200M CPU (4th gen dual core) @ 2.5 GHz with Turbo Boost 2.0 Up to 3.1 GHz; cache 3 MB
Available memory: 4GB RAM + (16+ GBs of virtual memory)
Graphics card: NVIDIA GeForce GT 820M (DDR3 2GB); Resolution 1366 x 768 Pixel; 15.6 inch HD backlit LED screen
OS: windows 7 ultimate (64 bit)

Laptop 2: PC2
Dell Inspiron 15 (large RAM and great multitasking experience)

Processor: Intel core i5(4th Gen) 2.4 GHz with Turbo Boost Tech Up to 3.2 GHz; cache 4 MB
Available memory: 8GB RAM
Graphics card: AMD Radeon HD 8850M (DDR5 4GB); Resolution 1366 x 768 Pixel; 15.6 inch HD LED screen with True Life
OS: windows 8.1 Pro (64 bit)

Laptop 3: PC3
Lenovo Z150 Ideapad (one of the most robust notebooks)

Processor: Intel core i7(4th Gen) 2.2 GHz with Turbo Boost Up to 3.1 GHz; cache 3 MB
Available memory: 8GB RAM
Graphics card: NVIDIA GeForce GT 740M (DDR 4GB); Resolution 1366 x 768 Pixel; 15.6 inch HD LED screen
OS: windows 8.1 (64 bit)

We tested this application on PCs with lower specifications too. Though, it is not guaranteed that it will run smoothly on such PCs.

3.1 Additional Requirements

3.1.1Performance

For best performance we suggest you to use the high end model (with latest updates for system tools.

3.1.2 Reliability

For reliability, use a PC of specification at least equivalent to:

Processor: Intel(R) core TM i5 CPU @2.1 GHz

Installed Memory(RAM) : 2.00 (recommended 4.00 GB)

System type: 32 bit operating system(64 bit recommended), Windows 7 (or equivalent operating system

Code Blocks pre-installed to write and execute the program, with CImg and graphics libraries (if not pre-installed, these libraries come with our product. One can install and link them to the compiler)

4.Change Management Process

The SRS document can be edited by any of the three developers, if there is a need to do so.
The edited copy will be uploaded on cloud networks and a link will be shared to all developers to make sure everyone knows about the changes.

A.   Appendices

Appendices will provide additional helpful information. If present, the SRS should explicitly state whether the information contained within an appendix is to be considered as a part of the SRS's overall set of requirements.

A. A1: Project Report

B. A2:User Manual