

# Software Project Management Plan

## Project Phase 2

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**Revision History**

<b>Version</b>	<b>Date</b>	<b>Comments</b>	<b>Author</b>
1.0	9/1/2010	Initial version from Template	BenJamin
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## 1. Introduction

### ***1.1 Project overview***

The project described within this document is an Android Application designed with the specific goal of helping old people easily (thus the acronym HOPE used from here on). The application is designed to fill the gap left by the diminished qualities of the sense of hearing or seeing as well as memory loss and incomprehensible speech that come with old age.

The application is targeted at the smart phone market because of the ubiquity that devices have achieved in recent times. More so, the prospective end users will find this application more useful than traditional aids currently in use because they may not need to purchase new devices, because a smart phone application will save them from the unpleasant effects of external devices publicizes their disabilities and it will also allow them to ask for and receive help from people around them using the well known features of a smart phone.

The aim of this project is two fold. First, the preliminary requirements given by the client will be refined into a detailed requirements description which captures real customers' real needs/wants as precisely, concisely and conceptually as possible. Secondly, a prototype will be developed which should demonstrate the key features of the detailed requirement in the real world.

This document gives a preliminary plan for how the company aims to achieve the above stated aims. The first section gives an overview, describes project deliverables and itemizes the evolution of this document. Lastly the first section gives the meaning of acronyms that may be encountered in the rest of document and lists references from which guidelines have been drawn. In the second section, the organizational structure of the executing team is given and the third section shows how the team as well as the project will be managed from inception to completion. Technical Processes used are described in Section 4 while the fifth and final section details the work elements, schedule and budget for the project.

## 1.2 Project Deliverables

Phase	Deliverables	Due Date
Initial Structuring	<ul style="list-style-type: none"> <li>● Preliminary Project Management Plan</li> </ul>	09 - 02 - 2010
Phase 1 Interim	<ul style="list-style-type: none"> <li>● Revised Software Project Management Plan               <ul style="list-style-type: none"> <li>○ Meeting Minutes</li> </ul> </li> <li>● Interim System Requirements Specifications (Iteration 1)</li> <li>● Interim Software Requirements Specifications (Iteration 1)</li> <li>● Slide-show depicting:               <ul style="list-style-type: none"> <li>○ Understood customer requirements</li> <li>○ Progress on deliverables</li> <li>○ The product's features</li> </ul> </li> <li>● Hard copy of preliminary project plan (this document)</li> </ul>	09 - 30 - 2010
Phase 1 Final	<ul style="list-style-type: none"> <li>● Revised Software Project Management Plan               <ul style="list-style-type: none"> <li>○ Meeting Minutes</li> </ul> </li> <li>● System Requirements Specification (Iteration 1)</li> <li>● Software Requirements Specification (Iteration 1)</li> <li>● Prototype (Iteration 1)</li> </ul>	10 - 21 - 2010
Phase 2 Interim	<ul style="list-style-type: none"> <li>● Revised Software Project Management Plan               <ul style="list-style-type: none"> <li>○ Meeting Minutes</li> </ul> </li> <li>● Interim Revised System Requirements Specifications (Iteration 2)</li> <li>● Interim Revised Software Requirements Specifications (Iteration 2)</li> </ul>	11 - 11 - 2010
Phase 2 Final	<ul style="list-style-type: none"> <li>● Final Software Project Management Plan               <ul style="list-style-type: none"> <li>○ Meeting Minutes</li> </ul> </li> <li>● Revised System Requirements Specifications (Iteration 2)</li> <li>● Revised Software Requirements Specifications (Iteration 2)</li> </ul>	11 - 30 - 2010

	<ul style="list-style-type: none"> <li>● Prototype (Iteration 2)</li> <li>● Slide-show depicting the planned product's features</li> </ul>	
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- Initial Structuring (September 2, 2010)
  - Preliminary Software Project Management Plan
- Phase 1 Interim (September 30, 2010)
  - Revised Software Project Management Plan
    - Meeting Minutes
  - Interim System Requirements Specifications (Iteration 1)
  - Interim Software Requirements Specifications (Iteration 1)
  - Slide-show depicting:
    - Understood customer requirements
    - Progress on deliverables
    - The product's features
  - Hard copy of preliminary project plan (this document)
- Phase 1 Final (October 21, 2010)
  - Revised Software Project Management Plan
    - Meeting Minutes
  - System Requirements Specification (Iteration 1)
  - Software Requirements Specification (Iteration 1)
  - Prototype (Iteration 1)
- Phase 2 Interim (November 11, 2010)
  - Revised Software Project Management Plan
    - Meeting Minutes
  - Interim Revised System Requirements Specifications (Iteration 2)
  - Interim Revised Software Requirements Specifications (Iteration 2)
- Phase 2 Final (November 30, 2010)
  - Final Software Project Management Plan
    - Meeting Minutes
  - Revised System Requirements Specifications (Iteration 2)
  - Revised Software Requirements Specifications (Iteration 2)
  - Prototype (Iteration 2)
  - Slide-show depicting the planned product's features

### ***1.3 Evolution of this document***

This project management plan is a living document and as such will be subject to change as the term of the project moves forward.

### ***1.4 References***

R. Pressman, Software Engineering: a Practitioner's Approach. Boston McGraw-Hill 2005.

### ***1.5 Definitions, acronyms, and abbreviations***

Android: The operating system running on the smart phone.

G1: First Android smart phone - T-Mobile G1 (HTC Dream)

HOPE: Helping Old People Easily

OS: Operating System

## **2. Project organization**

### ***2.1 Process model***

We will be using the Spiral Model for planning our product as it merges the stable aspects of the waterfall model with prototyping. The spiral model iterates through several versioned releases creating some form of deliverable. During the early iterations, this deliverable is often a document or prototype that encapsulates the problem and solution [1].

We will use the Spiral Model with two iterations, known as Phase 1.x & 2.x. In each iteration we will develop a requirements specification document as well as a prototype to demonstrate possible solutions.

## 2.2 Organizational structure

The project leads are as follows:

Section	Leaders	Due Date
Section 1 (Interim Project 1)	BenJamin Morin, Kevin Lloyd	2010-09-30
Section 2 (Final Project 1)	Kirk Smith, Owolabi Legunsen	2010-10-21
Section 3 (Interim Project 2)	Sam Shaw, Chris Yancey	2010-11-11
Section 4 (Final Project 2)	Chris Lindee, Radu Matcovschi, Patrick Trantham	2010-11-30

Phase	Product Manager	Project Manager	Requirements Engineers	Developer / Quality Assurance
1.1	BenJamin Morin	Kevin Lloyd	Kirk Smith Owolabi Legunsen Sam Shaw Chris Yancey	Chris Lindee / Radu Matcovschi
1.2	Kirk Smith	Owolabi Legunsen	Sam Shaw Chris Yancey Chris Lindee Radu Matcovschi	BenJamin Morin / Kevin Lloyd
2.1	Sam Shaw	Chris Yancey	Chris Lindee Radu Matcovschi BenJamin Morin Kevin Lloyd	Kirk Smith / Owolabi Legunsen
2.2	Chris Lindee	Radu Matcovschi	BenJamin Morin Kevin Lloyd Kirk Smith Owolabi Legunsen	Sam Shaw / Chris Yancey

For the entirety of the project, Patrick Trantham will be performing the role of the customer.

## 2.3 Organizational boundaries and interfaces

While certain persons will be delegated specific tasks, all of the members shall function as both developers and testers throughout the development of the product.

## **2.4 Project responsibilities**

The responsibilities of the various positions are described below:

- Product Manager:
  - Communicates with the customer (Dr. Lawrence Chung & TA)
  - Drafts initial requirements
  - Verifies that all customer's requirements are met
  - Researches existing/competing products
- Project Manager:
  - Leads the project's development and testing
  - Elaborates on initial requirement (in meeting with developers)
  - Verifies that all requirements received from the Product Manager are met by the code.
- Software Quality Assurance/Tester
  - Systems Testing
- Designer/Developer
  - Prototypes
- Requirements Engineer:
  - Generates requirements and dependencies
- Customer/Client:
  - Defines the requirements

## **3 Managerial process**

### **3.1 Management objectives and priorities**

Team leadership will maintain the responsibility of maintaining and containing the project schedule and ensuring that all work items are completed and on schedule. Leadership is also responsible for the creation of all deliverables and scheduling/running meetings.

### **3.2 Assumptions, dependencies, and constraints**

Assumptions for the his project are that, through the members of the team, sufficient knowledge in the areas of Android Development, Java Development, communications and project management is available.

The HOPE system assumes that the individual utilizing the system possesses a smart phone running the Android OS version 1.6 or greater. The hardware specifications of the phone should meet or exceed that of the T-Mobile G1 (HTC Dream). A physical keyboard is not a requirement. Appropriate extensions for Text to Speech and Speech to Text should be loaded on the phone.

### 3.3 Risk management

No.	Risk	Monitoring and Controlling
1	Inappropriate version of the tools and components.	<ul style="list-style-type: none"><li>• Select specific versions of tools and components to use and every member will adhere to the choice throughout the entire project.</li></ul>
2	Failure to meet deadlines for deliverable.	<ul style="list-style-type: none"><li>• Setup milestones in advance of the final due date for each deliverable.</li></ul>
3	Unavailability of resources	<ul style="list-style-type: none"><li>• Reassign resources to fill the gap, depending on availability and previous knowledge of what the currently unavailable resource was working on.</li></ul>
4	Requirements change	<ul style="list-style-type: none"><li>• Client will be made aware, in advance, of the amount of change that can be accommodated within the term of the project.</li></ul>
5	Accidental loss of valuable information	<ul style="list-style-type: none"><li>• Most of the work will be done using online collaboration tools, including version control software, and the resulting documents stored online to minimize the chances of loss of information.</li><li>• Copies of work not stored online will be kept by all team members.</li></ul>

### 3.4 Monitoring and controlling mechanisms

We will use SVN as a version control system to prevent accidental issues from affecting the prototyping code. We will use the Trac bug-tracking system to monitor developer progress on tasks and to report any bugs.

## **4 Technical process**

### ***4.1 Methods, tools and techniques***

All developers are required to use the Eclipse IDE 3.6 to minimize issues with cross-compatibility while developing. This allows the use of Eclipse extensions (if supported by Android).

UML diagrams will be generated using the Eclipse plugin: UML2 Extender SDK. This will also be used to define the process (see section 2.1 Process model).

Rational Rose will also be used as UML modeling tool that supports iterative development, which will support the transition from phase 1 to phase 2.

Microsoft Visio may also be used for simpler UML diagrams.

### ***4.2 Software documentation***

The software users manual shall be generated along with the functional requirements and be validated during the acceptance process. All documentation will be available from the application and the Team website.

### ***4.3 Project support functions***

SPMP (Software Project Management Plan)

This document provides process's and procedures that the management team should follow. The procedures listed in this document are used to manage and monitor the team by the team leaders, thus providing clear guidelines for responsibilities of team members.

## 5 Work elements, schedule, and budget

	Phase	Sub-Phase	Start Date	End Date	Resources
Phase 1.1	Preliminary Software Project Management Plan		Aug. 19	Sept. 30	Microsoft Word
	Interim System and Software Requirements		Aug. 19	Sept. 30	Microsoft Word
Phase 1.2	Revised Software Project Management Plan		Oct. 1	Oct. 21	Microsoft Word
	System and Software Requirements Specifications		Oct. 1	Oct. 21	Microsoft Word
	Prototype #1		Oct. 1	Oct. 21	Eclipse Android SDK
Phase 2.1	Revised Software Project Management Plan		Oct. 22	Nov. 11	Microsoft Word
	Interim Revised System and Software Requirements		Oct. 22	Nov. 11	Microsoft Word Rational Rose
Phase 2.2	Final Software Project Management Plan		Nov. 12	Nov. 30	Microsoft Word Rational Rose
	Final System and Software Requirements Specifications		Nov. 12	Nov. 30	Microsoft Word Rational Rose Eclipse Android SDK
	Prototype #2		Nov. 12	Nov. 30	

