AKI Pro Plus Software Upgrade

Software Development Plan

Version 1.0

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Revision History

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Software Development Plan

# 

# Introduction

[The introduction of the **Software Development Plan** provides an overview of the entire document. It includes the purpose, scope, definitions, acronyms, abbreviations, references, and overview of this **Software Development Plan**.]

## Purpose

[Specify the purpose of this **Software Development Plan**. The text below is provided as an example**.** ]

The purpose of the *Software Development Plan* is to gather all information necessary to control the project. It describes the approach to the development of the software and is the top-level plan generated and used by managers to direct the development effort.

The following people use the *Software Development Plan*:

* The **project manager** uses it to plan the project schedule and resource needs, and to track progress against the schedule.
* **Project team members** use it to understand what they need to do, when they need to do it, and what other activities they are dependent upon.

## Scope

[A brief description of the scope of this **Software Development Plan**; what Project(s) it is associated with and anything else that is affected or influenced by this document. The text below is provided as an example.]

This *Software Development Plan* describes the overall plan to be used by the <project name> project, including deployment of the product. The details of the individual iterations will be described in the Iteration Plans.  
The plans as outlined in this document are based upon the product requirements as defined in the *Vision Document*.

## Definitions, Acronyms, and Abbreviations

[This subsection provides the definitions of all terms, acronyms, and abbreviations required to properly interpret the **Software Development Plan**. This information may be provided by reference to the project’s Glossary.]

See the Project Glossary.

## References

[This subsection provides a complete list of all documents referenced elsewhere in the **Software Development Plan**. Identify each document by title, report number if applicable, date, and publishing organization. Specify the sources from which the references can be obtained. This information may be provided by reference to an appendix or to another document.

For the **Software Development Plan**, the list of referenced artifacts includes:

* RUP for Small Projects Website
* Iteration Plans
* Development Case
* Vision
* Glossary
* Any other supporting plans or documentation.

## Overview

[This subsection describes what the rest of the **Software Development Plan** contains and explains how the document is organized. The text below is provided as an example.]

This *Software Development Plan* contains the following information:

Project Overview — provides a description of the project's purpose, scope, and objectives.  It also defines the deliverables that the project is expected to deliver.

Project Organization — describes the organizational structure of the project team.

Management Process — explains the estimated cost and schedule, defines the major phases and milestones for the project, and describes how the project will be monitored.

Applicable Plans and Guidelines — provides an overview of the software development process, including methods, tools and techniques to be followed.

# Project Overview

## Project Purpose, Scope, and Objectives

The purpose of this project is to take an existing system and transition it into a web based one. The current system is currently a Desktop system whereby all transaction are done via telephone calls, emails or in person. There is no communication between end systems. By taking the system to a web based one there will be efficient communication, greater productivity, significantly more automation and less expenses.

## Assumptions and Constraints

* The Assumptions are to be determined.
* Time is one constraints as there are requirements to meet within a limited time frame.
* Another constraints is staff experience. The working staff has limited experience in project development and hence may not be as efficient as say a more experienced personnel.

## Project Deliverables

|  |  |  |
| --- | --- | --- |
| Week/Deliverable | Team Leader | Deliverable Description |
| 1 | Matthew Ganpat | Project Plan Part 1 |
| 2 | Devindra Mahadeo | Project Plan Part 2 |
| 3 | Shervonne Cummings | Project Plan Part 3 |
| 4 | Francis John. | Project Plan Part 4 |
| 5 | Matthew Ganpat, Devindra Mahadeo, | Requirements Documents Part 1 |
| 6 | Shervonne Cummings and Francis John | Requirements Documents Part 2 |
| 7 | Matthew Ganpat, Devindra Mahadeo, | Specifications |
| 8 | Shervonne Cummings and Francis John | Specifications |
| 9 | Matthew Ganpat, Devindra Mahadeo | Evaluation Report |
| 10 | Shervonne Cummings and Francis John | Evaluation Report |
| 11 | Matthew Ganpat, Devindra Mahadeo Shervonne Cummings and Francis John | Prototype |

Deliverables for each project phase are identified in the Development Case. Deliverables are delivered towards the end of the iteration, as specified in section *4.2.4 Project Schedule*.

## Evolution of the Software Development Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Primary Author(s) | Description of Version | Date Expected |
| Draft | Matthew Ganpat, Devindra Mahadeo Shervonne Cummings and Francis John | Initial draft created for distribution and review comments. | 03/10/14 |
| Preliminary | Matthew Ganpat, Devindra Mahadeo Shervonne Cummings and Francis John | Second draft incorporating initial review comments, distributed for final review | 16/10/14 |
| Final | Matthew Ganpat, Devindra Mahadeo Shervonne Cummings and Francis John | First complete draft, which is placed under change control | TBD |
| Revision | TBD | First complete draft, which is placed under change control | TBD |

The *Software Development Plan* will be revised prior to the start of each Iteration phase.

# Project Organization

## Organizational Structure

The project team consists of four (4) team members who shall be responsible for the software requirements analysis, design, development, integration, and testing of AKI Pro Plus.

The project team is organized as follows:

* Matthew Ganpat
* Devindra Mahadeo
* Francis John
* Shervonne Cummings

## External Interfaces

The External Interfaces are the entities outside of the immediate business who are essential to the business’ continued establishment. These entities are as follows:

* Customer – The core of the business as this is the body of persons who purchase the products
* Merchandizers – Personnel who visit the stores of customers to ensure the product is being advertised well and is in stock.
* Suppliers – These are companies that provide AKI Bakery Services with raw materials needed for production of goods.
* Bank – The Bank is central in monetary transactions as it is the medium for most large transactions.

## Roles and Responsibilities

|  |  |
| --- | --- |
| **Person** | **Project Role** |
| Matthew Ganpat, Group Leader | Project Manager System Analyst  System Designer  General Reviewer |
| Devindra Mahadeo Shervonne Cummings Francis John | System Analyst  System Designer  Prototype Tester  General Reviewer |

# Management Process

## Project Estimates

Estimates for each deliverable in the project is calculated on per task, per hour basis which is utilized by each member of the Project Team.

Project Schedule

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task Mode | Task Name | Duration | Start | Finish | Predecessors |
| Auto Scheduled | Planning and Requirement Analysis | 0.26 days | Wed 01/10/14 | Wed 01/10/14 |  |
| Manually Scheduled | System Design | 5 days | Thu 02/10/14 | Wed 08/10/14 | 1 |
| Manually Scheduled | System Development | 20 days | Thu 09/10/14 | Wed 05/11/14 | 2 |
| Manually Scheduled | System Testing | 5 days | Thu 06/11/14 | Wed 12/11/14 | 3 |
| Manually Scheduled | System Implementation | 1 day | Wed 12/11/14 | Wed 12/11/14 | 4 |
| Manually Scheduled | System Maintenance | 30 days | Thu 13/11/14 | Wed 24/12/14 | 5 |

## Project Plan

### Phase Plan

[Include the following:

 Work Breakdown Structure (WBS) — optional for small projects

 a timeline or Gantt chart showing the allocation of time to the project phases or iterations

 identify major milestones with their achievement criteria

Define any important release points and demos.]

The phases for the project are as follows:

* Phase 1: Planning and Requirement Analysis
* Phase 2: System Design
* Phase 3: System Development
* Phase 4: System Testing
* Phase 5: System Implementation and Maintenance
* Planning and Requirement Analysis

The planning phase consisted extracting information from Dr. Wayne Goodridge regarding all aspects of the Bakery. These are done in weekly sessions and the questions asked are related to all current aspects of the bakery as well as future aspects. After the data has been gathered, it will allow the generation of all what is needed to complete the project such as User Requirements, System requirements and Project Requirements. Therefore, this is most important and vital to efficient completion of the Project.

* System Design

The design of the software is based upon the requirements acquired. Attributes of the system such as its logical build such as the data to be utilized within the system and how the requirements are to be achieved. The design seeks to incorporate the user and system requirements into a functional logical design which will allow developers and analysts to view the project under a microscope.

* System Development

This is taking the logical structure of the Software system and developing a working model based on developed specifications. This is a prerequisite for testing as it provides the tool to be utilized for testing purposes as predetermined data can now be run to determine its accuracy (alpha testing).

* System Testing

Based on predefined test cases, the software system can be put to the test to ensure that all functionality is operating as it should and any mishaps in functionality is documented and fixed.

* System Implementation and Maintenance

The software system is implemented into the Bakery and is live and seeks to increase efficiency of the business. This live release provides the opportunity for the program to be run with real, live data and so can be monitored for any performance issues, mishaps in processing and various other errors and reduced functionality that may occur. It is in this way that the system is maintained as these possible instances of poor functionality will be recorded, solved and then released once again to the client to replace older versions of the software.

### Iteration Objectives

[List the objectives to be accomplished for each of the iterations.]

### Releases

AKI Pro – AKI Pro was released in 2004 to increase efficiency in most business processes within AKI Bakery Services.

### Project Schedule

|  |  |  |  |
| --- | --- | --- | --- |
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### Project Resourcing

 [Identify the numbers and type of staff required here, including any special skills or experience, scheduled by project phase or iteration.

 Describe how you will approach finding and acquiring the staff needed for the project.

 List any special training project team members will require, with target dates for when this training should be completed.

 Allocation of costs against the WBS and the Phase Plan.]

## Project Monitoring and Control

 [The following is a checklist of items to consider:

* Requirements Management : Specify the information and control mechanisms which will be collected and used for measuring, reporting, and controlling changes to the product requirements.
* Schedule and Budget Control:Describe the approach to be taken to monitor spending against the project budget and progress against the planned schedule. Describe how to take corrective action when required.
* Quality Control:Describe the timing and methods to be used to control the quality of the project deliverables and how to take corrective action when required. Include techniques, metrics, criteria, and procedures used for evaluation— this will include walkthroughs, inspections, and reviews. Note that this is in addition to the Test Plan, which is not enclosed in the Software Development Plan.
* Reporting and Measurement: Describe internal and external reports to be generated, and the frequency and distribution of publication. Specify which metrics should be collected and why.
* Risk Management: Describe the approach that will be used to identify, analyze, prioritize, monitor and mitigate risks. Include a list of risks and their current status.
* Project Close-out: Describe the activities for the orderly completion of the project, including staff reassignment, archiving of project materials, post-mortem debriefings and reports, and so forth.
* Configuration Management: Describe the process by which problems and changes are submitted, reviewed, and dispositioned. Describe how project or product artifacts are to be named, marked, and numbered, including hardware, system software, Commercial-Off-The-Shelf (COTS), plans, models, components, test software, results and data, executables, and so on. Describe retention policies, and the back-up, disaster, and recovery plans. Also describe how the media is to be retained—online, offline, media type, and format.
* Problem Resolution: Describe the approach to be taken to resolve disagreements with the customer, including how to handle schedule slips, scope, and contractual disagreements.
* Subcontractor Management: Describe how subcontractors will be managed.
* Process Improvement Plan: Describe how the effectiveness of the process will be assessed and improved.

The text that follows is provided as an example.]

**Project Management**

In order for successful completion of the project, it must be monitored closely and every step be documented.

**Requirements Management**

The Requirements Document serves as the central repository for all requirements gathered. Any changes to be made to these requirements will be recorded within this document.

**Schedule and Budget Control**

Expenses are monitored by the project manager, and reported and assessed monthly. (See Reporting and Measurement below).

The project manager maintains a schedule showing the expected date of each milestone. The line items in the schedule include work packages assigned to individuals. Each individual who is assigned a work package provides %completion information to the project manager on a weekly basis. Changes in the schedule will be escalated to the project sponsors, who will then decide whether to alter scope in order to preserve target completion dates.

**Quality Control**

Defects will be recorded and tracked as Change Requests, and defect metrics will be gathered (see Reporting and Measurement below).

All deliverables are required to go through the appropriate review process, as described in the Development Case. The review is required to ensure that each deliverable is of acceptable quality, using guidelines described in the RUP for Small Projects review guidelines and checklists.

Any defects found during review which are not corrected prior to releasing for integration must be captured as Change Requests so that they are not forgotten.

**Reporting and Measurement**

Updated cost and schedule estimates, and metrics summary reports, will be generated at the end of each iteration.

The Minimal Set of Metrics, as described in the RUP [Guidelines: Metrics](file:///C:\process\modguide\md_metri.htm), will be gathered on a weekly basis. These include:

Earned value for completed tasks. This is used to re-estimate the schedule and budget for the remainder of the project, and/or to identify need for scope changes.

Total defects open and closed – shown as a trend graph. This is used to help estimate the effort remaining to correct defects.

Acceptance test cases passing – shown as a trend graph. This is used to demonstrate progress to stakeholders.

In addition, overall costs will be monitored against the project budget.

**Risk Management**

Risks will be identified in Inception Phase using the steps identified in the RUP for Small Projects activity “Identify and Assess Risks”. Project risk is evaluated at least once per iteration and documented in this table. The risks of the greatest magnitude are listed first in the table.

|  |  |  |
| --- | --- | --- |
| **Risk Ranking (High, Medium, Low)** | **Risk Description and Impact** | **Mitigation Strategy and/or Contingency Plan** |
|  |  |  |

**Configuration Management**

Appropriate tools will be selected which provide a database of Change Requests and a controlled versioned repository of project artifacts.

All source code, test scripts, and data files are included in baselines. Documentation related to the source code is also included in the baseline, such as design documentation. All customer deliverable artifacts are included in the final baseline of the iteration, including executables.

The Change Requests are reviewed and approved by one member of the project, the Change Control Manager role.

Full backups are performed monthly and incrementals are performed nightly.

# Annexes

[Additional material of use to the reader of the **Software Development Plan**. Reference or include any project technical standards and plans which apply to this project. This typically includes the Development Case, plans for infrastructure, and product acceptance. It also typically includes Programming Guidelines, Design Guidelines, and other process guidelines. The text that follows is provided as an example.]

The project will follow the RUP for Small Projects process, as tailored by the project Development Case.

Other applicable process plans are listed in the references section, including Programming Guidelines.