SMART COMPANY

Android Project - Geo location based Service finder for User Needs (GSUN) Development Case

Version 1.0

Revision History

Date	Version	Description	Author
31/12/2011	1.0	Initial Development Case	B.S. Wijeweera

Table of Contents

Development Case

1. Introduction

1.1 Purpose

This document presents the manner in which the RUP development methodology will be used for the Geo location based Service finder for User Needs (GSUN).

1.2 Scope

This development case applies to the Inception, Elaboration, Construction, and Transition phases of the Geo location based Service finder for User Needs (GSUN) project.

1.3 Definitions, Acronyms, and Abbreviations

- Artifacts are deliverables produced during various activities.
- RUP is the Rational Unified Process, a software development methodology.

1.4 References

None

1.5 Overview

The remainder of this document describes ways in which the RUP will be adapted for this project. Where the RUP will be used as is, this is so noted.

Section 2 contains an overview of the development process, including project management and quality assurance activities. Section 3 describes the iteration workflows for the Elaboration and Construction phases. Section 4 describes Business Modeling workflows.

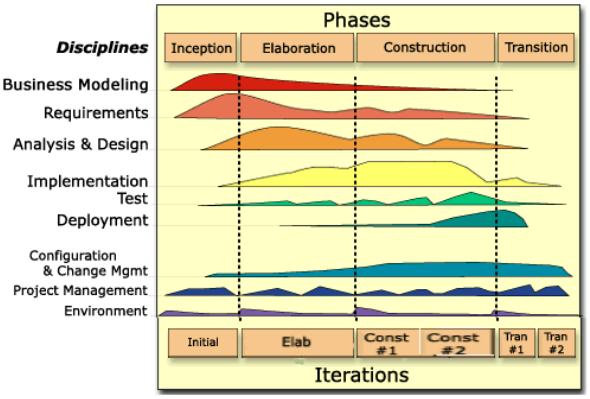
2. Overview of the Development Case

2.1 Lifecycle Model

The lifecycle adopted is that defined by the Rational Unified Process. This project will consist of a full Inception phase, an Elaboration phase, a two-iteration Construction phase, and a full Transition phase. Design and code reviews will take place at key iteration milestones, and project quality reviews will be conducted at the end of each phase.

2.2 Disciplines

- Business Modeling
- Requirements Overview
- Analysis and Design
- Implementation
- Test
- Deployment
- Configuration and Change Management
- Project Management
- Environment



2.3 Discipline Configuration

The purpose of this section is to explain how the discipline configuration works. This includes an explanation of the purpose for the various tables and for each of the sections that describe the various disciplines listed in the section titled *Disciplines*.

2.3.1 Workflow

This section needs to detail any changes made to the structure of the workflow itself. Typical changes include adding activities to describe company-specific ways of working, or removing activities.

2.3.2 Artifacts

Using a tabular format, this section describes how the artifact will be used. Additional 'local' artifacts can be added to the table as needed.

The Artifacts Section defines the artifact set to be used and qualifies how each artifact is used across the process lifecycle.

The table includes all the RUP artifacts to be used as well as any additional "local artifacts" required to support the process configuration.

If an RUP artifact is not going to be used then it is moved to the "not used" table in the Notes on the Artifacts Section below.
The Artifacts table below shows the layout of the table's columns. It is followed by a table describing the purpose of each of the columns.

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			

2.3.2.1 Explanation of the table

Column Name	Purpose	Contents/Comments
Artifacts	The name of the artifact.	A reference to the artifact in the Rational Unified Process or to a local artifact definition held as part of the development case.
How to Use	Qualify how the artifact is used across the lifecycle.	Decide for each phase: • Must have • Should have • Could have

		• Won't have These are defined in Guidelines: Classifying Artifacts.
Review Details	Define the review level, and review procedures to be applied to the artifact.	Decide on the review level: • Formal-External • Formal-Internal • Informal • None For details see Guidelines: Review Levels. Also add a reference to the definition and detail of the relevant review procedures. The reference could point to either the Rational Unified Process or to the general Review Procedure section in the Development Case. More specific review procedures are defined under the subsection titled *Additional Review Procedures*.
Tools Used	Definition of the tool (or tools), used to produce the artifact.	References to the details of the tools used to develop and maintain this artifact.
Templates/Examples	The templates to be used and examples of artifacts using the templates.	References to templates and examples. This could be referenced to either the templates and examples in the Rational Unified Process, or to local templates and examples. This column may also contain references to actual artifacts that provide additional help to the project members.

2.3.3 Notes on Artifacts

This section has three main purposes:

- It contains a list all artifacts that you **Won't** use and the motives behind your decision for not using them.

- It contains a reference to the project's *Configuration Management Plan*, which describes the configuration management strategy to be used when working on these artifacts. The *Configuration Management Plan* allows developers to answer questions such as:
  - When do I release my artifact?
  - Where do I put my newly created or modified artifact?
  - Where do I find existing artifacts for the project?
- If the Development Case is a an organization-level development case, this is where you add notes on what each project will consider when they decide what to do with the artifact. Used the predefined table below as a starting point.

Artifacts	How to Use	Reason

2.3.4 Reports

This section lists the reports to be used. Additional local reports are added to the table as needed.

Reports	How to Use	Templates/Examples	Tools Used

2.3.5 Notes on the Reports

This section has two purposes. First, it will list all reports that the project has decided it **Won't** use and the motives behind why it decided not to use them. Secondly, if the Development Case is an organization-level use case, this is where you add notes on what each project needs to consider when they decide what to do with the report.

2.3.6 Additional Review Procedures

This section captures any additional review procedures that are required for the artifacts used in the discipline. These supplement the general Review Procedures described in the *Overview* section of this document.

2.3.7 Other Issues

This section captures any outstanding issues with the discipline's configuration and can be used as an issues list when the Development Case is being built.

2.3.8 Configuring the Discipline

This section is used if the Development Case is an organization-level development case. This section contains references to helpful information for use when configuring the discipline. This section can be removed by a project.

2.4 Artifact Classification

An artifact is a deliverable of the process. It is often developed within one core workflow, although there are exceptions. The artifacts are organized in the workflow where they are created. To describe how an artifact will be used, we use the following classification scheme:

- **Must**
- **Should**
- **Could**
- **Won't**

2.5 Review Procedures

The project uses the following review levels:

- Formal-External
- Formal-Internal
- Informal
- None

2.6 Sample Iteration Plans

2.6.1 Inception Phase

- Sample Iteration Plan: Inception Phase

2.6.2 Elaboration Phase

To be defined later in the project.

2.6.3 Construction Phase

To be defined later in the project.

2.6.4 Transition Phase

To be defined later in the project.

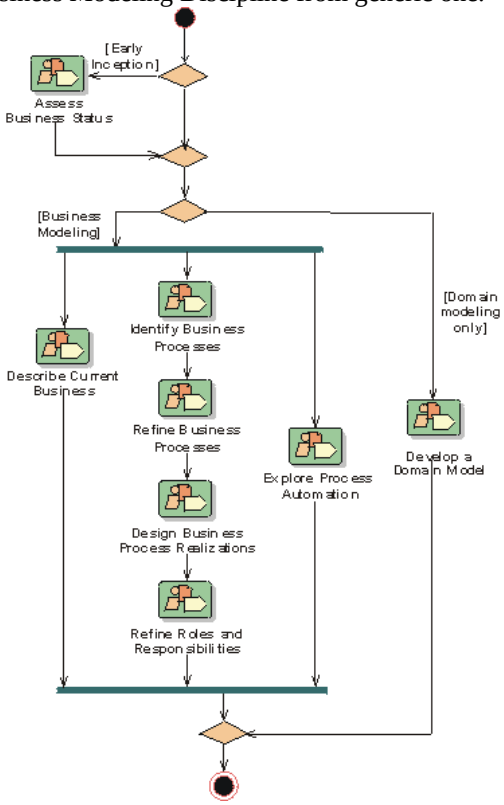
3. Disciplines

3.1 Business Modeling

According to this project the whole Business Modeling Discipline is optional. So to all Artifacts are classified as optional.

3.1.1 Workflow

There no formal changes in the Business Modeling Discipline from generic one.



3.1.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Business Architecture Document	Could	Could	Could	Could	None	Template: Business Architecture Document
Business Glossary	Could	Could	Could	Could	None	Template: Business Glossary
Business Object Model	Could	Could	Could	Could	None	Template: Business Object Model
↳ Business Entity	Could	Could	Could	Could	None	↳ Embedded
↳ Business Worker	Could	Could	Could	Could	None	↳ Embedded
↳ Business Use Case Realization	Could	Could	Could	Could	None	↳ Embedded
↳ Business Use Case Realization Specification	Could	Could	Could	Could	None	↳ Template: Business Use-Case Realization Specification
↳ Organization Unit	Could	Could	Could	Could	None	↳ Embedded
Business Use Case Model	Could	Could	Could	Could	None	Template: Business Use-Case Model
↳ Business Actor	Could	Could	Could	Could	None	↳ Embedded
↳ Business Use Case	Could	Could	Could	Could	None	↳ Embedded
↳ Business Use Case Specification	Could	Could	Could	Could	None	Template: Business Use-Case Specification
Business Vision	Could	Could	Could	Could	None	Template: Business Vision
Supplementary Business Specification	Could	Could	Could	Could	None	Template: Supplementary Business Specification
↳ Business Rules	Could	Could	Could	Could	None	Template: Business Rules
Target-Organization Assessment	Could	Could	Could	Could	None	Template: Target-Organization Assessment

3.1.3 Notes on the Artifacts

All templates are refered to RUP templates

3.1.4 Reports

Reports	How to Use	Tools Used/ Templates/ Examples
Business Actor	Could	Template: Business Actor Report
Business Entity	Could	Template: Business Entity Report
Business Object Model Survey	Could	Template: Business Object Model Survey
Business Use-Case	Could	Template: Business Use Case Report
Business Use-Case Realization	Could	Template: Business Use Case Realization Report
Business Use-Case Model Survey	Could	Template: Business Use Case Model Survey
Business Worker	Could	Template: Business Worker Report

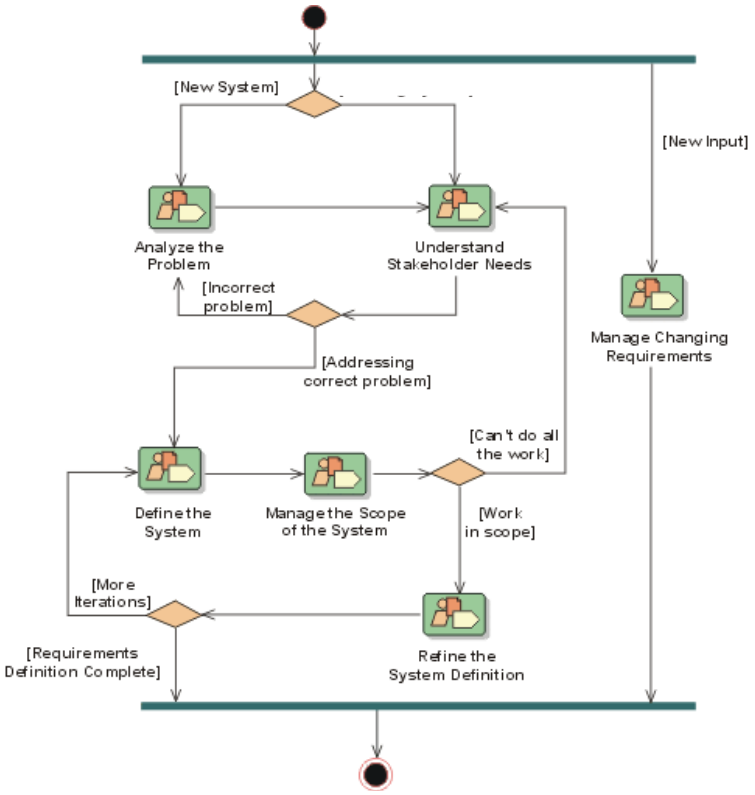
3.1.5 Notes on the Reports

Standard RUP actor and Use case Reports are used.

3.2 Requirements

According to this project some parts of Requirements Discipline are optional. Therefore some Artifacts are classified as optional and important ones are classified as must.

3.2.1 Workflow



3.2.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Glossary	Could	Could	Could	Could	None	Template: Glossary
Requirements Attributes	Must	Must	Must	Must	None	Template: Requirements Attributes
Requirements Management Plan	Could	Could	Could	Could	None	Template: Requirements Management Plan
Software Requirements Specification	Must	Must	Must	Must	Formal-External	Template: Software Requirements Specification
Supplementary Specification	Could	Could	Could	Could	None	Template: Supplementary Specification
Use-Case Model	Could	Must	Must	Must	None	Template: Use-Case Model
Actor	Could	Could	Could	Could	None	↳ Embedded
Use Case	Could	Must	Must	Must	None	↳ Embedded
Use-Case Specification	Could	Could	Could	Could	None	Template: Use-Case Specification
Use-Case Package	Could	Could	Could	Could	None	↳ Embedded

Stakeholder Requests	Won't	Won't	Won't	Won't	None	Template: Stakeholder Requests
Use-Case Storyboard	Could	Could	Could	Could	None	Embedded in the Analysis Model
↳ Boundary Class	Won't	Won't	Won't	Won't	None	↳ Embedded.
User-Interface Prototype	Could	Could	Could	Could	Formal-Internal	Template: User Interface Prototype
Vision	Must	Must	Must	Must	Formal-External	Template: Vision

3.2.3 Notes on the Artifacts

Templates are referred to RUP templates.
In here External means Project coordinators.

3.2.4 Reports

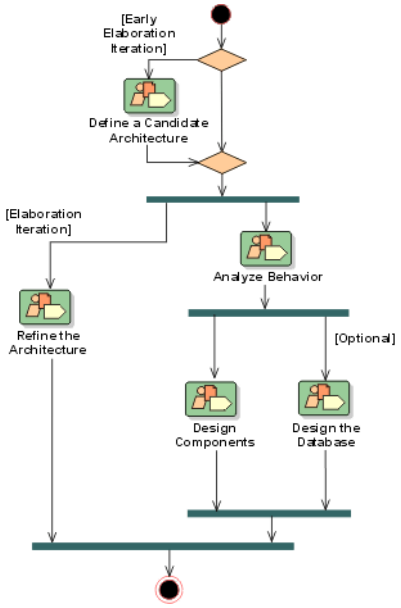
Reports	How to Use	Tools Used/ Templates/ Examples
Actor	Could	Template: Actor Report
Use-Case	Could	Template: Use Case Report
Use-Case Model Survey	Won't	Template: Use-Case Model Survey
Use-Case Storyboard	Won't	Template: Use-Case Storyboard Report

3.2.5 Notes on the Reports

None

3.3 Analysis & Design

3.3.1 Workflow



3.3.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Analysis Model *1	Could	Should	Won't	Won't	Formal-Internal	Template: Analysis Model
Data Model	Could	Must	Must	Must	Formal-Internal	Template: Data Model
Deployment Model	Could	Must	Must	Must	Formal-Internal	Template: Deployment Model
Design Model	Could	Must	Must	Must	Formal-Internal	Template: Design Model
↳ Analysis Class *2	Could	Could	Could	Won't	Informal	↳ Embedded.
↳ Design Class	Could	Must	Must	Must	Informal	↳ Embedded.
↳ Design Package	Could	Must	Must	Must	Formal-Internal	↳ Embedded.
↳ Design Subsystem	Could	Could	Could	Could	Formal-Internal	↳ Embedded.
↳ Interface	Could	Could	Could	Could	Formal-Internal	↳ Embedded.
↳ Use-Case Realization *3	Could	Could	Could	Could	Formal-Internal	↳ Embedded.
Reference Architecture	Could	Could	Could	Could	Formal-External	Uses SAD template see Template: Software Architecture Document
Software Architecture Document (SAD)	Could	Must	Must	Must	Formal-External	Template: Software Architecture Document

3.3.3 Notes on the Artifacts

- Note 1: The analysis model is a temporary artifact containing analysis classes that have yet to be allocated / integrated into the Design Model.
- Note 2: During Inception and Elaboration analysis classes may be part of the Analysis Model. As the design is taken forward the analysis classes will be integrated into the Design Model and matured into design elements. During Construction analysis classes may still be used when performing use case analysis but the analysis model itself will no longer be in use.
- Note 3: Use-case realizations may also be part of the analysis model.

The following RUP artifacts are not used:

Artifact	How To Use	Clarification
Capsule	Won't	Real time systems are not being developed.
Event	Could	User has interaction with the system.
Protocol	Could	Connecting to web application.
Signal	Won't	Real time systems are not being developed.

3.3.4 Reports

Reports	How to Use	Tools Used/ Templates/ Examples
Class Report	Could - Casual - a work report	Template- Class Report
Design-Model Survey	Should - Use for review purposes as needed.	Template- Design Model Survey
Design Package / Sub-system	Should - Use for review purposes as needed.	Template- Design Package / Sub-system Report
Use-Case Realization	Should - Use for review purposes as needed.	Template- Use-Case Realization Report

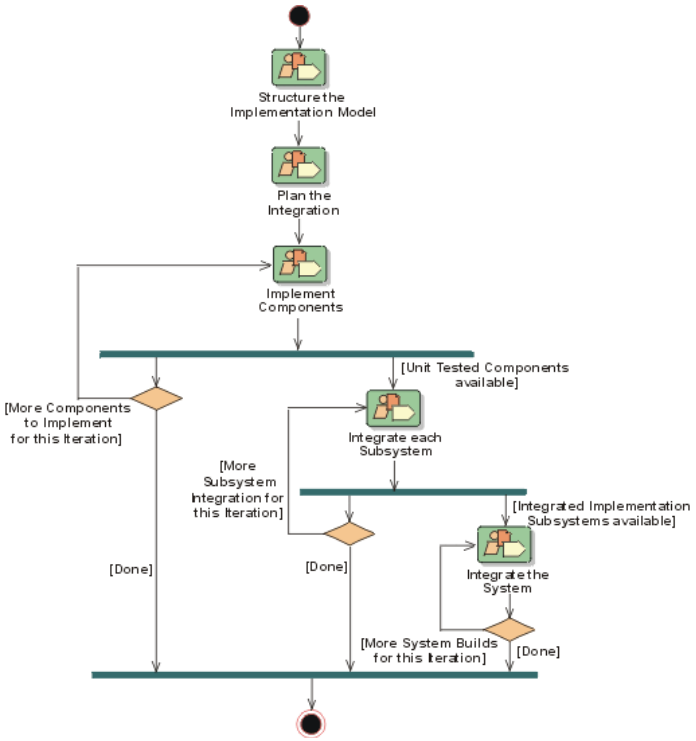
3.3.5 Notes on the Reports

None

3.4 Implementation

No changes are made to formal procedure of Implementation Discipline.

3.4.1 Workflow



3.4.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Implementation Model	Won't	Won't	Won't	Won't	None	Template- Implementation Model
↳ Build	Won't	Won't	Won't	Won't	None	↳ Embedded
↳ Implementation Subsystem	Won't	Won't	Won't	Won't	None	↳ Embedded
↳ Component	Won't	Won't	Won't	Won't	None	↳ Embedded
Integration Build Plan	Won't	Won't	Won't	Won't	None	Template: Integration Build Plan
Software Architecture Document(Implementation View)	Could	Must	Must	Must	Formal-External	Template: Software Architecture Document

3.4.3 Notes on the Artifacts

None

3.4.4 Reports

Reports	How to Use	Tools Used/ Templates/ Examples
Weekly Reports	Must	Microsoft word

3.4.5 Additional Review Procedures

Mid-term demonstration is scheduled.

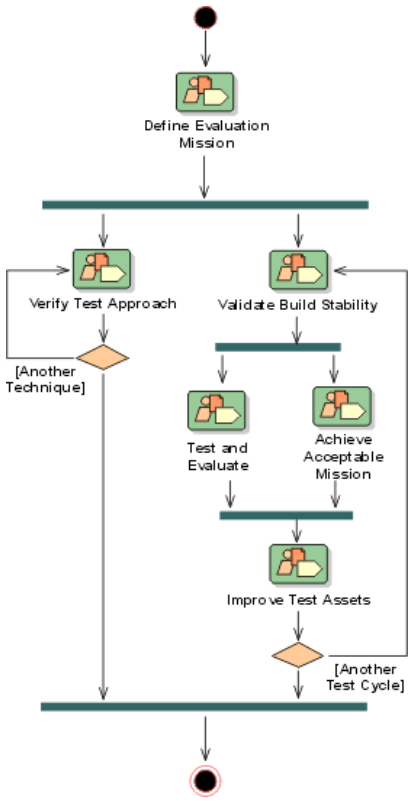
3.4.6 Other Issues

- Code Reviews - all code reviewed informally
- Unit Test Coverage - see the test plan

3.5 Testing

There are no formal changes to the Test Discipline

3.5.1 Workflow



3.5.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Test Evaluation Summary	Could	Must	Must	Must	Formal-Internal	Template: Test Evaluation Summary
Test Package	Could	Could	Should	Should	None	IDE, Embedded in the Design Model
↳ Test Class	Could	Could	Should	Should	None	↳ Embedded.
Test Subsystem	Could	Could	Should	Should	Formal-Internal	Embedded in the Implementation Model
↳ Test Component	Could	Could	Should	Should	Informal	↳ Embedded.
Test Suite	Could	Must	Must	Must	Formal-Internal	IDE, Template: Test Suite
↳ Test Case	Could	Must	Must	Must	Formal-Internal	↳ Embedded.
↳ Test Script	Could	Must	Must	Must	None	↳ Embedded.
Test Plan	Should	Must	Must	Must	Formal-External	Template- Test Plan
Test Results	Could	Must	Must	Must	Formal-External	Template- Test Results
Workload Analysis Document	Won't	Won't	Won't	Won't	None	Template: Workload Analysis Document

3.5.3 Notes on the Artifacts

Plan for unit, system and integration testing are included in Q & A plan report.

3.5.4 Reports

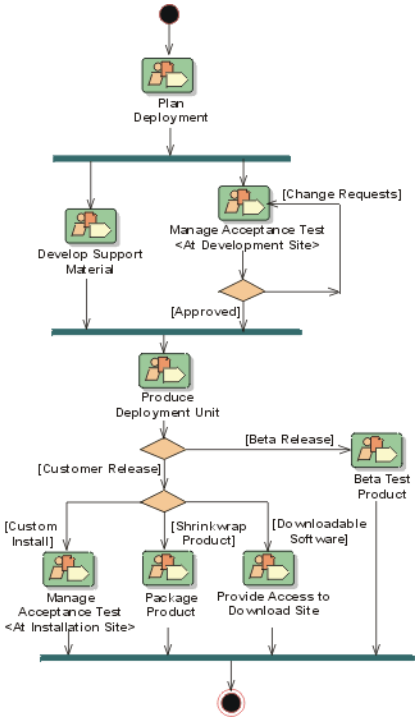
Reports	How to Use	Tools Used / Templates/ Examples
Test Survey	Won't	Template: Test Survey

3.5.5 Notes on the Reports

None

3.6 Deployment

3.6.1 Workflow



3.6.2 Artifacts

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Bill of Materials	Won't	Won't	Won't	Won't	None	Microsoft® Word™. See RUP Template: Bill of Materials.
Deployment Plan	Won't	Should	Must	Must	Formal-External	Microsoft® Word™. See RUP Template: Deployment Plan.
Product	Won't	Should	Must	Must	None	IDE
↳ Deployment Unit	Won't	Should	Must	Must	None	Microsoft® Word™
↳ End-User Support Material	Won't	Won't	Won't	Won't	None	Microsoft® Word™
↳ Installation Artifacts	Won't	Won't	Must	Must	None	Microsoft® Word™
↳ Release Notes	Won't	Won't	Must	Must	None	Microsoft® Word™. See RUP Template Release Notes.
↳ Product Artwork	Won't	Won't	Won't	Won't	None	Microsoft® Word™
Training Materials	Won't	Won't	Won't	Won't	None	Microsoft® Word™, Microsoft® PowerPoint™

3.6.3 Notes on the Artifacts

None

3.6.4 Reports

None

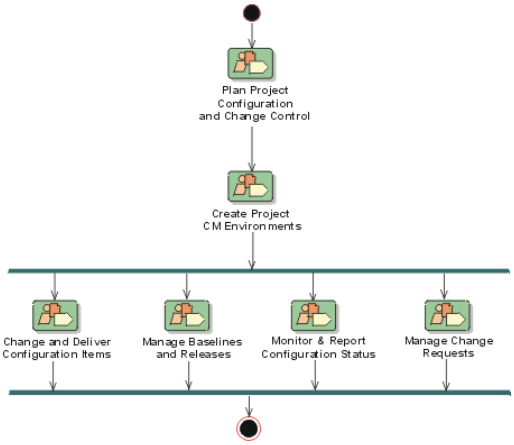
3.6.5 Notes on the Reports

None

3.7 Configuration & Change Management

This is a small individual project. Therefore Configuration & Change Management Discipline won't involve.

3.7.1 Workflow



3.7.2 Artifacts

Artifacts	How to use				Review Details	Templates/ Examples
	Incep	Elab	Const	Trans		
Change Request	Won't	Won't	Won't	Won't	None	Rational®ClearQuest™. SeeRUP Tool Mentor: Establish the Change Request Process.
Configuration Audit Findings	Won't	Won't	Won't	Won't	None	Microsoft® Word™
Configuration Management Plan	Won't	Won't	Won't	Won't	None	Microsoft® Word™. See RUP Template: Configuration Management Plan
Project Repository	Won't	Won't	Won't	Won't	None	Rational® ClearCase™
Workspace	Won't	Won't	Won't	Won't	None	Rational® ClearCase™

3.7.3 Notes on the Artifacts

None

3.7.4 Reports

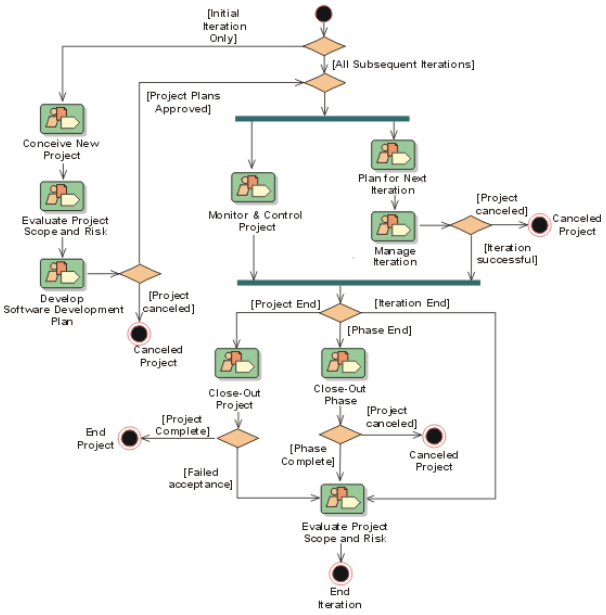
None

3.7.5 Notes on the Reports

None

3.8 Project Management

3.8.1 Workflow



3.8.2 Artifacts

Planning

Artifacts	How to use				Review Details	Tools Used/ Templates / Examples
	Incep	Elab	Const	Trans		
Business Case	Could	Could	Could	Could	None	Template: Business Case
Iteration Plan	Must	Must	Must	Must	Formal-Internal	Template: Iteration Plan
Risk Management Plan	Must	Must	Must	Must	Formal-External	Template: Risk Management Plan
Risk List	Must	Must	Must	Must	Formal-External	Template: Risk List
Software Development Plan	Must	Must	Must	Must	Formal-External	Template: Software Development Plan
↳ Measurement Plan	Could	Could	Could	Could	None	Template: Measurement Plan
↳ Problem Resolution Plan	Could	Could	Could	Could	None	Template: Problem Resolution Plan
↳ Product Acceptance Plan	Should	Must	Must	Must	None	Template: Product Acceptance Plan
↳ Quality Assurance Plan	Could	Could	Could	Could	Formal-External	Template: Quality Assurance Plan

Control

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Iteration Assessment	Must	Must	Must	Must	Formal-Internal	Template: Iteration Assessment
Project Measurements	Should	Must	Must	Must	Formal-External	Template: Project Measurements
Review Record	Could	Could	Could	Could	None	Template: Review Record
Status Assessment	Could	Should	Should	Should	None	Template: Status Assessment

3.8.3 Notes on the Artifacts

No artifacts are used.

Artifact	How To Use	Reason
Work Order	Won't	Project team is small. Work orders are communicated informally during weekly team meetings and via the iteration plans.

3.8.4 Reports

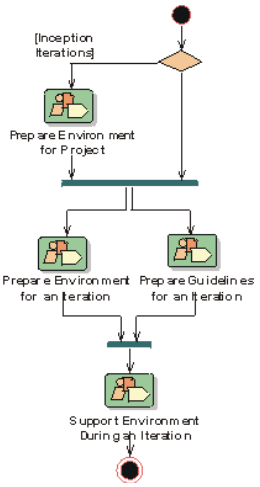
None

3.8.5 Notes on the Reports

None

3.9 Environment

3.9.1 Workflow



3.9.2 Artifacts

Process Engineering

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Development Case	Must	Must	Must	Must	Formal-External	Template: Development Case
Development-Organization Assessment	Won't	Won't	Won't	Won't	None	Template: Development-Organization Assessment

Templates

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Project-Specific Templates	Won't	Won't	Won't	Won't	None	Template: Project Specific Templates

Guidelines

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Business Modeling Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines
Design Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines
Manual Styleguide	Won't	Won't	Won't	Won't	None	Template: Guidelines
Programming Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines
Test Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines
Use-Case Modeling Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines
User-Interface Guidelines	Won't	Won't	Won't	Won't	None	Template: Guidelines

Infrastructure and Tools

Artifacts	How to use				Review Details	Tools Used/ Templates/ Examples
	Incep	Elab	Const	Trans		
Development Infrastructure	Won't	Won't	Won't	Won't	None	Documented using Microsoft® FrontPage™
↳ Tools	Won't	Won't	Won't	Won't	None	Documented using Microsoft® FrontPage™
↳ Tool Guidelines	Won't	Won't	Won't	Won't	None	Template: Tool Guidelines

3.9.3 Notes on the Artifacts

As this is an individual small project many of the Artifacts are not produced and reviewed in Environment Discipline.

3.9.4 Reports

None

3.9.5 Notes on the Reports

None

4. Roles

Since this is a small project, only 2 parties are involved in this project.

- System Developer - People who develop and maintain system. The system developers will be responsible for ensuring the format contains the necessary Meta data to allow constructing a parser that will be capable of building checks.
- Project Coordinators - People who keep track of the project progress. The project coordinators are responsible for evaluating the development of the project time to time and assisting developer to the best. And they should test the project qualities and standards.