JagTrack
Development Case

Version 2.0

Revision History

Date	Version	Description	Author
09/Feb/12	1.0	Document Creation	Hayden Chudy
19/Mar/12	2.0	Release Version	Hayden Chudy

Table of Contents

Development Case

1. Introduction

1.1 Purpose

This document describes how the JagTrack team has tailored the RUP process to fit their needs. It covers the artifacts, their assignments, due dates, and review process. It also lists and details all discipline configurations.

1.2 Scope

This development case concerns the JagTrack Android application. It serves as a guide for the team's processes and procedures.

1.3 Definitions, Acronyms, and Abbreviations

- Assigned Discipline – The particular discipline that was assigned to complete the artifact and/or task.
- Office (Tools Category) – Refers to any general office suite product (word processor, presentation program, etc.) used to produce the document. Examples include: LibreOffice and Microsoft Word.
- UML (Tools Category) – Refers to any general UML creation tool. Examples include: Visual Paradigm and Microsoft Visio.

1.4 References

Configuration Management: Project Management/JT-cm_plan.docx

1.5 Overview

The remainder of the document covers the Lifecycle Model, the Disciplines and their configurations, further explanations on this article, the artifact classification (when each artifact should/must/could/won't be done by), the review process for artifacts, and a list of all artifacts from each discipline.

2. Overview of the Development Case

2.1 Lifecycle Model

The primary milestone for this Inception iteration was an LCO briefing for the project with a primary stakeholder. The date of the milestone was March 20, 2012. The entire development team was broken up into groups and each were assigned a specific category of artifacts, with one team member per group completing an artifact by themselves.

2.2 Disciplines

Project Leaders – Robert Fornof, Hayden Chudy. Project co-managers, tasked with organizing assignments, teams, setting deadlines, and processing submissions.

Requirements and Analysis – Two teams. Team one: He Zhang, Weijian Jiang, Jim Fletcher. Leader: Xingyu Wang. Team two: Chase Bryant, Hao Wu, Rujie Yuan, Sumit Shrestha. Leader: Kathleen (KD) Wilson. These two teams are tasked with gathering the requirements, functional and nonfunctional, of the system. They will also transition into design teams in later iterations, as such they were given other design related artifacts.

Quality Assurance – Caleb Hall, Christopher Camp (team leader). Team tasked with ensuring the overall quality of both the project and the software engineering process. Will be tasked with reviewing the processes of the team.

Configuration Management – Matthew Cooper (away on service), Matthew Nguyen (team leader). Team tasked with overseeing the process of creating the software and managing versions. Will document team's overall approach to both aspects.

Testing & Security – Shanna Keith, Leyue Wang, Brad Bittinger, Adam Moore (team leader). Team tasked with ensuring risks are discovered and accounted for. Will later be charged with creating and writing tests for the software and ensuring security concerns are handled.

Technology & Tool Integration – Ray Bigelow, Christopher Johnson (team leader). Will be tasked with creating prototypes and planning for each iteration. Additionally, will be responsible for any future tool integration tasks (i.e. teach the team to use a tool).

2.3 Discipline Configuration

Project Leaders – Setup as co-managers. Communicate via e-mail and phone. Main job is assigning artifacts to other disciplines, ensuring those artifacts get assigned to individual members, and setting deadlines for when those artifacts are due. Further duties include reminding other team members about their deadlines and ensuring everything gets done in time. They also have the job of compiling all artifacts and slides into one document or presentation by the milestone dates.

Requirements and Analysis – Both teams are independent and largely communicate with each other via e-mail. One team focused more on the non-functional requirements, while the other focused more on the domain modeling and the candidate architecture. Use cases were split evenly between the teams.

Quality Assurance – Small team. Mainly uses face to face communication and e-mail. Tasked with determining the business plan in addition to the quality assurance work.

Configuration Management – One man team now. Given the task of Software Development Plan.

Testing & Security – Wild Card team for the inception phase. Were tasked with dealing with risks, but due to their large number of people, they were given more unrelated artifacts, such as the CM Plan and the Business Rules artifact. Mainly communicated via e-mail.

Technology & Tool Integration – Very small team. Worked on unrelated artifacts, so little communication between them was required. Most communication between the team's only member besides the group leader, came through Project Leaders. Group's leader was given the prototype to design.

2.3.1 Workflow

The major changes to the flow of the project is the omission of reports and audits for both code and artifacts. Due to the size of the team, the limited time we have, and the small amount of coding we will do, removing them seemed reasonable.

2.3.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
JagTrack Development Case	S	M	M	M	Formal-External	LibreOffice Writer	environ/rup_devcs.dot

2.3.2.1 Explanation of the table

Column Name	Purpose	Contents/Comments
Artifacts	JagTrack Development Case	From template: rup_devcs.dot
How to Use	This artifact is used to document and describe the software engineering approach used in this project. It lists changes to the RUP process and workflow	This artifact is required in every phase.
Review Details	Review level: Formal-External, Formal-Internal	See section 2.5 for a definition and list of review procedures.
Tools Used	This entire document was written in LibreOffice Writer (Office).	LibreOffice Writer is open source software available from: www.libreoffce.org. It uses the Open Document Format for Office Applications (ODF).
Templates/Examples	Major template used for this artifact: rup_devcs.dot	

2.3.3 Notes on Artifacts

For Configuration Management Plan see: Project Management/JT-cm_plan.docx

Artifacts	How to Use	Reason
Configuration Management Plan	Reference	Use is to document and elucidate the rules for uploading a document to the project repository

2.3.4 Additional Review Procedures

Document will be made into a presentation and graded by primary stakeholder.

2.3.5 Other Issues

Teams for later iterations need to be configured and documents assigned.

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 and when it is due, we use the following classification scheme:

- **Must (M) – The artifact must be delivered by the end of this phase. It is required.**
- **Should (S) – Ideally, the artifact will be done by th end of this phase, though it is not required.**
- **Could (C) – It is possible that this artifact could be done by the end of this phase, though not required or prioritized.**
- **Won't (W) – It is not possible that this artifact will be done by the end of this phase. It is either too large or too early in the process to complete it.**

2.5 Review Procedures

The project uses the following review levels:

- Formal-External – Document is to be reviewed by primary stakeholder, Dr. Todd McDonald.
- Formal-Internal – Document to be reviewed by project's projects managers. This includes review by either Hayden Chudy, Robert Fornof, or both.
- Formal-Interdisciplinary – Document to be reviewed by the assigned discipline's team leader.
- Informal – Document to be reviewed by any internal project member. Document must be reviewed however.
- None – Document does not need review

2.6 Sample Iteration Plans

2.6.1 Inception Phase

First plan used:

Iteration Plan – by Ray Bigelow (see: Project Management/Ray Bigelow Iteration Plan.odt)

2.6.2 Elaboration Phase

None yet.

2.6.3 Construction Phase

None yet.

2.6.4 Transition Phase

None yet.

3. Disciplines

3.1 Project Managers

3.1.1 Workflow

Development Case:	Hayden Chudy.
Glossary:	Robert Fornof.
Iteration Plan:	Ray Bigelow (from Technology & Tool Integration).
Vision:	Robert Fornof.

3.1.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Development Case	M	M	M	M	Formal-External, Formal-Internal	Office	environ/rup_devcs.dot
Glossary	S	M	M	M	Formal-External, Formal-Internal	Office	None
Iteration Assessment	C	S	M	M	TBD	TBD	
Iteration Plan	M	M	M	M	Formal-External, Formal-Internal	Office	mgmnt/rup_itpln.dot
Measurement Plan	W	C	S	M	TBD	TBD	
Problem Resolution Plan	W	C	S	M	TBD	TBD	
Product Acceptance Plan	W	C	S	M	TBD	TBD	
Project Measurements	W	C	S	M	TBD	TBD	
Review Record	W	C	S	M	TBD	TBD	
Status Assessment	W	C	S	M	TBD	TBD	
Vision	M	M	M	M	Formal-External, Formal-Internal	Office	req/rup_vision.dot
Work Order	W	C	C	M	TBD	TBD	

3.1.3 Notes on the Artifacts

Artifacts	How to Use	Reason
Glossary	As a dictionary for project terms	The glossary was created to be a comprehensive database of all the terms that would be used throughout the project.

3.1.4 Additional Review Procedures

3.1.5 Other Issues

3.1.6 Configuring the Discipline

The project began with Robert as the single project manager. As the scale and scope of the project became larger and more apparently so, the primary stakeholder deemed it appropriate to promote a second leader, which was Hayden Chudy.

3.2 Requirements and Analysis

3.2.1 Workflow

Domain Model: KD Wilson.
Stakeholder Requests: Sumit Shrestha, Ruijie Yuan.
Software Requirements Specification: Xingyu Wang, He Zhang.
Supplementary Specifications: Jim Fletcher, Weijian Jiang.
Use Case: All team members.
Use-Case Model: All team members.
Fully Dressed Use Cases: Chase Bryant, Xingyu Wang.

3.2.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Actor	W	S	M	M	TBD	TBD	None
Boundary Class	W	S	M	M	TBD	TBD	None
Domain Model	M	M	M	M	Formal-External, Formal-Internal	UML	None
Fully Dressed Use Cases	M	M	M	M	Formal-External, Formal-Internal	UML, Office	None
Stakeholder Requests	S	M	M	M	Formal-External, Formal-Internal	Office	req/rup_stkreq.dot
Software Requirements Specification	S	M	M	M	Formal-External, Formal-Internal	Office	req/rup_srs.dot
Supplementary Specification	S	M	M	M	Formal-External, Formal-Internal	Office	req/rup_sspec.dot
Use Case	S	M	M	M	Formal-External, Formal-Internal	Office	None
Use-Case Model	S	M	M	M	Formal-External, Formal-Internal	UML	None
Use-Case Package	W	C	M	M	TBD	TBD	None
Use-Case Storyboard	W	C	M	M	TBD	TBD	None

3.2.3 Notes on the Artifacts

Artifacts	How to Use	Reason
Fully Dressed Use Cases	Typical Use Case	There will be two fully dressed use cases finished by the LCO.

3.2.4 Additional Review Procedures

3.2.5 Other Issues

3.2.6 Configuring the Discipline

R/A (requriements and analysis) group one began with Hayden Chudy as group leader. After his promotion to project co-manager, Xingyu Wang led group one for the remainder of the project. This discipline was split into two teams, giving us 9 individuals in total to work on R/A.

3.3 Design Team (Not Implemented in Inception)

3.3.1 Workflow

TBD and assigned by Elaboration.

3.3.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Analysis Class	W	S	M	M	TBD	TBD	
Analysis Model	W	S	M	M	TBD	TBD	
Capsule	W	C	S	M	TBD	TBD	
Deployment Model	W	C	S	M	TBD	TBD	
Data Model	W	S	M	M	TBD	TBD	
Design Class	W	S	M	M	TBD	TBD	
Design Model	W	S	M	M	TBD	TBD	
Design Package	W	S	M	M	TBD	TBD	
Design Subsystem	W	S	M	M	TBD	TBD	
Event	W	C	S	M	TBD	TBD	
Interface	W	C	S	M	TBD	TBD	
Protocol	W	C	S	M	TBD	TBD	
Reference Architecture	W	S	M	M	TBD	TBD	
Signal	W	C	S	M	TBD	TBD	
Software Architecture Document	W	S	M	M	TBD	TBD	
Use-Case Realization	W	S	M	M	TBD	TBD	

3.3.3 Notes on the Artifacts

Artifact	How to Use	Reason

3.3.4 Additional Review Procedures

3.3.5 Other Issues

3.3.6 Configuring the Discipline

Most of the requirements and analysis team members will likely end up here when the project progresses beyond Inception.

3.4 Implementation (QA Team and Technology & Tool Integration Team)

3.4.1 Workflow

Business Case: Caleb Hall.
Quality Assurance Plan: Chris Camp.
User-Interface Prototype: Christopher Johnson, Robert Fornof.

3.4.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Build	W	C	C	M	TBD	TBD	
Business Case	S	M	M	M	Formal-External, Formal-Internal	Office	mgmnt/rup_buscs.dot
Component	W	C	C	M	TBD	TBD	
Implementation Model	W	W	C	M	TBD	TBD	
Implementation Subsystem	W	W	C	M	TBD	TBD	
Integration Build Plan	W	C	M	M	TBD	TBD	
Quality Assurance Plan	S	M	M	M	Formal-External, Formal-Internal	Office	mgmnt/rup_qapln.dot
User-Interface Prototype	S	S	S	S	Formal-External, Formal-Internal	Eclipse	

3.4.3 Notes on the Artifacts

Artifacts	How to Use	Reason

3.4.4 Additional Review Procedures

3.4.5 Other Issues

3.4.6 Configuring the Discipline

Composed of two groups: Quality Assurance (leader: Christopher Camp) and Technology & Tool Integration (leader: Christopher Johnson).

3.5 Testing & Security

3.5.1 Workflow

Business Rules: Leyue Wang.
Risk List: Shanna Keith.
Risk Management Plan: Brad Bittinger.

Tests cases and other testing related documents will come in phases later than inception.

3.5.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Business Rules	S	M	M	M	Formal-Interdisciplinary	Office	bm/rup_brul.dot
Risk List	M	M	M	M	Formal-Interdisciplinary	Office	mgmnt/rup_rsklst.dot
Risk Management Plan	M	M	M	M	Formal-Interdisciplinary	Office	mgmnt/rup_rskpln.dot
Test Case	W	C	S	M	TBD	TBD	
Test Class	W	C	S	M	TBD	TBD	
Test Components	W	C	S	M	TBD	TBD	
Test Evaluation Summary	W	C	S	M	TBD	TBD	
Test Model	W	C	S	M	TBD	TBD	
Test Package	W	C	S	M	TBD	TBD	
Test Plan	W	C	S	M	TBD	TBD	
Test Procedure	W	C	S	M	TBD	TBD	
Test Results	W	C	S	M	TBD	TBD	
Test Script	W	C	S	M	TBD	TBD	
Test Subsystem	W	C	S	M	TBD	TBD	
Workload Analysis Document	W	C	S	M	TBD	TBD	

3.5.3 Notes on the Artifacts

Artifacts	How to Use	Reason

3.5.4 Additional Review Procedures

3.5.5 Other Issues

3.5.6 Configuring the Discipline

For the Inception phase, Adam Moore worked on the Configuration Plan mainly. The other group members focused on the artifacts assigned to Testing & Security.

3.6 Deployment

3.6.1 Workflow

Team not created yet, will come in later phases.

3.6.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Bill of Materials	W	C	M	M	TBD		
Deployment Plan	W	C	S	M	TBD		
Deployment Unit	W	C	S	M	TBD		
End-User Support Material	W	C	C	M	TBD		
Installation Artifacts	W	C	C	M	TBD		
Product	W	C	S	M	TBD		
Product Artwork	W	C	C	M	TBD		
Release Notes	W	C	S	M	TBD		
Training Materials	W	C	C	M	TBD		

3.6.3 Notes on the Artifacts

Artifacts	How to Use	Reason

3.6.4 Additional Review Procedures

3.6.5 Other Issues

3.6.6 Configuring the Discipline

Created by construction.

3.7 Configuration & Change Management

[See the section titled Discipline Configuration that describes what each of the following sections needs to contain.]

3.7.1 Workflow

Configuration Management Plan:	Adam Moore, Hayden Chudy.
Project Repository:	Creation: Hayden Chudy; Upkeep: All group members.
Software Development Plan:	Matthew Nguyen.
Workspace:	Christopher Johnson.

3.7.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Change Request	W	S	M	M	TBD	TBD	
Configuration Audit Findings	W	S	M	M	TBD	TBD	
Configuration Management Plan	S	M	M	M	Formal-External, Formal-Internal	Office	cm_mgt/rup_cmpln.dot
Project Repository	S	M	M	M	Informal	GitHub	None
Software Development Plan	S	M	M	M	Formal-External, Formal-Internal	Office	mgmnt/rup_sdpln.dot
Workspace	S	M	M	M	Formal-External, Informal	Eclipse Project	None

3.7.3 Notes on the Artifacts

Artifacts	How to Use	Reason

3.7.4 Additional Review Procedures

3.7.5 Other Issues

3.7.6 Configuring the Discipline

Matthew Cooper (the original leader of the CM team), had to leave for military training early into the project. This brought his group down to one member, making him the group leader. Creating the CM Plan was moved to the leader of Testing & Security, Adam Moore, and a Project Leader, Hayden Chudy.

3.8 Artifacts To Be Assigned

3.8.1 Workflow

These artifacts have not been assigned to any discipline yet.

3.8.2 Artifacts

Artifacts	How to Use				Review Details	Tools Used	Templates/ Examples
	Incep	Elab	Const	Trans			
Business Actor	W						
Business Architecture Document	W						
Business Entity	W						
Business Glossary	W						
Business Modeling Guidelines	W						
Business Object Model	W						
Business Use Case	W						
Business Use-Case Model	W						
Business Use-Case Realization	W						
Business Vision	W						
Business Worker	W						
Design Guidelines	W						
Development Infrastructure	W						
Development-Organization Assessment	W						
Manual Styleguide	W						
Organization Unit	W						
Project-Specific Templates	W						
Programming Guidelines	W						
Supplementary Business Specification	W					Office	bm/rup_sbs.dot
Target-Organization Assessment	W					Office	bm/rup_tarorgass.dot
Test Guidelines	W						
Tools	W						

Tool Guidelines	W						
Use-Case Modeling Guidelines	W						
User-Interface Guidelines	W						

3.8.3 Notes on the Artifacts

Artifacts	How to Use	Reason

4. Roles

[This section is used for the following purposes:

- *To describe any changes in the set of roles; for example, it is common to refine the role Stakeholder into more than one role.*
- *To map job positions in the organization to the roles in the Rational Unified Process. The reason for this is that in some development organizations there are job positions defined. If these job positions are commonly used and have a wide acceptance within the organization, it may be worth doing a mapping between the roles in the Rational Unified Process and the job positions in the organization. Mapping job positions to roles makes it easier for people in the organization to understand how to employ the Rational Unified Process. The mapping can also help people understand that roles are not job positions, which is a common misconception.]*

Primary Stakeholder: Todd McDonald