

# Life Cycle Plan (LCP)

Cash Doctor 3.0

12

**Steven Helferich: Project Manager**

**Kenneth Anguka: IIV&V**

**Xichao Wang: Operational Concept Engineer**

**Alisha Parvez: Life Cycle Planner**

**Ekasit Jarussinvichai: Requirements Engineer**

**Kshama Krishnan: Prototyper**

**Le Zhuang: Feasibility Analyst**

**Shreya Sharma: Software Architect**

**<date>**

# Version History

Date	Author	Version	Changes made	Rationale
08/20/05	PP	1.0	Original template for use with LeanMBASE v1.0	Initial draft for use with LeanMBASE v1.0
08/30/06	SK, RT	1.6	<ul style="list-style-type: none"> <li>removed Section 4.1.4, 4.3 and 4.4</li> <li>added Table template</li> </ul>	Duplicate with FRD and QMP
09/14/07	SK	1.9	Updated Section 3	Consistent with LeanMBASE 1.9
08/06/08	SK	2.0	<ul style="list-style-type: none"> <li>Removed Section 6.0 Appendix</li> <li>Updated Section 1.1, 1.2, 2.3, 3.3</li> </ul>	To comply with Instructional ICM-Sw standard
08/13/09	SK	2.1	<ul style="list-style-type: none"> <li>Embedded description in each Table</li> <li>Removed Section 2.2 Phases</li> <li>Revised Section 3.2 Responsibilities by Phase</li> <li>Removed Table of Authorized Stakeholder Representatives</li> <li>Removed 4.1.3 Project plan</li> </ul>	<ul style="list-style-type: none"> <li>To be consistent with ICM EPG template set standard V2.1</li> <li>To leanify the life cycle plan</li> </ul>
07/30/12	TK	2.2	<ul style="list-style-type: none"> <li>Updated Section 3.2, 5</li> <li>Added Section 6</li> </ul>	To comply with Instructional ICSM-Sw standard

# Table of Contents

Life Cycle Plan (LCP) .....	i
Version History .....	iii
Table of Contents .....	iv
Table of Tables .....	v
Table of Figures .....	vi
<b>1. Introduction .....</b>	<b>1</b>
<b>1.1 Purpose of the LCP .....</b>	<b>1</b>
<b>1.2 Status of the LCP .....</b>	<b>1</b>
<b>1.3 Assumptions .....</b>	<b>1</b>
<b>2. Milestones and Products .....</b>	<b>2</b>
<b>2.1 Overall Strategy .....</b>	<b>2</b>
<b>2.2 Project Deliverables .....</b>	<b>2</b>
<b>3. Responsibilities .....</b>	<b>5</b>
<b>3.1 Project-specific stakeholder's responsibilities .....</b>	<b>5</b>
<b>3.2 Responsibilities by Phase .....</b>	<b>5</b>
<b>3.3 Skills .....</b>	<b>6</b>
<b>4. Approach .....</b>	<b>8</b>
<b>4.1 Monitoring and Control .....</b>	<b>8</b>
<b>4.2 Methods, Tools and Facilities .....</b>	<b>8</b>
<b>5. Resources .....</b>	<b>9</b>
<b>6. Iteration Plan .....</b>	<b>11</b>
<b>6.1 Plan .....</b>	<b>11</b>
<b>6.1.1 Capabilities to be implemented .....</b>	<b>11</b>
<b>6.1.2 Capabilities to be tested .....</b>	<b>11</b>
<b>6.1.3 Capabilities not to be tested .....</b>	<b>12</b>
<b>6.1.4 CCD Preparation Plans .....</b>	<b>12</b>
<b>6.2 Iteration Assessment .....</b>	<b>12</b>
<b>6.2.1 Capabilities Implemented, Tested, and Results .....</b>	<b>12</b>
<b>6.2.2 Core Capabilities Drive-Through Results .....</b>	<b>12</b>
<b>6.3 Adherence to Plan .....</b>	<b>13</b>

# Table of Tables

<i>Table 1: Artifacts Deliverables in Exploration Phase .....</i>	<i>2</i>
<i>Table 2: Artifact deliverable in Exploration Phase .....</i>	<i>3</i>
<i>Table 3: Artifact deliverable in Valuation Phase .....</i>	<i>3</i>
<i>Table 4: Artifact deliverable in Foundations Phase .....</i>	<i>3</i>
<i>Table 5: Artifact deliverable in Development Phase .....</i>	<i>4</i>
<i>Table 6: Stakeholder's Responsibilities in each phase .....</i>	<i>5</i>
<i>Table 7: COCOMOII Scale Driver.....</i>	<i>9</i>
<i>Table 8: COCOMOII Cost Driver.....</i>	<i>9</i>
<i>Table 9: Application Count: Screens.....</i>	<i>10</i>
<i>Table 10: Application Count: Reports.....</i>	<i>10</i>
<i>Table 11: Application Count: 3GL components .....</i>	<i>10</i>
<i>Table 12: Application Point Parameters .....</i>	<i>10</i>
<i>Table 13: Construction iteration capabilities to be implemented.....</i>	<i>11</i>
<i>Table 14: Construction iteration capabilities to be tested.....</i>	<i>11</i>
<i>Table 15: Capabilities implemented, tested, and results .....</i>	<i>12</i>

# Table of Figures

*No table of figures entries found.*

# 1. Introduction

## 1.1 Purpose of the LCP

<< Discuss the purpose of the LCP>>

## 1.2 Status of the LCP

<< Discuss the status of the LCP especially key differences from previous version, for example  
“The status of the LCP is currently at the Operation Commitment Package version number 10.0. This is the version that will be delivered to the client. The major changes from Rebaselined Foundations phase are:

- Two team members, Ritesh Kothari and Jerome Wan, did not continue in Development Phase.
- One core capability, Report and Certificate Generation, is deferred.” >>

## 1.3 Assumptions

<< List all possible assumptions for the project life cycle, such as schedule, personnel resources, standard, guidelines, and etc. For example:

- The duration of the project is 24 weeks, which are 12 weeks in Fall 2006 and 12 weeks in Spring 2007. >>

## 2. Milestones and Products

### 2.1 Overall Strategy

<< Identify your overall strategy. Identify the ICSM process you are following and your rationale; Architected Agile or NDI-Intensive or Net-Centric Services. Identify the life cycle phases and its dates, deliverables, milestone and strategy of each phase. For example:

“The Volunteer Tracking System is following Architected Agile process because there is no Non-Development Item or Web service that would fit to most of the core capabilities.

**“Exploration phase**

**Duration:** 08/24/09- 9/21/09

**Concept:** They identify project operational concept, system and software requirement, system and software architecture, and life-cycle plan. These phases prioritize the capabilities, conduct investment and feasibility analysis, and implement the software prototype.

**Deliverables:** Valuation Commitment Package

**Milestone:** Valuation Commitment Review

**Strategy:** One Incremental Commitment Cycle”

**Note:** More information about ICSM process can be found in ICSM EPG> Delivery Process. Schedule of the class and its milestone can be found in the first lecture of the class.

>>

### 2.2 Project Deliverables

<< Identify project deliverables in each phase and its due date, format, and medium>>

#### 2.2.1 Exploration Phase

<< The following is an example of deliverables in Exploration phase.>>

**Table 1: Artifacts Deliverables in Exploration Phase**

Artifact	Due date	Format	Medium
Client Interaction Report	9/17/2006	.doc, .pdf	Soft copy
Valuation Commitment Package	09/18/2006	.doc, .pdf	Soft copy
<ul style="list-style-type: none"> <li>Operational Concept Description (OCD) Early Section</li> <li>Life Cycle Plan (LCP) Early</li> </ul>			



Section • Feasibility Evidence Description (FED) Early Section			
Evaluation of Valuation Commitment Package	09/27/2006	.xls	Soft copy
Project Effort	Every Monday	Text	ER system
Project Plan	Every Wednesday	.mpp, .pdf	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy

**Table 2: Artifact deliverable in Exploration Phase**

Artifact	Due date	Format	Medium
<artifact name>	<due data>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...	...	...	...

## 2.2.2 Valuation Phase

**Table 3: Artifact deliverable in Valuation Phase**

Artifact	Due date	Format	Medium
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...	...	...	...

## 2.2.3 Foundations Phase

**Table 4: Artifact deliverable in Foundations Phase**

Artifact	Due date	Format	Medium
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...	...	...	...

## 2.2.4 Development Phase

**Table 5: Artifact deliverable in Development Phase**

<b>Artifact</b>	<b>Due date</b>	<b>Format</b>	<b>Medium</b>
<artifact name>	<due date>	<format type: .doc, .pdf>	<Medium type: hard copy, soft copy>
...	...	...	...

## 3. Responsibilities

### 3.1 Project-specific stakeholder's responsibilities

<< Other than typical stakeholders of CSCI577ab, identified in **ICSM EPG**> **Task: Identify Responsibilities and Skills**, which are client, user, maintainer, developer and IIV&V, do you have any project-specific stakeholder? If yes, please identify the role and his/her responsibilities.>>

### 3.2 Responsibilities by Phase

<< Identify responsibilities of each team member including client, user, and maintainer in each phase. Please note that a document name such as OCD, WinWin Agreements or Prototype is not a responsibility. Examples of responsibilities are identify project risk, develop prototype, acquire NDI, and etc.

The following table is a template for stakeholder's responsibilities in each phase. >>

**Table 6: Stakeholder's Responsibilities in each phase**

Team Member / Role	Primary / Secondary Responsibility				
	Exploration	Valuation	Foundations	Development-Construction Iteration	Development-Transition Iteration
<b>Name:</b> Role	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4
<b>Name:</b> Role	<b>Primary Responsibility</b> Responsibility 1 Responsibility 2 <b>Secondary Responsibility</b> Responsibility 3 Responsibility 4				

### 3.3 Skills

<< Identify current and required skills for each role. Please note that if some of your team member does not continue in 577b, you should identify the required role(s) and skills of the new team member. Example of skills can be found at **ICSM EPG> Task: Identify Responsibilities and Skills.** >>

>>

Team members	Role	Skills
Steven Helferich	Projet Manager	Current: Java, HTML5/CSS, Bootstrap, JS/jQuery, Python, Matlab  Required: Android, iOS, PHP, MySQL
Kenneth Anguka	IIV&V	Current: C, C++, Java, Embedded and Real Time Systems, Python
Xichao Wang	Operational Concept Engineer	Current: Java, C++, Python, Matlab  Required: PHP, HTML,MySQL, JS, Backbone.js, Bootstrap
Alisha Parvez	Life Cycle Planner	Current: Java, C++, C, Python, JS, HTML5  Required: Bootstrap, jQuery
Ekasit Jarussinvichai	Requirements Engineer	Current: Java, C++, HTML/CSS, VBA, Oracle, JS  Required: PHP, JSON, MySQL, Backbone.js, Bootstrap, Cordova, Winbook
Kshama Krishnan	Prototyper	Current: Java, JS, HMTL5/CSS3, Android, jQuery, C, C++
Le Zhuang	Feasibility Analyst	Current: Java, Python, C, HTML/CSS, Matlab  Required: Bootstrap, PHP, MySQL, JS, JSON, jQuery, Backbone.js,
Shreya Sharma	Software Architect	Current: Testing: Web and Mobile, HTML5/CSS3, Bootstrap, JS



## 4. Approach

### 4.1 Monitoring and Control

<< Identify the approach you are using in monitoring and controlling your project. Examples are Progress Report, Project plan, and etc. >>

#### 4.1.1 Closed Loop Feedback Control

<< Explain how your team gets and provides feedback internally within the team. >>

#### 4.1.2 Reviews

<<Describe various kinds of review that your team is using to control your project. >>

### 4.2 Methods, Tools and Facilities

<< Describe methods, tools, facilities and their usage and provider that you used in your project>>

Tools	Usage	Provider
Red Ridge 3.0	Provides examples for user interface and system functionality, is helpful in the development of prototype	CSC
PEAR	Creates a framework and distribution system for reusable PHP components	Open source
<Tool>	<Usage>	<Tool Provider>

## 5. Resources

<< For Architected Agile, use COTIPMO for Architected Agile project for your calculation, for NDI/NCS project, use COTIPMO for NDI/NCS project for your calculation

Identify the following information in order to estimate the software cost:

- Estimated CSCI577a Effort : X team members at X hrs/week for 12 weeks
- Estimated CSCI577b Effort : X team members at X hrs/week for 12 weeks
- Total estimated effort
- Budget information
- Project duration
- Component modules in your development project.
- Programming language used

For Architected Agile, the example of how to rate scale factors and cost drivers can be found at **ICSM EPG> Task: Estimate Project Effort and Schedule using COCOMO II**

For the most common mistakes in cost estimation for Architected Agile, please go to **ICSM EPG> Concept: Common Mistakes in COCOMOII Calculation**

You should provide rationale for every cost driver and scale factor of each module.

Note: Refer to Barry W. Boehm, et al, Software Cost Estimation With COCOMO II, Prentice all PTR, New Jersey, 2000 on how to estimate software cost . >>

**Table 7: COCOMOII Scale Driver**

Scale Driver	Value	Rationale
<Driver name>	<value>	<comments>
...	...	...

**Table 8: COCOMOII Cost Driver**

Cost Driver	Value	Rationale
<Driver name>	<value>	<comments>
...	...	...

<< Provide screenshot of your COCOMO II analysis result and interpret what does that mean to your project. Please note the number of COCOMOII Cost Driver tables (Refer to Table 8) is equal to the number of software modules in your project. More information can be found at **ICSM EPG> Task: Estimate Project Effort and Schedule using COTIPMO for Architected Agile Project.** >>

<< For NDI/NCS project, COTIPMO for NDI/NCS project is based on COCOMO II Application Point, so please use Table 9 - 12 instead of using Table 7 and 8. More information can be found at ICSM EPG> Task: Estimate Project Effort and Schedule using COTIPMO for for NDI/NCS Project. >>

**Table 9: Application Count: Screens**

Screen	Number of views	Number of source of data tables	Complexity level	Rationale
< Screen name >	<value>	<value>	<value>	<comments>
...				

**Table 10: Application Count: Reports**

Report	Number of sections	Number of source of data tables	Complexity level	Rationale
< Report name >	<value>	<value>	<value>	<comments>
...				

**Table 11: Application Count: 3GL components**

Component	Rationale
< Component name >	<comments>
...	

**Table 12: Application Point Parameters**

Parameter	Value	Rationale
Developer's Experience and Capability	<value>	<comments>
ICASE Maturity and Capability	<value>	<comments>



## 6. Iteration Plan

### 6.1 Plan

<< Provide a high-level overview of the content of the given iteration. Indicate which Life cycle milestones will be addressed. >>

#### 6.1.1 Capabilities to be implemented

<< For the milestone identified above, identify the capabilities that will be implemented in the upcoming iteration. Identify the features, requirements or use-cases that are being developed (implemented, tested, etc.) for this iteration. Each component should be accounted for in at least one iteration. All requirements should be implemented and tested (or re-negotiated) by the completion of all the iterations. Be mindful of implementation dependencies. Document complex dependencies and communicate them to the appropriate development staff. >>

**Table 13: Construction iteration capabilities to be implemented**

ID	Capability	Description	Priority	Iteration
< ID >	< Capability >	< comments >	<value>	<value>

#### 6.1.2 Capabilities to be tested

<< For the milestone identified above, identify the capabilities that will be tested in the upcoming iteration.

Identify the software features and combinations of software features to be tested this iteration. This may also include non-functional requirements or extra-functional requirements, such as performance, portability, and so forth.

Additionally you may need to test every requirement listed in the WinWin Agreements DC package, non-requirement component features such as COTS capabilities and quality, API functionality, etc. >>

**Table 14: Construction iteration capabilities to be tested**

ID	Capability	Description	Priority	Iteration
< ID >	< Capability >	< comments >	<value>	<value>

### 6.1.3 Capabilities not to be tested

<< Identify notable features, and significant combinations of features, which will not be tested this iteration and why (e.g. a given feature uses a feature which will be implemented in following iteration). >>

### 6.1.4 CCD Preparation Plans

<< Identify the clients and other users who will be involved in the Core Capability Drive-through, the usage scenarios that it will support, and the specific CCD preparation plans and milestones. These may include

- user context-setting
- site preparation dry runs,
- feedback forms, and
- CCD risk management plans. >>

## 6.2 Iteration Assessment

### 6.2.1 Capabilities Implemented, Tested, and Results

<< Describes, in brief, the capabilities that were implemented and the test results. The capabilities implemented and tested do not necessarily need to match the ones listed in section 6.1 because some capabilities may have been pushed to the next iteration. >>

**Table 15: Capabilities implemented, tested, and results**

ID	Capability	Test Case	Test Results	If fail, why?
< ID >	< Capability >	< TC-XX >	Pass/Fail	< comments >
...				

### 6.2.2 Core Capabilities Drive-Through Results

<< Briefly summarize the feedback you received from your client(s). You need to be specific enough to cover the critical capabilities or scenarios that were discussed, demoed, or shown. Your descriptions MUST, but not limited to, cover the following areas:

- Positive feedbacks
- Improvements needed/suggested
- Changes to-be considered (Reprioritized capabilities, requirements, GUI, etc.)
- Risks (New risks introduced, risks mitigated, etc.)

Note: Make sure to be specific to the capabilities shown/demonstrated/driven-through. Simply stating that the clients liked the capabilities is not sufficient. >>

## 6.3 Adherence to Plan

<< Describe how well the iteration ran according to plan. Was it on budget and on time? Is there any uncertainty in the Software Development Status? Provide some insight to avoid mistakes for future iterations. >>