Technical management processes of repository "foreign-language"

Felipe Alves Matos Caggi

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Contents

Chapter 1

INTRODUCTION

This document specifies the development process of the "foreign-language" system, providing the project manager with the necessary information for the planning and management of the project lifecycle.

1.1 Full view of this document

This introduction provides the information needed to make good use of this document, explaining its objectives and the conventions that have been adopted in the text, as well as contains a list of references to other related documents. The other sections present the specification of the "foreign-language" system and are organized as described below.

- Section 2 - Project Planning Process: provides an overview of the system, characterizing the scope of the project management and technical activities, identifying process outputs, tasks and deliverables, establishing schedules for task conduct, including achievement criteria, and required resources to accomplish tasks.

- Section 3 - Process Assessment and Control Process: specifies the status of the project, technical and process performance, helping ensure that the performance is according to plans and schedules, within projected budgets, to satisfy technical objectives.

- Section 4 - Risk Management Process: provides information about risks of the project, describing process is to identify, analyze, treat and monitor the risks continually.

- Section 5 - Configuration Management Process: specifies all system elements what need to configuration management over the life cycle. Also, present the consistency management between a product and its associated configuration definition.

1.2 Conventions, terms and abbreviations

The interpretation correct this document exige the knowledge of some conventionals and specific terms, that are describes next.

1.2.1 Identification of commits

$$[< JobFunctionIDKey^{1} > \_ < ActivityIDKey^{2} > \_ < CommitCounterPerJobfunction >] < DescriptionCommit >$$

1.2.2 Identification of tags for baseline or releases

Baseline tag

$$[tgbl\_ < JobFunctionIDKey > \_ < ConfigurationItemIdKeyForManagement > \_ < TagCounterPerItemOfConfiguration >]$$

Release tag

$$[tgrl\_ < JobFunctionIDKey > \_ < ConfigurationItemIdKeyForManagement > \_ < TagCounterPerItemOfConfiguration >]$$

1.3 References

Documents related to the "foreign-language" system and / or mentioned in the following sections:

[1] See section 2.2 for more details
[2] See section 2.1 for more details

Chapter 2

PROJECT PLANNING PROCESS

2.1 Project phases

The development process adopted for this project has in its scope the following phases:

1. Conception: is the first phase of the process, in which it seeks to raise the key requirements and understand the system comprehensively. The results of this phase are usually a requirement and risk document, a high-level use case listing, and a use case-based development timeline.

2. Elaboration: this phase involves detailed system analysis, domain modeling and system design using the design patterns.

3. Construction: includes a part of implementation and testing.

4. Transition: Upon ready, the system will be deployed replacing the current system of either manual or computerized.

Subsections 2.2.1 and 2.2.4 present the details of the activities at each stage of the development process adopted.

2.1.1 Conception

The conception phase presents in its scope the following activities:

1. [*busmdl*] Business modeling (System overview) In this activity, all possible information about the system must be obtained. The product of this step will be *system overview document*.

2. [*reqgat*] Requirements Gathering It corresponds to searching for all the possible information about the functions that the system must execute and the reticulations on which the system must operate. The product of this step will be the *requirements document*, main component of the software design.

3. [*reqaly*] Requirements Analysis It serves to structure and detail the requirements so that they can be approached in the elaboration phase for the development of other elements such as use cases, classes, and interfaces.

4. [*hlucse*] High-level use cases In this activity it is necessary to identify the main use cases of the system. The use cases devel cover the main business activities linked to the system that will be developed.

2.1.2 Elaboration

The elaboration phase presents in its scope the following activities:

1. Expansion of use cases
2. Determination of events and system responses
3. Construction or refinement of the conceptual model
4. Elaboration of operations contracts and system queries

2.1.3 Construction

2.1.4 Transicion

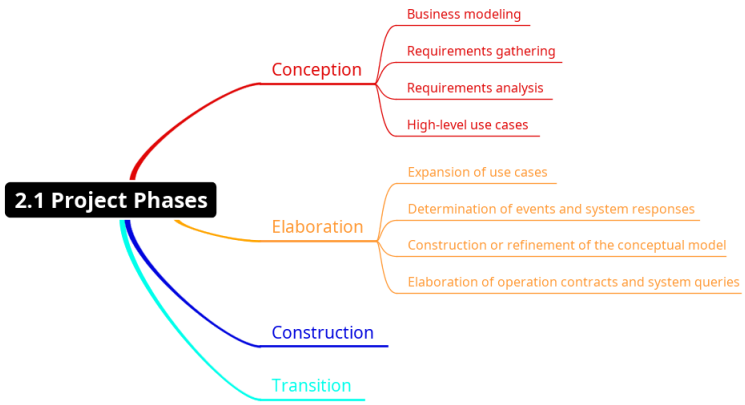

Figure 2.1: Mindmap of the project phases described in section 2.1.

2.2 Artifacts

Artifacts are final or intermediate work products that are produced and used during a project. Artifacts are used to capture and transmit project information.

The artifacts adopted for this project are categorized into two types, document and model.

- A document, such as Business Case or Software Architecture Document
- A template, such as the Use-Case Model or Design Template

Below are listed by category the artifacts adopted for the development of the "foreign language" system.

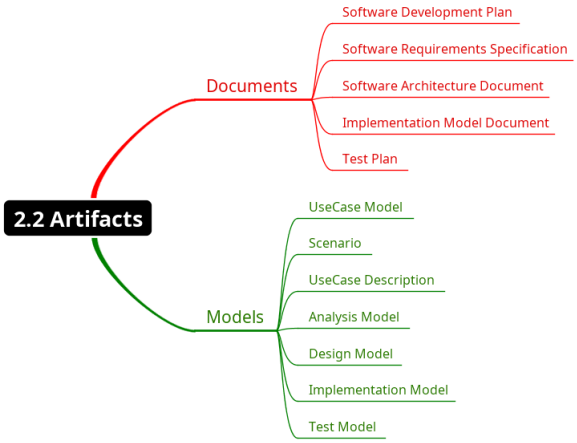

Figure 2.2: Mindmap of the artifacts described in section 2.2.

2.3 Roles e responsibilities

From the phases and activities defined in section 2.1, it was decided that this project will adopt the following roles for the members of the development team:

- [*prjmn*] Manager: responsible for project management. The following activities are part of the project manager's scope of responsibilities:

  1. Define technical management processes.

- [*sysan*] Analyst: it acts in the conception and elaboration phase, described in section 2.1.1 and 2.1.2. Responsible for the following activities:

1. Accomplish business modeling.
2. Raise system requirements.
3. Analyze requirements.
4. Define high-level use cases.
5. Expand use cases.

- [*dsgnr*] System designer: it acts in the elaboration phase described in section 2.1.2. Responsible for the following activities:

  1. Determine system events and responses.
  2. Build and refine conceptual model.
  3. Elaboration of operating contract and system queries.

- [*dsgnr*] Designer
- [*implm*] Implementer
- [*testr*] Tester

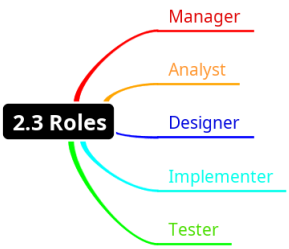

Figure 2.3: Mindmap of the roles described in section 2.2.

2.4 Infrastructure and services required

This section covers the infrastructure and services required for the development of the "foreign-language" system.

2.4.1 Computer-Aided Software Engineering

During project development, team members will use tools to aid in software engineering activities.

Below are listed by category the tools required for the development of the "foreign language" system.

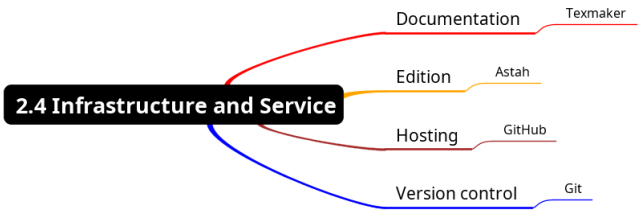

Figure 2.4: Mindmap of the infrastructure and service described in section 2.3.

2.5 Process and Artifact

It is important to highlight the artifacts generated in each phase of the project. The mind map below represents a relationship between the processes and the artifacts generated during each process.

The figure below represents the mental map of the relationship between sections 2.1 and 2.2

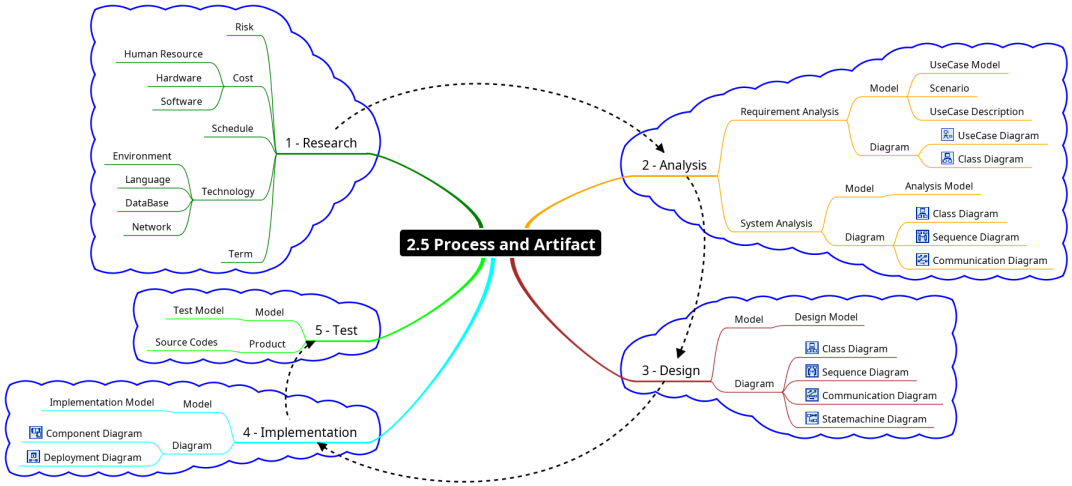

Figure 2.5: Relationship between the activities of each phase of the project and your artifacts.

2.6 Artifacts and Roles

The mental map below shows who is responsible for each artifact described in section 2.2.

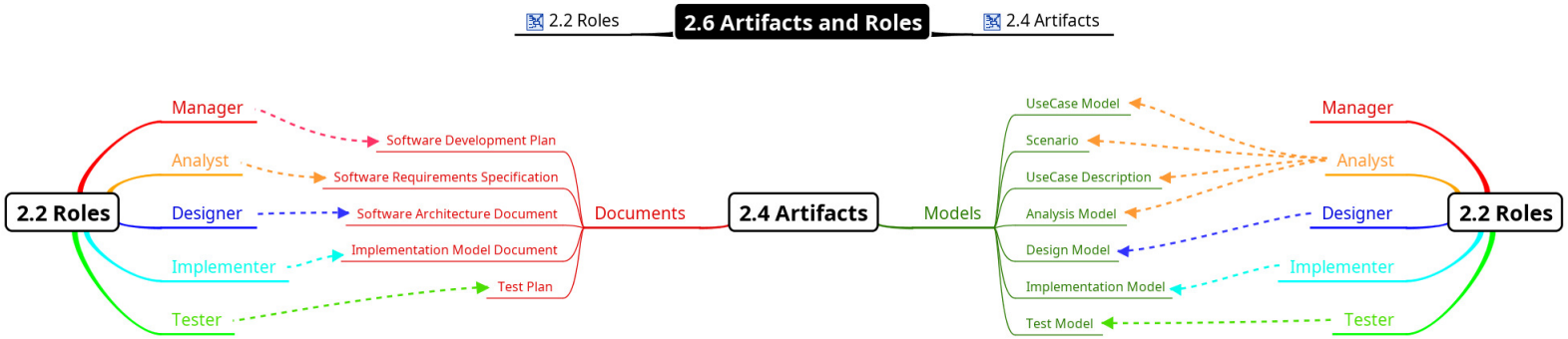

Figure 2.6: Relationship between the artifacts and the roles.

Chapter 3

PROCESS ASSESSMENT AND CONTROL PROCESS

Chapter 4

RISK MANAGEMENT PROCESS

Chapter 5

CONFIGURATION MANAGEMENT PROCESS