CENG 492 COMPUTER ENGINEERING DESIGN

Configuration Management Report

KÜP ŞEKER

Deniz OLGUN
Deniz TUNA
Osman Tuncer KAPLANKIRAN
Mehmet Safa ERTEKİN
**Table of Contents**

1. Introduction ................................................................................................................. 1  
   1.1 Purpose of Configuration Management Plan .................................................. 1  
   1.2 Scope of the Document ...................................................................................... 1  
   1.3 Definitions, Acronyms and Abbreviations ....................................................... 1  
   1.4 Document References ...................................................................................... 2  
   1.5 Document Overview ......................................................................................... 2  
2. The Organizations CM Framework ............................................................................. 2  
   2.1 Organization ...................................................................................................... 2  
   2.2 Responsibilities .................................................................................................. 3  
   2.3 Tools and Infrastructure .................................................................................... 4  
      2.3.1 Eclipse ....................................................................................................... 4  
      2.3.2 SVN ........................................................................................................... 4  
3. Configuration Management Process .......................................................................... 4  
   3.1 Identification ...................................................................................................... 4  
      3.1.1 Source Code ............................................................................................. 5  
      3.1.2 Data .......................................................................................................... 5  
      3.1.3 Documentation .......................................................................................... 5  
   3.2 Configuration Management Control ................................................................. 5  
   3.3 Configuration Status Accounting ...................................................................... 6  
   3.4 Auditing ............................................................................................................. 6  
4. Project Schedules and CM Milestones ...................................................................... 6  
5. Project Resources ...................................................................................................... 6  
6. Plan Optimization ...................................................................................................... 7
1. Introduction

This document is the configuration management plan of Agent Based Virtual Constructive Simulation Framework (ABVCSF) project. Project basically provides a simulation environment for a ship and other ships with artificial intelligence (AI) provided with geographical information of all.

1.1. Purpose of Configuration Management Plan

Working in a project requires each members to be dedicated and disciplined for the schedule of project. It is one of the most challenging difficulty to overcome that many people try to work on the same job synchronously. Therefore, we need a configuration management plan in order to provide coordination, integrity and parallelism among distributed works that people have. The purpose of this report is to make clear that each team member has well described duties and this will provide a task sharing for our team.

1.2. Scope of the Document

The scope of this document is mainly the members of Küp Şeker so that party members can follow their to do’s at a given timeline. This document also illustrates a model of configuration management report for other people as well.

1.3. Definitions, Acronyms and Abbreviations

- ABVCSF: Agent Based Virtual & Constructive Simulation Framework
- AI: Artificial Intelligence
- CM: Configuration management
- CMP: Configuration management plan
- SVN: Subversion
- CMR: Configuration management report
1.4. Document References


1.5. Document Overview

In the first chapter, we explained what is the meaning and purpose of a CMR and give the abbreviations and the references used.

In the second chapter, the organization of the team, the responsibilities of team members and tools and infrastructure used during the project development are explained.

In the third chapter, The CM Process gives information about the identification process, tools and practices for Management and Control, Configuration Status Accounting and Auditing.

Fourth chapter explains Project Schedules and CM Milestones.

The resources needed during CMP are explained in 5th chapter.

In the last chapter of this document, plan optimization is explained.

2. The Organizations CM Framework

2.1. Organization

Software Development:

AI Application Development

· Deniz Tuna

· Deniz Olgun

Testing:

· Osman Tuncer Kaplankırán
2.2. Responsibilities

Software Development Team:

This team is responsible for implementing the agents of the project and all other related software developments. This team is mainly responsible for creating rule-based agents.

Testing Team:

The main job of this team is to find bugs and other technical problems in software development phase. Moreover, this team will generate some tests in order to test the behaviour of the product and see if it needs any updates for further progress.

Change Control Team:

This team is responsible for controlling of the outcome of testing teams results. They will decide if the changes should be applied or not.
Version Control Team:

This team controls versions of ABVCSF. Since there will be lots of versions of it in the progress time, this team’s main object will be keeping a track of older files.

Configuration Management Update Team:

This team is responsible for updating schedule according to the progress of project. In the mean time, team is responsible for catching deadlines.

2.3. Tools and Infrastructure

2.3.1. Eclipse

For the software development part we decide to use Eclipse which is a famous coding platform. Also using Eclipse as our main tool will help our progress in using Repast.

2.3.2. SVN

For the version control part of our project we will use SVN(subversion). SVN is a version-control system. Developers use SVN to maintain current and historical versions of files such as source code, web pages and documentation.

3. Configuration Management Process

3.1. Identification
3.1.1. **Source Code**

As the project progresses, there are certain changes and also additions to our source code. Therefore, we keep track of each version of source code by putting them on our web site. It also serves as a backup to us in case of any unexpected corruption of source codes.

3.1.2. **Data**

Since there is no database in our project, we simply store data descriptions in our source codes. Therefore, maintenance of source codes are more crucial than usual.

3.1.3. **Documentation**

Documentations of our project up to now is listed below according to their chronological order:

- Project Proposal,
- Software Requirement Specification Report,
- Initial Design Report,
- Detailed Design Report,
- Configuration Management Plan.

Moreover, there are weekly reports that we present to our project manager and project assistant.

3.2. **Configuration Management Control**

We have scheduled meetings with our project manager and project assistant once in two weeks. In these meetings we discuss about the progress of project and make further assignments. If any misfortune happens during progress, we inform each other via mail group and arrange an emergency meeting about this issue. Then if necessary we make changes for the design or whatever needs to be reconsidered.
3.3. Configuration Status Accounting

Since our project is a concept of progress, each time we have to change it so there will be lots of versions of project. In order to keep the track of changes, we will use SVN. All changes we did through SVN will be the newer version of project so it will be easy to identify. Moreover, we can access our older version codes when we have any kind of information loss.

3.4. Auditing

The progress of our project is decided in our meetings. Each member has own duty to make up to coming meetings. Then our project manager decides if there is a problem with progress or not. Other than that as being friends, we have mobile phone communication to each other if there is any question with progress or maybe task sharing we inform each other.

4. Project Schedules and CM Milestones

Process schedule of our project and also the milestones can be found on our webpage. After implementing our user interface for Bridge Command, we started to code the crucial parts of our project. Milestones of our progress are:

- 28th of March = Socket program between Bridge Command and REPAST
- 11th of April (Tentative) = Entegration of REPAST and OpenMap
- 2th of May = Implementation of Rule-Based Agents
- 10th of June = Publishing

5. Project Resources

The resources of the project are below:

- Eclipse
- Küp Şeker Website
- Documents prepared so far (SDD, SRS, ..)
- SVN
- Trac
6. Plan Optimization

As the project progress, we are supposed to stick to our CMP. Each member has its own responsibilities described here. Each member should complete the task given for the upcoming meeting. Of course this time schedule is something we decide and if any obstacle happens, with high probability there will be, we will again decide what to do with taking all members approval.