MIDDLE EAST TECHNICAL UNIVERSITY

ENGINEERING FACULTY

DEPARTMENT OF COMPUTER ENGINEERING

CONFIGURATION MANAGEMENT PLAN

SUBJECT: ONLINECV

ASSISTANT: ALI ORKAN BAYER

"I$KOLIK" *BY AIVA*

TABLE OF CONTENTS

1. Introduction

1.1 Purpose of CMP

Implementation process of the software projects is usually handled by a team of developers. Therefore changes in decisions on design, development and implementation details etc affect the contribution of all members of the team. The purpose of Configuration Management Plan is to explain the strategy decided for handling the kind of problems explained above encountered during the implementation process of the software projects.

1.2 Scope of Document

The purpose of this document is to explain our strategy to handle the difficulties encountered during the implementation process of our senior design project “I$KOLIK”. This document provides a detailed overview of Software Configuration Management Plan of AIVA for the project OnlineCV namely I$KOLIK. The strategy explained will be adopted during process of development of I$KOLIK. We mentioned the organization and responsibilities of configuration management of our portal, the configuration management process including the identification and management of the configuration items, version control and change audits, the schedule for CM milestones, project resources and the strategies used for the optimization of the SCMP.

1.3 Abbreviations

CA Configuration Auditing

CCB	Configuration Control Board
CI	Configuration Item
CM	Configuration Management
CMP	Configuration Management Plan
CVS	Concurrent Versioning System
SCM	Software Configuration Management
SCMP	Software Configuration Management Plan
SCR	Software Change Request

1.4 References

IEEE Std 828-1998, IEEE Standard for Software Configuration Management Plans

2. The Organizations CM Framework

2.1 Organization

Monitoring of SCM activities is an important issue for software companies. It is also so important to describe organizational units, so our company will have some units to monitor these activities. The most important unit is CCB unit. Emrah Uyaroglu and Fatma Urek will be active members of CCB. These members will be in charge of approving and rejecting SCR.

There will also be Testing and Debugging Unit. The members, who are in charge of this unit, will be responsible from testing and debugging issues originating from SCR implementation. Damir Kalashnikov and Derya Gulerarslan will be in charge of testing and debugging.

The other unit will be Developing Unit. All of the team members will be in charge of this unit. They are responsible from developing and implementing the project and also fixing the implementation according to testing results.

2.2 Responsibilities

There will be some responsibilities of each member originating from their roles in the team.

- For code understandability, every member is required to write comments in the code.
- All members will be responsible from uploading the developed files to CVS at the end of each week. The member, who uploaded the file, will add his/her name at the top of the file as a comment.
- Emrah Uyaroglu and Fatma Urek will be responsible from coordinating the team for implementing the SCR properly.

2.3 Tools & Infrastructure

2.3.1 CVS

CVS is a popular open source version control system. We need to use this tool because our project's modules will be implemented by four people concurrently. With the help of this tool the documents will be versioned in a central repository. The other advantage of CVS is that every member will be able to see the changes in the files. In addition we will be able to reach the previous versions of the documents from this repository.

2.3.2 Eclipse & Application Designer

Eclipse is an open source Java development environment. Our project Iskolik is being implemented in Java using Eclipse environment. Application Designer is a web-site design tool by SoftwareAG. We will use Application Designer on Eclipse as a Plug-in.

2.3.3 WebMethods

WebMethods is one of the tools by SoftwareAG. We will use this tool to eliminate point-to-point integration challenges and to ease design, deploy and re-use Web service.

3 The CM Process

3.1Identification

The state of our product will basically be determined by features completed at a given stage. Specifications of the product are explicitly stated in analysis report. So checking the current features against those to be in the final product will provide us a clear understanding of the current state of the product. Checking current features will be done through detailed documentation. In that documentation we plan to include the

detailed information of what has been done, what current bugs are and what needs to be done next.

3.2 Management and Control

For management and control tools and practices for development, engineering, build, deployment, change requests, defect tracking and system management are needed. Documentation will be provided whenever possible.

As mentioned above we will be using CVS for version controlling and backing up of the product. For each version we will include documentation on features contained, bugs. This will provide a thorough development monitoring and defect tracking. There will be an embedded error reporting system within the product. Whenever there is some error the error report will be sent to the database containing detailed information on the error. We plan to retain this error reporting system even after the product development is completed.

The development tools that we will use, namely WebMethods, Eclipse, and Application Designer make deployment phase easy. There is little manual work required for that.

For system change requests management and control we will also be done via documentation. The version prior to the change will be backed up and only after that will the change take place. Before incorporating the change to the code detailed information will be documented. The documentation will contain the following details:

- Date of SCR
- Related Module
- Importance
- Responsible member/s
- Assigned member
- Description

3.3Auditing

Functional Audit is an independent evaluation of software products, it verifies that configurations items' actual functionality and performance is consistent with the requirement specifications. We plan to do this by unit testing and writing item-specific test code.

Physical Audit provides independent evaluation of a software product configuration item to confirm that components in the built version map to their specifications. Whether it performs all the functions described in the design documentation. Physical auditing will be done by system-testing.

4 Project Schedules - CM Milestones

Scheduling tasks of the project is vital part of management of development of a software project in that it clarifies the dependencies between the tasks and informs the whole team of developers about the progress. To achieve this we have prepared a living schedule and published it in our website. As expected from its name we frequently update our schedule.

5 Project resources

As in every software project there are different resources required. We as Aiva team constitute the human resource. This is the most important resource. We have a web-site and a CVS system provided by our department. On our web-site we keep documentation of the project: analysis and design reports, living schedule weekly reports. Furthermore we will include more. The CVS provides facilities for versioning of the project. Documentation will also be kept there. Other resources are software and computers for actual source-code development. Software resources consist mostly of SoftwareAG tools.

6 Plan Optimization

In software industry no plan made at the beginning is followed till the end. There are usually significant changes in the plan. The point is to try to optimize the plan in the best way. We plan to make a thorough software monitoring. This will surely enable us to make modifications to the plan to attain good optimization.