Middle East Technical University

Department of Computer Engineering

Configuration Management Plan

By

Microsoft®
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1. INTRODUCTION

1.1 Purpose

Change is inevitable during software development process. Migrosoft will carry out a Software Configuration Management Process during development of Güvercin in order to prevent confusion due to “changes in the software configuration” and continue the development process smoothly. This document is the Software Configuration Management Plan of Migrosoft for the Güvercin project.

1.2 Scope

In this document the responsibilities of team members in terms of Configuration Management, the tools which will be used by the team to achieve configuration management will be specified.

1.3 Benefits

This Software Configuration Management Plan will contribute to the development of Güvercin in the following ways:

- The integrity of the system will be maintained by the dependency tracking of the changes made on the configuration items.
- Coordination of access to configuration items will be managed, so that concurrent changes will not conflict.
- Changes will be controlled and managed effectively, so that only necessary and sufficient changes will be realized.
- Communication throughout the developers will be improved by reporting and auditing.
- As the consequence of all these, overall project quality will be improved by effective configuration management.

1.4 Reference Documents

The documents referenced in this report are:

- Configuration Management Talk, Onur Tolga Şehitoğlu provided on http://www.ceng.metu.edu.tr/courses/ceng490/documents
- Final Design Report of Güvercin, Migrosoft
1.5 Acronyms and Abbreviations

- CVS: Concurrent Versions System
- CM: Configuration Management
- CCB: Configuration Control Board
- CI: Configuration Item
- RA: Requirements Analysis
- SCR: System Change Request

2 TEAM’S CM FRAMEWORK

2.1 Organization

Team member Yunus Altinkol is the configuration manager. He is responsible for following all the changes made to the system regularly and updating the living schedule accordingly when necessary. Any team member is also a member of the Change Control Team. In other words, responsibilities of each team member in terms of configuration management are:

- Identification of Configuration Items (CI)
- Establish baselines
- Approve or Reject SCR
- Locate any bugs caused by SCRs
- Track and Manage the SCRs
- Test the code produced by SCRs
- Inform the team members of a SCR
- Update the code in the CVS to make it include the result of SCR
- Make sure that change is well commented
2.2 Tools

- CVS provided by CENG department will be used to achieve version control.
- Team will use integrated CVS function of Eclipse IDE.
- Team will keep a “SCR form repository” under CVS repository which is explained in detail in the Configuration Management Process section.

2.3 Policies, Directives and Procedures

- When a change is required to be implemented in the project, team members will obey to the team’s rules about configuration management.
- When a change is requested by a team member, a “SCR form” will be created in the SCR form repository.
- Team will discuss the need for the change and if it is accepted by at least three members, a team member will be assigned to implement the change.
- This team member will update the corresponding “SRC Form”.
- The configuration manager will be responsible of updating the schedule during the whole process.

3. CONFIGURATION MANAGEMENT PROCESS

3.1 Identification

Each team member will provide a weekly report in migrosoft@goolegroups.com explaining the status of the components he is working on. Besides a team member implementing a component which provides an interface to a component being implemented by another member must work in coordination with this member. The team members implementing related components will integrate and test components step by step. This approach will ease team to detect defects earlier.

This weekly report provided by the members will include the answers to these questions:
Is the member implementing a component fulfilling a requirement? If yes, specify the documentation it is stated.

Which parts are completed?

What is the next part to be implemented?

Has the interface provided by the component been tested by the implementer of the component using this interface? If yes, report.

3.2 Management, Control and Accounting

As previously mentioned in Section 2.2, CVS will be used to achieve version control via the integrated CVS feature of Eclipse IDE.

Secondly a “SCR From Repository” will be kept in CVS Repository. This repository will be called “SCR forms”. In this repository the forms will be archived in a hierarchical way according to these rules:

- If the change is in a document, then it will be kept under the directory SCR forms/documents
- If the change is in source code, then it will be kept under the directory SCR forms/code/package-name/file-name

The format of SCR form is presented below:

- Reporter: ..........................................................................................................................
- Date of Reporting: ...........................................................................................................
- Current Version: ...........................................................................................................
- Change Justification: ......................................................................................................
- ........................................................................................................................................
- ........................................................................................................................................
- Preliminary Assessment: ...............................................................................................
EVALUATION

Date:...................................................................................................

Dilek Kısı accepted/rejected/did not participate
Yunus Altınkol accepted/rejected/did not participate
Fırat Akçoray accepted/rejected/did not participate
Yusuf Saran accepted/rejected/did not participate
Eda Ercan accepted/rejected/did not participate

DECISION

Accepted/rejected

Prerequisites:........................................................................................

Solution:................................................................................................

Change Implementation Assigned to:...................................................

Date of Change Completion:.................................................................

Testing Summary After Change:...........................................................

..............................................................................................................

..............................................................................................................

Requires New Changes:........................................................................

To clarify some of the areas in the form which may be unclear:

Preliminary Assessment: The reporter will explain the change in detail.

EVALUATION: All the team members are included in CCB and at least 3 members must approve the change. So in this section participants to the decision must be noted with their vote.

DECISION:

Prerequisites: If the change is approved and it requires any other changes already in the repository be implemented previously, path of these SCR forms will be provided here.

Requires New Changes: If the change requires any other changes not requested before, new SCR forms will be created and path of these SCR forms will be provided here.
3.3 **Auditing**

Configuration Manager will be responsible of software configuration audits. Especially the areas in the SCR forms “Prerequisites”, “Requires New Changes” and “Testing Summary After Change” will be controlled by the configuration manager. He will take care of dependencies among changes. He will present his observations in weekly meetings and team may discuss the current configuration. If an inappropriate change has been made, team will return to a previous version on the CVS.