MIDDLE EAST TECHNICAL UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING

SENIOR PROJECT

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CONFIGURATION MANAGEMENT REPORT

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INDEX

1. Introduction

1.1 Purpose

In real life successful companies are the ones that can handle with problems quickly and effectively and also can provide service to their customers. Therefore, there should be some rules or ways to follow when that crisis takes place. In that manner, Configuration Management Plan (CMP) can be considered as a guide in order to help our group members when some problems occur during development period. Having that document each member will know how to act, by this way every individual of the group will do their work immediately and there will not be time wasting.

1.2 Scope and Overview

That plan contains management of the source code, usage of development tools used in project and preparation of documentation. These basic parts make the duties of members and implementation period work flow clear and understandable easily.

1.3 Definitions, Acronym and Abbreviations

API	:	Application Programming Interface
CCB	:	Configuration Control Board
CI	:	Configuration Item
CM	:	Configuration Management
CVS	:	Concurrent Versioning System
GUI	:	Graphical User Interface
RTF	:	Rich Text Format
SCM	:	Software Configuration Management
SCR	:	Software Change Request

1.4 References

This Configuration Management Plan is prepared by the help of the following formats describe in:

- IEEE Std 828-1998 IEEE Standard for Software Configuration Management Plans (Revision of IEEE Std 828-1990)

- Configuration Management presentation prepared by Middle East Technical (METU) Computer Engineering Department for the course CENG492.

- "Software Engineering: A Practitioner's Approach" by Pressman, Roger S. (2001): Fifth Edition.

- http://en.wikipedia.org/wiki/Software_configuration_management

2. The Organizations CM Framework

The organization of team and the relevant roles are defined according to the needs of our software project. Our team consists of four students and because of this; the roles may have more than one responsible member and also one member may have more than one role. If any problem occurs, the roles may change according to the problem. More detailed information is given in following subsections.

2.1 Organization

All team members are members of Configuration Control Board (CCB). The main responsibilities of CCB are:

- Configuration Control Board (CCB)
  - Establish and control baselines

- o Check CVS
- o Perform the assigned CM activities
- o Inform all members when a change is done in CVS
- o Attach comment after changed codes in the CVS
- o Finish the jobs until deadlines
- o Form CM policies
- o Identifying the CIs
- o Deal with the time and resource planning issues
- o Check the CVS usage activity of members
- o Check the correct actions to the SCR are done or not

Roles must be identified clearly not to confront with a serious problem related to the responsibilities that the team member have to perform when he is assigned to handle a task. In addition, some groups are built up in order to get the most efficient results.

- Quality control
- CM Update
- Team control
- Testing
- Development

 Detailed information will be given in the following section.

2.2 Responsibilities

- Quality Control Team
  - o Members
    - Sadettin Şen
    - Şerif Çetiner

  - o Responsibilities
    - Be careful about the standards
    - Ensure that the software development process steps are done according to CMP

- Ensure that the correct product is released
- Ensure that members are doing their work properly

- CM Update Team
  - Members
    - Onur Ak

  - Responsibilities
    - Update the CM schedule according to the works done
    - Report the CM activities whether they have done properly or not

- Control Team
  - Members
    - Mazhar Tekin

  - Responsibilities
    - Ensure that the change control are performed
    - Maintain CMP
    - Control releases

- Testing Team
  - Members
    - Onur Ak
    - Sadettin Şen

  - Responsibilities
    - Test the releases of the project
    - Report errors
    - Tests the results of the changes done related to SCRs

- Development team
  - Members
    - Sadettin Şen

- Mazhar Tekin
- Şerif Çetiner
- Onur Ak

- o Responsibilities
  - Create the baselines and releases
  - Perform developmental change control activities
  - Use CVS for update of code to the corresponding folder.
  - Implement the product
  - After correction of errors, implement the product again

2.3 Tools & Infrastructure

Throughout the development project of Turkuaz, the tools to be used can be listed as follows:

- **NetBeans**

  NerBeans is an IDE for JAVA. It has versions for windows platform and specific packeges for different APIs are present on the web. It supports projects and also it has CVS support.

- **WinMerge**

  WinMerge is an editor for windows that supports diff functions. Just after checking out the CVS repository the differences of files can be seen from this program. It is up to the user to select which blocks to use in the files.

3. The CM Process

The Configuration Management process consists of functions and definitions of the tasks required to manage the configuration of the software. In order to administrate the CM, both technical and managerial SCM activities must be identified. These SCM activities are generally divided into four parts:

- Identification

- Management and Control

- Configuration Status Accounting

- Auditing

These categories are explained in details below.

3.1 Identification

In order to identify the current state of our project, some Configuration Items (CI) is defined. These are the most important parts that are prone to changes. Our CIs are listed below:

- Modules
- Code
- Data Files
- Documentation

3.1.1 Modules

Modules are defined in the design stage. These are determined by grouping the similar functionalities together. However, there will be need for some changes in these modules during implementation stage.

3.1.2 Code

Code is the most changeable configuration item in our project. From the beginning to the end, there will be changes in the code continuously. Our coding standards can be listed as below:

- The variable names should be meaningful.

- The function names should be meaningful and should reflect the responsibility of that function.

- If the names of the variables or functions are combinations of more than two words, the first letters of all the words but the first one should be capitalized.

- Comments about the arguments and the responsibility of the functions should be added before the function definitions.

- Comments about the responsibility of classes should be added to the top of the class definitions.

- The class names should be meaningful.

3.1.3 Data Files

Data files are the RTF files given by Tepe Technology.

3.1.4 Documentation

Detailed information about our project (Turkuaz) should be documented as a necessity for the software management. Up to now, the documents are:

- Project Proposal
- Requirement Analysis Report
- Initial Design Report
- Final Design Report
- Weekly Reports

These documents can be found in our website and CVS.

3.2 Management and Control

Change requests are taken on the daily meetings. Each member has the latest working copy of the project and changes are requested informally. Whenever a change is made by a member, the latest working copy of the source code is backed up and named as "Turkuaz X.X.". The changes made by the member are then merged together with all the members. If the changes are successful, another working copy is formed.

3.3 Configuration Status Accounting

Configuration Status Accounting mainly is about recording and reporting the status of the configuration items and changes applied to them. The status of the project will be seen in the Living Schedule added to our web site. Moreover, reports about status will be constructed regularly including information about changes and revisions. The name of the files subjected to changes, the reason for changes, version numbers and the name of the group member who made the change will be included in reports. These reports will be accessible from web page that we had created for file sharing or one copy of them will be stored in the CVS repository if possible.

3.4 Auditing

Auditing of the project will be done after a new source code version is created. Each member will test the new version and if an error occurs each member will have equal share of voting to go back to the previous version or to request for a change to correct the error.

4. Project Schedules – CM Milestones

We have a Living Schedule on our web site and necessary changes will be made on it during the development. Team members have meeting with supervisor on Thursdays every week. In these meetings members and supervisor discuss about current level of the project. After these meetings Logiciel members make a meeting for coming week, each member gives information about his part.

- 27th March   Version 1
- 24th April   Version 2
- 2nd May   Embedding medical terms into Zemberek
- 23rd May   Search Module
- 30th May   GUI
- 13th June   Final Version

5. Project Resources

5.1 Personnel

- Onur Ak
- Sadettin Şen
- Şerif Çetiner
- Mazhar Tekin

5.2 Tools

The following items will be used for CM activities:

- NetBeans
- WinMerge

6. Plan Optimization

The optimization of the plan will be made during the updates in the SCM plan. These updates are scheduled to the first release and the final release of the project. According to the difficulties faced throughout the project the CM plan will be optimized and changed. These changes will be made by the whole team in order to prevent miscommunication.

7. Gantt Chart

	Task Name	Duration	Start	Finish	Completed	Resource Names
1						
2	Embedding medical terms into Zemberek	45 days?	Mon 03.03.08	Fri 02.05.08	0%	Mazhar
3	Determining the seriousness of the disease	20 days?	Mon 05.05.08	Fri 30.05.08	0%	Mazhar
4						
5	Extracting numerical values	35 days?	Mon 03.03.08	Fri 18.04.08	0%	Şerif
6	Search Module	30 days	Mon 21.04.08	Fri 30.05.08	0%	Şerif
7						
8	Determining the behaviour of abnormality	30 days?	Mon 03.03.08	Fri 11.04.08	0%	Sadettin
9	Improving the performance of program(speed)	35 days	Mon 14.04.08	Fri 30.05.08	0%	Sadettin
10						
11	Developing the extraction of word groups	55 days?	Mon 03.03.08	Fri 16.05.08	0%	Onur
12	Preparing a better GUI	10 days?	Mon 19.05.08	Fri 30.05.08	0%	Onur
13						
14	Spell Checker	65 days?	Mon 03.03.08	Fri 30.05.08	0%	ALL