GroupBarkod

Mobile Medical Management 3M

Configuration Management Report

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1 INTRODUCTION

1.1 Purpose

The purpose of this document is to describe the configuration management (CM) process for Mobile Medical Management (3M). The intended audience for this document is GroupBarkod and METU assistants and professors.

1.2 Scope

The main aim of this document is to supply 3M's maintainability and flexibility. Thus, in every step of our project process we will modify this document according to changes and their needs. In this document, roles of the GroupBarkod members can be seen.

There are some milestones for our project. We try to make working parallel on our project 3M. We have some tools which make our coding easy in order to control these milestones and manage it. SVN and Trac tools are supplied to us by our department. Addition to these, we use electronic mail, group's blog and web page to make communication perfect. These management styles are covered in this document.

1.3 Definitions, Acronyms and Abbreviations

- 3M – Mobile Medical Management
- GB – Group Barkod
- CM – Configuration Management
- SCR – Specification Change Request
- SVN – Subversion
- SDT – Software Development Team
- TT – Testing Team
- CCT – Configuration Control Team
- CMT – Configuration Management Team
- CI – Configuration Item
1.4 Document Overview

This document is divided into six (6) sections, the Introduction, the Organization, the Configuration Management Process, Project Schedule, Project Resources and Plan Optimization. The organization of this document is as follows:

1. **Introduction**: Gives a brief information about this document.
2. **Organization**: Describes organization and responsibilities of team members and necessary tools to support this structure.
3. **Process**: Describes the configuration management process to be used.
4. **Schedule**: Presents the schedule which will lead to successful implementation of the 3M CM process.
5. **Resources**: Describes GB’s resources.
6. **Plan Optimization**: Gives information about plan adjustment in an unpredicted situation.

2 The CM Organization

2.1 Organization

GroupBarkod team consists of 4 people. All of the members are responsible of different specific tasks, and also they are responsible of common works. CCT will be the supervisor group of the whole framework. The team members are:

- Ferdi Gündüz
- Tolgahan Hancı
- Ali Mert Ertuğrul
- Umut Kiremitçi

The team organization of GroupBarkod is explained in detail in following sections:

2.1.1 Software Development Team

Software Development Team is mainly responsible for implementing the modules of Mobile Medical Management (3M) project and making the changes that are requested by Testing Team. SDT will also be responsible from the releases.

2.1.2 Testing Team

This team makes necessary tests in 3M in order to control that the project has incorrect things or not. And they give feedback about the modules and want to change requests if necessary.

2.1.3 Configuration Management Team

This team will update the CM according to the status and process of the project. Also,
this team will keep the Configuration Management Plan up-to-date.

2.1.4 Configuration Control Team

Configuration Management Team consists of all members of GroupBarkod. And this team will supervise all the activities.

2.2 Tools & Infrastructure

2.2.1 NetBeans IDE 6.8

NetBeans refers to both a platform framework for Java desktop applications, and an integrated development environment (IDE) for developing with Java, JavaScript, PHP, Python, Ruby, Groovy, C, C++, Scala and Clojure. The NetBeans IDE is written in Java and runs everywhere where a JVM is installed, including Windows, Mac OS, Linux, and Solaris. A JDK is required for Java development functionality, but is not required for development in other programming languages.

The NetBeans Platform allows applications to be developed from a set of modular software components called modules. Applications based on the NetBeans platform (including the NetBeans IDE) can be extended by third party developers.[1]

2.2.2 SVN

In software development, Subversion (SVN) is a version-control system initiated in 2000 by CollabNet Inc. Developers use Subversion to maintain current and historical versions of files such as source code, web pages, and documentation. Its goal is to be a mostly-compatible successor to the widely used Concurrent Versions System (CVS).[2]

3 Configuration and Management Steps

3.1 Identification

3.1.1 Source Code

Source code of the 3M project sits in a central SVN repository. By using it, all GB members are able to find out and make changes. The source code of 3M project is basically written in Java programming language. XML, HTTP, MySQL and some other technologies are also being used. The source code is based on a Netbeans project. Source code of 3M can be divided into two major parts one for server side and one for client side. Server side is the part that does the algorithmic issues and SMS transferring. And the client side is the hospitals that sends the live data to the system.

3.1.2 Database

In 3M project all database issues are handled with MySQL. The database generally
interacts with server-side code namely admin and user tables, hospital and clinic tables. However, it has to be accessible also from client side to update data.

### 3.1.3 Website Code

Website codes are implemented using JSPs and HTTP. SDT used the advantages of embedding Java codes while designing admin and user web pages.

### 3.1.4 Documentation

Most of the documents are in GroupBarkod web site.
- Project proposal
- Requirements analysis report
- Initial design report
- Final design report
- Living schedule
- Configuration management plan

With the following weeks the other documents will be ready. Those will be test cases, user manuals and documentation for 3M. Living schedule is also updated every week according to the team’s progress.

### 3.2 Management and Control

GB members are using SubVersion revision control system and Trac project management system in order to manage and control configuration management process. If any change is going to be made, the one has to state the reason of the change and informs CCT using Trac. If CCT confirms it, the change is performed. When any unwanted effect occurs, using SVN the project is turned back to the old version.

### 3.3 Configuration Status Accounting

CSA is one of the most important factors in the development process. Since there can always be mistakes done by GB members, these mistakes can also lead crashes in implementation of the project. So GB uses some important and basic comments when updating repository files. GB also updates its living schedule to keep the track of the project. This schedule is accessible publicly. Also the status of the project can be followed by the team’s blog page and website.

### 3.4 Reviews

The team gives a great importance into auditing. To welcome the expectations the team tries to control every change in the project and does not allow any unwanted progress. To accomplish this; each member checks its own work and finds out the bugs. Any development of a module is under the developer’s responsibility and before integrating to the project it has to be tested and compiled correctly.
4 Project Schedule

The living schedule has already been prepared. This schedule includes milestones and tasks. In order to make the development easier, SDT divided the implementation into components. Hence, these provide us to determine how much time the team has for any job.

In the first build SDT is planning to make a connection between a sample hospital automation system and the main system. Also, SDT will try to implement SMS transferring between the system and users.

In the second build the implementation of SMS transferring protocol will be completed. SDT hopes all main components will be done after second build. Before the final release, minor components can be flourished to make the system more user-friendly. After all these steps, the user manual and documentation will be prepared.

4.1 Milestones

- **First Development Snapshot, Demo:** 8 April 2010
- **First Release:** 13 May 2010
- **Final Release:** 10 June 2010
- **Documentation:** 17 June 2010

5 Project Resources

GroupBarkod has two type resources for 3M project:

5.1 Developer Resources

3M project resources are stored in members’ own computers of SDT. Also, inek machines include backups of all resources. Group members use SVN to control versions of software. In addition, Trac is used for informing group members and assignments to them.

5.2 Consumer Resources

GroupBarkod has a website to follow the process. In addition, project documentations living schedule and screenshots are available in this website. The team has also a blog to discuss the process steps.

6 Plan Optimization

CMP will be updated by configuration management update team. Maintaining the schedule is important during the project. If there is any change, the configuration management update team will update the schedule.
REFERENCES
