Initial Plan

File Synchronization and Backup Tool

v1.0

Acquirer : CTIS

Prepared By :

Ege ILICAK

Cenk AKIN

Murat ÇINAR

Serkan AKŞİT

Date of Issue : October 17, 2008

File Synchronization and Backup Tool

Signatures

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Ege Ilıcak – Group Member

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Cenk Akın – Group Member

_____

Murat Çınar – Group Member

_____

Serkan Akşit – Group Member

_____

Beyhan Akporay

Senior Project Manager

_____

Vural Polat

Project Consultant

Change History

Project Name	Version	Person Responsible	Date	Changes
File Synchronization and Backup Tool	1.0	Ege Ilıcak	17-10-2008	Initial release

PREFACE

This Initial Plan document is the first draft of the Software Project Management Plan of **File Synchronization and Backup Tool** project, which aims on synchronization of files between drives, computers and PDAs (personal digital assistant).

Initial Plan gives a brief summary about the **File Synchronization and Backup Tool** project. Initial plan includes the purpose, scope and the objectives of the project; the project assumptions and constraints; a list of project deliverables and a table about the project schedule and the plan for evolution of the SPMP.

In addition to these, initial plan gives information about the evolution of the SPMP and project organization including the project's external interfaces, internal structure and organization's roles and responsibilities.

This document is prepared according to "*IEEE Standard for Software Project Management Plans"*.

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1. OVERVIEW

This part will introduce the project summary that is about **file synchronization and backup tool.**

1.1 Project Summary

This part will introduce the purpose, scope, and objectives; assumptions and constraints; project deliverables and schedule about the project.

1.1.1 Purpose, Scope, and Objectives

Nowadays, decreases of the prices of computers bring us to have more than one computer in users' homes or offices. Therefore, users need to communicate between two or more computers. In this purpose, **file synchronization and backup tool** provides to transfer and update data and files between their computers.

The purpose of this project is transmitting files and other important data over cables through drive-to-drive, PC-to-PC and also PC to PDA (which has Windows Mobile 6.0 or Windows Mobile 6.1.) devices over USB port.

In addition to these connection types, file synchronization can be established over the TCP/IP protocol between two PCs, which are even not on the same network.

1.1.2 Assumptions and Constraints

Assumptions of the project are described below:

- The product will be worked on every computer which is in same network.
- Every Thursday there will be a meeting with the project manager to discuss the improvements and observing the development process of the project.
- Computers are working correctly and without any bugs, without freezing and all of the hardware are configured correctly and having enough resource to handle our software.
- In the spring semester development period of the project will start.
- Coding and testing of the project will be done in spring semester.
- Computer Technologies and Information Systems (CTIS) department, the senior project manager Beyhan AKPORAY, the project consultant Vural POLAT could change the deadline dates of these documents.

Constraints of the project are described below:

- .NET Framework 3.5 has to be installed to the client computers.
- .NET Sync Framework 1.0 Mobile has to be installed for PDAs.
- .NET Sync Framework 1.0 has to be installed for Computers
- .NET Compact Framework 3.5 has to be installed to the PDAs.
- Windows Mobile 6.0 or higher Operating System has to be installed to the PDA.
- Development Environment is going to be Microsoft Visual Studio 2008.
- Database Management System is going to be MS SQL Server 2005 or higher.
- Backward compatibility will be provided with Windows XP.

1.1.3 Project Deliverables

Product	Delivery Information
Initial Plan :	This document will be delivered at 17th October 2008 to Beyhan AKPORAY.
Software Requirement Specification:	A Software Requirements Specification (SRS) is a complete description of the behavior of the system to be developed. SRS will be delivered until *31st October 2008* to Beyhan AKPORAY.
Software Project Management Plan:	An SPMP is the controlling document for managing a software project; it defines the technical and managerial processes necessary to develop software work products that satisfy the product requirements. SPMP will be delivered until 21st November 2008 to Beyhan AKPORAY.
Software Design Document:	Software Design Document (SDD) is a comprehensive software design model consisting of four distinct but interrelated activities: data design, architectural design, interface design, and procedural design. SDD will be delivered until 23rd December 2008 to Beyhan AKPORAY.
Prototype Implementation And Demo:	The prototype and the demo are going to be prepared in January 2009 and delivered to Beyhan AKPORAY.

Table 1 – Project Deliverables

1.1.4 Schedule and Budget Summary

Task Date	Task Name
17th October 2008	*Initial Plan*
31st October 2008	*Software Requirements Specification (SRS)*
21st November 2008	*Software Project Management Plan (SPMP)*
23rd December 2008	*Software Design Description (SDD)*
January 2009	*Prototype Implementation And Demo*

Table 2 – Schedule and Budget Summary

Work Breakdown Structure

Task No.	Task Name
0.0	File Synchronization and Backup Tool
1.0	**Initial Plan**
1.1	Preparing the Initial Plan
1.2	Meeting with the Consultant (Vural Polat)
1.3	Delivering the Initial Plan
2.0	**Requirements**
2.1	Requirements Elicitation
2.1.1	Meeting with the Consultant
2.1.2	Problem Description for file synchronization
2.1.3	Searching for problem solution
2.1.3.1	Analyze similar synchronization software
2.2	Requirements Analysis
2.2.1	Analyzing eligible frameworks
2.2.1.1	Analyzing synchronization compatible frameworks for PCs
2.2.1.2	Analyzing synchronization compatible frameworks for PDAs
2.3	Delivering Software Requirements Specification (SRS) Document
3.0	**Software Project Management Plan (SPMP)**
3.1	Managerial Process Plans
3.1.1	Project Start-up Plan
3.1.2	Work Plan
3.1.3	Control Plan
3.1.4	Risk Management Plan
3.1.5	Closeout Plan
3.2	Technical Process Plans
3.2.1	Infrastructure Plan
3.2.1.1	Providing Hardware System for File Synchronization and Backup Tool Project
3.2.1.2	Detecting the Operating System for File Synchronization and Backup Tool Project
3.2.1.3	Setting up the Network System
3.2.1.4	Establishing Software System for File Synchronization and Backup Tool Project
3.3	Supporting Process Plans
3.4	Additional Plans
3.5	Delivering the Software Project Management Plan (SPMP)
4.0	**Software Design and Documentation (SDD)**
4.1	Software Design of File Synchronization and Backup Tool
4.1.1	Problem-solving and planning for a File Synchronization and Backup Tool
4.2	Interface Design of File Synchronization and Backup Tool
4.2.1	Design of interfaces that will be created during the software development
4.3	Database Design
4.3.1	Designing the user database

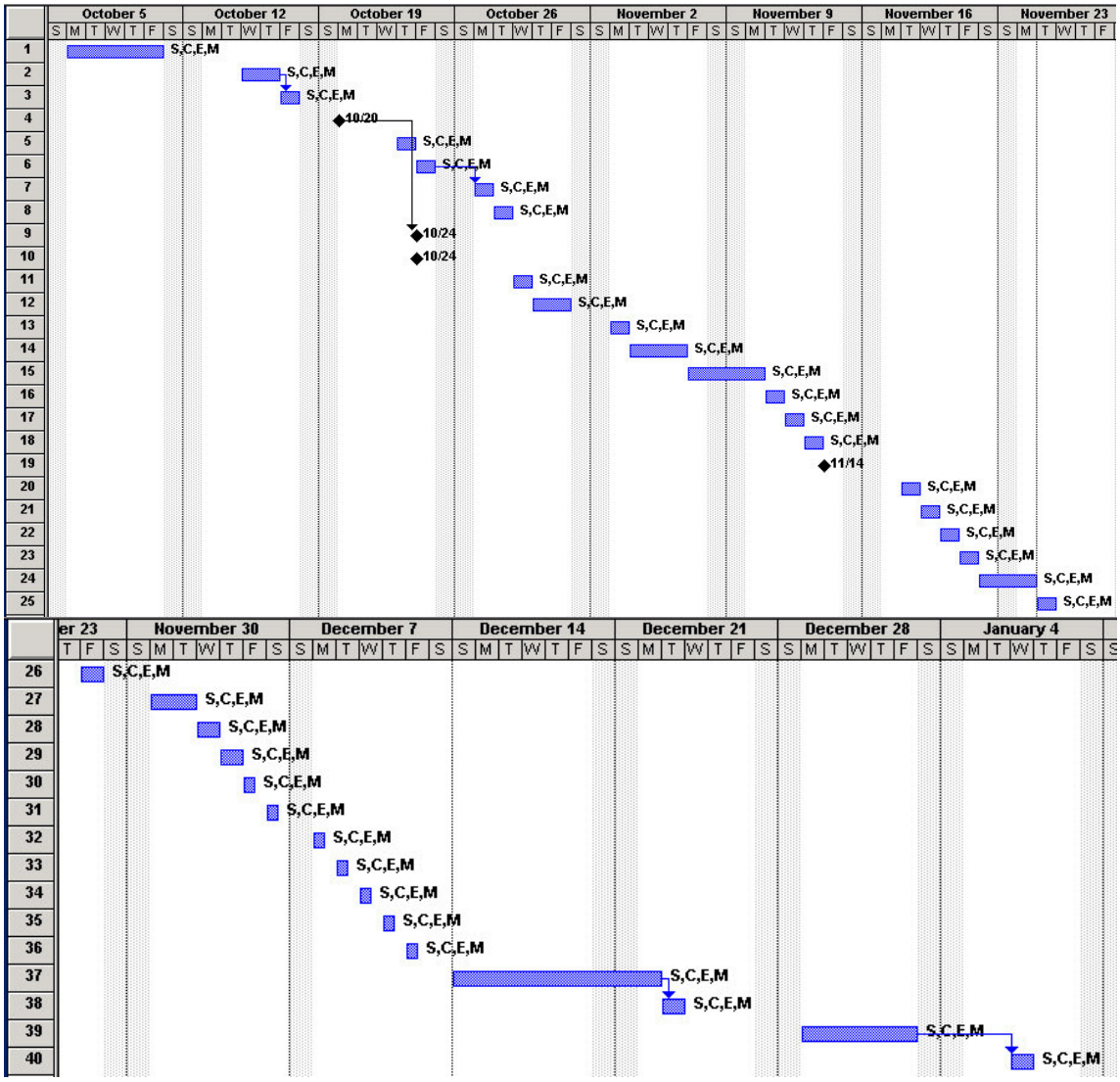
4.3.2	Designing the logging database
4.4	Architecture Design
4.4.1	Identifying the Synchronization classes
4.4.2	Identifying the Connection classes
4.4.3	Identifying the Synchronization methods
4.4.4	Identifying the Event methods
4.4.5	Identifying the relations between classes
4.4.6	Identifying the relations between classes and methods
4.5	Documentation
4.5.1	Preparing Software Design Document (SDD)
4.5.2	Delivering the Software Design Document (SDD)
5.0	**Prototype Implementation and Demo**
5.1	Implementation of Demo
5.2	Presentation of Demo
6.0	**Hardware System**
6.1	Obtaining PCs
6.2	Obtaining the File Server
6.3	Obtaining the PDA
7.0	**Software Development**
7.1	Implementation of Graphical User Interfaces
7.1.1	Implementation of Graphical User Interfaces for Drive-to-Drive Synchronization
7.1.2	Implementation of Graphical User Interfaces for PC-to-PC Synchronization
7.1.3	Implementation of Graphical User Interfaces for PC to PDA Synchronization
7.1.4	Implementation of Graphical User Interfaces for Synchronization over TCP/IP connection
7.2	Implementation of User List Database and Logging Database
7.3	Implementation of Filename Check Process
7.4	Implementation of Tracking Logs
7.5	Implementation of Drive-to-Drive Synchronization
7.6	Implementation of PC-to-PC Synchronization
7.7	Implementation of PC-to-PDA Synchronization
7.8	Implementation of Server Software
7.9	Implementation of Synchronization over TCP/IP connection
7.10	Review of Implemented Database
7.11	Implementation of Backup Tool
8.0	**User Manual**
8.1	Preparing the User Manual
9.0	**Testing**
9.1	Testing Documentations
9.2	Fixing Errors and Bugs
10.0	**Distribution of the final product**
10.1	Compiling the Project Documents
10.2	Delivering the Software Product

Table 3 – Work Breakdown Structure

Gantt Chart

	Task Name	Duratio	Start	Finish	Prede	Resourc
1	Preparing Initial Plan	5d	Mon 10/6/08	Fri 10/10/08		S,C,E,M
2	Meeting the Consultant with Vural Polat	2d	Wed 10/15/08	Thu 10/16/08		S,C,E,M
3	Delivering the Initial Plan	1d	Fri 10/17/08	Fri 10/17/08	2	S,C,E,M
4	Requirements Elicitation	0d	Mon 10/20/08	Mon 10/20/08		S,C,E,M
5	Meeting with the Consultant	1d	Thu 10/23/08	Thu 10/23/08		S,C,E,M
6	Problem Description for file synchronization	1d	Fri 10/24/08	Fri 10/24/08		S,C,E,M
7	Searching for problem solution	1d	Mon 10/27/08	Mon 10/27/08	6	S,C,E,M
8	Analyze similar synchronization software	1d	Tue 10/28/08	Tue 10/28/08		S,C,E,M
9	Requirements Analysis	0d	Fri 10/24/08	Fri 10/24/08	4	S,C,E,M
10	Analyzing eligible frameworks	0d	Fri 10/24/08	Fri 10/24/08		S,C,E,M
11	Analyzing synchronization compatible frameworks for PCs	1d	Wed 10/29/08	Wed 10/29/08		S,C,E,M
12	Analyzing synchronization compatible frameworks for PDAs	2d	Thu 10/30/08	Fri 10/31/08		S,C,E,M
13	Delivering Software Requirements Specification (SRS) Document	1d	Mon 11/3/08	Mon 11/3/08		S,C,E,M
14	Project Start-up Plan	3d	Tue 11/4/08	Thu 11/6/08		S,C,E,M
15	Work Plan	2d	Fri 11/7/08	Mon 11/10/08		S,C,E,M
16	Control Plan	1d	Tue 11/11/08	Tue 11/11/08		S,C,E,M
17	Risk Management Plan	1d	Wed 11/12/08	Wed 11/12/08		S,C,E,M
18	Closeout Plan	1d	Thu 11/13/08	Thu 11/13/08		S,C,E,M
19	Infrastructure Plan	0d	Fri 11/14/08	Fri 11/14/08		S,C,E,M
20	Providing Hardware System for File Synchronization and Backup To	1d	Tue 11/18/08	Tue 11/18/08		S,C,E,M
21	Detecting the Operating System for File Synchronization and Backup	1d	Wed 11/19/08	Wed 11/19/08		S,C,E,M
22	Setting up the Network System	1d	Thu 11/20/08	Thu 11/20/08		S,C,E,M
23	Establishing Software System for File Synchronization and Backup	1d	Fri 11/21/08	Fri 11/21/08		S,C,E,M
24	Supporting Process Plans	2d	Sat 11/22/08	Mon 11/24/08		S,C,E,M
25	Additional Plans	1d	Tue 11/25/08	Tue 11/25/08		S,C,E,M
26	Delivering the Software Project Management Plan (SPMP)	1d	Fri 11/28/08	Fri 11/28/08		S,C,E,M
27	Problem-solving and planning for a File Synchronization and Backup	2d	Mon 12/1/08	Tue 12/2/08		S,C,E,M
28	Design of interfaces that will be created during the software develo	1d	Wed 12/3/08	Wed 12/3/08		S,C,E,M
29	Designing the user database	1d	Thu 12/4/08	Thu 12/4/08		S,C,E,M

	Task Name	uratio	Start	Finish	Prede	Resour
30	Designing the logging database	0.5d	Fri 12/5/08	Fri 12/5/08		S,C,E,M
31	Identifying the Synchronization classes	0.5d	Sat 12/6/08	Sat 12/6/08		S,C,E,M
32	Identifying the Connection classes	0.5d	Mon 12/8/08	Mon 12/8/08		S,C,E,M
33	Identifying the Synchronization methods	0.5d	Tue 12/9/08	Tue 12/9/08		S,C,E,M
34	Identifying the Event methods	0.5d	Wed 12/10/08	Wed 12/10/08		S,C,E,M
35	Identifying the relations between classes	0.5d	Thu 12/11/08	Thu 12/11/08		S,C,E,M
36	Identifying the relations between classes and methods	0.5d	Fri 12/12/08	Fri 12/12/08		S,C,E,M
37	Preparing Software Design Document (SDD)	7d	Sun 12/14/08	Mon 12/22/08		S,C,E,M
38	Delivering the Software Design Document (SDD)	1d	Tue 12/23/08	Tue 12/23/08	37	S,C,E,M
39	Implementation of Demo	5d	Mon 12/29/08	Fri 1/2/09		S,C,E,M
40	Presentation of Demo	1d	Wed 1/7/09	Wed 1/7/09	39	S,C,E,M
41	Obtaining PCs	1d	Wed 2/11/09	Wed 2/11/09		S,C,E,M
42	Obtaining the File Server	2d	Fri 2/13/09	Mon 2/16/09		S,C,E,M
43	Obtaining the PDA	1d	Tue 2/17/09	Tue 2/17/09		S,C,E,M
44	Implementation of Graphical User Interfaces for Drive-to-Drive Synch	0.5d	Wed 2/18/09	Wed 2/18/09		S,C,E,M
45	Implementation of Graphical User Interfaces for PC-to-PC Synchroni:	0.5d	Thu 2/19/09	Thu 2/19/09		S,C,E,M
46	Implementation of Graphical User Interfaces for PC to PDA Synchror	0.5d	Fri 2/20/09	Fri 2/20/09		S,C,E,M
47	Implementation of Graphical User Interfaces for Synchronization ove	0.5d	Mon 2/23/09	Mon 2/23/09		S,C,E,M
48	Implementation of User List Database and Logging Database	1d	Tue 2/24/09	Tue 2/24/09		S,C,E,M
49	Implementation of Filename Check Process	1d	Wed 2/25/09	Wed 2/25/09		S,C,E,M
50	Implementation of Tracking Logs	1d	Thu 2/26/09	Thu 2/26/09		S,C,E,M
51	Implementation of Drive-to-Drive Synchronization	1d	Fri 2/27/09	Fri 2/27/09		S,C,E,M
52	Implementation of PC-to-PC Synchronization	1d	Mon 3/2/09	Mon 3/2/09		S,C,E,M
53	Implementation of PC-to-PDA Synchronization	1d	Tue 3/3/09	Tue 3/3/09		S,C,E,M
54	Implementation of Server Software	1d	Wed 3/4/09	Wed 3/4/09		S,C,E,M
55	Implementation of Synchronization over TCP/IP connection	1d	Thu 3/5/09	Thu 3/5/09		S,C,E,M
56	Review of Implemented Database	1d	Fri 3/6/09	Fri 3/6/09		S,C,E,M
57	Implementation of Backup Tool	1d	Mon 3/9/09	Mon 3/9/09		S,C,E,M
58	Preparing the User Manual	1d	Tue 3/10/09	Tue 3/10/09		S,C,E,M
	Task Name	**uratio**	**Start**	**Finish**	**Prede**	**Resour**
59	Testing Documentations	1d	Wed 3/11/09	Wed 3/11/09		S,C,E,M
60	Fixing Errors and Bugs	1d	Thu 3/12/09	Thu 3/12/09		S,C,E,M
61	Compiling the Project Documents	1d	Fri 3/13/09	Fri 3/13/09		S,C,E,M
62	Delivering the Software Product	1d	Mon 3/16/09	Mon 3/16/09		S,C,E,M


October 5
October 12
October 19
October 26
November 2
November 9
November 16
November 23
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10/20
10/24
10/24
11/14
November 30
December 7
December 14
December 21
December 28
January 4

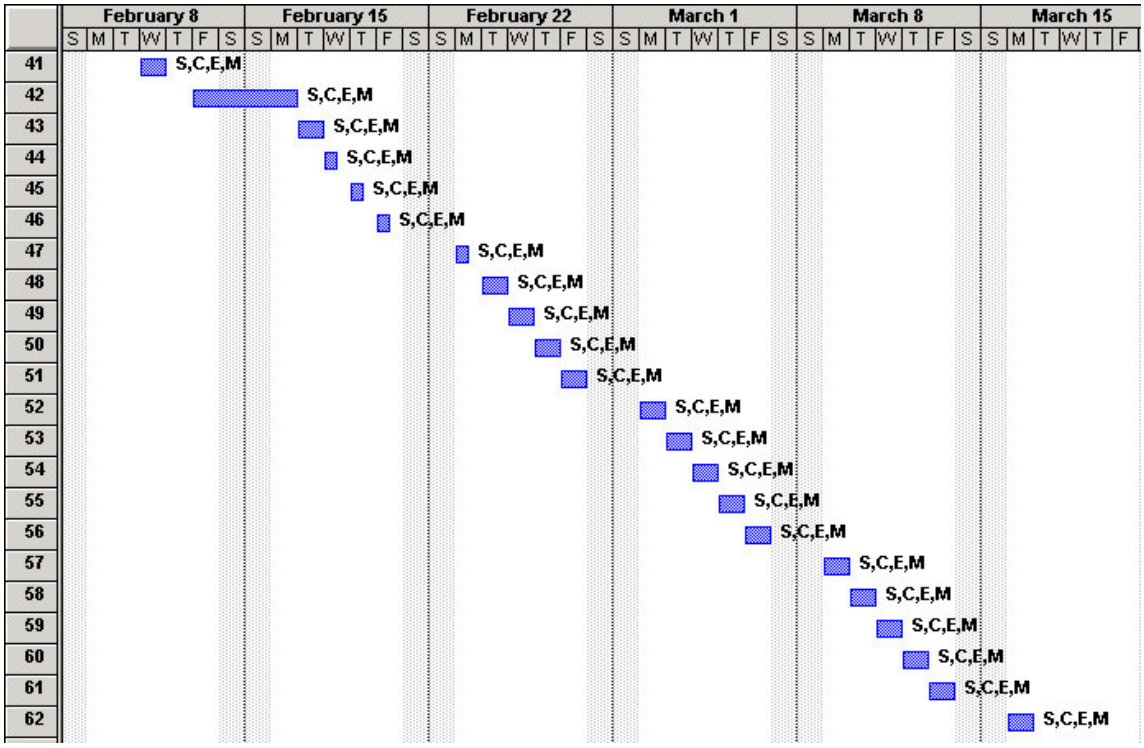

Figure 1 – Gantt Chart

1.2 Evolution of the SPMP

This document is the first version of the Software Project Management Plan and it is called as Initial Plan. SPMP document will be updated and disseminated as hard and soft copies whenever required considering deadlines.

The updates will be listed on a table with the due dates for the upcoming revisions.

Whenever an update is required, the project team will be in contact with the acquirer immediately, analyze the problems and the changes carefully. After analyzing the problems, the project team will be working on problems to find the best solution possible for the problem in the shortest period of time.

While creating the solution, all required changes could be done in SRS such as changing one or more of the requirements to satisfy the acquirer.

After planning and implementing the best solution for the problem, every detail will be specifically considered and will be included in the plan.

2. REFERENCES

1. IEEE STD 1058 – 1998, IEEE Standard for Software Project Management Plans
2. Answers.com - http://www.answers.com/
3. Work Breakdown Structure. NetMBA - Business Knowledge Center. 15 October, 2008 from http://www.netmba.com/operations/project/wbs/

3. DEFINITIONS

The list of definitions that will be used in the document.

CTIS	Computer Technology and Information Systems
IEEE	Institute of Electrical and Electronics Engineers
FSBT	File Synchronization and Backup Tool
MCF	Microsoft Compact Framework
MSF	Microsoft Sync Framework
WMBL	Windows Mobile
DB	Database
SYNC	Synchronization
PL	Programming language of the system
SDD	Software Design Document
SRS	Software Requirements Specification
SPMP	Software Project Management Plan

Table 4 – Definitions

4. PROJECT ORGANIZATON

This section goes into detail of the external interfaces, describes the project's internal structure and determines the roles and responsibilities for the project.

4.1 External Interfaces

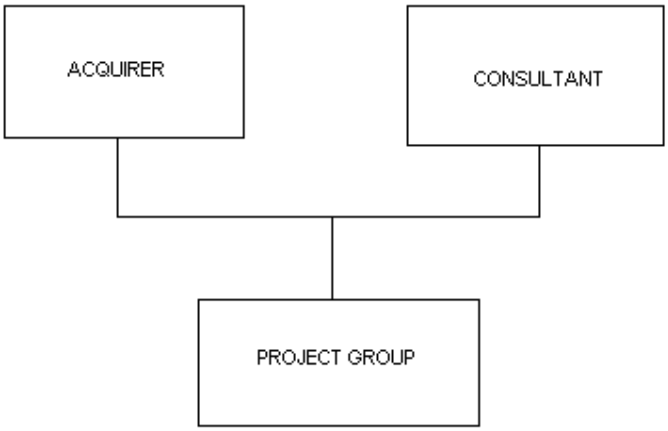

Figure 2 – External Interfaces

Bilkent University (Acquirer): CTIS Department
CTIS (Consultant): Vural Polat

4.2 Internal Structure

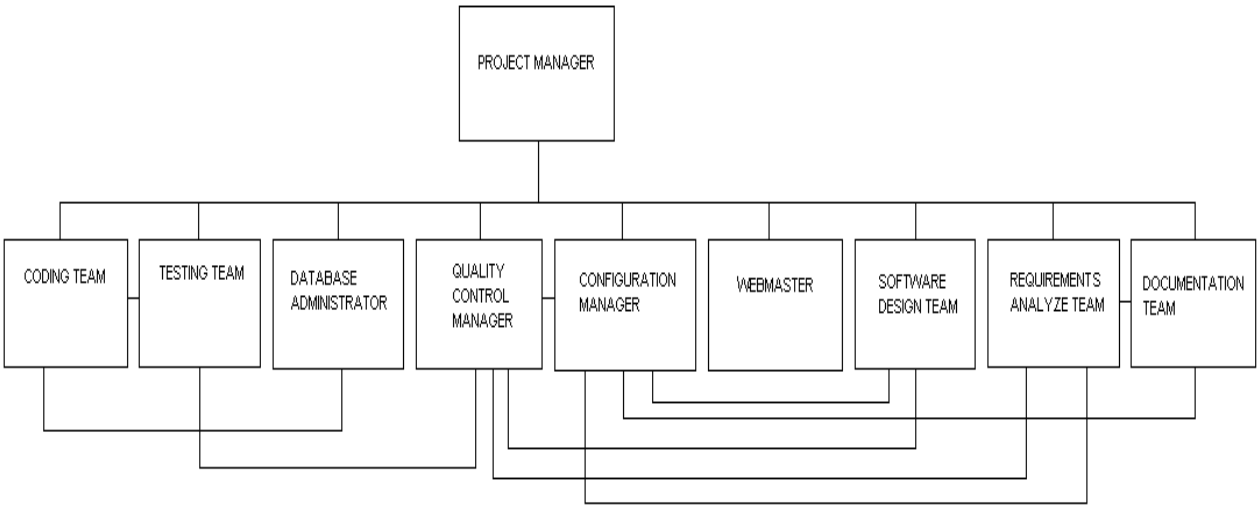

Figure 3 – Internal Structure

4.3 Roles and responsibilities

The table of team members' roles and responsibilities.

Name Surname	**Roles & Responsibilities**
Ege ILICAK	Project Manager Configuration Manager Head of Coding Team Software Development Specialist Requirements Analyzer
Murat ÇINAR	Quality Manager Configuration Manager

	Software Development Specialist Requirements Analyzer Head of Documentation Team
Cenk AKIN	Webmaster User Interface Designer Configuration Manager Test Engineer Software Development Specialist Requirements Analyzer
Serkan AKŞİT	Configuration Manager Test Engineer DB Administrator Software Development Specialist Requirements Analyzer

Table 5 – Roles and Responsibilities

Coding Team	The team that implements the codes of the software.
Configuration Manager	The member who is responsible for developing process plans and procedures.
Database Administrator	The member who is responsible for design and implementation of the database of the project.
Documentation Team	The team that is responsible for writing and delivering documentations to the customer.
Project Manager	The member who is responsible for administration of technical and managerial process of the project.
Quality Manager	The member who is responsible for determining ways to improve the software development process.
Requirements Analyzer	The member who gathers and analyzes software requirements and process the requirements for the software project.
Software Development Specialist	Member who develops the system by interacting with the customer.
Test Team	The team that tests the system for bugs and exploits.
User Interface Designer	The member who designs the graphical user interface of the software.
Webmaster	The member who is responsible for the functionality and design of the website of the project.

Table 6 – Responsibilities of Group Members