CEBU INSTITUTE OF TECHNOLOGY UNIVERSITY

COLLEGE OF COMPUTER STUDIES

ZMJ PRINTING CLIENT AND EMPLOYEE – TRACKING SYSTEM

Team members:

Dominic E Unabia

Breil Gemida

Klinton Keth Taboada

Dawit Tabonares

Kevin Espanol

Adviser:

Mrs. Jennilyn C. Suson

ABSTRACT

This Project is built to give help to the working environment of ZMJ Pixer Printing. Help such as adding, deleting, editing, storing, and retrieving. This system is specially built for ZMJ Pixer Printing for them to have a well manage and organized working environment. This system can help ZMJ Pixer Printing become a more efficient and productive work. This system will be provided with a user-friendly interface so that the user has find it very convenient to interact with the system.

Many of the components of such an environment are available today but not in an integrated fashion and this integration will be one of the main contributions of this project. This document specifies the requirements and constraints of such an environment. We will first discuss the different roles that the system will support followed by a discussion on the actual requirements.

The Software Requirements Specification is in content compliance with IEEE standard 830-1998 in which the contents of this standard are rearranged and a mapping is provided. It is mapped into various clauses and sub clauses of the IEEE standard 830-1998.

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COLLEGE OF COMPUTER STUDIES

Software Requirements Specifications

for

Client and Employee – Tracking System for ZMJ Printing

Signature

Name	Assigned Task	Signature
Dominic E Unabia	Project Manager Programmer Software Tester	
Breil Gemida	Document Officer Database Manager	
Klinton Keth Taboada	Document Officer User – Interface Designer	
Dawit Tabonares	Document Officer Programmer	
Kevin Espanol	Document Officer User - Interface Designer	

Change History

Preface

This Project is built to give help to the working environment of ZMJ Pixer Printing. Help such as adding, deleting, editing, storing, and retrieving. This system is specially built for ZMJ Pixer Printing for them to have a well manage and organized working environment. This system can help ZMJ Pixer Printing become a more efficient and productive work. This system will be provided with a user-friendly interface so that the user has find it very convenient to interact with the system.

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1. Introduction

1.1. Purpose

This document specifies the requirements upon the development and the integration of the software. This document will show the client what is the expected output of the project, in short, this document serves as a summary of the projects contents and its requirements. This document also serves as a contract agreement of what and how would the project be done.

1.2. Scope

This project will be intended for the president, secretary and also for the employees of the company. This system would require a database for the safe keeping of the records. This system will keep track of the company's employees and client's information beyond that would be out of this systems scope. Employees records such as their attendance log in, schedule, information and salary will be kept in the database and are the entries that this system would gather and keep beyond it would out of our scope. For the client side, the system will ask and keep the information, purchase order and the scanned documents and the system also provides a monthly calculation of the total income based on the transaction that happen within that month and beyond that would be out of our scope.

1.3. Definitions, Acronyms and Abbreviations

SRS – Software Requirement Specification

1.4. References

http://en.wikipedia.org/wiki/Tracking_system

1.5. Overview

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the system. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

This document is written primarily for the one who will check this document and describes in technical terms the details of the functionality of the said system.

2. Overall Description

The Client-tracking system is an easier and more convenient way of searching, storing archives of tenured clients and new ones alike, it offers a faster way of looking for specific data of a client. This system can fit years of paper transactions in one easy accessible location, with a growing clientele back-up files are a must.

2.1. Product perspective

This system can be used daily and will improve the business efficiency in terms of locating, adding, and retrieving, altering important files than keeping a paper based archive, all that information, in one convenient location.

2.2. Product functions

This project will be provided with a user-friendly interface for the convenience of the users in interacting with the system. This project will be comprise with two systems in which only the admin and the secretary can access, the client – tracking system and the employees tracking system. This system will help ZMJ Pixer Printing become more productive and more efficient in running the business. In the user- interface, the user will be provided with search box in order to retrieve the information of its client or employees. The physical documents will also be scanned in JPEG so that they can get rid of it.

2.3. User characteristics

There will be an admin side and user side. In the admin side, they are privileged in editing constant values in the system, such as price values, Etc. In the user side, there will be three users kind of users, the president, the secretary and employee. In the president's view, she can alter and view document in the system. In the secretary side, she will can also alter and view document in the system with some certain limitations like viewing the company's income, etc. In the employees side, They can only view their records and also they will be provided with a log in interface for their attendance.

2.4. Constraints

-This system will only be intended for the use of ZMJ Pixer Printing personnel's.

-This system is implemented in the existing unit that ZMJ Pixer Printing has.

-This system is provided with a user – friendly interface that computer literate or illiterate personnel`s can easily use this system.

-We will be providing manuals for the users so that they will be knowledgeable on how the system operates.

2.5. Assumptions and dependencies

The system may run in any operating system with the minimum requirement specification. This system does not require an internet connection. System only works on the intended client and cannot be used and distributed.

3. Specific Requirements

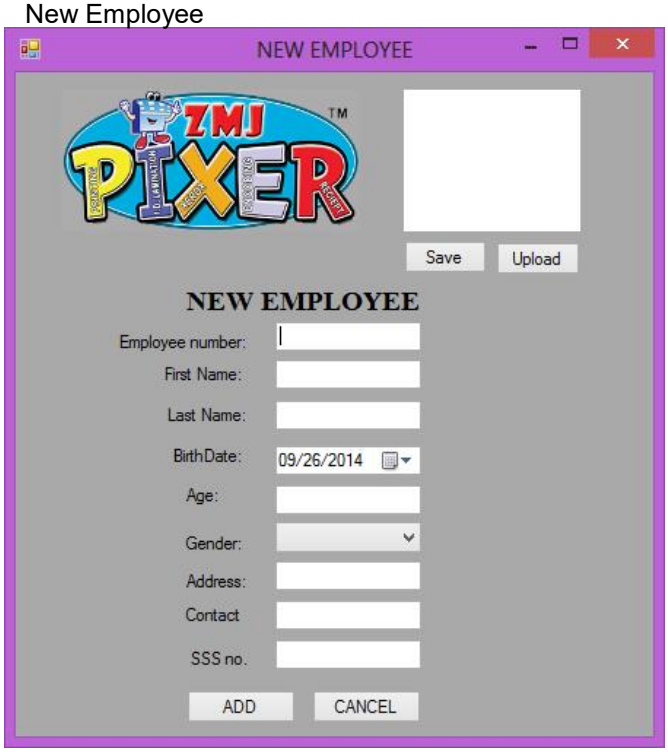
The users of this systems should be familiar with basic computer commands. This computer system can run on any computer or laptop and any operating system. No internet connection needed.

3.1. External interface requirements

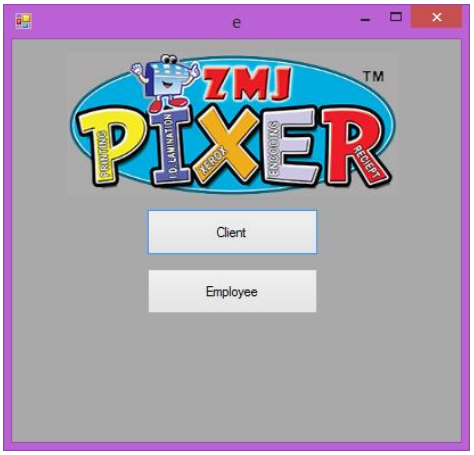
In this section, it will be shown or discussed here on how the system would look like. This section will serves as a guide to the client on what would be the possible output or display that would help them interact with the system.

3.1.1. User interfaces

New Employee



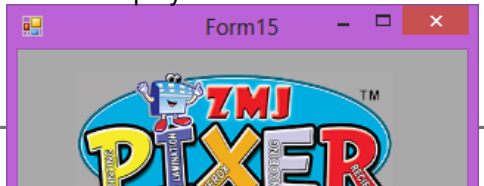
Admin Selection



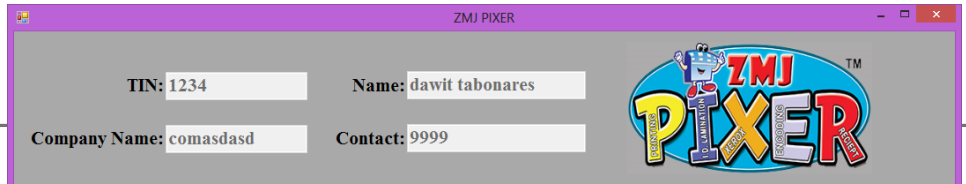
Employees View

Client Side

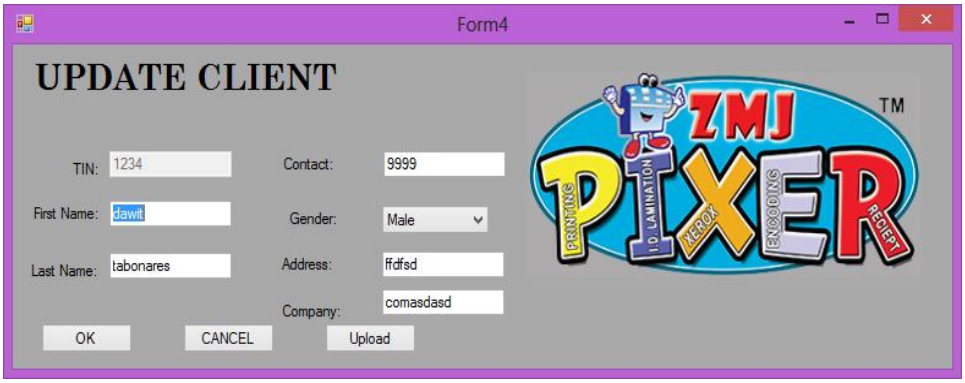
Edit Employee



Client Order

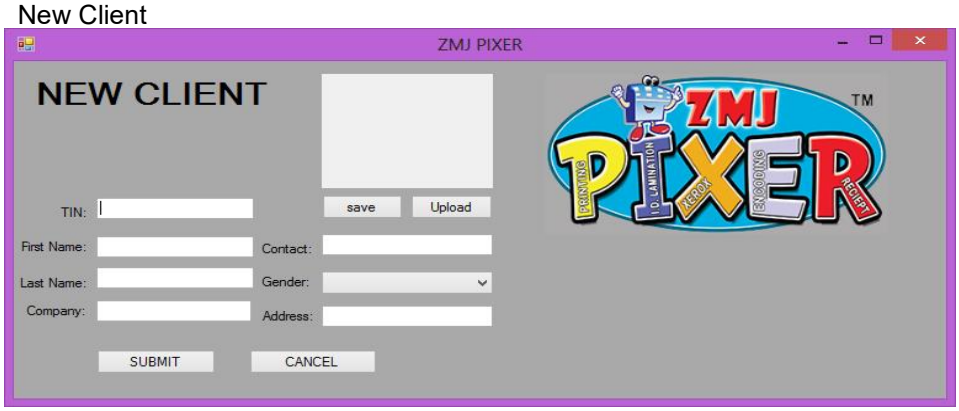


Edit Client

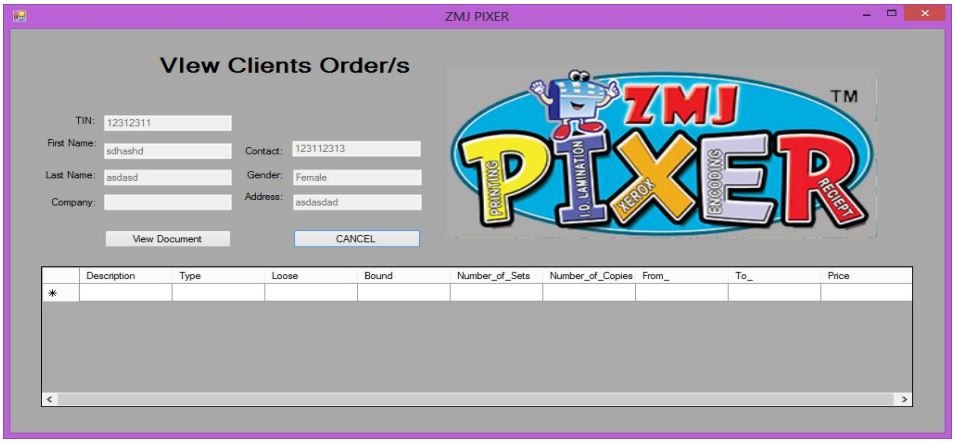


View Employee

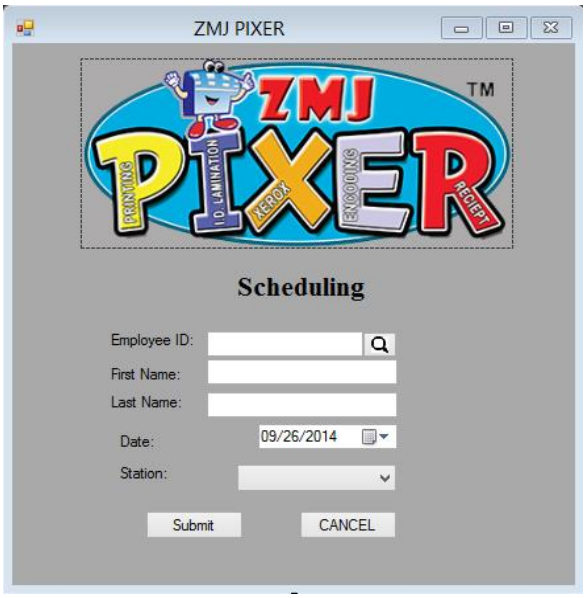
New Client



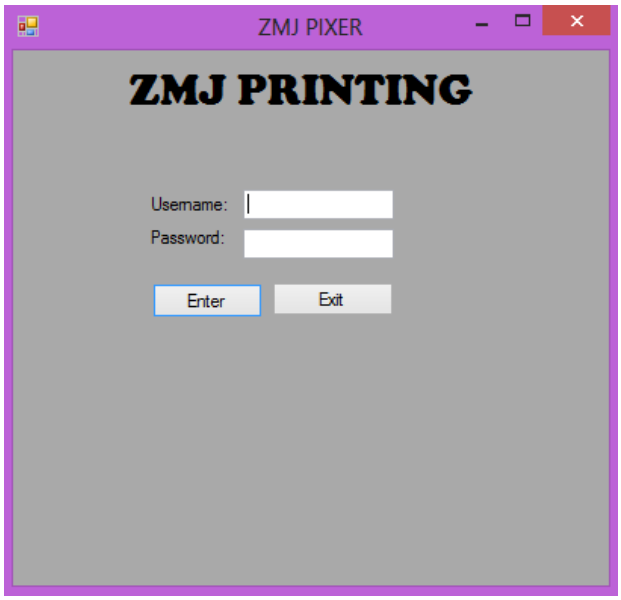
View Client



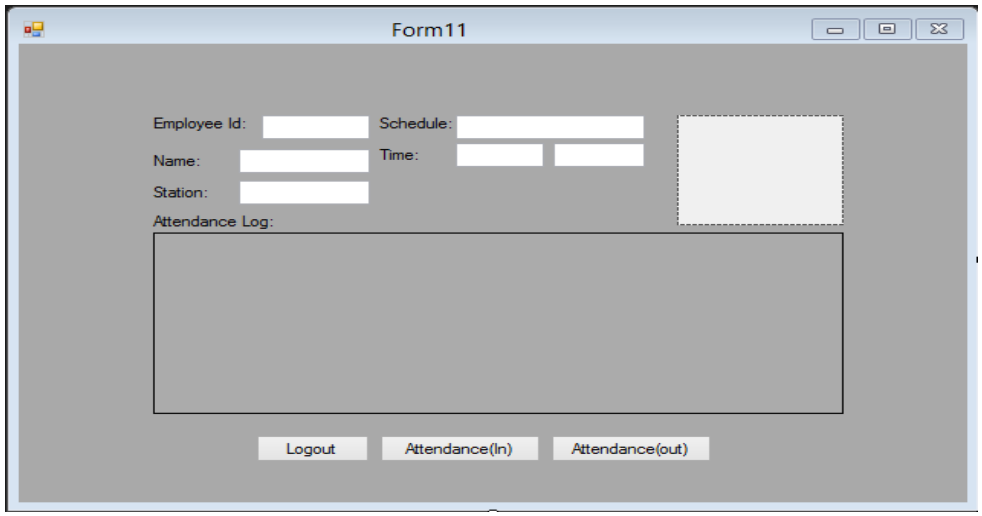
Scheduling



LOG IN



Employee Side



3.1.2. Hardware interfaces

Keyboard

Mouse

Monitor

CPU usage

3.1.3. Software interfaces

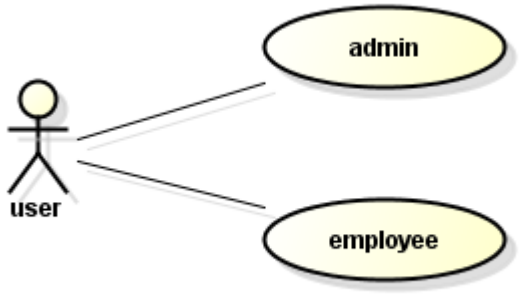
Visual Basic

3.1.4. Communications interfaces

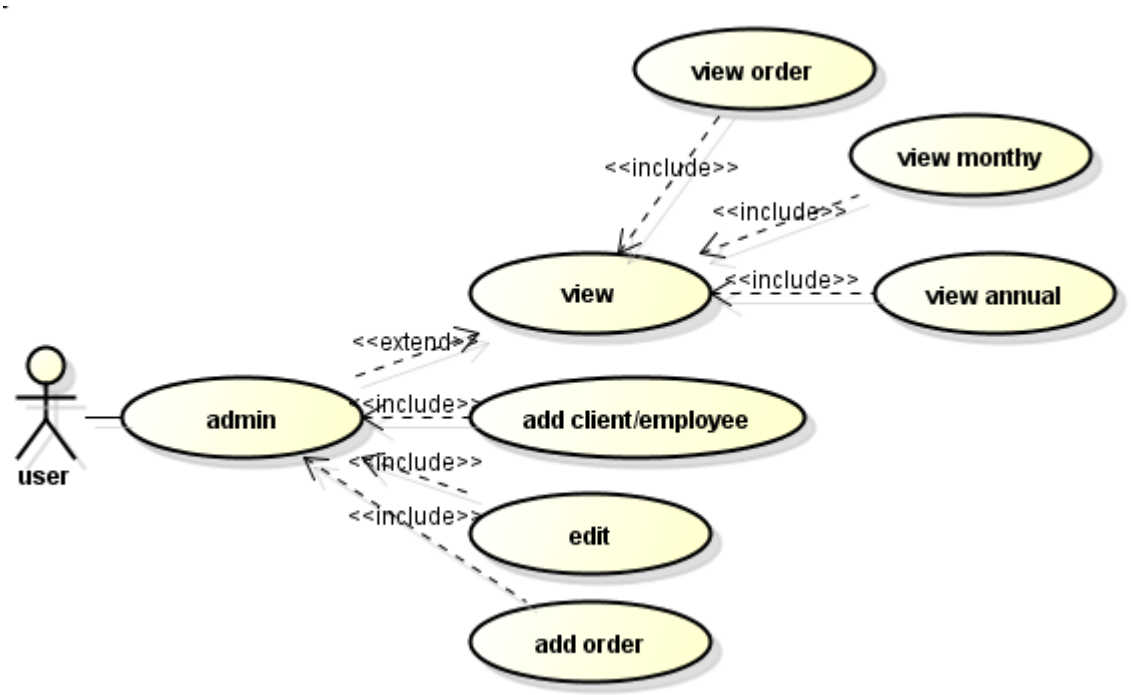
Internet connection is not needed for the system to work and operate. Database is needed to retrieve and access transactions.

3.2. Functional requirements

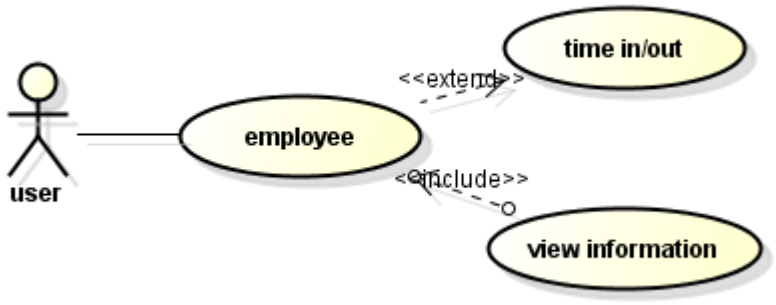
3.2.1. Use case 1



3.2.2. Use case 2



3.2.3. Use case 3



3.3. Performance Requirements

3.4. Design constraints

This project will be developed in one semester which will be done by five students. This project is a free software. This project doesn't require any budget since this system will be implemented on the existing unit that the company owned. This project will systematize the process in keeping track of the employee`s and clients records.

3.5. Software system attributes

This software will contain attributes that collects user input and store it a database for later use like computing for the employee's salary or the total monthly sales. Most basically this software contains text boxes which serves as a collector of data.

3.6. Other requirements

4. Appendixes

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6. Overview

This section of the document describes the purpose of the project and objectives that are to be accomplished, the assumptions and constraints that underlie the effort, the deliverables that will be produced by the project, and the summary of the project schedule.

6.1. Project Summary

a. 1.1.1. Purpose, scope and objectives

This project aims at putting together an integrated Client and Employee tracker for ZMJ Printing. In addition, the project intends to create a more convenient and user friendly environment for the admin and employees of the company, from data recovery to storing additional and new files. This system takes advantage of the significant processing power possessed by most desktops today. It also incorporates faster and easier way to manage information in one convenient location in accordance with the data being stored.

The scope of this project is to develop a standalone software where an individual (admin and employees) can access all relevant files and resources to get the job done, and done fast. The objective of this project is to provide a much more productive work force with minimal effort from the user. Intended for the admin and for the employees of the company. This system would require a database for the safe keeping of the records. This system will keep track of the company's employees and client's information, order, and schedule beyond that would be out of this systems scope. Employees records such as their attendance log in, schedule, and information will be kept in the database and are the entries that this system would gather and keep beyond it would out of our scope. For the admin side, the system will ask and keep the information, purchase order and the scanned documents and the system also provides a monthly calculation of the total income based on the transaction that happen within that month or year and beyond that would be out of our scope.

In the **Admins interface**; can login as admin, they can view their monthly and annual income, and all necessary tasks like adding, updating, viewing client information and transactions. Admin interface is like the overseer of all activities of the company.

Employees view; can login and log out for attendance and can also view their schedules and attendance log.

b. 1.1.2. Assumptions and constraints

The Project will be planned with the following assumptions:

- The project will be completed on October 3, 2014 which is the software output presentation week.
- The project content will have the directory of clients, employees, and pertinent data, and an easy to understand interface.
- The project is standalone software which can be installed in any computer unit with compatible operating system (e.g. windows 7, windows 8).
- The project will improve data management on both clients and employees associated with the company.
- Data storage will be more convenient for employees to retrieve and update.
- The resources used in the project include Microsoft visual basic.net (for the User Interface) and MS Access(for the database).
- Comprehensive user interface will be integrated in this project for ease access of functionalities.
- The project does not require internet connection.

c. *1.1.3. Project deliverables*

The team is held responsible with the following deliverables:

Item	Date
Project Proposal	June 28,2014
Software Requirement Specifications (SRS)	July 26, 2014
Software Project Management Plan(SPMP)	August 2, 2014
Software Design Description(SDD)	August 9, 2014
Software Test Documentation(STD)	August 16, 2014
Software Output Presentation	October 3, 2014

Table 1.1.3 Project Deliverables

d. *1.1.4. Schedules*

Item	Date (Initiation/Completion)
Project Proposal	June 28, 2014 (completion)
Software Requirement Specifications (SRS)	April 30,2014 (initiation)
Software Requirement Specifications (SRS)	July 24,2014 (completion)
Software Project Management Plan(SPMP)	July 27,2014 (initiation)
Software Project Management Plan(SPMP)	July 30, 2014 (completion)
Software Design Description(SDD)	August 2, 2014 (initiation)
Software Design Description(SDD)	August 8, 2014 (completion)
Software Test Documentation(STD)	August 10, 2014 (initiation)
Software Test Documentation(STD)	August 15, 2014 (completion)
Software Output Presentation	October 3 , 2014

Table 1.1.4 Schedules

6.2. Evolution of plan

Version	Primary Author(s)	Description of Version	Date Expected
Draft		Initial draft of Project Overview and Supporting Process plans	May 02,2012
Draft		Initial draft of Project Organization and Managerial Process plans (subsection 5.1)	May 02,2012
Draft		Initial draft of Managerial Process plans (subsection 5.2 to 5.3)	May 02,2012
Draft		Initial draft of Technical Process Plans	May 02,2012

Table 1.2 Evolution of Plan

7. References

e. Documents*

[1] IEEE Std 1058-1998 IEEE standard for software project management plans.

[2] Software Project Management Plan (SPMP) for Nirvana National Bank ATM Software Project.(2004).Terrasoft, Inc.

[3] Software Project Management Plan For HMC POI Inspection & Management System.(2004).

[4] IEEE software project management plan (SPMP). Object□Oriented & Classical Software Engineering, 7th edition, Stephen R. Schach, pg. 590□594

f. Internet*

[1]*Software Project Management Plan: Highland Basic Order Tracking System. John Zoltai.(2005)*
http://www.shellmethod.com/projs/bots/BOTS-SPMP.pdf

[2]*Software Project Management Plan: Collaborative Problem Solver*. Michelle Freedman, Wayne Johnson,Emily McIntyre,Lilianne Tawil, Yechiel Matthew Zwier(2003)
http://uob-community.ballarat.edu.au/units/itmsprojects/exdocs/ProjectPlace/SPMP.pdf

[3] *Tracking system*
http://en.wikipedia.org/wiki/Tracking_system

8. Definitions

The abbreviations, acronyms, and terminologies used throughout this document are listed below:

Client: The party for which professional services are rendered to by the company.

Database: A systematized collection of data that can be accessed immediately and manipulated by a data-processing system for a specific purpose.

Vb.net: Microsoft Visual Basic.net

Ms Access: Microsoft Access

IEEE: Institute of Electrical and Electronics Engineer

Interface: The point of interaction or communication between a computer and any other entity, such as a printer or human operator.

Multimedia: Of or relating to an application that can combine text, graphics, full-motion video, and sound into an integrated package.

Operating system: Software designed to control the hardware of a specific data-processing system in order to allow users and application programs to make use of it.

Project Deliverables: A work product to be delivered to the acquirer. Quantities, delivery dates, and delivery locations are specified in a project agreement

SDD: Software Design Description

Software: The programs, programming languages, and data that direct the operations of a computer system.

SPMP: Software Project Management Plan

SRS: Software Requirement Specification

STD: Software Test Documentation

Template: A document or file having a preset format, used as a starting point for a particular application so that the format does not have to be recreated each time it is used.

Work Activities: A collection of work tasks spanning a fixed duration within the schedule of a software project. Work activities may contain other work activities, as in a work breakdown structure. The lowest-level work activities in a hierarchy of activities are work tasks. Typical work activities include project planning, requirements specification, software design, implementation, and testing.

Work Task: The smallest unit of work subject to management accountability. A work task must be small enough to allow adequate planning and control of a software project, but large enough to avoid micro-management. The specification of work to be accomplished in completing a work task should be documented in a work package. Related work tasks should be grouped to form supporting processes and work activities.

9. Project organization

This clause of the SPMP shall identify interfaces to organizational entities external to the project; describe the project's internal organizational structure; and define roles and responsibilities for the project.

9.1. External interface

This subclause of the SPMP shall describe the organizational boundaries between the project and external entities. For the structure of organizational boundaries between the project and external entities please refer to Appendix C: Organizational Structures under External interface.

9.2. Internal structure

This application will be the basis for our professor's judgment so that the team can produce the qualitative system following advanced process.

This project is to be conducted by our team using the technology and techniques learned from school and online tutorials. This application will be the basis for our mentor's judgment so that the team can produce the qualitative system.

g. 4.3. Roles and responsibilities

This section describes and decided by the team during team role building session and will beupdated as the project progress. It is important to note that this is not a comprehensive list of responsibilities.

Role	Responsibilities
Project Manager	Software project planning and monitoring Milestone and schedule planning and monitoring Set and communicate the team meeting agendas. Risk Management. Maintain Project log book.
Lead Programmer	Act as mentor for low level software developers or programmers. Serves as an interface between the programmers and management and have supervisorial responsibilities in delegating work and ensuring that the software projects come in on time and under budget.
Database Manager	Improving the effectiveness of the database tools and services. Ensuring all the data complies with the legal regulations. Making sure the information is protected and backed-up. Monitoring database performance. Improving the technology used.
Software Tester	Used and test software for the purpose of locating and eliminating bugs in the product. Performs specific tests and examines all the aspects of a product from an end-users.

Role	Responsibilities
User-Interface Designer	Ensures that the user have an easy time interacting with software. Determined design specifications technical requirements for the project. Draft user interface plans, including flowcharts that diagram the flow of the user interface.
Document Officer	Reviews change control documentation for accuracy and completeness. Responsible for the physical management and tracking of policies, revisions, change documentation and signatures logs.
Programmers	Write, test and maintain the detailed instructions or programs. Conceive, design and test logical structures for solving problems by computer.

Name	Roles
Dominic E Unabia	Project Manager Software Tester
Breil Gemida	Document Officer Database Manager
Klinton Keth Taboada	Document Officer
Dawit Tabonares	Programmer
Kevin Espanol	Document Officer User - Interface Designer

10. Managerial process plans

This clause of the SPMP shall specify the project management processes for the project. This clause shall be consistent with the statement of project scope and shall include the project start-up plan, risk management plan, project work plan, project control plan, and project closeout plan.

10.1. Start-up plan

This subclause of the SPMP shall specify the estimation plan, staffing plan, resource acquisition plan, and training plan. Depending on the size and scope of the project, these plans may be incorporated directly or by reference to other plans.

10.1.1. Estimation plan

The project is scheduled for the duration of 3 months; tasks will be divided into short term phase. Each member has its own task in each phase which should be assessed. Assigning of schedule must be reviewed and arranged accordingly based on the duration of the task. At the beginning of each phase, our team will distribute and assign tasks to its members and complete them for the allocated time given.

10.1.2. Staffing plan

The table below shows the main individuals involved, and their roles on the team.

Member	Role
Dominic E. Ursabia	Project Manager, Software Tester
Breil Gemida	Document Officer, Database Manager
Klinton Keth Taboada	Document Officer
Dawit Tabonares	Programmer
Kevin Espanyol	Document Officer, User - Interface Designer

h. 5.1.3. Resource acquisition plan

As for the facilities and resources the team's main facility would be the school and their homes as secondary. The resources that will be used would be provided by the team themselves.

i. 5.1.4. Project staff training plan

The project team members are already trained in their respective roles and disciplines. In addition, each members has undergone working on a project before provided by the school as basis of training.

10.2. Work plan

This clause of the SPMP shall specify the work activities, schedule, resources, and budget details for the software project.

10.2.1. Work activities

The activities doesn't have a break down structure since all the activities were made all at ones.

10.2.2. Schedule allocation

The project duration is constrained in the first semester 2014-2015. We will control our schedule depending on the deliverable.

j. 5.2.3. Resource allocation

As a student in the CCS417 class, every member of this team has limited time available for the project. Each member is expected to find time to use for the project and use to their assigned task. Each member will find their own computer unit to use for the project and meet up every time we can and gather all ideas for the overall project completion.

k. 5.3. Control plan

This subclause of the SPMP shall specify the metrics, reporting mechanisms, and control procedures necessary to measure, report, and control the product requirements, the project schedule, budget, and resources, and the quality of work processes and work products. All elements of the control plan should be consistent with the organization's standards, policies, and procedures for project control as well as with any contractual agreements for project control.

l. 5.3.1. Requirements control plan

When changes are to be made in the requirements after Software Requirement Gathering, the changes shall be bought to the attention to the team. Any changes being made must be approved by the team. Documentation of SRS must be altered with the new updated version.

m. 5.3.2. Schedule control plan

The allotted time is short and strict if there is any delay on any task given, the team should give effort to make-up to the agreed schedule. There is little room for mistakes because of the limited time, that's why weekly meetings are required.

n. 5.3.3. Budget control plan

This project did not require any funds.

o. 5.3.4. Quality control plan

Meetings after every phase will be the main mechanisms of this team will use to control the quality of the work process.

p. 5.3.5. Reporting plan

To ensure all deliverable and work packages delivered on-time at product quality, the team needs to consider the risk that could be present before each phase and analyze, determine, and implement resolutions.

q.

r. 5.3.6. Metrics collection plan

Each team member will report on task assigned, task done or not done, problems, hours planned, actual hours, and future plans at every status meeting. The project leader will consolidate the data and will analyze the efforts spent per member.

s. 5.3.7 Risk management plan

To ensure all deliverable and work packages delivered on-time at product quality, the team needs to consider the risk that could be present before each phase and analyze, determine, and implement resolutions.

t. 5.3.8 Project closeout plan

This team will ensure the proper closeout of the project in October 3, 2012.

6. Technical process plans

This clause of the SPMP shall specify the development process model, the technical methods, tools, and techniques to be used to develop the various work products; plans for establishing and maintaining the project infrastructure; and the product acceptance plan.

u. 6.1 Process Model

To illustrate the information, document and product flow between the lifecycle processes the waterfall model will be used.

v. 6.2 Methods, tools, and techniques

Development Methodology

The workflows will be performed in accordance with the Waterfall model to deliver the software product.

Tools:

- Microsoft Visual Studio 2013
- Microsoft Word 2013
- Microsoft Access 2013

w. 6.3 Infrastructure Plan

The Product will be developed using Microsoft visual basic.net running under Windows on a personal computer.

x. 6.3 Product Acceptance Plan

7. Supporting process plans

y. 7.1. Configuration management plan

In this project, the goal is letting the user have all work load required files in one computer (one location). With this, the team is divided into different strategic task: the main programmer (vb.net), Database Manager (Microsoft Access), User-interface Designer, Software tester/quality control and all members are document specialist. With different responsibilities assigned to each one, each will have the task in which the member is strongest. This strategy will configure the project to accomplish the software in the most desirable result. On the other hand, the project deliverables are also considered as configuration items. The configuration item as well as its file would be named after the document such as SRS, SDD, STD and SPMP. All deliverables are subjected for review of the adviser. Upon the approval of the documents, it will be distributed to the team members for revision or compilation.

z. 7.2. Verification and validation plan

This software will be verified and will be validated with the consent of our adviser and also with our client before it will be implemented. This software will also be tested by our tester.

aa. 7.3. Documentation plan

This section describes the documentation plan for the project's deliverable and non-deliverable documentation work products.

The table headings are defined as follows:

- Document: The documentation work product described by the remaining columns in the row.
- Template/Standard: The template or standard on which the document is based (may be organization or external).
- Preparer: The person responsible for preparing the document.
- Reviewer: The person responsible for reviewing the document.
- Review copy due: The due date on which the document shall be available for review by the Reviewer.

Document	Template/Standard	Preparer	Reviewer	Review copy due
Project Proposal		All members	Prof. Jennyln C. Suson	June 28, 2014
SRS	IEEE 830-1998	All members	Prof. Jennyln C. Suson	July 26, 2014
SPMP	IEEE Std 1058-1998	All members	Prof. Jennyln C. Suson	August 2, 2014
SDD	IEEE Std 1016-1998	All members	Prof. Jennyln C. Suson	August 9, 2014
STD	IEEE Std 829-1998	All members	Prof. Jennyln C. Suson	August 16, 2014

Table 7.3 Documentation Plan

bb. 7.4. Quality assurance plan

The team members will have weekly meetings to devise ideas in accordance with the documents assigned and to check the quality of produced deliverables. Strategies such as library research, review of related literature and online search are being implemented to attain additional information for faster completion of the deliverables.

Hence, this section contains the plans for assuring that the quality of delivered work products is consistent with

the expected project outcome. The following deliverables will be tracked:

- Software Requirement Specification (SRS)
- Software Design Descriptions (SDD)
- Software Project Management Plan (SPMP)
- Software Test Documentation (STD)

cc. 8.0 Additional Plans

The team decided to have no additional plans.

9. Plan Annexes

Annexes may be included, either directly or by reference to other documents, to provide supporting details that could detract from the SPMP if included in the body of the SPMP.

10. Index

CEBU INSTITUTE OF TECHNOLOGY UNIVERSITY

COLLEGE OF COMPUTER STUDIES

Software Design Description

for

Interactive Learning Object on Implementation Phase

Signature

Member	Role/s	Signature
Dominic E Unabia	Project Manager Programmer Software Tester	
Breil Gemida	Document Officer Database Manager	
Klinton Keth Taboada	Document Officer	
Dawit Tabonares	Programmer	
Kevin Espanol	User - Interface Designer	

Change History

Name	Date	Reason For Changes	Version
		Draft	1.0
		Final	1.1

Table 1: Change History

Preface

This Project is built to give help to the working environment of ZMJ Pixer Printing. Help such as adding, deleting, editing, storing, and retrieving. This system is specially built for ZMJ Pixer Printing for them to have a well manage and organized working environment. This system can help ZMJ Pixer Printing become a more efficient and productive work. This system will be provided with a user-friendly interface so that the user has find it very convenient to interact with the system.

Many of the components of such an environment are available today but not in an integrated fashion and this integration will be one of the main contributions of this project. This document specifies the requirements and constraints of such an environment. We will first discuss the different roles that the system will support followed by a discussion on the actual requirements.

The Software Requirements Specification is in content compliance with IEEE standard 830-1998 in which the contents of this standard are rearranged and a mapping is provided. It is mapped into various clauses and sub clauses of the IEEE standard 830-1998.

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11. Introduction

11.1. Purpose

This document specifies the requirements upon the development and the integration of the software. This document will show the client what is the expected output of the project, in short, this document serves as a summary of the projects contents and its requirements. This document also serves as a contract agreement of what and how would the project be done.

11.2. Scope

This project will be intended for the president and the employees of the company. This system would require a database for the safe keeping of the records. This system will keep track of the company's employees and client's information and transactions beyond that would be out of this systems scope. Employees records such as their attendance log in, schedule, information and attendance log will be kept in the database and are the entries that this system would gather and keep beyond it would out of our scope. For the client view, the system will ask and keep the information, purchase order and the scanned documents and the system also provides a monthly calculation of the total income based on the transaction that happen within that month and within that year beyond that would be out of our scope.

11.3. Definitions and Acronyms

Acronym	Definition
IEEE	Institute of Electrical and Electronics Engineers
SDD	Software Design Description

12. References

http://en.wikipedia.org/wiki/Tracking_system

13. Decomposition Description

13.1. Module Decomposition

13.1.1. Module 1 Description

There will be a log-in page to identify the user limitations. There are 2 type of user: the admin and the employee.

13.1.2. Module 2 Description

In the admin view, after logging in, he will be provided with an interface where he can choose client or employee interface view.

13.1.3. Module 3 Description

In the client view, the admin can alter data, add and view client information and also it is where the clients order is transact or inputted and calculated. The admin can also view the monthly and annual income of their company.

13.1.4. Module 4 Description

In the employee view, the admin can alter the data, add, and view employees information and also they can assign the employees schedule and station. The admin is also assist with identifying wither the employee is late, under-time, over-time or absent.

13.1.5. Module 5 Description

The employee user is provided with another interface where they can log-in and view some certain information. There are some limitation that the employees cannot view such as clients information, monthly income..etc.

14. Interface Description

This part of the Software Design Description (SDD) is where the Graphical User Interface is documented.

14.1. Module Interface

14.1.1. Module 1 Description

The module contains information regarding programming languages. In the module, we differentiate 5 programming languages from each other. We also define what is a programming language and syntax. The module contains voice over and visual presentation to interact with the user.

14.1.2. Module 2 Description

The module contains information regarding the basic coding techniques. The necessary elements to make the student a well-organized programmer. Also included are the benefits of coding standard and its definition. It contains flash animation to visual present the topic with great precision.

15. Detailed Design

15.1. Module Detailed Design

15.1.1. Module 1 Detail

These part of the module discusses about the different programming languages. Including its basic programming syntax structure. We utilized flash animation in making the project interact with the user.

15.1.2. Module 2 Detail

These part of the module discusses about the practices and skills necessary to develop good programming skills. The project is a system the will be integrated as a stand-alone program.

16. Annexes

9.4. User interface design

CEBU INSTITUTE OF TECHNOLOGY UNIVERSITY

COLLEGE OF COMPUTER STUDIES

Software Test Documentation

for

Client and Employee – Tracking System for ZMJ Printing

Signature

Name	Assigned Task	Signature
Dominic E Unabia	Project Manager Programmer Software Tester	
Breil Gemida	Document Officer Database Manager	
Klinton Keth Taboada	Document Officer	
Dawit Tabonares	Programmer	
Kevin Espanol	Document Officer User - Interface Designer	

Change History

Preface

This Project is built to give help to the working environment of ZMJ Pixer Printing. This system is specially built for ZMJ Pixer Printing for them to have a well manage and organized working environment. This system can help ZMJ Pixer Printing become a more efficient and productive company. This system will be provided with a user-friendly interface so that the user has find it very convenient to interact with the system.

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17. Introduction

17.1. Purpose

The Software Testing Document should support the following objectives:

- To detail the activities required to prepare for and conduct the program test.
- To communicate with the responsible parties the tasks that they are to perform and the schedule to be followed in performing the tasks.
- To define the sources of the information used to prepare the plan.
- To define the test tools and environment needed to conduct the system test

17.2. Scope

This test plan covers a full systems test of the Tracking System. This includes operator and user procedures, and functions. In addition to comprehensively testing the functions, external interfaces, security, recovery, and performance will also be evaluated.

17.3. Definitions and Acronyms

Acronym	Definition
Software Design Document (SDD)	*A written description of a software product, that a software designer writes in order to give a software development team overall guidance to the architecture of the software project.*
Software Requirements Specification (SRS)	*A requirements specification for a software system, is a complete description of the behavior of a system to be developed and may include a set of use cases that describe interactions the users will have with the software.*
Software Project Management Plan (SPMP)	*The controlling document for managing a software project. A software project management plan establishes policies, procedures, rules, tasks, schedules, and resources necessary to complete the project. Synonymous with software development plan, software engineering project plan.*
Software Requirements Specification (SRS)	*A requirements specification for a software system, is a description of the behavior of a system to be developed and may include a set of use cases that describe interactions the users will have with the software. In addition it also contains non-functional requirements.*

18. References

- *http://en.wikipedia.org/wiki/Tracking_system*
- *http://www.acronymfinder.com/Client-Tracking-System-(CTS).html*

19. Test Plan

19.1. Test Items

All items that make up the Tracking System will be tested during the system test. The versions to be tested will be held and kept by the project manager. The manager will also control changes to the versions under test and notify the test group when new version are available.

The following documents will provide the basis for defining correct operation:
Software Requirements Specification (SRS)
Software Design Description (SDD)

The items to be tested are as follows:

- Program modules
- Program functions
- Program procedures
- Program interfaces
- Operator procedures
- User procedures

19.2. Features to be Tested

The following list describes the features that will be tested:

- Data entry
- Data processing
- Interface functions
- Interface procedures
- System functions
- System procedures
- Database recordings

19.3. Features not to be Tested

None. All features are subject for whole system test.

19.4. Approach

The test personnel will use the system documentation to prepare all test design, case, and procedure specifications. This approach will verify the accuracy and comprehensiveness of the information in the documentation in those areas covered by the tests.

Personnel outside from the project team will be selected assist in developing the test designs and test cases. This will help ensure that the tests represent the production use of the system.

19.4.1. Interface testing

In order to test the interface of the test version, the program will build comprehensive set of instances during run time. These instances will then be based for the remodeling of the test version program.

All results will be documented and compared by the final version of the program.

19.4.2. Function testing

All functions within the test version will be evaluated if it satisfied the design description and specific requirements.

19.4.3. Performance testing

Performance will be evaluated against the Software Design Description (SDD) by measuring the run times of several instances if the test version is able to meet the demands of the design description.

19.4.4. Regression

It is assumed that several iterations of the system test will be done in order to test program modifications made during the system test period. A regression test will be performed for each new version of the system to detect unexpected impact resulting from program modifications.

19.4.5. Comprehensiveness

Each of the system features described in the Software Design Description (SDD) will have at least one associated test design specification. Each of the requirements specified in Software Requirements Specification (SRS) will be tested. All functions, procedures, and interfaces will be test every version is released.

19.4.6. Constraints

-This system will only be intended for the use of ZMJ Pixer Printing personnel's.

-This system is implemented in the existing unit that ZMJ Pixer Printing has.

-This system is provided with a user – friendly interface that computer literate or illiterate personnel`s can easily use this system.

-We will be providing manuals for the users so that they will be knowledgeable on how the system operates.

19.5. Item Pass/Fail Criteria

The program must satisfy the standard requirements stated in the Software Requirements Specification (SRS) and also to the design description stated in the Software Design Description (SDD).

19.6. Suspension Criteria and Resumption Requirements

19.6.1. Suspension Criteria

Inability to run a function of the program described in the Software Design Description (SDD) will cause suspension of all testing activities.

19.6.2. Resumption requirements

When a new version of the system is transmitted to the test group after a suspension of testing has occurred, a regression test as described in 3.4.4 will be run.

19.7. Test Deliverables

The following documents will be generated by the system test group and will be delivered to the project team after test completion.

Test documentation:
System Test Plan
System Test Design Specifications
System Test Case Specifications
System Test Procedure Specifications
System Test Logs
System Test Incident Reports Log
System Test Incident Reports
System Test Summary Report

Test data:

- Copies of all data entry and inquiry screens and the reply screens are to be attached to the related test case document.
- Copies of the input and output test files should be delivered to the project team.

19.8. Testing Tasks

19.9. Environmental Needs

19.9.1. Hardware

The testing will be done on the Project Leader's hardware configuration.
The terminal must be available to the test group during this period.

19.9.2. Software

The production operating system will be used to execute these tests.

19.9.3. Security

This program is for public use. Security will be limited to existing controls.

19.9.4. Publications

The following documents are required to support systems testing:

- Software Requirements Specifications (SRS)
- Software Design Description (SDD)

19.10. Responsibilities

19.10.1. System Test Group

This group provides the overall management of the testing and the technical testing expertise.

19.10.2. Development Project Group

This group transmits the system to be tested and responds to the System Test Incident Reports. This group does any program debugging that is required.

19.11. Staffing and Training Needs

No need for training on this program however, the users will be oriented verbally. The interface is very basic, intensive training will not be necessary.

19.12. Schedule

Hardware, software, and test tools will be used for testing during the whole month of September.

19.13. Risks and Contingencies

If the testing schedule is significantly impacted by program failure, the development manager has agreed to assign a full-time person to the test group to do debugging.

If hardware problems impact system availability during the day, the test group will schedule their activities during the evening.

19.14. Approvals

DOMINIC UNABIA
Project Leader/Manager

_____
DATE

20. Test Design Specification

20.1. Feature to be Tested

The feature is specified in the functional design description contained in the common routine of the programmer's guide.

- Data Processing

20.2. Approach refinements

The data processing feature of the program will be tested first with valid and invalid input. All of the combinations will then be used.

A test run of the test version of the program will be demonstrated. Instances with the input constraints will be sampled if the test version caters the specification of the desired program.

Test set comprehensiveness will be evaluated based upon the following criteria:

- *Requirements coverage*: Has each of the requirements been satisfied?
- *Design coverage*: Has each of the functional design specifications been satisfied?

20.3. Test Identification

Cases

Data Processing

Valid

Unique data

Invalid

Duplications of unique data

20.4. Features Pass/ Fail Criteria

Each feature/function must pass all of its test cases in order to pass this test.

21. Test Case Specification

21.1. Test Items

Data entry, button functions, and select cases will be tested.

21.2. Input Specifications

- STRING-EXPRESSION
- BUTTON FUNCTIONS
- SELECT CASES

21.3. Output Specifications

- STRING-EXPRESSION
- BOOLEAN-EXPRESSION
- INTEGER-EXPRESSION

21.4. Environmental Needs

21.5. Special Procedural Requirements

The procedure for using the application software is in the test tools section of the programmer's guide.

21.6. Intercase Dependencies

None

22. Test Procedure Specification

22.1. Purpose

This procedure describes the steps necessary to perform the test specified in the test design specification for run time event. The procedure describes the execution of the test case described in the System Test Case Specification.

This test will exercise the Program Execution specified in the Software Requirements Specifications (SRS) and the Test Version described in the Software Design Description (SDD).

22.2. Special Requirements

In order to execute this procedure, the test version program, an existing data, must be available.

22.3. Procedure Steps

22.3.1. Log

Record the execution of this procedure on a standard test log.

22.3.2. Set up

- Run the test version of the system program.
- Execute whole operations (order process, adding, editing, etc.).

22.3.3. Proceed

Operate the program. Finish all the system operations, whole process.

22.3.4. Measure

Operate program, if the test version is able to meet the demands of the Software Requirements Specification (SRS) and Software Design Description (SDD).

22.3.5. Wrap Up

Close program.

23. Test Item Transmittal Report

23.1. Transmitted Items

A new version of the system program is being transmitted. The program is described in the Software Requirements Specifications (SRS). The associated procedures are specified in the Software Design Description (SDD). The transmitted program is associated with the system test plan.

23.2. Location

The transmitted code is located within the possession of the project manager's personal computer. The system documentations and test plans are being kept by the project manager.

23.3. Status

The tracking system is still in subject for testing to all units and integration levels. From external to internal procedures of the game will be fully tested if the current program could follow up with the requirements specified to get the projected output.

23.4. Approvals

DOMINIC UNABIA
Project Leader/Manager

_____
DATE

24. Test Log

24.1. Description

The first version of the application program is being tested. The program was transmitted to the test group along with the entire system.

24.2. Activity and Event Entries

25. Test Incident Report

25.1. Summary

Missing functions and rooms for improvement of the interfaces in the tracking system were noticed while having a test run of the program. The test incidents were recorded to the Test Log. The incident occurred during execution of test procedure.

25.2. Incident Description

A test version of the program was tested. The test version will be the programs main infrastructure. Adding/Improving the functionalities and procedures of the program is suggested to meet the demands of the Software Requirements Specifications (SRS).

Upon testing, the test version's interfaces will be suggested to add/improve the interfaces to meet the demands of the Software Design Description (SDD).

25.3. Impact

Testing activity is suspended until this incident is resolved.

26. Test Summary Report

26.1. Summary

After recording the discovered faults, the program is under observation and testing to check for more missing functions and interfaces for the program's improvements.

The following test documents are associated with this module:

- Test Design Specifications
- Test Case Specifications

26.2. Variances

Conditions identified during testing resulted in enhancements to the set of missing functions described in the Software Requirements Specifications (SRS). This in turn resulted in the specification of additional functions and interfaces. All of these changes will be reflected upon revision of the document.

26.3. Comprehensive Assessment

The minimum comprehensiveness requirements specified in the test design specification will stand as basis to perform assessments to satisfy the requirements/specification of the program.

26.4. Summary of Results

The discovered incidents exposed faults involving insufficient functions and interfaces. Additional functions and interfaces will be added, some functions will be redefined. All features will be tested until further notice.

26.5. Evaluation

Until further notice/revision of the document, the entire test version will be tested to identify additional faults in the testing month of use and will be specified.

26.6. Summary of Activities

26.7. Approvals

DOMINIC UNABIA
Project Leader/Manager

DATE

27. Appendices

28. Index

29. Annexes