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JUDUL: Office Messenger

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OFFICE MESSENGER

CHOONG ZIN JYE

This report is submitted in partial fulfillment of the requirements for the
Bachelor of Information and Communication Technology (Software Development).

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MELAYSIA

2004

ADMISSION

I admitted that this project title name of

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DEDICATION

To my Mom and Dad,
whose boundless love and support replenishes and enriches my soul
during the long hours of writing.

ACKNOWLEDGEMENT

First of all, I would like to express our gratitude to everyone for his or her help and effort in our assignment. Our lecturer, MrS. Faaizah Shabodin was helping us a lot. He provided keen information system knowledge and innovative ideas for instructional support. She also always has a look to help the project on track.

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Before end this acknowledgment, we want thanks again to everyone who take part directly or indirectly to help complete my project.

ABSTRACT

Nowadays, there are many company were using the public instant messenger to implement communication between staff. The common communication activities in an office are discussion, announcement, meeting, document file transaction, make appointment and so on. Office Messenger is a LAN messenger which allow user to chat with basic text conference, send notification, send files and set appointment reminder. Not like public instant messenger, Office Messenger only allow user who joining in the LAN and cannot access to Internet. Office Messenger was developing with object-oriented concept which is the most popular technique now. To implement the OO concept, Visual Basic .Net is the selection programming language for this system. The Office Messenger is a LAN messenger, it not only can use by the staff of the Information Communication and Technology Faculty, it was suitable for the users who have local area network on their computers. Office Messenger takes full advantage of the network to enrich communication and streamline productivity.

ABSTRAK

Pada masa kini, terdapat banyak organisasi menggunakan messenger untuk berkomunikasi di antara staf. Aktiviti-aktiviti komunikasi di dalam pejabat adalah perjumpaan, notis, penghantaran dokumen fail dan sebagainya. Office Messenger adalah LAN messenger yang digunakan untuk pengguna menjalani aktiviti-aktiviti komunikasi dengan komputer pengguna. Office Messenger hanya untuk pengguna komputer yang dalam rangkaian setempat. Office Messenger dibangunkan dengan mengasaskan teori orientasi objek, teori ini adalah teknik yang popular. Visual Basic .Net adalah satu perisian yang menggunakan teori orientasi objek, oleh itu, ia telah menjadi perisian terutama untuk membina sistem ini. Di samping itu, Office Messenger juga sesuai untuk sesiapa yang mempunyai LAN di antara komputer mereka. Office Messenger akan meningkatkan produktiviti komunikasi di antara pengguna komputer.

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LIST OF ABBREVIATION

Abbreviation	Definition
PSM	<i>Projek Sarjana Muda (Project of Bachelor Degree)</i>
KUTKM	<i>Kolej Universiti Teknikal Kebangsaan Malaysia</i>
FTMK	<i>Fakulti Teknologi dan Maklumat Komunikasi</i>
OO	Object-Oriented
VB	Visual Basic
LAN	Local Area Network
AIM	American Online Instant Messenger
YIM	Yahoo Instant Messenger
MM	MSN Messenger
LAN	Local Area Network

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CHAPTER I

INTRODUCTION

1.1 Preamble/Overview

To date, there are a lot of messenger programs on the Internet, which allow users to communicate with each other on the Internet. The existing messenger programs on the Internet are MSN Messenger, Yahoo Messenger, ICQ and Trillian. Some of the organizations are using messenger program to communicate with client or staffs. With these messenger programs, user can sending files to each other, chatting with typing message, chatting with using web camera and mic.

The Office Messenger is a messenger program that allows users to communicate with each other whose computers are joining in the office network, local area network (LAN). It not required a dedicated server, user only needs to install and simply run the program to commutate with other immediately. Office Messenger will allow users to communicate with typing and sending message. It also allows users to connect and chat together in a same time. Beside that, Office Messenger will also decrease the risk of document files steals by other people when sending files using messenger through Internet to send files.

The methodology, which will use to build up this project, is Waterfall Methodology. The waterfall methodology is very powerful. It simply states that first one

should think about what is being built, then establish the plan for how it should be built, and then build it.

1.2 Problem statement(s)

To date, there is a lot of messenger like MSN Messenger and Yahoo Messenger. These messengers allow user to communicate with each other when users are connect to the Internet.

These program have a same weak point, they will only working when user are connecting to the Internet. If the computer that fail to connect to Internet, user cannot communicate with each other using these messenger again. Without this messenger, user cannot send files and send message to each other.

Messenger's send file function has facilitated user to send file to each others. With using instant messenger in an office local network, receiver can get the file easily without browsing the share folder in the sender's computer or using diskette to send files manually. But these types of messengers are sending files through Internet although the staffs want to send files in the office local network. The transfer rate of the IM messengers is not stable when a user tries to send bigger size files. Sometimes the files are failed to send because the file size is too large.

Instant messenger is a huge potential time waster for staffs communicating with friends and family to the detriment of getting their work done. It had affected the staff's productivity in the office.

1.3 Objective

The objective of this project is to build a LAN messenger, which will allow user to type and send message to each other although there is no Internet connection on the network. With office messenger, users can communicate with each other whose computer is joining in the local area network.

Beside that, it decreases the risk of file steal by outside people when sending files using instant messenger through Internet. With Office Messenger, user will send files inside the network not send through Internet.

Office Messenger will increase productivity; it does not allow users to talk to people outside of the LAN. This will decrease the amount of time people spend talking to outsiders on non-work related issues using public IM systems.

1.4 Scopes

Office Messenger is a LAN messenger that offers file transfer and text conference capabilities. It is build to solve the weakness of the existing instant messenger program, that's the existing messenger programs are not working when there is no Internet connection. Office Messenger will design for the user who computer are joining the local area network and it not require to connect to the Internet.

This program will not inherit all the functions of the existing messenger, it only allow user to send message and files to each other in the local area network. Office Messenger will use the basic sending message method of the instant messenger, that's typing and send the message on the board. It also allows multiple users chatting in a created conversation.

Office Messenger will also simulate the method of messenger sending files to other user. It only allows user send files to another one user in the same time. To convenient user to remember the function of the messenger, Office Messenger will follow the familiar user interface, which will refer to the MSN Messenger interface and the procedure it send file.

This program will package into one setup file that convenient user to install this program to the computer. It no needs to install extra network protocols such as printer and file sharing.

1.5 Contributions

Office Messenger is a user-friendly application for real-time chatting in small office or home office local networks. This unique chat software features an easy-to-understand format for text-based conferences and discussions. It does not require an Internet connection or a dedicated server to support discussions, and all users have equal access to the application's tools and functions. Office messenger enables individuals to instantly communicate about joint projects, and managers can send notification to individuals, departments, or the entire company.

Office messenger can increase the productivity of a company, staff no needs to send document manually and it is effective and efficient. Staff no needs to spend more energy and time on this and will more focus on the given task. Beside that, office messenger not allow staff to communicate with outside people and this will decrease the amount of time people spend talking to outsiders on non-work related issues.

Office Messenger is a local area network (LAN) messenger, file transfer rate is more stable than public instant messenger, because using Office Messenger send the file

through the internal network. The common network cable's transfer rate, which use in an office network was supported to maximum 100 megabytes per second. Beside that, it will also protect the privacy of the company, because office messenger can prevent it steal by other outside people when send files through the office LAN, not through Internet.

Office Messenger is purpose to offer the company instantaneous real-time messaging. Whether they are working with people across the hall or building, Office Messenger can help them communicate better and faster than ever before.

1.6 Expected output

1. No server required. To meet the problem of the server down or under maintenance, Office Messenger will design with no dedicated server or an administrator to run this program.
2. Works in system tray. To make sure user look out on the message or notification, Office Messenger will always work in the system tray and pop up the incoming message with sound.
3. Basic multi-user text conference. Users can start a conference, which allow multi user chat together with typing and display the message on the messenger board.
4. Ability to send messages to individual destinations, self-assumed groups of addresses or to the entire network. Office Messenger allows users to send messages not only to individual addresses, but also to any number of users group or to all Office Messenger users in the entire network.

5. Send and receive attachments with messages. Not only can Office Messenger send plain text messages, it also can send attached files. User can send text documents, pictures and other files to the other user as easily as sending plain text messages. This will replace the method of using diskette to send files.
6. Online users list. Users can see all other users in their network who have Office Messenger running. Seven user statuses are listed: "Away", "Busy", "Lunch", "Meeting", "On the phone", "Out of office" and "Online". Office Messenger automatically tracks user activity and switches into "Away" mode after a specified period of inactivity or when a screen saver starts.
7. No Internet connection required and third party server. Office Messenger is a peer-to-peer (P2P) program, so it does not require third-party servers. Unlike public instant messenger systems, the program only requires a local area network (LAN) to function. Users no need to register on the third party server before using Office Messenger. After install the Office Messenger, users only need to create a user name that can verify by the other user.
8. An exceedingly easy, well thought-out and useful interface. From the usability tests show that even people with very little computer knowledge can begin working with Office Messenger immediately after installation, without additional training and users no need to study the program with spending a lot of time. Office Messenger interface and functions will design with follow the public instant messenger systems like MSN messenger, Yahoo messenger and so on.
9. Easy setup. Program will package in a setup file which convenient user to install the program into the system. All software requirement such as .Net framework, will setting and package together in the setup files. User only needs to install the program and run it.

1.7 Conclusion

This is first chapter that documented the result when implement the first phases of the project planning - requirement analysis phase. The activities were depicted in the Appendix A – Gantt chart. In this chapter, developer had determined the problem statement of the current system, objectives and scope. From this chapter, developer was clearly defined and understands the project which wishes to build. It had provided developer a complete guideline for the development of the system.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Information is very important to design and build a system. It is necessary to collect information and research on the case study of the existing system. It will help developer to define the lack of the existing system and analysis the problem that meets by the client. Developer needs to do fact-finding to gather the information.

Fact-finding is the formal process of using research, interviews, meetings, questionnaires, sampling, and other techniques to collect information about systems, requirements, and preferences. It is also called information gathering.

Before the project start, developer has interview with the head of administrative department of Information Communication and Technology Faculty, Mr Ahmad Fadzli Nizam bin Abdul Rahman, to understand the requirement of the system, problem they currently facing and existing system that they use now. From the interview, developer has gathered the requirement and problem statement from customer, and they are using MSN messenger to interact with each other in the office.

After interview with customer, developer has made research on the Internet to find out the bypass case study and make research on various systems, like MSN messenger and Yahoo messenger. This can help developer more understand the common functions of the system and what function should be add on the new system to meet the customer requirement.

It is important to research on the bypass case study, because it will provide developer the technical alternatives and solicits feedback on technical designs, standards, and working components. This will be a guideline for developer to design the system. Beside that, it also clearly defines functions of the system and developer can clearly define the lack of the system.

2.2 Fact and finding

Fact-finding is the formal process of using research, interviews, meetings, questionnaires, sampling, and other techniques to collect information about systems, requirements, and preferences. In this section, developer will define the result of fact finding on the theories and similar system.

2.2.1 Theory and Concept

The theories which will use on this project are object-oriented theory, project management theory and human communication interface theory.