DIGITAL DOCUMENT MANAGEMENT SYSTEM

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BORANG PENGESAHAN STATUS TESIS^

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^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

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2006

DECLARATION

I hereby declare that this project report entitled

DIGITAL DOCUMENT MANAGEMENT SYSTEM

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT : _____ Date : 22 NOV 2006
(MOHD SHAZWAN NABIL BIN SHUKOR)

SUPERVISOR : _____ Date : 22 NOV 2006
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DEDICATION

Dedicated to my beloved parent, En Shukor bin Md Noor and Pn Salmah bt Hj Ishak.
My supervisor, En Sanusi bin Azmi.

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I wish to take this opportunity to express my appreciation to Kolej Universiti Teknikal Kebangsaan Malaysia (KUTKM) and the entire lecturer who gave me a lot of cooperation's, knowledge and experience during my study at KUTKM so that I manage to further for my final year project, Projek Sarjana Muda.

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I wish all of success for future undertakings. May Allah bless you.

ABSTRACT

Digital Document Management System is a web-based application that designed on a server side scripting that allows users to access the web and get information through the web. This system is developed for any small size or medium size organizations that need helps in managing their documents. It provides a solution for replacing manual document management system to a systematic document management system. It is a centralized system which helps organization to manage their entire document and enables user to access the document management system via online. The system is located between users and documents and gives user inter connectivity to the document. Some literature review and facts and finding is done to identify scope of the project, objectives, target users and what functionalities to be present in this system. Besides, for the methodology in this project, Rational Unified Process (RUP) is used. RUP is use because of it is the best methodology for Object Oriented Analysis and Design (OOAD) approach. OOAD is used in this project because of the OOAD approach gives more detail for the project and it is the best solution nowadays. With the implementation of this system using web based, it not just a multi-platform system but a flexible and efficient in terms of execution speed and response time because the factor is only the server itself. This system is develop basically to reduce search time for document with current manual document management system. Furthermore, this system also provides document security and online management system so that important document can be accessed anywhere as long there is an online internet connection available.

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CHAPTER 1

INTRODUCTION

1.1 Project Background

The system will be develop is a digital document management system where it is a digital document management solution for small size or medium size organization. It will be develop using a web based system because of the portability of the system and accessibility from anywhere. This system will be implemented at first for a small size company to handle documents. Basically this system is useful for management department for a company to maintain their document since nowadays most company more likely to do paperless business. This system to make sure they don't lose their important document since there will be a large collection of documents. This system enable user's to upload, download, delete, manage document and folders, and set restriction for document. Users are only able to use this system if the administrator approves their registration. It is to make sure only user in the company are able to access the file. The system enable user to upload all type of document such as Word document, Excel document, PowerPoint presentation, PDF files and text document. All files uploaded by user will be automatically stored in appropriate folder depends on the document content. For the document download, users are able to set document access level so that private document will not be accessed by lower user level. Besides, this system will feature advance and simple search function to make sure user can easily find their document. Advance search will feature search by author, date, filename and also content of the document. Administrator will have access to all folder and documents so that

administrator can manage folders and documents uploaded by user to make sure user not abuse the system for their own use.

1.2 Problem Statement

There are a few problems with current traditional system. Firstly, paper document is stored in some place and not recorded. The document could be lost if they don't handle properly and it would be a problem they want to find a certain document and they have to find it one by one and it would waste a lot of time. Secondly, for digital document, it may not store in only one place. Some stored in email, some stored in removable disc, and some stored different staff computer. It also would be a problem to search for important document. It would lead to a worse case if somebody accidentally deletes the document. Basically most of traditional system consumes a lot of time and it will decrease productivity of the organization and also to prevent important documents lost from their storage. It is crucial for a company to maintain their entire document recorded. Besides, one more problem, if they forgot to bring their document and they already traveled far from the company, it would be a problem to post the document via courier and need at least one day to arrive.

1.3 Objectives

- Developing a dynamic digital document management system to helps organization manage their digital document systematically. The system helps to organization organize their entire document effectively. The system allow user to upload, download, manage, set restriction, and remove the documents.
- The system help reducing time in searching for a certain document using advance search function. The system will store document into the system and also do searching inside the document itself. It make sure user are able to find their document accurately.

- The system will have ability to store large collections of digital document in a database and maintain all the document in a proper condition to prevent lost of document. All documents are managed in one system so that management department would not miss any important document.
- This system also more focused on a security issue where only certain users are able to access the restricted document. It will be done using user access level and so that private document only can be downloaded by certain user.

1.4 Scope

- Target user for this system is FTMK-KUTKM. This system will helps to manage their entire digital document where most of nowadays organization dealing with paperless activity. The system will be act as their medium in managing their entire digital document so that their document is managed effectively.
- The scope of this project focused on manage digital document such as Word document, PowerPoint presentation, Excel document, and PDF files where most of this type of document is currently popular in all organization. Besides, other file type also can be handled but search function will be limited. Other file type may can't be search inside the document.
- The system only can be used by a certain user since their registration is monitored by administrator before they can use the system. This is to prevent other users outside the organization from accessing private document in the organization.
- A secure system will be implemented so that private data only can be downloaded by a certified or certain user. This is to make sure private data for higher level user are only downloaded by higher level user.
- User will be able to upload, download, search and manage their document and administrator has full access to manage folders and documents in the database.

1.5 Project Significance

The system that will be developed is to benefit small size or medium size organization that want to make sure their digital document is managed properly in a one efficient system. They can use this system to manage their document since they will deal with a large collection of digital document daily. Besides, they can view recent uploaded documents so that any new document can be easily downloaded from the main page. Organizations are able to upload, download, manage folder, and search the document easily. The search function will feature advance search system that only search files within user defined criteria so that search result will display only accurate document. This system also will feature a document access level so that certain document only can be accessed by only target user. It is crucial since some document may be private for lower user. The system also benefits organization in matter of time where finding document time is reduced by this system.

1.6 Conclusion

This chapter consist and brief description about the background of the project will be develop and the purpose of the system. In the background of the system, basic functionality of the system is described and target user of the system also been discussed here. Besides, problems about the traditional system or current system that user faced in using current system also been discussed here. Furthermore, this chapter also covers project objectives where the objectives must be meet at the end of this project. In the project scope section, a brief description about who is the target user of this system and where it will be implemented is discussed. Furthermore, scope section also describes how big the system will be and the functionalities of the system. In the project significance, a brief description about who will benefit from this system is discussed. After this, on chapter two, literature review is discussed where articles from other sources will be discussed.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

In this chapter, literature review and project methodology is discussed. This section will provide information on the development process of the project. Literature review is gathering, penetrating, evaluating, and summarizing conclusion from the articles and issues from the relevant field of the literature. Basically it is a research for this project to strengthen the project development. Another part of this chapter will discuss on the project methodology used in this entire project development that explains about what method will be use in this project to complete the project. This chapter also includes project requirement where it covers from the hardware requirement until software requirement that need to be use from the development process of this project until the implementation phase of this project.

2.2 Fact and finding

Fact and finding will be discussed based on statement found and related to this project.

2.2.1 Existing systems

Below is existing document management system found on the internet for comparison to system that will be developed.

a. WORLDOX®GX[1]

WORLDOX®GX is an enterprise-capable document management system from World Software Corporation. It features tight integration with the latest Windows operating systems, Office productivity suites, e-mail applications, and Active Directory – along with a wide array of productivity programs and networking systems. It also is an extension to WORLDOX that provides secure access to your documents over the Internet, an extranet, or a company intranet.

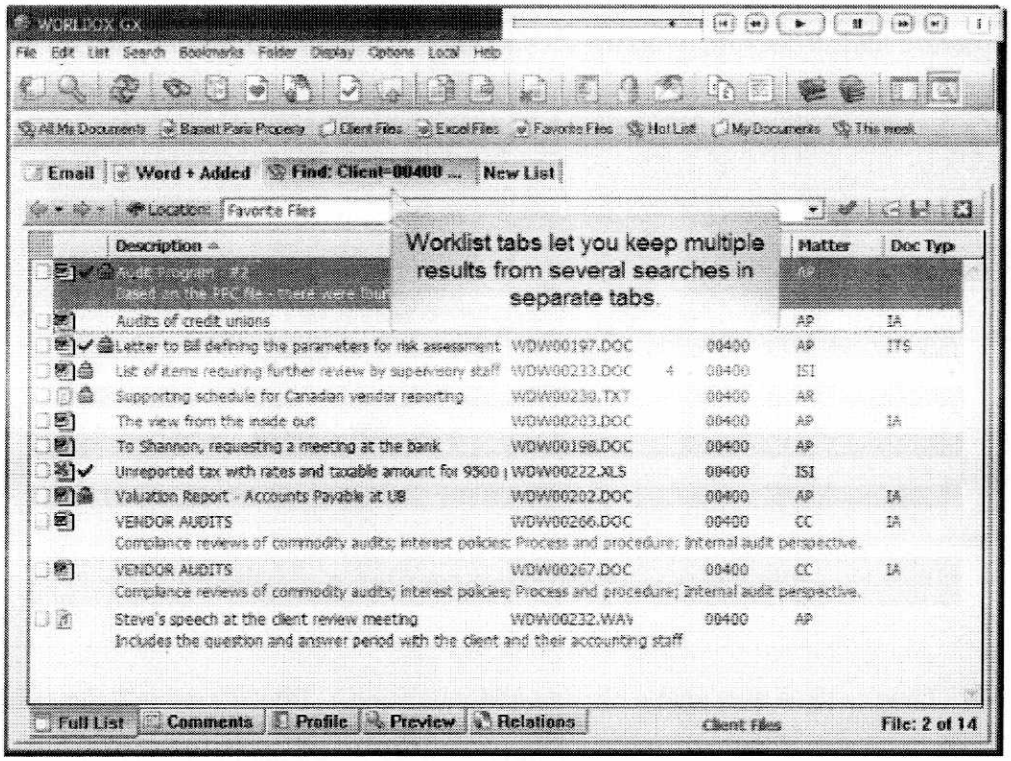

Figure 2.1 WORLDOX GX Interface[1]

In the WORLDOX GX document management system, they use several approach for their system.

- Bookmarks System in WORLDOX GX provide a whole new way to save and work with files. User can quickly and easily save lists of files generated from searches, or folders, or favorites as Bookmarks

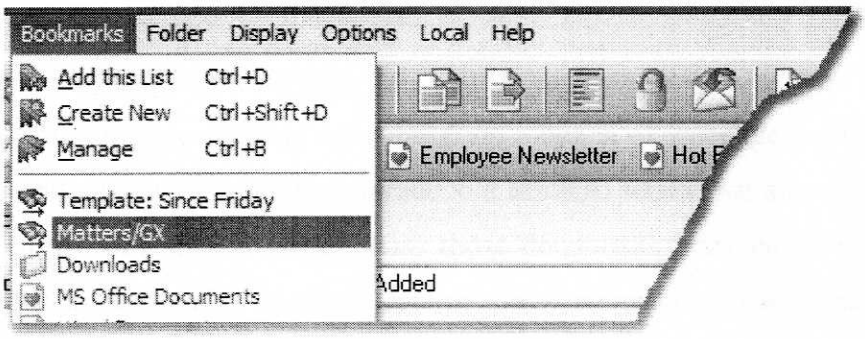

Figure 2.2 WORLDOX GX Bookmark[1]

- Document tabs, at the bottom of the WORLDOX window, provide instant access to document comments, profile, content, and relations.

Figure 2.3 WORLDOX GX document tab[1]

- Worklist tab that very useful. Appeared when user do a new task such as send a message, search for document, or viewing content.

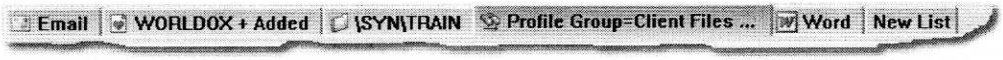

Figure 2.4 WORLDOX GX worklist tab[1]

This is a good example of document management system application. It can deal with so many task and document. Once user have familiar with the system, it would

be a great system for a document management solution. But it takes time to familiarize with the system.

b. Simple Document Management System (SDMS) by Cafuego[2]

Simple Document Management System (SDMS) is an open-source system that allows user to store any document in a database via a bunch of webpage's. SDMS uses PHP to provide user with a pretty interface to a MySQL server that allows user to store and retrieve documents and to share those documents between users. In addition, the system uses ACL (Access Control Lists) to grant access rights to documents on a per-user basis.

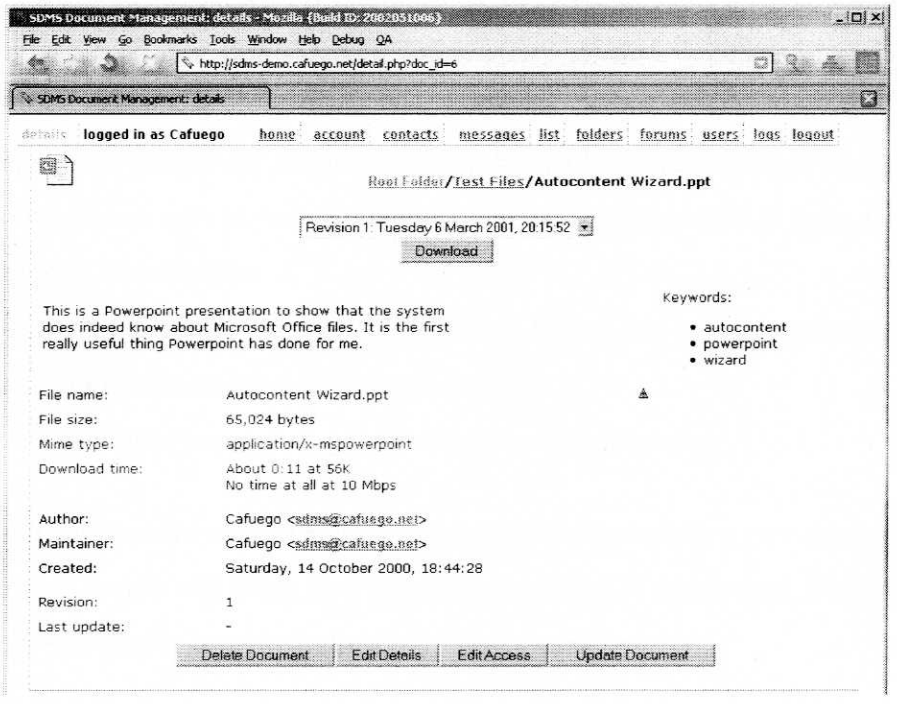

Figure 2.5 SDMS Document Information[2]

Currently SDMS supports up to 34 file type that can be recognized. This system is the easiest system to install, setup and use. It is suitable for basic use for organization that wants a free open source document management system.

c. DocuXplorer Software[3]

DocuXplorer Small Business, a multi-user, document management system is perfect for businesses that need the basic abilities of the DocuXplorer Document Management System at a lower cost. With the same ease-of-use and many of the features found in DocuXplorer Pro and Enterprise. DX Small Business will handle all user documents, scanned in paper and electronic files from a single screen.

Key features includes in this system are

- Multi-user access when the optional server software component has been installed.
- Add documents easily using drag and drop from a local or shared drive, scanning, importing, or with the Print Driver convert any printed document to a PDF document for storage.
- Integration with Microsoft Office 2000 or higher (Outlook, Word, Excel or PowerPoint) allows user to save documents, emails and files directly from Office applications to DocuXplorer.
- Scan documents as either PDF or TIFF image documents and convert existing documents and merge multiple documents to PDF.
- E-Mail, Fax and Print any document directly from DocuXplorer.

DocuXplorer offers a more refined approach, making it easy to index user documents properly so that a search will bring up a small, accurate list of documents. Document retrieval then becomes far less frustrating and more productive.

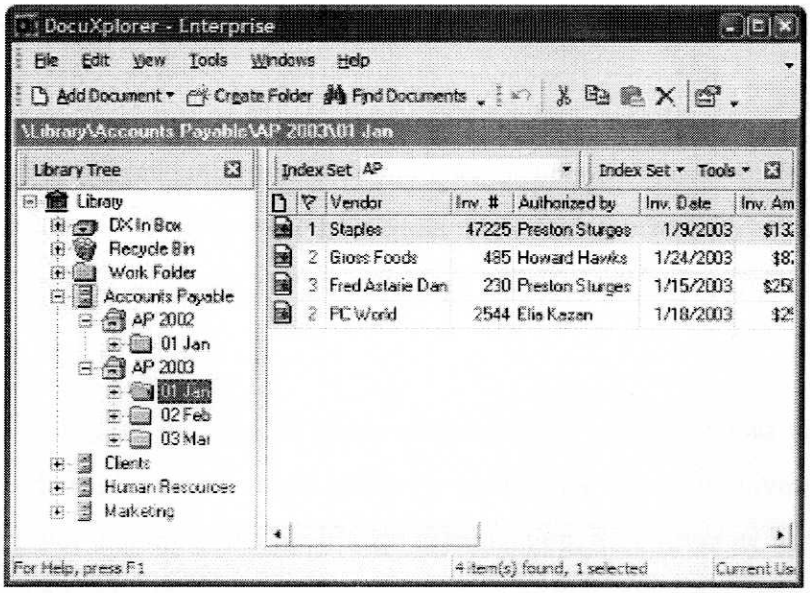

Figure 2.6 DocuXplorer[3]

Based on three of the document management system software reviewed, all of the software has their own advantage of themselves. As a conclusion, a software based or client side software is has wide coverage of functionalities since it is executed inside user computer and for web based document management system offers basic functionalities of document management since a high end functionalities for web based system consume a high central processing unit (CPU) usage. But, web based system are more flexible since it can be use anywhere because of its portability.

Below is comparison for the existing system.

Description	WORLDOX	SDMS	DocuXploer	New DMS
Web based	✗	✗	✗	☑
Simple search	☑	☑	☑	☑
Advance search	☑	✗	☑	☑
Online support	✗	☑	✗	☑
Document security	☑	✗	☑	☑
Message system	☑	✗	☑	✗

Table 2.1 System Comparison

2.2.2 Domain

Today, there so many small businesses that contain departments rise up and they are drowned in a large collection of documents. It includes documents by email, fax, and normal mail. Since nowadays most organization are more likely to deal with paperless document because it is easy to use, fast, reliable and at less management cost.

Finding a way to manage all these documents is important and put it to productive use when it's needed might make the difference between staying afloat and going under. For example, in a healthcare organization, they generate at least an average of 60 documents for each patient visit. Most of the healthcare organization deals with this volume increase by expanding their off-site storage facilities. The cost of this method is staggering. It would bring a waste of money by using traditional filing system.

As quoted from the article by Michael Pitoscia[4],

"The ideal solution is one that efficiently manages electronic and paper-based documents and can be integrated with other health information systems--in short, a Web-based solution. The result is a complete electronic medical record available online or from other legacy applications through which enterprise-wide document management can be achieved."[4]

Major efficiencies from the web based document management system solution are a reduction in filing and refilling, a reduction time in off-site document retrieval, the ability to share information throughout the organization quickly and easily, and simultaneous multi-user access to a record or document.

From the WORLDOX[1] document management website, an electronic document management system is defined as a tool to create, manage document, control document, and distribute electronic documents. A document is essentially a file. A document may be a word processing file, or it may be a graphic image file or other discrete, identifiable information unit that exist in a computer system. Where it could be many type of documents such as PDF document, Word document and other related document type that widely use in most organization.