

BORANG PENGESAHAN STATUS TESIS*

JUDUL: DIGITAL DOCUMENT MANAGEMENT SYSTEM

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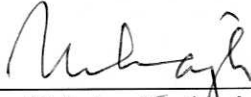
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DIGITAL DOCUMENT MANAGEMENT SYSTEM

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**This report is submitted in partial fulfillment of the requirements for the Bachelor
of Computer Science (Database Management)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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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

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DEDICATION

I would like to dedicate the system to the people who have contributed for the completion of my PSM.

I would like to dedicate the system to my supervisor. Your guidance brings incredible inspiration to me.

Love, Phooi Yee

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I would like to thanks to the people who have contributed for the completion of PSM. This is a big and difficult project that I ever develop during the time study in university. It uses Active Server page (ASP) as web language which I am not very familiar with and SQL Server 2000.

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ABSTRACT

Digital Document Management System is built for Document Control Department (Doc Con) which is located in Ayer Keroh, Melaka. The management of digital document is currently done manually where data is recorded into a file. Paper work consumes precious time, cause data mistake and data loss due to man power careless. Besides, paper work is lacking of security, thus records are visible to any person. Furthermore, it is difficult to access and update the hand writing records. As a result, the purpose of the computerize system is to replace the current manual tracking operation. The system enables manager to keep record of document movement in a systematic way. The methodology that used for the system as a whole is System Development Life Cycle (SDLC). There are totally five (5) modules to be developed in Digital Document Management System and the modules are depicted in the Context Diagram and Data Flow Diagram. Three-tier architecture was chosen because it is more scalable, robust, and flexible. Next, the Entity Relationship Diagram (ERD) and business rule are produced during conceptual design while Data Normalization and Data Dictionary are produced during logical design. A comparison among Microsoft Access 2000 with Microsoft SQL Server 2000 has been carried out. Finally, Microsoft SQL Server 2000 has been selected as the DBMS of Digital Document Management System after evaluating the advantages to be gained and its suitability to the system.

ABSTRAK

Digital Document Management System ini dibina khas untuk *Document Control Department (Doc Con)* yang terletak di Ayer Keroh, Melaka. Kini, operasi harian dibuat secara manual di mana data dikehendaki disimpan dalam fail yang berkenaan. Dokumentasi selalunya makan masa yang banyak dan menyebabkan kesilapan data, dan kadang-kadang juga menghadapi masalah kehilangan data akibat daripada kecuaiian penyelaras. Selain itu, dokumentasi adalah kurang selamat disebabkan rekod-rekod mudah dilihat oleh mana-mana pihak. Tambahan pula, rekod-rekod dalam bentuk tulisan tangan adalah susah untuk dikemaskini. Oleh demikian, tujuan untuk mengkomputerkan system adalah untuk menggantikan kerja-kerja dokumentasi itu. Sistem itu membolehkan pengurus untuk menyimpan rekod dengan lebih tersusun. Kaedah yang digunakan untuk sistem itu secara keseluruhannya adalah *System Development Life Cycle (SDLC)*. Terdapat lima modul di dalam system itu dan modul tersebut digambarkan di dalam *Context Diagram* dan *Data Flow Diagram*. Seni bina *three-tier* telah dipilih untuk system itu kerana ia lebih fleksibel dan lebih teguh. Selain itu, *Entity Relationship Diagram (ERD)* dan peraturan perniagaan dihasilkan sepanjang reka bentuk konseptual manakala penormalan data dan kamus data dihasilkan sepanjang reka bentuk logic. Satu perbandingan di kalangan *Microsoft Access 2000* dengan *Microsoft SQL Server 2000* telah dilaksanakan. Akhirnya, *Microsoft SQL Server 2000* telah terpilih sebagai *Database Management System* kepada system itu kerana ia lebih sesuai apabila diperbandingkan dengan *Database Management System* yang lain.

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CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, most companies need to handle tons of documents per day. The documents may include component drawing, network design and many more. All the records of retrieval and storage of documents have to be kept carefully to ensure document's confidentiality.

Digital document management system (DMS) in a manufacturing environment will address the issue of digital document management specifically at CUBIC's Document Control Department (Doc Con). This system computerizes the work of document management and help to address the problem of digital document management, specifically digital documents from external source. This system is a subsystem of the CUBIC's Document Control system. Moreover, the system is required to run on an Internet browser.

The system helps user to manage the transaction of digital documents which include functions like manage new document's request, record document's movement and manage lost documents. Additional functions like watermark/stamping will also be focused on to provide adequate security of electronic documents.

1.2 Problem Statement

Currently, Doc Con manages the electronic documents manually, which means the records of the document's movements are written in paper and kept in cabinets.

Doc Con has to manually inform every staff regarding of the arrivals of new documents everyday. Occasionally, some staffs are not informed due to humans' careless. A meeting may not be able to be held without the documents.

Secondly, if a user wants to request for a new document, he has to personally request and collect document from Document Control Department. It is not convenient as some staff is far away and they may not have free time to walk there.

Next, it is difficult to track if a user holds an earlier version of the document before request for a new one. Doc Con may miss out due to hasty mistake.

Lastly, Doc Con staff needs to print out the documents for every requestor and manually stamp the documents to assure its confidentiality. Therefore, the proposed system will computerize these functions which will reduce Doc Con's workload and increase conveniences to the users.

1.3 Objectives

This system computerizes the work of digital document management and help to address the problem of digital document management, specifically document from external source. This system is a subsystem of the Cubic's Document Control system. Moreover, the system is required to run on an Internet browser.

- a) To develop a proper storage for the data of the daily operation of the Document Control Department (DOC CON) so that data are easy to manage and access
- b) To build proper data storage to enable records of document's movement to be safely kept
- c) To lighten Doc Con staff's workload
- d) To enable efficient update and checking data via internet
- e) To increase conveniences to document's requestor

1.4 Scopes

1.4.1 Scopes of System Functionalities

The system is web based which can be accessed via internet on Windows platform. The main functions of the proposed system include:

i) Document Request Transaction

In the new system, users are able to request the documents by themselves via internet. They can select either request one document or multiple documents at one time. All the document requests will be previewed and approved by Head Of Department (HOD) and Document Control Department (Doc Con).

ii) Lost Document Transaction

If user loses a document, he can submit the lost document form (LODF) via internet to Doc Con.

iii) Record Document's Movement

All the transactions of document request and report of lost document will be recorded and kept in database. Doc Con can easily modify and add data through internet without direct access into database.

iv) Document Printing

If document request has been approved by HOD and Doc Con, Doc Con will notify the staff. User can print out the document at any computer provided the computer can access internet.

1.4.2 Scope of System Users

System is developed using Active Server Page (ASP) as web language and SQL Server 2000 as its database server. Moreover, there are three levels of system users.

a) Level 1

Level 1 user consists of normal a user which consists of CUBIC's staff. They can view document list, make request of document, report lost document as well as printing. But, they cannot edit or update system's data.

b) Level 2

Level 2 user consists of supervisor, head of session and head of department. They can view document list, make request of document, make lost document form, printing, approve request, approve lost document report and view staff's info.

c) Level 3

Level 3 user consists of Don Con staffs which are the admin. They can do level 1 and level 2 tasks. Moreover, they can edit and update data as well as add new data into the database.

1.4.3 Scope of Technologies

Several technologies are needed to develop Digital Document Management System. The targeted technologies of DMS are listed in Table 1.1

Table 1.1: List of Targeted Technologies

NUMBER	TYPE OF TECHNOLOGIES	TECHNOLOGIES USED FOR TPTSWS
1	Programming Language	ASP
2	Database Management System (DBMS)	Microsoft SQL Server 2000
3	Operating System	Window XP Professional
4	System Architecture	3 Tier Architecture
5	Graphical User Interface (GUI)	Adobe Photoshop 7.0

	Design	
6	Internet Browser	Internet Explorer 6.0 and above, Mozilla 5.0 and above
7	Documentation <ul style="list-style-type: none"> ▪ Report 	Microsoft Words 2003
	<ul style="list-style-type: none"> ▪ Flow Chart, Context Diagram, and Data Flow Diagram (DFD) 	Microsoft Office Visio 2003
	<ul style="list-style-type: none"> ▪ Gantt Chart 	Microsoft Project 2003

1.4.4 Scope of Database Features

Database features in a system may determine the successes and effectiveness of the system. So, the targeted database features of Digital Document Management System are listed in Table 1.2

Table 1.2: List of Database Features

NUMBER	DATABASE FEATURES	DESCRIPTION
1	Data Integrity	It is important that data adhere to a predefined set of rules, as determined by the administrator or application developer. There are several types of data integrity, namely primary key, unique, foreign key, and not null. Among the types of data integrity, primarily key and foreign key are most properly used to reduce data redundancy in the database.
2	Backup and Recovery	Backup and recovery refer to the various strategies and procedures involved in

		protecting the system database against data loss and reconstructing the database any kind of data loss.
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1.5 Project Significant

The new system helps Doc Con staff in handling their daily operation which is document management. The system enables the process like update, edit and add new data to be easier and faster. Instead of record data in a paper, pressing the update button is much easier and can reduce careless mistake made by human.

Moreover, user can access the system using any computer at any place. In place of request their document manually from Doc Con staff, now they can request the document via internet and print the document at the nearest printer.

Besides, the system can automatically check the user's history and send notification email to inform admin if user has not return earlier version of requested document. Thus this can reduce Doc Con staff's workload.

Lastly, the printed documents are watermarked or stamped with certain info to ensure no one steal or abuse the document.

1.6 Expected Output

The proposed system will computerize all the operations of electronic document's management and every document's movement will be recorded and saved in database. Besides, all the transaction should be done via internet and the printed document should be stamped/watermark with specific details to provide sufficient security to the documents.

1.7 Conclusion

This chapter is to determine the overall background of Document Management System. This chapter describes project background, problem statement; objective, scope, project significant as well as expected output which will enable me to be more understood about the project and help me in planning to develop the system. The next chapter will describe about the literature review and the project methodology.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 INTRODUCTION

The main focus of literature review for Digital Document Management System is to briefly describe the meaning of Digital Document Management System. The review explains the meaning of the Digital Document Management System its functionality. Project methodology span many disciplines, including project management, analysis, specification, design, coding, testing, and quality assurance. In spite of that, SDLC (Software Development Life Cycle) is selected to be used in the project.

2.2 FACT AND FINDING

2.2.1 Domain

A case study was carried out at CUBIC Electronics Sdn Bhd trying to address the issue of digital document management specifically at its Document Control Department (Doc Con). This new system computerizes the work of document management and help to address the problem of digital document management, specifically document from