# UNIVERSITI PUTRA MALAYSIA

# STUDIO MANAGEMENT SYSTEM

# FAIZUL MOHD NOH

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## FAIZUL MOHD NOH

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Faizul Mohd Noh
42 Jalan SS 9/18
Sungai Way
47300 Petaling Jaya
Selangor Darul Ehsan
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# ABSTRAK

Sistem Pengurusan Studio adalah merupakan satu sistem prototaip serta rujukan secara atas talian untuk kemudahan pihak atasan, pelanggan dan juga para pekerja bagi sebuah syarikat pos produksi. Sistem Pengurusan Studio ini adalah berasaskan kepada laman web serta menggunakan aplikasi "active server page" serta sistem rangkaian dalaman bagi syarikat berskala kecil yang menjalankan perniagaan pos produksi di dalam industri media hiburan. Bagi pengurusan data, perisian Microsoft Access telah digunakan. Sistem Pengurusan Studio ini mempunyai 3 aplikasi yang utama iaitu Sistem Tempahan Studio, Sistem Pengesanan Pita dan akhir sekali ialah Sistem Kedatangan Pekerja. Berdasarkan sistem-sistem ini, 3 laporan akan dihasilkan merangkumi laporan studio, laporan pita dan juga laporan kedatangan. Laporan ini hanya boleh di pantau oleh pihak pengurusan manakala Webmaster akan melakukan proses mengemaskini aplikasi serta pengurusan data. Berdasarkan laporan ini, sebarang lebihan masa dan juga penggunaan pita akan mudah dikesan serta kos tambahan ini bolehlah dikenakan kepada para pelanggan.

# ABSTRACT

The Studio Management System is a prototype of management and online system reference for the management, the client and also for the staff in a postproduction company. This system uses a web based application and also active server page for a local area network in a small-scale postproduction business. As for the database, Microsoft Access is being used. The Studio Management System consists of 3 main applications, which are The Studio Booking System, The Tape Tracking System, and lastly is The Staff Attendance System. Based on these systems, 3 main reports are created, that are Studio Report, Tape Report and Attendance Report. This report can only be view by the management and the Webmaster does the updating and database management. Based on these report, any accrued hours and tape material can easily be detected and extra charges can be billed to the client.

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# INTRODUCTION

## 1.1 Introduction

The use of computers in our every day's life is emerging rapidly from day to day. If we look everywhere, we can see that computers is being use in most of the supermarkets, petrol stations, universities and many places else. This shows that information technology plays an important role in giving better service to the client because the power of processing the information and giving result is greater and faster than the human brain thus reducing client-waiting time. In today millennium era, every second of time is consider money to the client. If you can done a task given in a short matter of time with the result needed compare to your competitor, you and your company will be in the list of people that can be rely by your client. The use of is become more because of the emerging of new software that is capable in managing a task given with lesser time consuming. Because of this rapid growth of the internet networking and also from campaigns done by the government on the importance of information technology in this new era, we can see different types of web application is being develop so that the user needs is fulfilled.

Media and entertainment industries are not excluded from this Information, Communication and Technology hype. The information technology in this line is rapidly evolved since the government planning in developing the Entertainment Village or E-Village. The use of computer technology is increasing especially in the

postproduction area. In media industry which involve video and film productions such as feature film, dramas, commercial, corporate video and others, 3 stages are involve which are the preproduction, production and postproduction.

A preproduction is a stage involving financial and management work. Such task like casting for talent, location recce, arrange of equipment and others management and planning work. In this stage, the use of computers is at minimum level. It is only being use for preparation of documents, proposals and budget, which is by Microsoft Office applications, is more than enough. During production, which is shooting on the location site, computer and information technology is being used at way minimum stage or might be not at all. Most location shooting used technical equipment like cameras, lenses, lightings, broadcast monitors and cables. Computers is being used for such devise like the motion control camera where the operator need to assign a grid and point of camera angle from a computer so that every shot and take is accurate. Computers are widely being used when the process is on the postproduction stage. Such process like editing, sound effects, composting, color correction and others appealing task are done easily with computers and digital tools given. Compare to traditional and conventional way doing it, at least more than half the time is being reduced. Client will be coming in and out from the postproduction studio, material such as tapes and film need also to be handle responsibly these people because it is the client material. Once task give is complete, it needs to be output in form of tapes, film, video compact disk and any formats required by the client. This involves the stock management since this line of business involved with deadlines. We need to have sufficient stock in hand so that there will be no delays in delivering the client project. Project delivering delays losses time and money also.

This will affect the image of the house because of lack to manage the necessary things needed.

To get this matter in place, a web based Studio Management System is being developed as a prototype in managing the staff, studio and tape stock for a small postproduction house. The primary reason to have this system is to give an assistant for the management in solving simple aspect of the company. By having this system, the decision-making and monitoring can easily be done and the management can have more focus in looking for prospect client. More clients meaning more money!

In this system, any booking can be done and easily manage so clashes between client can be eliminated. Having the attendance system can easily monitor employees, which consist of editors, assistant editors, tape operators and general staff. This can solve the problem is giving incentives for extra work hours by the staff. For the tape management system, it will provide with accurate tape balance so that any minimum level of tape can be known and new purchase orders and be done quickly.

The system is being developed for two main users, the management and the staff. For the management view, appropriate report will be generated based on the requirement whether daily, monthly or yearly. By having this, the management is having a reference for a project being handle a long the way. I can detect if the client use extra studio hours so that they can charge more to them. Another user is the staff, which is the main user for these 3 systems. The staff need to booked the slot for the client, record the material usage and lastly to punch in for their attendance. The system will be manage and maintain by a Webmaster.

The advantage of this system is that, it can keep a track record of what is happening for particular project so that both parties can have a win-win situation.

## 1.2 Problem Analysis

In selecting small scale of postproduction house for this project, I have selected my company, Cinequip Productions Sdn Bhd as a model in analyzing and solving the problem of managing the studio usage, tape stock and staff attendance. My definition of a small-scale company is a company that consists of less than 20 people. Cinequip Productions has 10 people comprising of 4 Editors, 2 Assistant Editors, 1 In-House Cameraman, 1 Account Executive and 2 Directors. The company has 3 studios for offline and online editing. All of the studious are using the Avid Non-Linear Editing system running on Windows or Macintosh operating system. The editors and the assistant editors on 2 shifts or slots basis are operating the studious. Based on my analysis of this company, I found ongoing problem regarding the studios and the management in handling the project and managing the stock. The problem arise are as follows.

□ *Manually Record*

The bookings and the usage of tapes are done manually at the company. This is a problem because the staff tends to forget to book the studios. This is because they need to write it on a booking logbook and if the date of the booking is not yet being created in the log, they tend to just leave it and memorize the client date. Sometimes also when they want to book, the logbook is missing. When working for deadlines job, another client calls to book a studio and the booking is missing, major problem can occurs.

❑ *Slow Feedback*

Since the booking system is done manually, client normally gets slow feedback whether they can use the studio or not. This is because; the staff needs to keep track of the date, which the client wants to use the studio. Sometimes happened when the staff forgets to book the slot. When this happened, the staff could not give immediate result whether there is a slot or not for the client to use or not.

❑ *Difficult To Keep Track And Monitor*

When everything is done manually and involve different staff for booking the slot, the management will find it difficult to track the slot being used because of the staff attitude in finding the booking logbook and write it out. At the end of the day, the management finds that they has undercharge the client because of the usage of the studio is more than what they has quoted.

❑ *Redundancy*

This issued arise when both client who wants to use the slot booked at the same time and there is no mechanism to detect whether any booking has been made before on a certain particular date. So what happened is that both client will come at the same time and wants to use the slot. This show a poor management of the studio booking system and it reflects the company image and attitude of the staff.

❑ ***Poor Stock Management***

This happened when the client want to output the final project on a tape and the tape required is finished. The company always happened to have this problem because no specific personnel to do the task of stock counting and place ordering for new stock. As of today, at Cinequip Productions Sdn Bhd, stocks counting and place orders are done by the Account Executive. However when it comes to a 24 hours 7 days a week company, the figure of the last stock check will not be the same as the written number on the book. This is because editors or assistant editors who took the tapes seldom record the balance because no proper system is being done.

❑ ***Staff Dissatisfaction***

At Cinequip Sdn Bhd, there is no attendance system is being implemented. This is because of the editors and assistant editors do not have specific working hours. They need to come base on job basis and sometimes need to work more than 15 hours a day due to datelines. What happens is, staff gets demotivated when they need to come the next even though they worked until early morning because the management has no proof to say that the staff has over worked and needs a rest. So it turns out to a staff dissatisfaction issue because of over worked and no incentive and rest given.

❑ ***Paper Waste***

Paper usage is poorly done here at Cinequip Productions Sdn Bhd do to the manually record of the tape stock and the client studio booking. The use of

logbook is no more being use. Instead, every month, the management will print the studio-booking sheet for each studio and let the user of the studio do the booking. A lot of paper waste is being generated here. Plus the issue of monitoring and writing it down on the paper is still not solved.

## 1.3 Studio Management System for Cinequip Productions Sdn Bhd

To solve the matter stated above, The Studio Management System will be proposed to the management. By having this system, at least the problem of stock management, staff monitoring and also giving the client accurate booking schedule can easily be done. The system comprises of 3 minor systems, which relates to each other; The Studio Booking System, The Attendance System and lastly is The Tape Tracking System. These 3 systems are mainly for the use of the staff. For the management, separate reports will be generated to keep track and monitoring of what is going on and make decision from it.

This system is mainly of internal use of the company by using local area network architecture. It is easy to use by the management and also the staff. For a first time user, the input of the form is almost exactly like previous manually done booking and stock system. The only difference is the attendance system which never been introduced before. Most of the input is done by pop up menus and the input from the staff by typing will be in minimum usage. This system will be managed by a system administrator for updating and maintenance.

For the management part, this system is consider to help the staff for records of booking, stock handling and the important part is to make them happy by having the attendance system so that the management knows have many hours their staff being

working for the company growth and appropriate incentive need to be given. This will make the staff more motivated in working and mutual understanding is created between both parties.

### 1.4 Project Objective

The objective of the project is:

*To built a prototype system that will have the inputs, processing the data and also generate the final report for the management in a small scale of a postproduction company. If the system is success, it will soon be implemented to other small-scale businesses based on their requirement and needs. By having this system, I truly hope that it can solve the problem arise in the company and less time is use for both parties to keep track and make any decision.*

### 1.5 Chapter Layout

The chapter layouts for this project report are as follows:

CHAPTER II – LITERATURE REVIEW

In this chapter, it will discuss base on articles and software references taken from the internet and other sources about networking, web page, ASP applications, client/ server application and also on the system itself.

CHAPTER III – SYSTEM DEVELOPMENT LIFE CYCLE.

In this chapter, it will has an explanation and research on the things needed in developing the system and the life cycle process.

CHAPTER IV – CONCLUSION & SUGGESTIONS

This is the final chapter for this project report based on the prototype system, which has been developed. This chapter also includes the problem arise in developing the system, advantages, disadvantages of using this system and also suggestion for future development and improvement of this prototype system.

# CHAPTER II

# LITERATURE REVIEW

## 2.1 Introduction

The use of information technology plays an important role for the management in improving the quality of service and also to increase the operation of a company. This is because the managing and handling the data will become easier and faster by having computerized information system in an organization. Data sharing from one department to another regardless within the same organization or different can easily be done thus will reduce the management cost, time and energy.

Access of data can be done faster by having the online information system. There are a lot of companies and organizations uses this online transaction for their businesses and routine work. Usually the data is in the form of digital format and this data will be stored in the central database system. From this central, the data will be process to become useful information and can be access by level of people and information. Normally when a system is being developed, it needs to have a co-operation between both parties; the developer and the end user. This is must so that any future problem can handle and solved. Based on this the Studio Management System is being developed. For the research part, literature review has been done to study the needs of a system and also on the actual system that has been developed and used.

## 2.2 Client Server Architecture

The term client/server was first used in the 1980s in reference to personal computers (PCs) on a network. The actual client/server model started gaining acceptance in the late 1980s. The client/server software architecture is a versatile, message-based and modular infrastructure that is intended to improve *usability*, *flexibility*, *interoperability*, and *scalability* as compared to centralized, mainframe, time sharing computing.

A client is defined as a requester of services and a server is defined as the provider of services. A single machine can be both a client and a server depending on the software configuration. There are a lot of client server architecture that can be used. Based on the research, I found that for the company to implement this system, the simplest and easy to manage client server architecture is the two tier architecture.

With two tier client/server architectures, the user system interface is usually located in the user's desktop environment and the database management services are usually in a server that is a more powerful machine that services many clients. Processing management is split between the user system interface environment and the database management server environment. The database management server provides stored procedures and triggers. There are a number of software vendors that provide tools to simplify development of applications for the two tier client/server architecture.

The two tier client/server architecture is a good solution for distributed computing when work groups are defined as a dozen to 100 people interacting on a LAN simultaneously. It does have a number of limitations. When the number of users exceeds 100, performance begins to deteriorate. This limitation is a result of the

server maintaining a connection via "keep-alive" messages with each client, even when no work is being done. A second limitation of the two tier architecture is that implementation of processing management services using vendor proprietary database procedures restricts flexibility and choice of DBMS for applications. Finally, current implementations of the two tier architecture provide limited flexibility in moving (repartitioning) program functionality from one server to another without manually regenerating procedural code.

It cannot be denied that for future expansion of this Studio Management System, changes of architecture needs to be done. However this changes will only take into considerations when more that 100 people is using the system and also when the 2 tier cannot cope up with the workflow. The recommendation is by using a three tier architecture.

The three tier architecture which also referred to as the multi-tier architecture emerged to overcome the limitations of the two tier architecture. In the three tier architecture, a middle tier was added between the user system interface client environment and the database management server environment. There are a variety of ways of implementing this middle tier, such as transaction processing monitors, message servers, or application servers. The middle tier can perform queuing, application execution, and database staging. For example, if the middle tier provides queuing, the client can deliver its request to the middle layer and disengage because the middle tier will access the data and return the answer to the client. In addition the middle layer adds scheduling and prioritization for work in progress.

The three tier client/server architecture has been shown to improve performance for groups with a large number of users (in the thousands) and improves flexibility

when compared to the two tier approach. Flexibility in partitioning can be a simple as "dragging and dropping" application code modules onto different computers in some three tier architectures. A limitation with three tier architectures is that the development environment is reportedly more difficult to use than the visually-oriented development of two tier applications. Recently, mainframes have found a new use as servers in three tier architectures.

## 2.3 Client Server Networking

Client/server proved to be a more cost-effective way to build many types of networks, particularly PC-based LANs running end-user database applications. Many types of client/server systems remain popular today. In general, client/server maintains a distinction between processes and network devices. Usually a client computer and a server computer are two separate devices, each customized for their designed purpose. For example, a Web server will often contain large amounts of memory and disk space, whereas Web clients often include features to support the graphic user interface of the browser such as high-end video cards and large-screen displays.

Client/server networking, however, focuses primarily on the applications rather than the hardware. The same device may function as both client and server; for example, Web server hardware functions as both client and server when local browser sessions are run there. Likewise, a device that is a server at one moment can

reverse roles and become a client to a different server (either for the same application or for a different application).

Some of the most popular applications on the Internet follow the client/server design:

- Email clients
- FTP (File transfer) clients
- Web browsers

Each of these programs presents a user interface (either graphic- or text-based) in a client process, that allows the user to connect to servers. In the case of email and FTP, the user enters a computer name (or sometimes an IP address) into the interface to set up future connections to the server process. For example, an Earthlink subscriber enters the name `smtp.earthlink.net` into the configuration settings of their email client to allow them to send messages over the Internet. In the case of email, a person generally enters the server information only one time, as the server side of the connection rarely changes. In the case of FTP, however, one typically enters a different server name each time they use the program. One day a person may visit `ftp.earthlink.net` to download tools, the next day they may visit `ftp.microsoft.com` to find a software patch, and so on.

When using a Web browser, the name or address of the server appears in the URL of each request. Although a person may start a Web surfing session by entering a particular server name (such as `www.about.com`), the name regularly changes as they click links on the pages. In the Web model, server information is provided by the HTML content developer encoded in the anchor tags.