

# Online Port E-Compound System

by

Mohd Nor Ridzwan Bin Ishak

Dissertation submitted in partial fulfillment of  
the requirements for the  
Bachelor of Technology (Hons)  
(Information Technology)

JUNE 2004

Universiti Teknologi PETRONAS  
Bandar Seri Iskandar  
31750 Tronoh  
Perak Darul Ridzuan

t  
HF  
SS48.32  
M 697  
2004

1. Electronic Commerce -- Management
2. management
3. IT/IS -- Thesis.



## CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



---

MOHD NOR RIDZWAN BIN ISHAK

## **ABSTRACT**

The development of various systems for local shipping port operation and management has been significant in the last several years along with the rapid growth of port activities. This project serves the purpose to suggest a new compound system to replace the existing system for use by local port management body. Focusing on improving the functions and capabilities of the existing system, the project detects weaknesses of the current system and investigates possible improvements that can be made prior to the requirements imposed by port management. The architecture and process flow of the existing system are referred as the basic guideline for the entire development process. System users and Information Technology personnel of Kuantan Port as the target research area are consulted during the early stages of the development process via interviews to assist in system analysis. Based on the findings from this study, a new compound system is proposed for use as an enhanced system containing necessary and additional features to port management body.

## **ACKNOWLEDGEMENT**

I am indebted to many individuals who contributed to the development of this project. My greatest appreciation to Mr. Shuib bin Basri for the kind guidance and support for the project. Your patience and constructive criticism were essential to shaping this project and is highly appreciated. I wish to thank all employees of Kuantan Port Authority and Kuantan Port Consortium in Information Technology department for the patience and contributions.

Special thanks to all lecturers and tutors of Universiti Teknologi Petronas especially in Information Technology and Information System department for assistance throughout the project. I also thank the internal and external examiners for evaluating and commenting on the project. I acknowledge the assistance from laboratory staffs during the course of the project.

I would also like to thank my parent and family for the continuous support, encouragement and patience. Many thanks to all friends for the kind assistance. Finally, to everyone who has contributed directly or indirectly throughout the project, I appreciate the contributions no matter how small it could be.

# TABLE OF CONTENTS

<b>CERTIFICATION OF APPROVAL</b>		i
<b>CERTIFICATION OF ORIGINALITY</b>		ii
<b>ABSTRACT</b>		iii
<b>ACKNOWLEDGEMENT</b>		iv
<b>TABLE OF CONTENTS</b>		v
<b>LIST OF FIGURES</b>		vii
<b>LIST OF TABLES</b>		vii
<b>ABBREVIATIONS AND NOMENCLATURES</b>		vii
<b>CHAPTER 1:</b>	<b>INTRODUCTION</b>	1
	1.1 Background	1
	1.2 Problem Statement	2
	1.3 Objective	4
	1.4 Scope of Study	5
<b>CHAPTER 2:</b>	<b>LITERATURE REVIEW/THEORY</b>	6
	2.1 Efficient Port Operation	6
	2.2 Underlying Principles for System Development	6
	2.3 Supports for Decision Making Process	7
	2.4 Manual versus Automated System	7
	2.5 Online versus Offline System	8
	2.6 Intelligent System	9
	2.7 Decision Support System	9
	2.8 Role of Information Technology in Decision Making	10
	2.9 Framework for decision making process	11
	2.10 Types of information systems to support decision making process	12
<b>CHAPTER 3:</b>	<b>METHODOLOGY/PROJECT WORK</b>	13
	3.1 Procedure Identification	13
	3.2 Tool	16
<b>CHAPTER 4:</b>	<b>RESULTS AND DISCUSSION</b>	18
	4.1 Data Gathering & Analysis	18
	4.2 Results and Discussion	20

	4.3	Suggested Future Work	.	.	.	22
<b>CHAPTER 5:</b>		<b>CONCLUSION AND RECOMMENDATIONS</b>	.			24
<b>REFERENCES</b>	.	.	.	.	.	25
<b>APPENDICES</b>	.	.	.	.	.	27

## **LIST OF FIGURES**

- Figure 1.1 Simon's 3-phase paradigm of intelligence, design and choice  
Figure 3.1 System Development Methodology for the project

## **LIST OF TABLES**

- Table 1 Login table of system database  
Table 2 Compound Detail table of system database  
Table 3 Payment table of system database

## **ABBREVIATIONS AND NOMENCLATURES**

ASP Active Server Pages



# CHAPTER 1

## INTRODUCTION

### 1. BACKGROUND

Port operations and activities are subjected to strict rules and regulations, uphold by staffs from various departments of the respective port management body. To manage the enforcement of these rules and regulations, the need for an automated computer system to handle all reported offences is increasingly crucial. The system should also be able to assist the management of port directly in areas of decision-making as well as general management perspective.

Currently, the system being used in many small ports throughout the country are mostly manual and offline, unlike other larger and more sophisticated ports, which already implement new technologies to manage all port operations. At these smaller ports, all offenses are recorded on papers to be checked and verified by the respective personnel before slips and receipts are produced. This entirely manual system has no mechanism implanted specifically to assist in decision-making process by management of port. Furthermore, the current system happens to create some problems that can negatively affect port performance which can actually be eluded. Among them are inaccurate and expired data, inability to produce report on demand, and inefficiency in data control and lack of support for decision-making.

Taking Kuantan Port as a sample from which early analysis is made, the system flow and processes are found unnecessarily complicated. At first, compound is offered by patrol officer from Safety department of Port Consortium on the spot as soon as an offense is detected. If the offender can be located within the area, the compound is given to him; otherwise, it is attached to the object involved in the offense. Next, patrol officer will submit daily compound offer report to the manager of Safety department. Manager of Safety department will then submit a copy of report on a weekly basis to the general manager of Port Authority.

Offender will then defray the compound to Finance department of Port Authority by hand. Receipts will be produced upon payment for verification purpose. Each month, the overall payment of compound will be reported to the Safety department of Port Consortium in a monthly meeting for management of port.

Due to many problems, errors and inabilities arise from the system, management of port has decided that improvement needs to be made to the existing system with a possibility of development of a new and enhanced system. However the basic structure and parties involved in the system should stay the same as it is. This is to minimize changes that need to be made prior to the implementation of the new system.

## **2. PROBLEM STATEMENT**

### **2.1 Outdated and Inaccurate Data**

Management of port conducts meeting in a monthly basis. During the meeting, officers from Security Department should report compound collection for the respective month. Using the current system, there is no mean on getting up-to-date data hence all reported figures are outdated and inaccurate. This may lead to false representation of the actual situation.

### **2.2 Inefficient Data Handling**

Since no centered database is available in the current system, collective data is updated incrementally by staffs of different departments after each transaction. There are excessive unnecessary procedures that have to be carried out before the data is updated. This leads to inefficiency in handling data.

### **2.3 Restricted Access**

The current manual system restricts information to only specific officers in a certain department which are directly involved with the system. This restriction is imposed to maintain data integrity and safety since any unauthorized party can modify records effortlessly. Therefore, the information is not accessible to outside parties although some of them are useful. This condition directly limits the capability of the system, thus creating a barrier that restricts its potential.

#### **2.4 Propagation of Human Error**

Since no automation is implanted in the current system, each step and process such as calculation and data analysis is fully done by the respective personnel. Human capabilities are exposed to many factors that may affect performance, such as emotion and stress. There are also limitations such as human vision, carelessness and etc. Such factors are common and are able to introduce errors in the system. Any occurring error may propagate throughout the system unnoticed.

#### **2.5 Inconsistent Output**

Through the current system, all data and information are located on papers. In order to obtain a summative data or to produce data in a different format, the data has to be re-entered manually in appropriate word processing software. There is therefore neither common and systematic method nor format available, leading to inconsistencies of output produced from the system.

#### **2.6 No Support for Decision-Making**

Currently, there is no intelligent component or mechanism in the system to support decision-making process by management of port. The system is only capable of producing raw or summative data generated via manual means. Such mechanism should be equipped in the system to ease management in making reasonable and appropriate decision.

### **3. OBJECTIVE**

#### **3.1 Detect Problems of the Current System and Determine Areas to Be Improved**

Many problems has aroused from the contemporary working system leading to poorer performance of port operations. Problems such as poor data integrity and handling, propagation of human errors and restricted access need to be removed from the working system to provide better quality services and operations. These problems can be identified via research methods such as survey, interviews and etc. From these problems, analysis can be made to determine critical areas where improvement can be made on the system.

#### **3.2 Formulate Solution to the Problem and Add Necessary Features**

Solutions are to be worked on from the problems identified. Solutions can be of various types such as new capabilities or features that the system has to offer. Features of the current system are very limited and stiff. Because of the nature and structure of the existing system, it is fairly hard to adjust and improve it from time to time. This leads to lack of efficiencies and flexibility in handling port operations. The system also needs to be equipped with many advance capabilities which can be adapted from modern technologies. Among them are structured and centered databases, access level mechanism and ability to produce data of many different formats.

#### **3.3 Develop Prototype of Suggested System**

The final output of the project will be in the form of a working system prototype. The system is to be developed using structured approach. Available functions and capabilities are subjected to earlier analysis or research made.

#### **4. SCOPE OF STUDY**

The system covers all port operations within the port operational area. This includes activities done by Traffic, Marine, Stevedore and Safety Departments' staffs and also external port users such as shipping agents and clients of the port. The processes covered include reporting of offences until management of the port.

The research area of the project deals with the examining of problems faced by the existing system and its solution. Further analysis concerns on selecting of features that may be necessary or additional that can improve the system. Characteristics of intelligent systems and decision support systems are revised to be inserted into the system. The system is assessed to possibly contain elements of artificial intelligence implanted in order to support decision-making process. How the system can be used to effectively assist decision making process by management of port is explored in depth.

The project supports internal and external users. Internal users are officers from Safety department in charge of offering compound, staff involved in payment transaction, and management members of port operational and management body. External users are shipping agents and employees of port clients.

## **CHAPTER 2**

### **LITERATURE REVIEW AND/OR THEORY**

#### **1. EFFICIENT PORT OPERATION**

Efficiency in handling port operation has been crucial and contributes directly towards the success of port management. This is expressed in the Client's Charter of Kuantan Port Consortium Sdn. Bhd., the management body for all port operations at Kuantan port;

“We Promise Friendly And Reliable Services. We Shall Endeavor To Prepare Estimates Of Cargo Handling Charges Within Two Hours Of Receiving All Relevant Information. We Promise Safe And Efficient Marine And Operational Services. We Shall Endeavor To Process All Duly Completed Integrated Imports And Export Documents Within Five Minutes. We Will Ensure The Safety Of All Cargoes In Our Custody. We Will Attend To All Complaints Promptly.”

There are two qualities that should be possessed by operational services of port, *safe* and *efficient*. The first quality can be simply related to the implementation of port's rules and regulations. These rules and regulations can be upheld by a successful compound system. *Efficiency* can be defined in many terms. It is also one of the effects of good data handling in system related to port operation, such as the compound system. To ensure proper data handling, the data must accurate and up-to-date as in section 2(1)(b) of Data Protection Act which stated, "*the data shall be accurate and complete and, where necessary, kept up-to-date*". In addition, accurate an up-to-date data has been one of the most important aspects in every management to ensure proper and precise decision made.

#### **2. UNDERLYING PRINCIPLES FOR SYSTEM DEVELOPMENT**

The book entitled “Systems Analysis and Design Methods” written by Jeffrey L. Whitten, Lonnie D. Bentley and Kevin C. Dittman introduces some general principles adapted from R. I. Benjamin (1971) that should govern all systems development methodologies.

Principle 1: Get the Owners and Users Involved

Principle 2: Use a Problem-Solving Approach

Principle 3: Establish Phases and Activities

Principle 4: Establish Standards

Principle 5: Justify Systems as Capital Investments

Principle 6: Don't Be Afraid to Cancel or Revise Scope

Principle 7: Divide and Conquer

Principle 8: Design System for Growth and Change

These principles are widely accepted as the guideline for system development methodologies and have proven to be useful.

### **3. SUPPORTS FOR DECISION MAKING PROCESS**

Decision-making process is the most crucial part in determining the success of virtually any company. This is exactly what included in the remark from Executive Chairman of Westport Malaysia, *“The four integral aspects of our business are man, machine, management information systems and money.”*

As for port, decision-making step is carried out by management during meetings which is conducted in a regular basis. Having a system that can assist this process will be highly beneficial and can guide management in the entire process. That is the sole reason why such extension should be included in port systems.

### **4. MANUAL VERSUS AUTOMATED SYSTEM**

Manual and automated system are two different ways of operation of a system with both having distinct features. According to National Institute of Standards and Technology, both methods can be effective in delivering their functions and objectives. However, automated system has some advantages over that of manual system in terms of data handling. Automated system has a better storing capability and data stored can be accessed anywhere anytime. In addition, transmission of data can be done much faster and more efficient.

## **5. ONLINE VERSUS OFFLINE SYSTEM**

It is of general knowledge that the world of Information and Computer Technologies are rapidly changing and progressing. Much of the progress is generated by the emergence of the Internet as the biggest platform of knowledge and resources. This is highlighted by Deitel and Nieto with reference to the project conducted by ARPA which renowned as the origin of the modern Internet. This is realized through the benefit of easy and fast communication between people of different and distant location and that was “the key benefit of the ARPAnet” (p.8).

England and Finney provided a simple yet good definition of online and offline system; online system being “an applications that operate over a network or a group of networks” while offline systems are actually “applications that works in isolation on a computer and does not need network connection”.

Based on that definition, many advantages of online systems compared to offline systems can be posted up. One is business can take advantage of the connection to “tune their operations and offer new and better services to their clients” (Deitel, Deitel, Nieto). According to them, with the tremendous increase in business traffic and transactions, costs can be cut off significantly. In general, Internet is believed to have played a significant role in economic prosperity enjoyed by many developed and developing countries.



## **6. INTELLIGENT SYSTEM**

Intelligent System is a vastly broad concept which has variable definition and highly dependent on context and situation. Dr. Leonid M. Polyakov in his work paper titled *Structured Approach to the Intelligent System Design* explained even intelligence conveys many different definitions, none of which are able to provide acceptable answer to scientific community. He also mentioned that the term itself “is a fuzzy term” and it is not easy to differentiate between intelligent natural and artificial intelligence.

In a common practice, intelligence is usually described with inter-relation with knowledge. In fact, intelligence cannot be interpreted as knowledge, but actually “knowledge is a tool for intelligence” (Dr. Leonid M. Polyakov). Intellectual ability such as ability to learn can help improve knowledge. Knowledge functions to generate intellectual activities.

Intellectual activities are mostly endorsed by specific set of goals. “A system can be intelligent only in relation to a defined goal” (Robert Finkelstain, 2000). Prior to that, goals must be prepared before intelligent function can be put to good use.

## **7. DECISION SUPPORT SYSTEM**

A simple definition of Decision Support Systems (DSS) as given by Mora, Forgionne and Gupta are “information systems designed to interactively support all phases of a user’s decision making process”, of which is referred to as decision making support systems (p.ix). Haag, Cummings and McCubbrey came up with a more extensive definition which is narrowed down to “a highly flexible and interactive information technology system that is designed to support decision making when the problem is not structured” (p.185).

This is supported by Bart Prakken who pointed out that DSS can be interpreted in both ways, broadly as well as narrowly (p.167). He distinguished both interpretations for use

with two different situations. What more important is the tendency to stimulate process quality, leading to better results when using the systems. Here, two objectives of DSS can be identified; (1) to support middle management and (2) to improve the quality of the system process. Given the roles of DSS as such, the main concern is for the system to be highly user-friendly (Brakken, p.168).

## **8. ROLE OF INFORMATION TECHNOLOGY IN DECISION MAKING**

As outlined by Haag, Cummings and McCubbrey (1994), there are six major roles of Information Technology, among the many and varied roles;

1. Increase employee productivity
2. Enhance decision making
3. Improve team collaboration
4. Create business partnerships and alliances
5. Enable global reach
6. Facilitate organizational transformation

One of the most significant goals that are expected to be fulfilled by the project is the second role; enhance decision making process. There are many ways in which Information & Computer Technologies (ICT) can contribute, mostly fall into one of the two categories; (1) those that help analyze a situation and leave the decision entirely up to system user, and (2) those that come up with recommendations. The former category involves Information Technology tools such as decision support system, executive information and geographic information system whereas the latter includes technologies in the area of artificial intelligence (Haag, Cummings, McCubbrey, 2004).

Geoffrey Elliot and Susan Starkings have a slightly different idea on Information Technology towards business. Information Technology is treated as one of the three resources of business that is used to achieve the ultimate goal in business, which is to make profit. It is also known as one of the “pillars of business organization”. This concept concerns on how well Information Technology is used to help the business

including in decision-making process. Ability to effectively use this resource will lead to gain in competitive advantages.

## 9. FRAMEWORK FOR DECISION MAKING PROCESS

Human decision making process can be described as a working framework. Numerous frameworks have been developed by researchers but the according to Guiseppe A. Forgionne, the most popular is Simon's three-phase paradigm of intelligence, design and choice as illustrated in Figure 1.

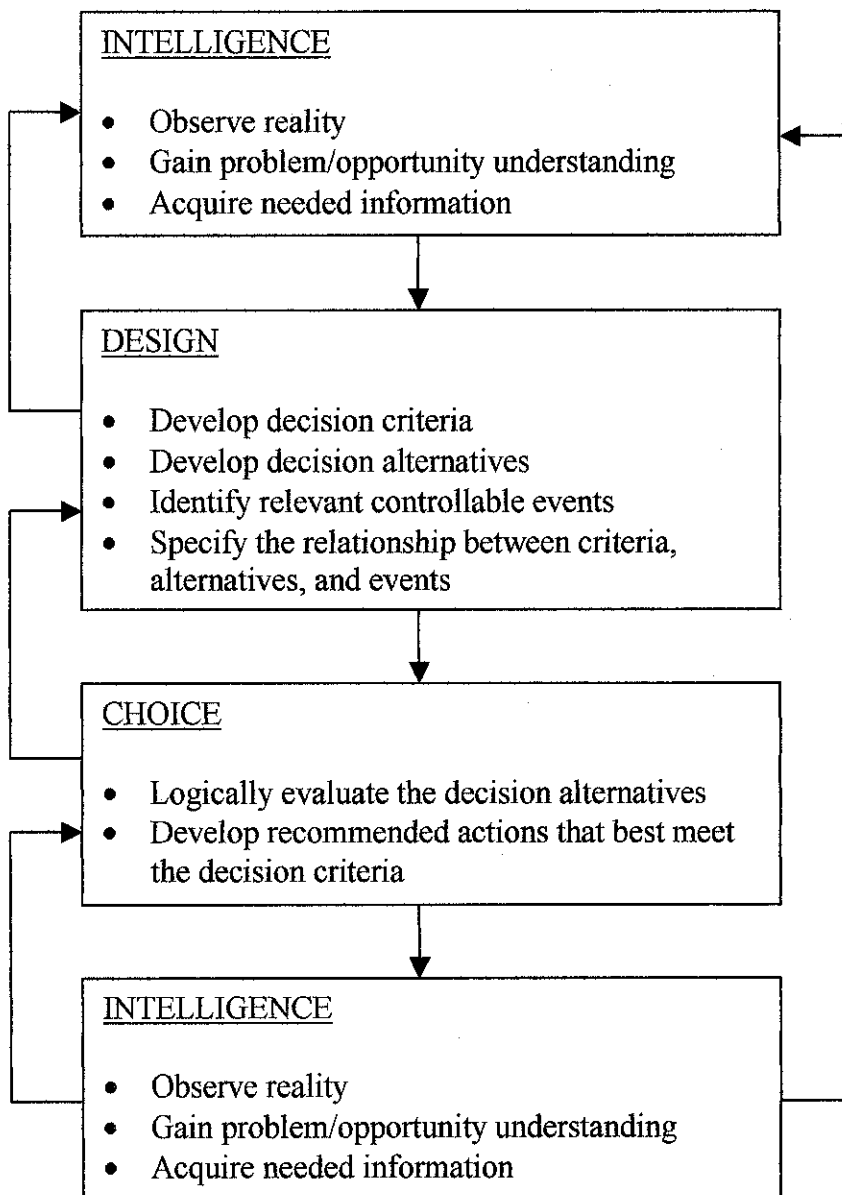


Figure 1

## **10. TYPES OF INFORMATION SYSTEMS TO SUPPORT DECISION MAKING PROCESS**

Guiseppe A. Forgionne in his journal entitled "*An Architecture for the Integration of Decision Making Support Functionalities*" describes four different categories of information systems, each has evolved to support the decision making process. They are Decision Support Systems (DSS), Executive Information Systems (EIS), Artificially Intelligent Systems (AIS), and integrated combination from any of the system. He adds that "each of the individual system supports particular phases and steps of the decision making process, but none of the individual systems supports the entire process in an integrated and complete manner".

# CHAPTER 3

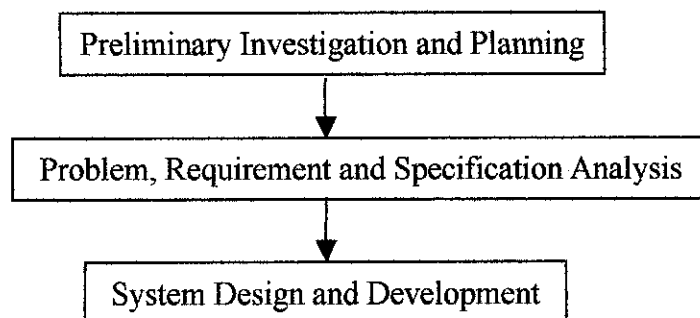
## METHODOLOGY/PROJECT WORK

### 1. PROCEDURE IDENTIFICATION

System development methodology is tailored to properly suit the need of the situation prior to preliminary analysis done in the early stage of the development. It is based on the system methodologies introduced by Jeffrey L. Whitten, Lonnie D. Bentley and Kevin C. Dittman (2001) called FAST (Framework for the Application of Systems Techniques). FAST system development process has 7 phases:

1. Preliminary Investigation
2. Problem Analysis
3. Requirement Analysis
4. Decision Analysis
5. Design
6. Construction
7. Implementation

Modifications are made on FAST by referring to the eight underlying Principles of Systems Development by R. I. Benjamin (1971) and the Preliminary Investigation and Planning process done in the first phase of the system development. Procedures of compound collection at port operational area as the location of application of the system and existing system architecture are taken into consideration. The modified methodology consists of four phases outlined in figure 3.1 below:



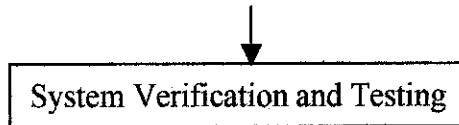


Figure 3.1

## **1.1 Preliminary Investigation and Planning**

As the beginning stage in the development of the system, this stage initializes the development process by defining the problem, opportunities and directives that triggered the project. According to Whitten, Bentley and Dittman, problems are undesirable situations that prevent organizations from fully achieving its purpose, goals, and/or objectives. Opportunity is a chance to improve the organization even in the absence of specific problems. Directive is a new requirement imposed by management, government or external influence (2001).

These problems, opportunities and directives are defined by observing the existing port compound system on how it affects performance and contributes to the success of port operations. Port's objective and mission statements are revised during the process. Critical problems and areas of improvements are noted to be further analyzed later on.

During this preliminary analysis, scope and methodologies of the project are also defined. Scope determines the complexity of the system and can be defined in terms of data required in the system, the processes supported by the system and the system interface that interacts directly with the user. A clear development path is constructed and outlined to guide the entire development process. The methodologies used should be able to support both the system development and operation and support stages of the system life cycle.

## **1.2 Problem, Requirement and Specification Analysis**

This phase of development process analyses three important aspects of system analysis; problem, requirement and specification. These aspects govern how the system should be developed and why it should be developed in such a way. This is done through a thorough analysis of the existing system and research on the improvements that can be made using systematic and structured procedures.

Problem analysis provides a more in-depth understanding of the problem that triggered the project. New problems are discovered using the cause-and-effect approach. Limitations of the existing compound system are also noted. Another activity conducted during this phase is learning of existing system's terminology, history, culture and nuances.

Requirement and specification analysis is done almost simultaneously. Requirement analysis determines the important characteristics of the improved system imposed by management of port. Among the points taken into consideration are the capabilities of the improvements, amount of data involved and manipulated, and expected level of performance. Data, process and interface requirements are identified. This phase is important as errors and omissions in requirement analysis result in user dissatisfaction along with unnecessary modification.

Specification analysis deals with the technical aspects of the development. This involves the platform on which the system will be developed and also tools and techniques that will be used in the development phase. Necessary tools to be used, in the form of software and hardware, are carefully selected to fit the need of the suggested system. Most of the case, alternatives are discovered and in such case, the best solution is determined through cost-benefit analysis.

Both requirement and specification analyses are carried out via a series of surveys and interviews with the users of the system. Factual information as well as the views of the users are collected. Here, new and additional features offered deemed necessary to supplement the compound system is identified.

### **1.3 System Design and Development**

From the information gathered in the previous phase, further development of the system can be resumed. This phase integrates two important activities; design and development.

The purpose of the Design phase is to transform analysis into specifications for development. Information collected from the analysis in the former phase is continuously referred to be illustrated as a logical model of the working system. Design is done in many forms including sketches, storyboard and diagrams. This phase forms the basis of construction of the proposed system

Development phase is where the system is actually constructed to be a working program. Development processes are divided into smaller stages where part of the system is coded one after another. This is done to ease the development process and pursue it systematically. After each stage is completed, the system will be assessed separately to quickly test the respective stage so it can function on its own.

These two activities are done in a rapid cycle. Errors and flaws in the system are discovered and fixed continuously. Alternatives to the solution are noted to be looked upon later if necessary.

### **1.4 System Verification and Testing**

Partial completion of the system is followed by testing and verification phase. The objective of this phase is to ensure the system meets the requirement and objective and also able to response to errors. The system must be stable and user-friendly. Upon completion of the system, overall system testing and verification is conducted. User testing is implemented and their views and recommendations are assessed to improve the system.

## **2. TOOL**



## **2.1 Active Server Pages (ASP) with VBScript**

The system is developed using ASP as the primary platform. ASP is a server side scripting that allows for dynamic content and supports database manipulation. ASP coding with VBScript is embedded into HyperText Mark-up Language (HTML) using appropriate program.

## **2.2 Microsoft® Internet Information Service (IIS)**

IIS is a web server developed to configure a HTTP server. It also functions to interpret ASP and produce output in HTML form.

## **2.3 Macromedia Dreamweaver MX**

This is a powerful software used to develop and integrate each web pages.

## **2.4 Microsoft® Access 2002**

Microsoft® Access 2002 is used in developing the database of the system.

## **2.5 Microsoft® FrontPage 2002**

This software is an additional software used to accompany Macromedia Dreamweaver MX in developing and integrating web pages.

## **2.6 Microsoft® Notepad**

Microsoft® Notepad serves as additional software for code editing and text formatting.

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **1. DATA GATHERING & ANALYSIS**

System analysis phase in the development process involves analysis of the existing system to determine the flow of the system, processes involved and problems that have aroused. Users of the system are also identified. Interviews are conducted involving Information and Technology department personnel of Kuantan Port Authority as the sample user of the system. Survey and observation is also conducted to obtain an overview of the situation. Interview question as in Appendix 1 is used for the purpose.

##### **1.1 System User**

There are many parties involved in the current manual system. They can be categorized mainly into two; internal and external. Internal users include patrol officers from Security department of Port Consortium, transaction clerks from Finance department of Port Authority and management from both Port Consortium and Port Authority. Parties from both Port Consortium and Port Authority have identical access to the data in the system and both work together to maintain integrity and validity of data.

External users are mainly clients of port who involves directly with port activities. They can be agents of the respective company or lorry driver who transport commodity in or out of the port. They interact with the system as external users who do not have access to the data in the system. They interact directly with the internal users of the system.

##### **1.2 System Flow and Process**

There are basically six steps involved in the system flow, outlined accordingly as below:

- Compound offer produced by patrol officer of Safety department of Port Consortium and handed to offender on the spot once offense is detected. If the offender does not present at the location, compound is attached to the object involved in the offence, ie. container lorry.
- Patrol officer reports daily offer of compound at the end of the day to the manager of Security department.
- Manager of security department reports weekly compound offer to the management of Port Authority.
- Offender settles compound at finance counter of Port Authority
- Representative from Security department of Port Authority reports monthly collection of compound to the Security department of Port Consortium for checking.
- Representative from Security department of Port Authority reports monthly collection of compound to management of port

### **1.3 Problems Arouse**

- Reported figures are inaccurate and out-of-date. The database is not structured and is on papers. In addition, all calculations are done manually.
- Information can't be generated upon request and takes a lot of time to be processed.
- When transports enter the main gate of port operational area, it is checked for any unpaid compound. Pass will not be given until the compound is properly

paid. Since the circulation and verification of data is slow, payment may not be detected early and hence the operation of port will be delayed and interrupted.

- Late payment can't be detected early as the system has no mechanism to cater for that.

## **2. RESULTS AND DISCUSSION**

Based on the objectives and findings from the research, characteristics of the new system can be formed. The new system will have the following criteria:

### **2.1 Online**

This is undoubtedly the most important and obvious feature of the new system. All transactions are to be done online and can be made at a remote site with proper user identification feature.

By putting the system online, many problems of the existing systems are resolved. One of them is inefficient data handling. By going online, data are handled more efficiently with minimal human intervention.

### **2.2 Automated Data Manipulation**

All calculations and data manipulations are to be done automatically with minimal user involvement in data handling. The system is able to efficiently manipulate data and produce data of different format to be used in decision making process.

There are at least three tables involved; login, compound detail and payment. The fields are as listed in the table below:

Table 1

id	name	loginname	password	account
----	------	-----------	----------	---------

Table 2

index	id	icno	name	address	vehicle	date	time	offense	amount
-------	----	------	------	---------	---------	------	------	---------	--------

Table 3

SerialNo	Amount	CheckNo	ResitNo	Date	Receiver	Payment	PaymentCode
----------	--------	---------	---------	------	----------	---------	-------------

### 2.3 Centered Database

All data will reside at one particular location, and since they are two main parties that will administer the system which is the Port Authority and Port Consortium, either location is acceptable.

By having a centered database, database maintenance is a lot easier and security of data can be controlled at ease. Database is updated very fast and efficient to produce more accurate and up-to-date information.

### 2.4 Proper User Identification

As the new system is able to contain the same system flow, the existing system flow is maintained. Although simplification of the flow is possible with the improved system, any changes made will affect the existing operation of the port and monetary factor will be affected. Therefore, to eliminate any possibility of generating new problems, the same procedure will be followed.

As opposed to the existing system, there are three user groups that are using the new system, namely transaction operators, management and external users, or guests. Transaction operators have access to almost all part of the system and are able to key in

data into the database. They can view and edit information that has been entered into the database. Several accounts are dedicated to administrators to have full access to the database. Management will have access to the summary of the information. They are able to turn and request data in different format for their use. External users will have restricted access to the system. Only individual data will be given permission to view for verification and monitoring purposes.

Different users have different access level and policies attached. Above all, administrators are the only party that can modify the system thoroughly.

## **2.5 Equipped With Simple Intelligent Component To Support Decision Making**

The system is to be equipped with simple intelligent mechanism to be useful to management of port as the decision makers. This mechanism will be in terms of data manipulation where data can be transformed into different formats to be more useful and effective in decision making process. This will conform to the first category of Information and Computer Technology defined by Haag, Cummings and McCubbrey (1994).

This mechanism will be implanted exclusively inside the system and functions automatically upon request. This service will be accessed by management users to be used in meetings and can act as reference.

With new and improved technologies and techniques introduced with the new system, it is believed that the objective of the system can be achieved successfully and all arising problem solved effectively. Besides that, the introduction of embedded intelligent component to aid in decision making process should help port organizations and companies to achieve its mission and vision.

## **3. SUGGESTED FUTURE WORK AND CONTINUATION**

Since the introduced system is practically new especially to many small ports, it should be put to work together with training of all staffs and Information Technology personnel for it to achieve its optimum potential. They should be thought of the usage of the system as well as how to explore the potential of the system for improvements.

Since the system will only apply passive intelligent component for now, it is suggested that a more active intelligent mechanism developed in the future to better aid decision making process. The current system will only provide users with modified and processed information. Suggested future development is to come up with a more intelligent mechanism to automatically provide guidance and even recommends decisions to management of port.

Another field which can be improved is the platform and software as well as tools used in the system. There will be new and improved technologies concerning the tools used in the future to cater for new advancement of technologies as such as wireless technologies. Companies should take the opportunity to develop new system using better tool to make use of the advantage of such technologies.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

The new and improved features of the new proposed system will solve the problems faced by the existing system as well as adding new capabilities such as aiding in decision making process. This will support the aspiration of port to better handle port operations and provide better quality services.

This new automated system will replace the existing manual system with most of the features and procedures kept unchanged. This will lead to preservation of the weaknesses in the existing system and allows for many future developments. However, it is realized that even a slight change in the procedure will affect the operation of port in many ways. Therefore, although it is highly recommended that the system is improved in the future, any possible change must be analyzed for feasibility before being put to effect.



## REFERENCES

Universiti Teknologi Petronas, 2001, "Final Year Project Guidelines For Supervisors and Students", Universiti Teknologi Petronas, Perak

Kuantan Port Consortium, 2003,

<<http://219.93.20.62/index.php?option=content&task=view&id=30&Itemid=44>>

Westport Malaysia, 2003, <<http://www.westportmalaysia.com.my/>>

Data Protection Commisioner, 2003, <<http://www.dataprivacy.ie/3g.htm>>

Deitel, Deitel and Nieto, 2002, "Internet & World Wide Web", Prentice Hall Inc.

Haag, Cumming and McCubbrey, 2004, "Management Information Systems for the Information Age", McGraw Hill Publication

Bart Prakken, 2000, "Information, Organization and Information Systems Design", Kluwer Academic Publishers

Geoffrey Elliot and Susan Starkings, 1998, "Business Information Technology", Longman

Manuel Mora, Guiseppe Forgionne and Jatinder N.D. Gupta, 2003, "Decision Making Support Systems", Idea Group Publishing

Elaine England and Andy Finney, 2002, "Managing Multimedia", Pearson Education Limited

Amitabh B. Sinha Laxmikant V. Kalé, 1996, "A framework for intelligent performance feedback", Department of Computer Science, University of Illinois, Urbana

K.N.Gurney and M.J.Wright, "Digital Nets and Intelligent Systems", Department of Human Sciences, Brunel University, Uxbridge

Jeffrey L. Whitten, Lonnie D. Bentley, Kevin C. Dittman, "Systems Analysis and Design Methods", Mc Graw-Hill Companies, 2001

## **APPENDICES**

### **1. INTERVIEW QUESTION**

- a. How does the existing system works? What are the processes involved?
- b. Is there any problem or flaw in the system? How serious the problem is? How does the problem affect port performance?
- c. What is user's expectation of the system? Can the system be changed to fit user's need?
- d. Is there any requirement or specification for future improvement of the system? How will the company support it?

## 2. PROTOTYPE SYSTEM'S SOURCE CODE

### 2.1 Main Login Page (main.htm)

```
<html>
<head>
<title>: Online Port e-Compound System :</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
  <tr>
    <td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font><font size="5">&nbsp;</font></td>
  </tr>
  <tr>
    <td align="center"><form method="POST" action="login.asp">
      <table width="100%">
        <tr>
          <td width="50%" align="right">Login name:</td>
          <td width="50%" align="left"><input name="login" type="text" size="20" maxlength="10"></td>
        </tr>
        <tr>
          <td width="50%" align="right">Password:</td>
          <td width="50%" align="left"><input name="pass" type="password" id="pass" size="20" maxlength="10"></td>
        </tr>
        <tr>
          <td width="50%" align="right">Account type:</td>
          <td width="50%" align="left"><select name="acc" id="acc">
            <option>Operator</option>
            <option>Management</option>
            <option selected>Guest</option>
          </select></td>
        </tr>
      </table>
      <p>Enter login name and password using "Guest" account to check your compound status</p>
      <input name="btnEnter" type="submit" id="btnEnter" value="Log in">
      <input name="btnReset" type="reset" id="btnReset" value="Reset">
    </form></td>
  </tr>
  <tr>
    <td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
  </tr>
</table>
</body>
</html>
```

### 2.2 Login Script (login.asp)

```
<%@LANGUAGE="VBSCRIPT"%>
<%
dim connect
dim recordset1
dim msg
dim user

set connect = server.CreateObject("adodb.connection")
connect.open "FYP"
set recordset1 = connect.execute ("select * from login")
```

```

recordset1.movefirst
do until recordset1.EOF
if recordset1("loginname") = request.form("login") and _
recordset1("password") = request.form("pass") and _
recordset1("account") = request.form("acc") then
user = request.form("login")
response.redirect(request.form("acc") & ".asp")
end if
recordset1.movenext
loop
%>

<html>
<head>
</head>
<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font></td>
</tr>
<tr>
<td align="center">
<p> <font color="#FF0000">
<% response.write("Invalid login. Please enter correct loginname and password") %>
</font> </p>
<p>
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="movie" value="button7.swf">
<param name="quality" value="high">
<param name="base" value=".">
<param name="bgcolor" value="#CCCCCC">
<embed src="button7.swf" base="." quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
</object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.3 Guest Main Page (Guest.asp)

```

<%@ Language=VBScript %>
<html>
<head>
<title>:: Port e-Compound System ::</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font><font
size="5">&nbsp;  </font></td>
</tr>
<tr>
<td align="center"><form method="POST" action="checkid.asp">
<table width="100%">
<tr>
<td width="150" align="right">Client/Vehicle ID:</td>

```



```

<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Offence
  Detail</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Compound
  amount</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Date</font></strong></th>
</tr>
<% do until cs.eof %>
<tr>
<td>
<% response.write(cs("offense")) %>
</td>
<td align="right">
<% response.write("RM" & cs("amount")) %>
</td>
<td>
<% response.write(cs("date")) %>
</td>
</tr>
<% cs.movenext
loop %>
</table>

<p>
<object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="movie" value="button4.swf">
<param name="quality" value="high">
<param name="base" value=".">
<param name="bgcolor" value="#CCCCCC">
<embed
src="button4.swf" base="." quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
</object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
<p>&nbsp;</p>
</body>
</html>
<%
cs.Close()
Set cs = Nothing
%>

```

## 2.5 Check Compound By Vehicle Script (checkvehicle.asp)

```

<%@LANGUAGE="VBSCRIPT"%>
<%
Dim connect
Dim cs

Set connect = Server.CreateObject("ADODB.connection")
connect.open "FYP"
set cs = connect.execute ("SELECT * FROM CheckCompound
& "WHERE vehicle = " & request.form("id2") & "" & "ORDER BY date")
%>
<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>

```







```

                OptionString3 = OptionString3 & "<OPTION VALUE="" & selectvehicle("vehicle") & "">" &
selectvehicle("vehicle") & "</OPTION>".
                selectvehicle.movenext
                loop
                %>
                <select name="select3" >
                <% response.write OptionString3 %>
                </select>
                <input name="txtAdd222" type="submit" value="Select Vehicle">
                </form></td>
        </tr>
</table>

<p>
<object
                classid="clsid:D27CDB6E-AE6D-11ef-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
        <param name="movie" value="button8.swf">
        <param name="quality" value="high">
        <param name="base" value="">
        <param name="bgcolor" value="#CCCCCC">
        <embed
                src="button8.swf"
                base=""
                quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
        </object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.7 Add New Record Page (newClient.htm)

```

<html>
<head>
<title>:: Port e-Compound System ::</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font><font
size="5">&nbsp;&nbsp;&nbsp;</font></td>
</tr>
<tr>
<td align="center"><form method="POST" action="addRecord.asp">
        <table width="100%">
        <tr>
                <td width="50%" align="right">ID:</td>
                <td width="50%" align="left"><input name="txtID" type="text" id="txtID"></td>
        </tr>
        <tr>
                <td width="50%" align="right">IC no.:</td>
                <td width="50%" align="left"><input name="txtICno" type="text" id="txtICno"></td>
        </tr>
        <tr>
                <td width="50%" align="right">Name:</td>
                <td width="50%" align="left"><input name="txtName" type="text" id="txtName"></td>
        </tr>
        <tr>
                <td width="50%" align="right">Address:</td>
                <td width="50%" align="left"><input name="txtAddress" type="text" id="txtAddress"></td>
        </tr>
        </table>
</td>
</tr>

```

```

        <tr>
            <td width="50%" align="right">Vehicle:</td>
            <td width="50%" align="left"><input name="txtVehicle" type="text" id="txtVehicle"></td>
        </tr>
        <tr>
            <td width="50%" align="right">Offense:</td>
            <td width="50%" align="left"><input name="txtOffense" type="text" id="txtOffense" value="N/A"></td>
        </tr>
        <tr>
            <td width="50%" align="right">Amount:</td>
            <td width="50%" align="left"><input name="txtAmount" type="text" id="txtAmount" value="N/A"></td>
        </tr>
    </table>
    <p>
        <input name="btnEnter" type="submit" id="btnEnter" value="Enter">
        <input name="btnReset" type="reset" id="btnReset" value="Reset">
    </p>
</form></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.8 Add New Record Script (addRecord.asp)

```

<% @Language=VBScript %>
<%
dim conn
dim x

set conn = server.CreateObject("adodb.connection")
conn.open "FYP"
conn.execute "insert into CheckCompound (id, icno, name, address, " _
& "vehicle) values (" _
& request.form("txtID") & "," _
& request.form("txtICno") & "," _
& request.form("txtName") & "," _
& request.form("txtAddress") & "," _
& request.form("txtVehicle") & ")" _
'& request.form("txtDate") & ")"
'& request.form("txtTime") & "," _
'& request.form("txtOffense") & ")"
'& request.form("txtAmount") & ")"
%>
<html>
<head>
<title>: Port e-Compound System ::</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><p><font size="6"><strong><cite>Online Port e-Compound
System</cite></strong></font><font size="5"></font></p>
</td>
</tr>
<tr>
<td align="center"><p><font color="#008040">Record succesfully added!</font></p>
<p>
<object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="BASE" value=",">

```

```

        <param name="movie" value="button3.swf">
        <param name="quality" value="high">
        <param name="bgcolor" value="#CCCCCC">
        <embed
            src="button3.swf"          width="147"          height="34"          quality="high"
            pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
            type="application/x-shockwave-flash" bgcolor="#CCCCCC" base="" ></embed>
        </object>
    </p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.9 Modify Record By Id Page (modifyid.asp)

```

<%@LANGUAGE="VBSCRIPT" CODEPAGE="1252"%>
<%
set conn = server.CreateObject("adodb.connection")
conn.open "FYP"
set cs = conn.execute ("SELECT * FROM CheckCompound "
& "WHERE id = " & request.form("select") & "" & "ORDER BY date")
%>
<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>
<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font></td>
</tr>
<tr>
<td align="center"><form name="form1" method="post" action="modifyRecord.asp">
<table border=1 bordercolor="#FFFFFF" bgcolor="#CCCCCC">
<tr>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">ID</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">IC
no</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Name</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Address</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Vehicle</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Date</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Time</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Offense</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Amount</font></strong></th>
</tr>
<% do until cs.eof %>
<tr>
<td> <input name="txtID" type="text" id="txtID" value="<% response.write(cs("id")) %>" size=5>
</td>
<td align="right"> <input name="txtICNo" type="text" id="txtICNo" value="<% response.write(cs("icno")) %>" size=12>
</td>
<td> <input name="txtName" type="text" id="txtName" value="<% response.write(cs("name")) %>" size="30">
</td>
<td> <input name="txtAddress" type="text" id="txtAddress" value="<% response.write(cs("address")) %>" size="50">
</td>
<td> <input name="txtVehicle" type="text" id="txtVehicle" value="<% response.write(cs("vehicle")) %>" size="10">
</td>
<td> <input name="txtDate" type="text" id="txtDate" value="<% response.write(cs("date")) %>">
</td>

```

```

<td> <input name="txtTime" type="text" id="txtTime" value="<% response.write(cs("time")) %>">
</td>
<td> <input name="txtOffense" type="text" id="txtOffense" value="<% response.write(cs("offense")) %>" size="50">
</td>
<td> <input name="txtAmount" type="text" id="txtAmount" value="<% response.write("RM" & cs("amount")) %>"
size="4">
</td>
</tr>
<% cs.movenext
loop %>
</table>
<br />
<input type="submit" name="Submit" value="Update Record">
<input type="submit" name="Submit2" value="Delete Record">
</form>

<p>
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="movie" value="button1 i.swf">
<param name="quality" value="high">
<param name="base" value=".">
<param name="bgcolor" value="#CCCCCC">
<embed src="button1 i.swf" base="." quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
</object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.10 Modify Record By Vehicle Page (modifyvehicle.asp)

```

<%@LANGUAGE="VBSCRIPT" CODEPAGE="1252"%>
<%
set conn = server.CreateObject("adodb.connection")
conn.open "FYP"
set cs = conn.execute ("SELECT * FROM CheckCompound "
& "WHERE vehicle = '" & request.form("select3") & "' & "ORDER BY date")
%>
<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font></td>
</tr>
<tr>
<td align="center"><form name="form1" method="post" action="modifyRecord.asp">

<table border=1 bordercolor="#FFFFFF" bgcolor="#CCCCCC">
<tr>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">ID</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">IC
no</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Name</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Address</font></strong></th>

```

```

<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Vehicle</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Date</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Time</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Offense</font></strong></th>
<th align="center" bgcolor="#0000FF"><strong><font color="#FFFFFF">Amount</font></strong></th>
</tr>
<% do until cs.eof %>
<tr>
<td> <input name="txtID" type="text" id="txtID" value="<% response.write(cs("id")) %>" size=5>
</td>
<td align="right"> <input name="txtICNo" type="text" id="txtICNo" value="<% response.write(cs("icno")) %>" size=12>
</td>
<td> <input name="txtName" type="text" id="txtName" value="<% response.write(cs("name")) %>" size="30">
</td>
<td> <input name="txtAddress" type="text" id="txtAddress" value="<% response.write(cs("address")) %>" size="50">
</td>
<td> <input name="txtVehicle" type="text" id="txtVehicle" value="<% response.write(cs("vehicle")) %>" size="10">
</td>
<td> <input name="txtDate" type="text" id="txtDate" value="<% response.write(cs("date")) %>">
</td>
<td> <input name="txtTime" type="text" id="txtTime" value="<% response.write(cs("time")) %>">
</td>
<td> <input name="txtOffense" type="text" id="txtOffense" value="<% response.write(cs("offense")) %>" size="50">
</td>
<td> <input name="txtAmount" type="text" id="txtAmount" value="<% response.write("RM" & cs("amount")) %>"
size="4">
</td>
</tr>
<% cs.movenext
loop %>
</table>
<br />
<input type="submit" name="Submit" value="Update Record">
<input type="submit" name="Submit2" value="Delete Record">
</form>

<p>
<object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="movie" value="button12.swf">
<param name="quality" value="high">
<param name="base" value=".">
<param name="bgcolor" value="#CCCCCC">
<embed
src="button12.swf"
base="."
quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
</object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.11 Management Main Page (Management. asp)

```

<% @LANGUAGE="VBSCRIPT" %>
<html>
<head>
<title>.: Port e-Compound System :.</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>

```

```

<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><h1><font size="6"><strong><cite>Online Port e-Compound
System</cite></strong></font></h1>
</td>
</tr>
<tr>
<td align="center"><p>
<object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="BGCOLOR" value="#CCCCCC">
<param name="BASE" value=" ">
<param name="movie" value="button2.swf">
<param name="quality" value="high">
<embed
src="button2.swf" width="147" height="34" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" base=" " bgcolor="#CCCCCC" ></embed>
</object>
</p>
<form name="form1" method="post" action="selectGraph.asp">

<table width="100%">
<tr>
<td align="center"><select name="select">
<option value="graphOffense">Offense</option>
<option value="graphLocation">Location</option>
</select> <input type="submit" name="Submit" value="Select Graph"></td>
</tr>
</table>
</form>

<p>
<object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
<param name="movie" value="button9.swf">
<param name="quality" value="high">
<param name="base" value=" ">
<param name="bgcolor" value="#CCCCCC">
<embed
src="button9.swf" base=" " quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
type="application/x-shockwave-flash" width="147" height="34" bgcolor="#CCCCCC"></embed>
</object>
</p></td>
</tr>
<tr>
<td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.12 Select Graph Script (selectGraph.asp)

```

<%@LANGUAGE="VBSCRIPT" CODEPAGE="1252"%>
<% response.redirect(request.form("select")&" .asp") %>
<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>

</body>
</html>

```

## 2.13 View Payment Report Page (paymentReport.asp)

```
<% @LANGUAGE="VBSCRIPT" %>
<html>
<head>
<title>.: Port e-Compound System :.</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
<tr>
<td align="center"><p><font size="6"><strong><cite>Online Port e-Compound
System</cite></strong></font></p>
</td>
</tr>
<tr>
<td align="center"><form name="form1" method="post" action="">

<table width="100%">
<tr align="right">
<td>From:
<input type="text" name="textfield"></td>
<td align="left">Until:
<input type="text" name="textfield2"></td>
</tr>
<tr align="center">
<td colspan="2"><input name="btnView" type="submit" id="btnView" value="View"></td>
</tr>
</table>
<table width="100%">
<tr>
<td width="50%" align="right">Total paid compound</td>
<td width="50%" align="left">:
<input type="text" name="textfield3"></td>
</tr>
<tr>
<td width="50%" align="right">Total payment</td>
<td width="50%" align="left">:
<input type="text" name="textfield4"></td>
</tr>
<tr>
<td width="50%" align="right">Unpaid compound</td>
<td width="50%" align="left">:
<input type="text" name="textfield5"></td>
</tr>
<tr>
<td width="50%" align="right">Compound overdue</td>
<td width="50%" align="left">:
<input type="text" name="textfield6"></td>
</tr>
<tr>
<td width="50%" align="right">Total compound offered</td>
<td width="50%" align="left">:
<input type="text" name="textfield7"></td>
</tr>
<tr>
<td width="50%" align="right">Total compound value</td>
<td width="50%" align="left">:
<input type="text" name="textfield8"></td>
</tr>
</table>
</form>

<p>
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
```



```

        <param name="BGCOLOR" value="#CCCCCC">
        <param name="BASE" value=".">
        <param name="movie" value="button13.swf">
        <param name="quality" value="high">
        <embed
            src="button13.swf"
            width="147"
            height="34"
            quality="high"
            pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
            type="application/x-shockwave-flash" bgcolor="#CCCCCC" base="." ></embed>
        </object>
    </p></td>
</tr>
<tr>
    <td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```

## 2.14 View Graph of Offense (offenseGraph.asp)

```

<%@LANGUAGE="VBSCRIPT" CODEPAGE="1252"%>
<%
set connect = server.CreateObject("adodb.connection")
connect.open "FYF"
set recordset1 = connect.execute ("select offense from CheckCompound")
%>

<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body>
<div align="center">
    <p>
    <%
recordset1.movefirst
do until recordset1.eof
if recordset1("offense") = "Speeding" then
a = a + 1
x = x + 100
elseif recordset1("offense") = "Driving dangerously" then
b = b + 1
y = y + 100
elseif recordset1("offense") = "Parking at restricted area" then
c = c + 1
z = z + 100
end if
recordset1.movenext
loop
%>
    </p>
</div>
<table width="90%" height="90%" border="5" align="center" bordercolor="#0000FF" bgcolor="#CCCCCC">
    <tr>
        <td align="center"><font size="6"><strong><cite>Online Port e-Compound System</cite></strong></font></td>
    </tr>
    <tr>
        <td><table width="100%" border=1>
            <tr>
                <td width=<%response.write x%> bgcolor="#CC66CC">&nbsp;</td>
                <td align="right">Speeding [
                    <%response.write a%>
                ]</td>
            </tr>
        </table>
    </td>
</tr>
</table>

```

```

<table width="100%" border=1>
  <tr>
    <td width=<%response.write y%> bgcolor="#33CCFF">&nbsp;</td>
    <td align="right">Driving dangerously [
      <%response.write b%>
    ]</td>
  </tr>
</table>
<table width="100%" border=1>

  <tr>
    <td width=<%response.write z%> bgcolor="#33CCFF">&nbsp;</td>
    <td align="right">Parking at restricted area [
      <%response.write c%>
    ]</td>
  </tr>
</table>

<p align="center">
  <object
    classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
    codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5,0,0,0" width="147" height="34">
    <param name="BGCOLOR" value="#CCCCCC">
    <param name="BASE" value=".">
    <param name="movie" value="button10.swf">
    <param name="quality" value="high">
    <embed
      src="button10.swf"
      width="147"
      height="34"
      quality="high"
      pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
      type="application/x-shockwave-flash" bgcolor="#CCCCCC" base="." ></embed>
    </object>
  </p></td>
</tr>
<tr>
  <td align="center"><font size="2">Online Port e-Compound System &copy; 2003</font></td>
</tr>
</table>
</body>
</html>

```