



# Payroll System at KK Engineering System

by

Ms. Supattra Kiatmahakhun

A Final Report of the Three - Credit Course  
CE 6998 Project

Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Science  
in Computer and Engineering Management  
Assumption University

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Project Title                      Payroll System at KK Engineering System

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Academic Year                  November 1999

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The Graduate School of Assumption University has approved this final report of the three-credit course, CE 6998 PROJECT, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer and Engineering Management.

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## ABSTRACT

Nowadays, due to a rapid business expansion and strong competition, several companies need to keep pace with such growth. The role of information is very vital to today's business. It helps serve and facilitate in decision making. This project was developed to improve the existing Payroll System at KK Engineering System Company (KKES). The work presented in this system consists of data flow diagram and structure analysis a design technique. This is a computerized Payroll System at KK Engineering System Company (KKES) to replace currently used manual system.

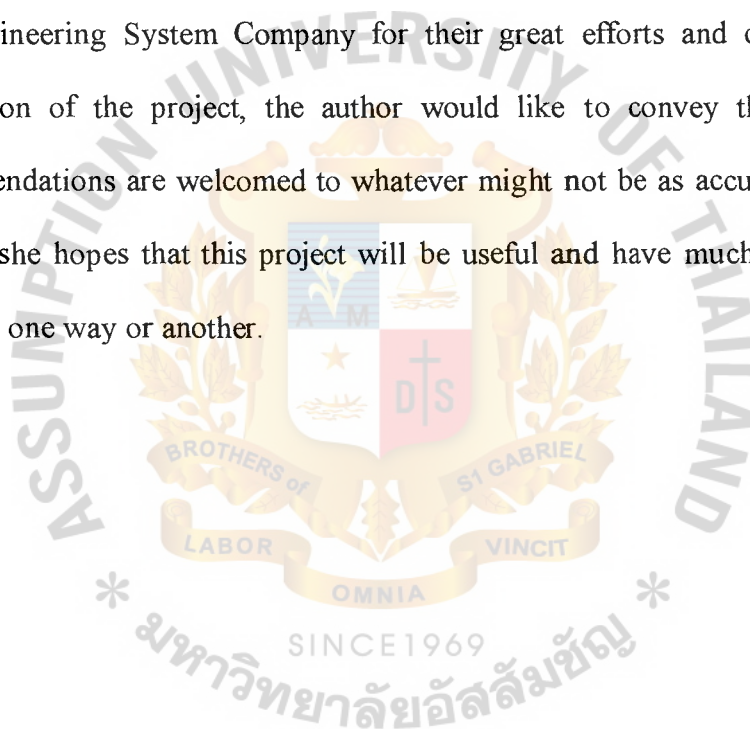
The existing system is studied and analyzed, and problems are identified. The new system is designed to solve or minimize the problems and finally testing and implementing are carried out.

This project, including the background of the existing system, the need of the computerized system, the new system requirements, input and output design, output report and all the necessary things that system analyst should do in designing the new system are also recorded in this project.

## ACKNOWLEDGEMENTS

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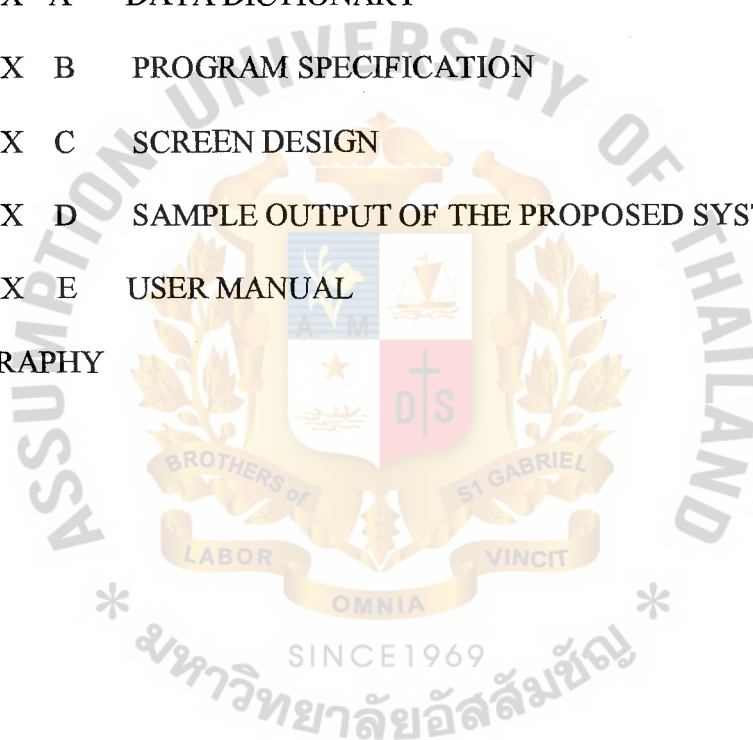
Sincere thanks and appreciation are also due to several prominent personal of KK Engineering System Company for their great efforts and contributions. Upon completion of the project, the author would like to convey that corrections and recommendations are welcomed to whatever might not be as accurate as they should. Finally, she hopes that this project will be useful and have much information to the reader in one way or another.



## TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	viii
LIST OF TABLES	xii
I. INTRODUCTION	1
1.1 Background of Project	1
1.2 Objective of the Project	2
1.3 Scope of the Project	3
II. THE EXISTING SYSTEM	5
2.1 Background of the Organization	5
2.2 Existing Business Function	6
2.3 Existing Computer System	10
2.4 Analysis of the Existing System	10
2.5 Current Problems and Areas for Improvement	13
III. THE PROPOSED SYSTEM	14
3.1 User Requirements	14
3.2 System Design	15
3.3 Hardware and Software Requirements	32
3.4 Components of the Computer System	33
3.5 Security and Controls	34
3.6 Cost/ Benefit Analysis	34

<u>Chapter</u>	<u>Page</u>
IV. PROJECT IMPLEMENTATION	42
4.1 Select Tools for developing Payroll system	42
4.2 Testing and Implementation	42
V. CONCLUSIONS AND RECOMMENDATIONS	45
5.1 Conclusions	45
5.2 Recommendations	46
APPENDIX A DATA DICTIONARY	47
APPENDIX B PROGRAM SPECIFICATION	52
APPENDIX C SCREEN DESIGN	73
APPENDIX D SAMPLE OUTPUT OF THE PROPOSED SYSTEM	83
APPENDIX E USER MANUAL	108
BIBLIOGRAPHY	115



## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
2.1 Company Organization Chart	9
2.2 Data Flow Diagram of the Existing System	12
3.1 Context Diagram	16
3.2 DFD Level 0: the Proposed System	18
3.3 DFD Level 1: Process 1.0	21
3.4 DFD Level 1: Process 2.0	24
3.5 DFD Level 1: Process 3.0	26
3.6 DFD Level 2: Process 2.5	31
3.7 The Proposed System's Payback Period	38
3.8 The Proposed System's Break – Even Analysis	41
B.1 Hipo Chart of Payroll System	54
B.2 Hipo Diagram: Verify Employee File	55
B.3 Hipo Diagram: Monthly/ Pretest Employee	56
B.4 Hipo Diagram: Time Keeping	57
B.5 Hipo Diagram: Computing Salary	58
B.6 Hipo Diagram: Salary	59
B.7 Hipo Diagram: Calculate Overtime	60
B.8 Hipo Diagram: Calculate Social Security	61
B.9 Hipo Diagram: Gross Pay	62
B.10 Hipo Diagram: Tax	63
B.11 Hipo Diagram: Calculate Total Income Per Year	64



## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
2.1 Company Organization Chart	9
2.2 Data Flow Diagram of the Existing System	12
3.1 Context Diagram	16
3.2 DFD Level 0: the Proposed System	18
3.3 DFD Level 1: Process 1.0	21
3.4 DFD Level 1: Process 2.0	24
3.5 DFD Level 1: Process 3.0	26
3.6 DFD Level 2: Process 2.5	31
3.7 The Proposed System's Payback Period	38
3.8 The Proposed System's Break – Even Analysis	41
B.1 Hipo Chart of Payroll System	54
B.2 Hipo Diagram: Verify Employee File	55
B.3 Hipo Diagram: Monthly/ Pretest Employee	56
B.4 Hipo Diagram: Time Keeping	57
B.5 Hipo Diagram: Computing Salary	58
B.6 Hipo Diagram: Salary	59
B.7 Hipo Diagram: Calculate Overtime	60
B.8 Hipo Diagram: Calculate Social Security	61
B.9 Hipo Diagram: Gross Pay	62
B.10 Hipo Diagram: Tax	63
B.11 Hipo Diagram: Calculate Total Income per Year	64

<u>Figure</u>	<u>Page</u>
B.12 Hipo Diagram: Calculate Allowance	65
B.13 Hipo Diagram: Calculate Tax Rate	66
B.14 Hipo Diagram: Calculate Net Pay	67
B.15 Hipo Diagram: Report	68
B.16 Hipo Diagram: Key in Transaction	69
B.17 Hipo Diagram: Print Payment Slip	70
B.18 Hipo Diagram: Cash Deposit Payment to Bank	71
B.19 Hipo Diagram: Print Summary	72
C.1 Enter Password	75
C.2 Payroll System Main Menu	75
C.3 Enter New Date	75
C.4 Company Information	76
C.5 Update Menu	76
C.6 Update Employee Information	77
C.7 Update Department Information	77
C.8 Update Division Information	77
C.9 Update Bank Information	78
C.10 Update Tax Table	78
C.11 Update Adjust Salary	79
C.12 Edit Attendant	79
C.13 Report Menu	80
C.14 Employee Report	80
C.15 Slip Payment	81

<u>Figure</u>	<u>Page</u>
C.16 Social Security Form	81
C.17 Federal Income Form	82
C.18 Summary Salary	82
D.1 List of Employee	85
D.2 Current Employee	86
D.3 Resign Employee	87
D.4 Adjust Salary	88
D.5 Certificate Salary	89
D.6 Attendance Report	90
D.7 Department Report	91
D.8 Bank Account Report	92
D.9 Salary and Wages Slip	93
D.10 Cash Deposit Payment	94
D.11 Submit Form of Social Security (Cover Form)	95
D.12 Submit Form of Social Security (Detail)	96
D.13 List of Employee in Social Security Act	97
D.14 Personal Income Tax (1) Cover Form	98
D.15 Personal Income Tax (1) Continue Form	99
D.16 Personal Income Tax (1n) Cover Form	100
D.17 Personal Income Tax (1n) Continue Form	101
D.18 Personal Income Tax Form (91)	102
D.19 Withholding Tax	103
D.20 Monthly Summary	104

<u>Figure</u>	<u>Page</u>
D.21 Yearly Summary	105
D.22 Employee Information	106
D.23 Pretest Working	107





## LIST OF TABLES

<u>Table</u>	<u>Page</u>
3.1 The Proposed System's Payback Analysis	36
3.2 The Proposed System's Break – Even Analysis	39
4.1 Project Development	43



## **I. INTRODUCTION**

### **1.1 Background of the Project**

Today the economic situation is changing rapidly. Many organizations need to survive in business, so they need to have good business management in their businesses, especially the accounting system.

The accounting system is the mean by which the management of an entity accomplishes the collecting, and processing of the reporting of the essential data that reflect the results of the operations carried out under its direction and supervision. The accounting system includes the forms, records, procedure and devices utilized in recording, summarizing, and reporting the operating and financial data required by management for its own use in controlling the activities for which it is responsible and for presentation to interested parties outside the business entity.

The focus of this project is on payroll accounting system which is one part of accounting system. In many firms, the pay envelop that contained the cash wages of each worker has been replaced by the electronic transfer of payroll funds to each individual worker's bank account. The adding machine used in the calculation of the worker's take-home pay has evolved into a data processing system.

The payroll accounting system is the only operation in a business that is almost completely governed by various federal law and regulations. Regulations establish whom an employee is, when to pay an employee, and when overtime is to be paid. Lack of compliance with these laws and regulations can result in both fines and back-pay awards.

Legislation has caused the preparation and processing of payroll data to become very complicated. The laws are not static since almost every year there are changes in the tax rates and taxable amounts. Thus, those in charge of payroll operations must be

currently informed of changes affecting their firms' payroll and personnel record keeping.

The increased complexity of payroll operations is true in small businesses as well as in large companies. Certain records of time worked, regular earning, overtime earnings, deductions from wages, and personnel information are needed to prepare numerous reports that must be completed accurately and promptly to print out.

At the federal and government level frequent changes are made in the laws that affect the company's payroll tax structure. Recent changes in the federal income tax with holding law has had a significant impact on every worker's take home pay. Thus payroll accounting system has become an active field of endeavor that required a constant updating on the part of the persons charged with playing and organizing the payroll system.

Because of the steady increase in the portion of a company's operating expenses, the payroll system is needed to develop in order to improve the accuracy, reliability, and timeliness of the payroll information being processed. This includes not only the calculation of the payroll and the payroll taxes but also the preparation of those records and reports that form the foundation of an efficient payroll system.

Finally it is hoped that is project will be beneficial for any organization and worker research as a reference document. This payroll accounting system is also applied to any other companies who are interested in the work of designing a payroll accounting system.

## **1.2 Objective of the Project**

The project is studied in order that the proposed payroll accounting system would reduce repetitive manual work, timeliness of operating and conduct a good filing system. The project needs to accomplish the following:

- (1) To study the existing system and the new system for service system to improve its effectiveness and efficiency.
- (2) To analyze the existing payroll system at KK Engineering System company.
- (3) To develop and implement the proposed computerized system to replace the existing one.
- (4) To develop an appreciation and an understanding of the personnel and payroll records that provide the information required under the numerous laws affecting the operation of a payroll system written in Microsoft Access.
- (5) To describe the basic payroll accounting system and procedures used in computing wages and salaries.
- (6) To introduce various types of automated equipment and data processing system that eliminates many of the repetitive operations that are common to the payroll system.

### **1.3 Scope of the Project**

The project is focused on the payroll accounting system which supports the personnel department and the accounting department. It will classify the area of operation into main menu, payroll record, report form and utility.

- (1) To concern the problem of the existing payroll system of KK Engineering System Company and improvement of the payroll system which will facilitate the calculation of payroll, payroll tax and preparation of report form.
- (2) The design system on payroll accounting system will cover the information of employee and payroll record that provides the information for conducting an improvement on current payroll system to have a good filing and control system, and also support on upgradable requirement. The new system will

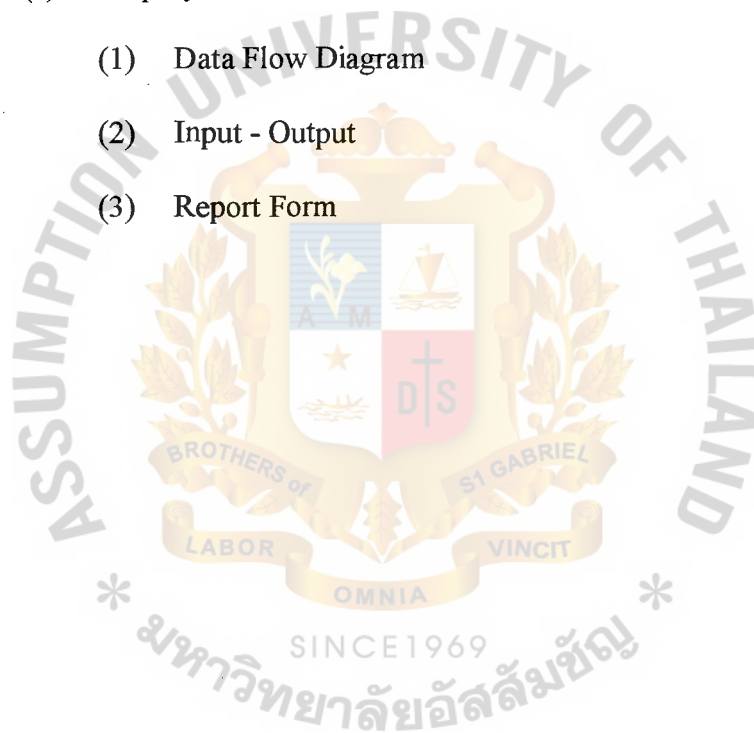


be conducted in order to facilitate the work, provide ease of use and reduce repetitive work and timeliness of operation.

- (3) To analyze the budget of the proposed payroll system and then compare with the budget of the existing payroll system. The proposed system will be focused on payback period, net present value and breaks-even analysis.
- (4) The project will cover major parts of the Payroll Accounting System, which include:

- (a) Employee Database

- (1) Data Flow Diagram
- (2) Input - Output
- (3) Report Form



## **II. THE EXISTING SYSTEM**

### **2.1 Background of the Organization**

KK Engineering System (KKES) company has been established in order to support the rapid expansion of Telecommunication sectors at present. The company has fully been managed the telecommunication network by the experienced, high ability and responsibility personnel who are ready with the new technology policy for the solution of the problem that may occur anytime. Furthermore, all management team has executed the same target and policy as the company's direction which are

Quality, Honesty, Patience, On time and Relation

Previously, the company has performed on design of Telephone Network, outside plant telephone installation as well as Community Antenna Television System (CATV) distribution network installation which we have presently been ready for and interested in participating in any future projects.

KKES has divided into four departments

- (1) Administration
- (2) Implementation
- (3) Business Development
- (4) Logistic

Administration

- (a) Personnel
- (b) Financing and Accounting

Implementation

- (a) Construction
- (b) Documentation

(c) Supervision

(d) Design

#### Business Development

(a) Marketing

(b) Planning

#### Logistic

(a) Warehouse

(b) Purchasing

The staff at KKES Company can be classified into two groups which are officer worker and construction worker. The officer worker is a person who works in the office such as member of Administrative Department, Business Development Department and Logistic Department. All of them have work time from 8:00 a.m. – 5:00 p.m. that uses Time Record Machine to keep time record. But the construction workers (except Project Manager and Site Engineer who are officer workers) will be checked for attendant by the Time Sheet Record which is responsible for by the foreman.

## 2.2 Existing Business Function

The company function can be classified into 4 departments. See Figure 2.1.

(1) Administration Department for KKES company is separated into Accounting and Financing Division, and Personnel Division.

(a) Accounting and financing checks in and checks out the amount of money to make the profit for the company, prepares general ledger, income statement, and balance sheet.

(b) Personnel division gets new employees and checks the record of all employees to make the salary records. And then checks the right amount of salary to each employee.

- (2) Implementation Department: can be classified into 2 divisions. There are Construction and Design Divisions.
- (a) The construction division will be separated into 2 parts.
- (1) Documentation: the staff is responsible to prepare the summary of BOQ (Bill of Quantity) and then send the BOQ summary document to the supervision. After the supervision completed their work, the staffs of documentation need to check the site area of installation and prepare the summary of quantity (QS).
- (2) Supervision: The staffs are responsible for the planning, controlling and managing of the installation method of the system. It also manages and schedules workers' hours to work on and finished job as scheduled.
- (b) The design division is responsible for survey area of work and design for outside plant and CATV work. Preparing Red Line and As-Build reports that submitted to Main Contractor.
- (3) Business Development for KKES is separated into 2 divisions.
- (a) Planning: the division has the responsibility of analyzing, controlling setting schedule of work and planning the firms' resources so that they can be used in the most efficient manner.
- (b) Marketing: this division has the responsibility of finding out the work and co-ordinating with the planning division to solve the problem and manage the organization, contacting with the main contractor such as Telecom Asia (TA), and Telephone Organization of Thailand (TOT) and setting budget for each project.
- (4) Logistic Department for KKES is separated into 2 divisions.



- (a) Warehouse; this division has the responsibility of checking materials and stock inventory of materials.
- (b) Purchasing; this division has the responsibility of order the materials, and inspects goods and materials. Contact with suppliers and check the list of quotation price.



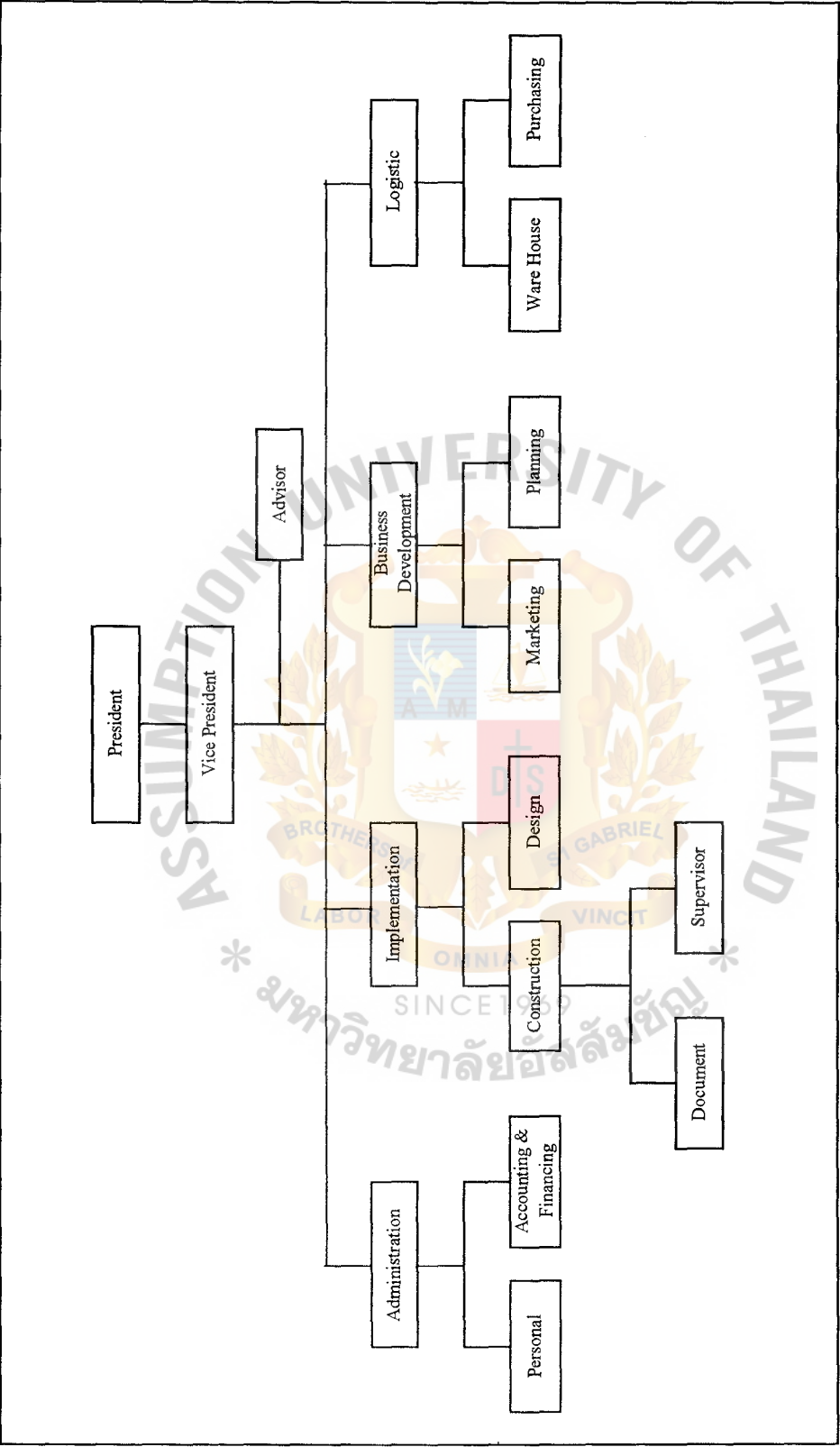


Figure 2.1. Company Organization Chart.

### **2.3 Existing Computer System**

Payroll System uses the manual system. And, now it has many problems because the department is getting bigger and the workload is heavy. So, we decide to solve problem in this system. The computers that we use in our company are 486DX2 and Pentium 100. They are regular PC (Personnel Computer) to use in the office. In Administration Department there are 2 PC computers to use, which we think are suitable.

### **2.4 Analysis of the Existing System**

The existing system is a manual system, as shown in Figure 2.2 Data Flow Diagram (DFD) at level 0 of the existing system.

#### **Process 1.0: Calculate Work Hour**

To keep all worker records, which are recorded by the Time Keeping Machine and Time Sheet report (use for construction worker), every employee must record everyday when he/she comes and before he/she goes home. These records will be sent to the personnel for verification by comparing their working record with the standard time for normal cases e.g. 8:00 a.m.- 5:00 p.m. which are the normal working hours. Further, the records must check whether those employees were late or not and check with overtime requisition whether it is correct or not before those employees are paid for the overtime fee.

#### **Process 2.0: Calculate Salary**

The personnel division will be using the information of employee, employee's salary and working record to calculate salary. The next step is to deduct by tax condition to find out withholding tax. After that get the net pay to each employee.

#### **Process 3.0: Print Report of Payment**

When the calculation of employee salary is completed, the report of salary payment will be sent to the Bank (i.e. in case of employee who has an Account No.) and the another report of payment is sent to the Accounting Department to prepare the payment slip. Print out all reports by using PC.

#### Process 4.0: Print Slip Payment

This step occurs when report of payment is received. Payment slip can then be printed. The accounting manager needs to sign the payment slip and keep one copy for the accounting and financing division. The other is sent to the personnel division as employee evidence.

#### Process 5.0: Distribute Salary Payment Slip

To distribute the payment slips which are signed already to employees.



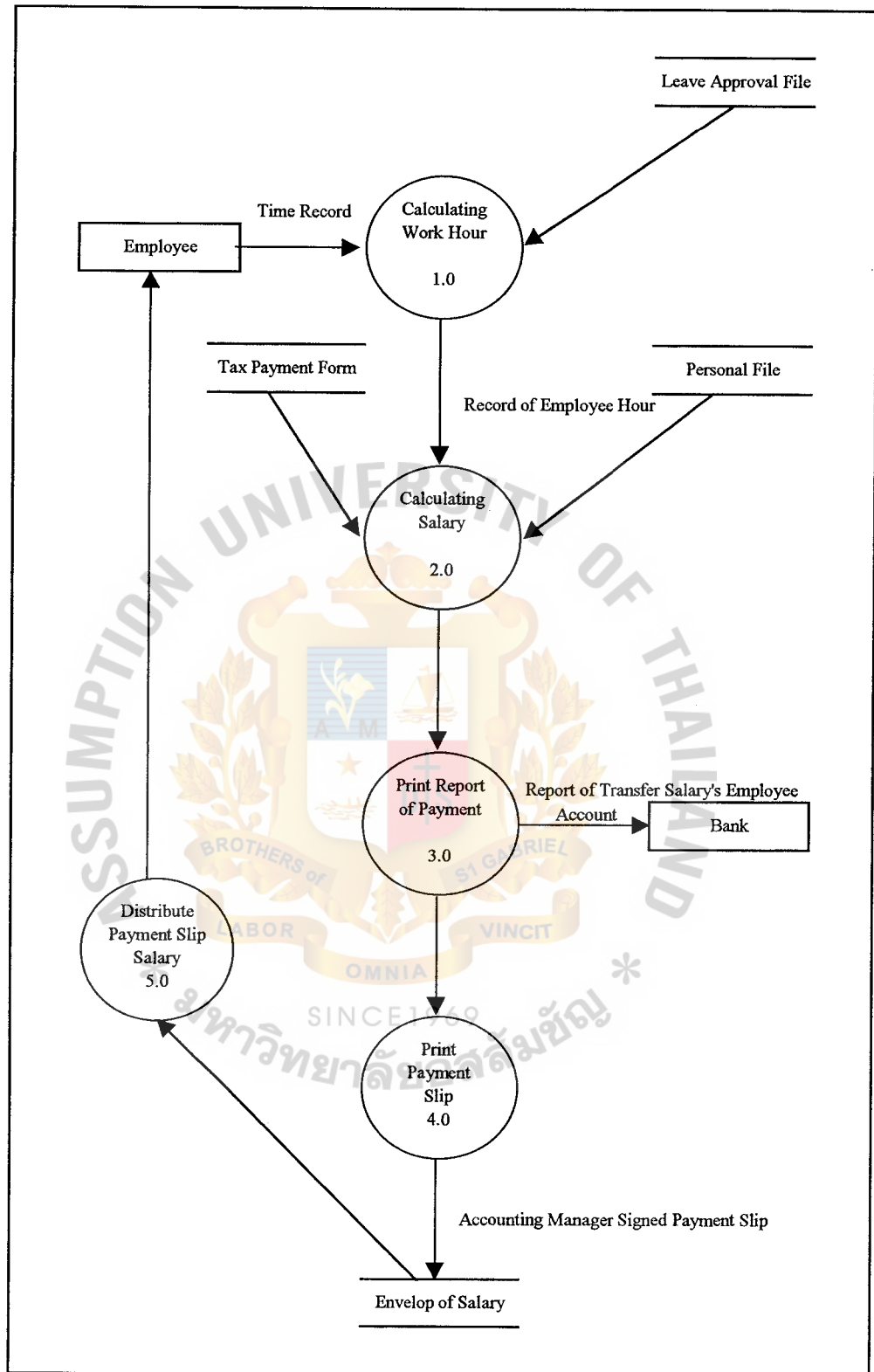


Figure 2.2. Data Flow Diagram of the Payroll System of the Existing System.

## **2.5 Current Problems and Areas for Improvement**

After discussion and interview with personnel involved, the company identifies the existing problems of Payroll System as follows:

- (1) Duplication of the data. Resulting from an expanding business, problem on duplication of data occurs when the numbers of personnel required for the operation increase. Because of a lot of employees to manipulate information and to keep their records, sometimes we may type the same information many times.
- (2) Difficulty and time consumption in searching the record. It is not convenient to improve the information. When we would like to find or edit the employees information, salary record, personal information, attendant record and so on, we should find a lot of filing records to find their records and adjust the information.
- (3) The manual preparation of salary report is time- consuming. It may be days and sometimes weeks to prepare the report to in-house and submit to federal government and social security every month. In the step of computing salary, we should find step by step information on gross salary, other deduction, withholding tax in each period, cash deposit payment to bank, monthly summary preparing to accounting division and so on. We should prepare it every month using accurate data.
- (4) The existing system does not have any security system to access information. Because the salary payment and employee information are confidential information, we cannot allow other persons who are not related to the personnel division to access and distribute our information to other persons.



### III. THE PROPOSED SYSTEM

#### 3.1 User Requirements

Following this project, we decided to get the requirements from the administration department of KKES, which include personnel, finance and accounting divisions. We can define our activities to get the requirement as follows.

- (a) Compute employee salary has to be computerized and implemented because in calculating taxation, it takes more time to compute. The use of computer system can help to operate work faster with accuracy of data.
- (b) More reports need to be printed out such as with-holding tax, personnel income tax, salary payment reports to bank account and to accounting and financing division, and social security reports that occur every month and should be sent on time. The proposed system helps to print out these reports in a short time and can be sent on time.
- (c) The filling system for the personnel is increasing and difficult to manage. The computerized system can help us to keep record, summarize data, prepare report, and so on. We can search for the information that we need easily.
- (d) Security of the payroll system is required. We can set passwords to allow only authorized persons to access and modify the information.

In conclusion, the requirements of the proposed system can be categorized as follows. The proposed system should:

- (1) Reduce overpaid and underpaid salary. Such as computing overtime cost, sometimes we may miss compute rates of overtime rate or total amount of overtime cost. Withholding tax is not the same amount every month because of overtime cost that we receive and the deduction of allowance.

- (2) Reduce processing time. Such as computing gross salary, withholding tax, cash deposit payment to bank, social security and so on. It reduces process time of worker records. Because we keep our records in the computer system and we have designed the screen layout to search for the information, we can spend a minute to find our information.
- (3) Reduce report preparation time. Our proposed system can assist us with ability to report the information automatically and promptly, submit in-house, Social Security Act, Federal Government and Bank Account that occur every month and submit it on time.
- (4) Key new worker information only one time. Because we have designed the layout of employee information, that is the basic for manipulating the proposed system.
- (5) Provide more security control. Because we allow only authorized person to access and modify our information.

### 3.2 System Design

#### 3.2.1 New System Design (Figure 3.1)

Up to this point in the unit it has been shown that a business must keep personnel and payroll records to meet the requirements of the various laws under which it operates. In addition, these records take their place as an integral part of an effective business system.

In developing its personnel system and payroll accounting system, a business should design basic forms and records that will satisfy the requirements of all laws applicable to that organization. Thus, properly designed personnel and payroll accounting forms and records result in saving both time and work because the necessary

information is recorded, stored, retrieved, and distributed economically, efficiently, and quickly.

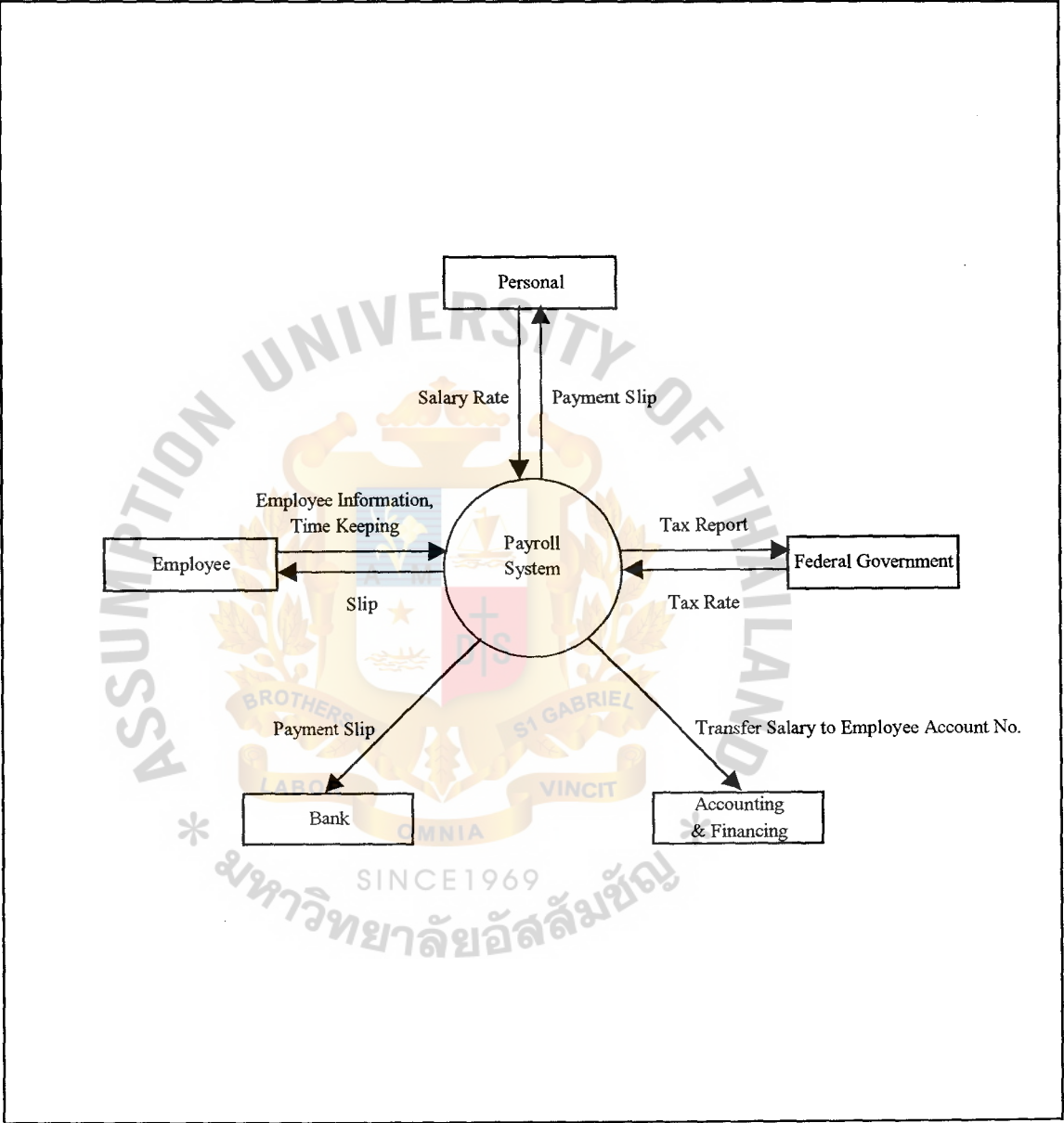


Figure 3.1. Context Diagram.

### 3.2.2 Overview: Data Flow Diagram Level O (Figure 3.2)

The new system design divides the whole system into three processes.

#### Process 1.0: Verify Employee and Work Hour

To avoid paying for time not actually spent on the job and to eliminate payment for unnecessary overtime work, we must know what types of employee activities should and should not be counted as working time under the law. Generally the hours that must be counted as working time include all time that employees are actually at work or are required to be on duty.

#### Process 2.0: Computing Salary

The wage includes the remuneration or compensation paid employees – salary, overtime pay, earning bonus, and any other amounts agreed upon by the employer and the employee. In KKES company all workers are monthly workers and are paid pay salary on time per month. Before paying wages, we will compute salary, overtime, social security, and withholding tax, and then we can get the net pay for each employee.

#### Process 3.0: Report

This new system, needs more report output forms such as slip payment, cash deposit to Bank, withholding tax form, personnel income tax form, social security form, etc.

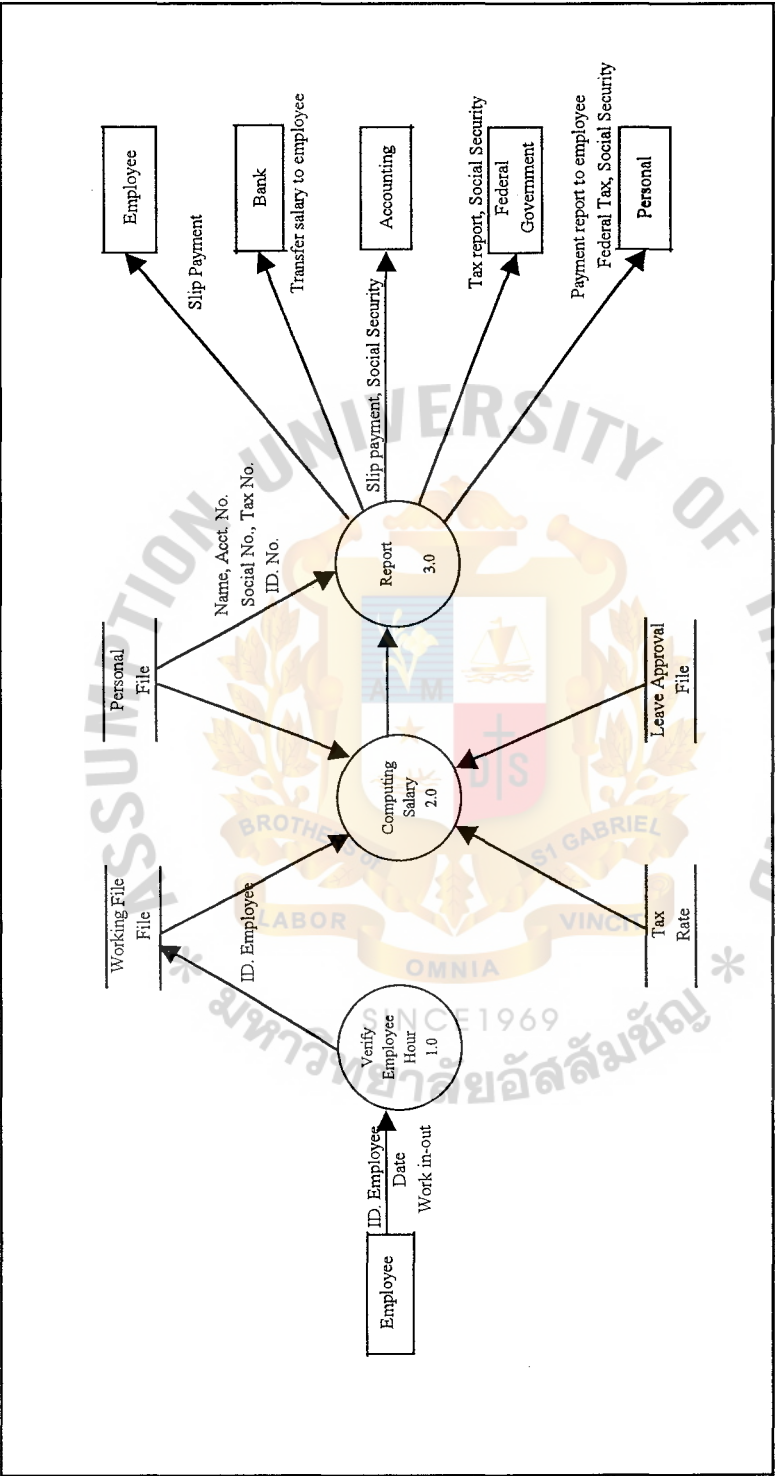


Figure 3.2. Data Flow Diagram Level 0 the Proposed System.

### 3.2.3 Proposed System Detail: Data Flow Diagram Level 1

#### Process 1.0: Verify Employee and Work Hour (Figure 3.3)

Personnel division will check all the information and classify the type of employee and actual work. In keeping the record of work in KKES, we have 2 methods. First, we use time sheet for construction worker because we are a Construction Company. Each employee is required to sign a time sheet, indicating the time of arrival for work and the time of departure because it is inconvenience to use punch card record like the office workers.

Second, we use punch card for officer workers. Recording the time worked on a time card provides an accurate and foolproof timekeeping system. The time clock is equipped with a two-color ribbon. The clock can be set so that regular time is printed in black, and irregular time in red. For example, KKES regular working hours were from 8:00 a.m. to 5:00 p.m. With an hour from noon to 1:00 p.m. for lunch, the regular working day would be eight hours. The clock would record as follows:

- (1) Black when the person punches in before 8:00 a.m. or 1:00 p.m.; also when the person punches out after 12:00 p.m. and 5:00 p.m.
- (2) Red when the person punches in after 8:00 a.m. or 1:00 p.m.; also when the person punches out before 12:00 p.m. and 5:00 p.m. In other words, when the clock prints red, the person arrived late or left early.
- (3) Red for both in and out for overtime work so that special attention is called to the extra hours worked.

Blank spaces on the card indicate that the employee was absent or had neglected to “punch in” that day. For example, if the Morning In and Out columns were blank but time was recorded in the afternoon columns, it might indicate that the employee was absent in the morning.



## St. Gabriel's Library

At the end of the week the time cards are collected. The total hours worked, including regular and overtime, during the week are computed. This information is needed in calculating payroll and in preparing the information for the payroll register.

Employees on salary basis are frequently paid for a certain number of days of excused absences after their company, for a certain length of time, has employed them. When the employee is absent from work, the department head usually is required to approve the time card for payment of salaries for hours not worked.

There are many ways that employer handle tardiness. Frequently when an employee is late or leaves early, causing the time clock to print red, the card must be approved by the supervisor. So, KKES requires the employee to sign a special slip indicating the reason for being late or leaving early.



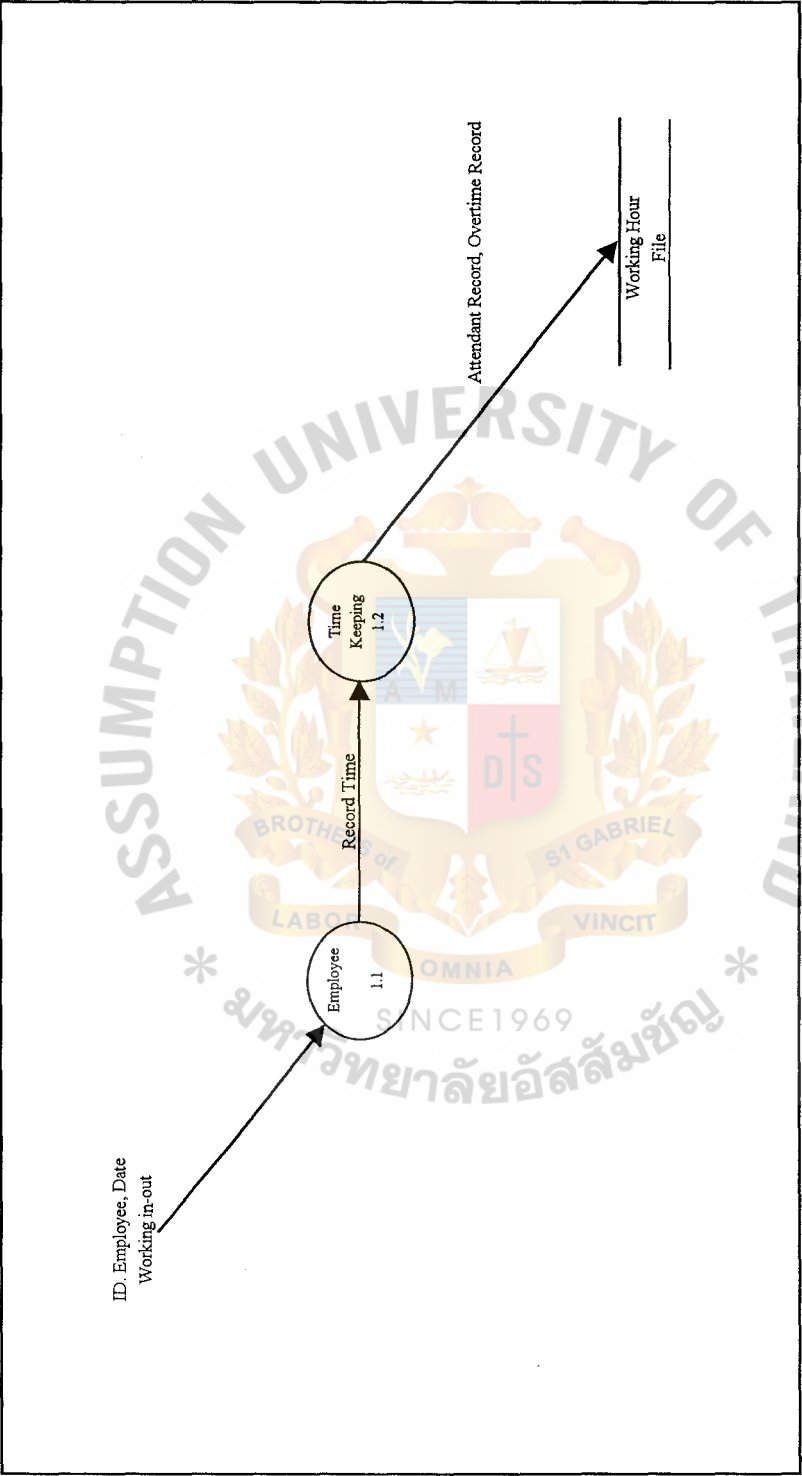


Figure 3.3. Data Flow Diagram Level 1 Process 1.0 Verify Employee & Hour.

## Process 2.0: Computing Salary (Figure 3.4)

Calculating the wages of employees, we use a monthly basis. If overtime is involved, the total overtime hours are multiplied by the overtime rate. The total regular earning and the total overtime earning are added to obtain the gross earnings.

Social Security Tax is the discussion on the old age, survivors, disability and health insurance program. Under this program, benefits are payable monthly to workers who qualify under the provisions of the Social Security Act. To cover the cost of this program, taxes are imposed on employers and employees.

Taxable Wages are measured by the amount of wages paid by employers to their employees during a calendar year. In most instances, the term wages includes not only the actual money received by employees but also the cash value of remuneration paid in other forms, such as meals and lodging provided for the convenience of the employees. The term wages is not the governing factor, for salaries, and bonuses are all classified as wages if an employer with respect to employment covered under the social security laws pays them.

The taxable wage base is the maximum amount of wages during a calendar year that is subject to Federal tax. Once this taxable wage base has been reached, all payments are made to the employees during the remainder of the year, even though their wages clearly cease to be taxable wages. The wage base applies to amounts paid to employees in a calendar year and not to the time.

The taxable wage base is subject to “escalator” increases whereby it is automatically adjusted whenever an automatic increase in social security benefits becomes available. The amount of the automatic withholding tax increases in the growth from year to year in average annual wages in all employees.

Under the Social Security Act as amended, taxes are imposed on employers and on employees for old age, survivors, and disability insurance benefits, and hospital insurance benefits. The current social security tax rate is 2% for both the employer and the employee portions of the tax. But the Social Security tax rate is used for the salary amount between 1,650 – 15,000 bahts.

For purposes of computing the withholding tax, employees are entitled to personnel allowances and allowances for dependents provided the employees properly furnish their employees with a claim for the allowances. In addition to the personal allowances and allowances for dependents, employees could claim other allowances such as special withholding allowance and allowances for itemized deductions and tax credits.

Gross pay comes from the wages period plus overtime cost. Net pay is obtained from gross pay minus social security tax and withholding tax in each period.

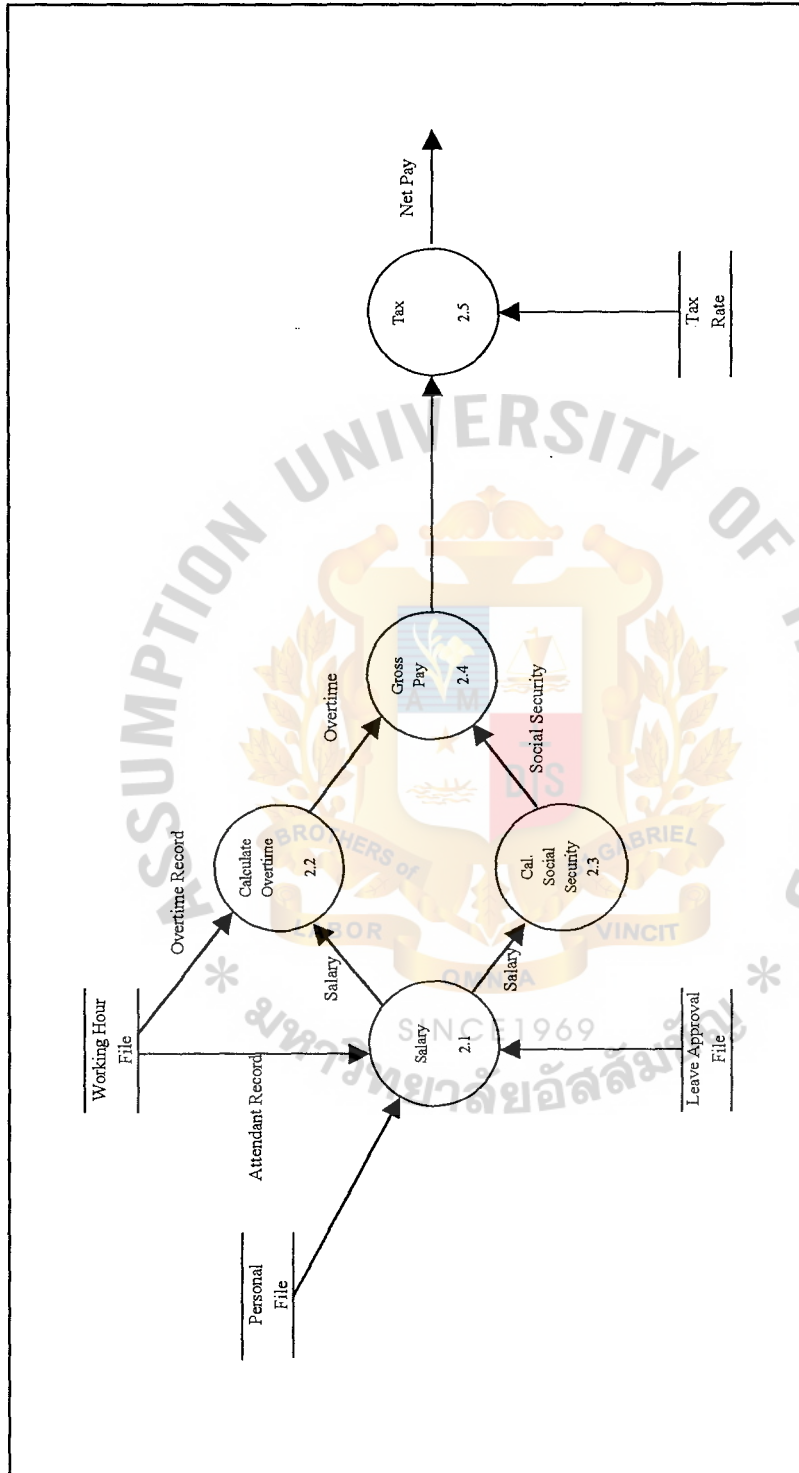


Figure 3.4. Data Flow Diagram Level 1 Process 2.0 Computing Salary.

### Process 3.0: Report (Figure 3.5)

After we have all the information, we will print out the reports. These reports will be distributed to the Personnel Division and the Account Division. Print payment slip will be printed to employee and distributed to Personal Division, and cash deposit to the Bank.





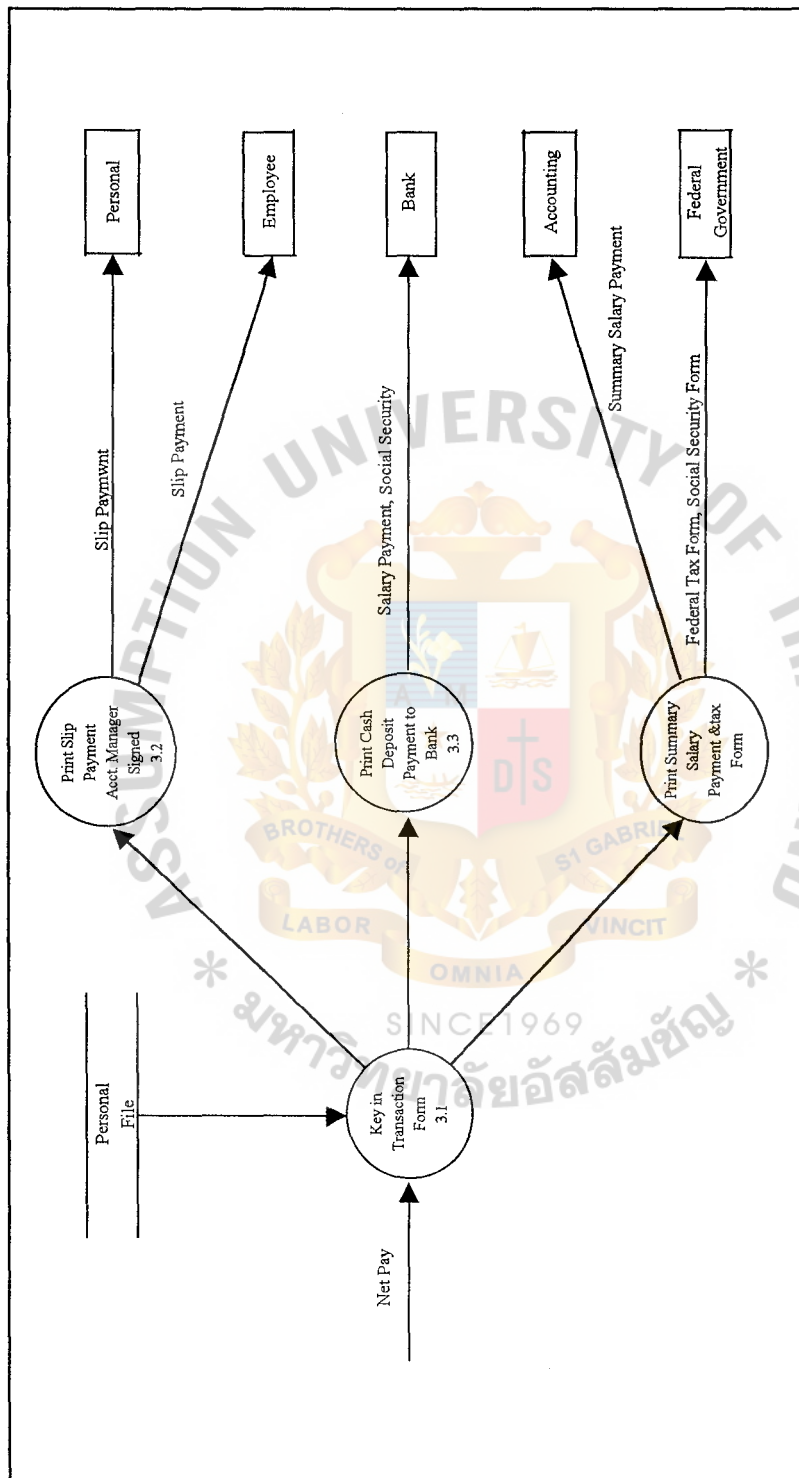


Figure 3.5. Data Flow Diagram Level 1 Process 3:0 Report.

(1) The Detail of the Proposed System : Data Flow Diagram Levels (Figure 3.6)

Process 1.0: Calculate Total Income Per Year

This process is calculated from gross pay per year.

Process 2.0: Calculate Allowance

The federal government has set up the rate of allowance as follows:

- (a) Expense Allowance is 40% of income per year not over 60,000 bahts.
- (b) Personal Allowance (sometime called exemption is a deduction allowed in computing taxable income. Rate is 30,000 bahts.
- (c) Spouse no income; the deduction rate is 30,000 bahts.
- (d) Child deduction
  - (1) Child in school the deduction rate is 17,000 bahts person
  - (2) Child at home the deduction rate is 15,000 bahts per person.

Remark: the number of children that can be deducted is not over 3 persons.

- (e) Social Security deduction is calculated from the salary rate multiplied by 2%
- (f) Insurance premium: the deduction rate is not over 10,000 bahts per year.
- (g) Interest housing: the deduction rate is not over 10,000 bahts per year.
- (h) Donated deduction rate is 10%

Process 3.0: Calculate Tax Rate

After the number of withholding allowances has been determined, the next step is to select the method of computing the amount of federal income tax to be withheld.

To determine the tax under the percentage method, the following steps are taken:

- (1) Determine the amount of gross wages earned.
- (2) Deduct the number of allowances claimed by the amount of one allowance for the applicable payroll period.
- (3) Subtract the amount for the number of allowances claimed from the employee's gross pay to find the withholding tax.
- (4) The rate of income tax can be found as follows:
  - (a) Personal income not more than 50,000 per year does, not pay tax.
  - (b) Personal income between 50,001- 100,000 is 5% or cumulative tax is 2,500 bahts.
  - (c) Personal income between 100,001- 500,000 is 10% or cumulative tax is 42,500 bahts.
  - (d) Personal income between 500,001- 1,000,000 is 20% or cumulative tax is 142,500 bahts.
  - (e) Personal income between 1,000,001- 4,000,000 is 30% or cumulative tax is 1,042,500 bahts.
  - (f) Personal income more than 4,000,001 are 37%.

To find out the withholding tax we can use two ways.

- (1) Annualizing Wages

For withholding purposes, we may annualize their wage payments and prorate the income tax applicable to those wage payments. Under the annualizing method, we can proceed as follows:

- (a) Multiply the wages for one payroll period by the number of payroll periods in the year.
- (b) Determine the annual amount of withholding required on the total wages.
- (c) Divide the annual withholding amount by the number of payroll periods to arrive at the amount of holding for one payroll period.

(2) Cumulative Withholding

Upon an employee's written request, we may withhold income taxes on the basis of the employee's cumulative wages. This method of withholding is primarily used when the amount of the employee's wages payment is very irregular. The cumulative withholding may be used, however, only when the employee's wages since the beginning of the current calendar year have been paid in payroll periods that are all of the same length. Under the cumulative withholding method, we can process as follows:

- (a) Add the wages for the payroll period to the total wages already during the calendar year.
- (b) Divide the aggregate amount of wages by the number of payroll periods to which it pertain.

## St. Gabriel's Library

- (c) Compute the total taxes on the average amount of wages just as if that amount had been paid to the employee in each of the payroll periods to which the total amount relates.
- (d) Subtract from this amount of tax any already withheld during the preceding payroll periods.
- (e) Deduct any excess tax from the current wages.

### Process 4.0: Calculate Net Pay

We can find the total of the net amount paid to the employees from gross pay, deduction allowances, and withholding tax in each period.



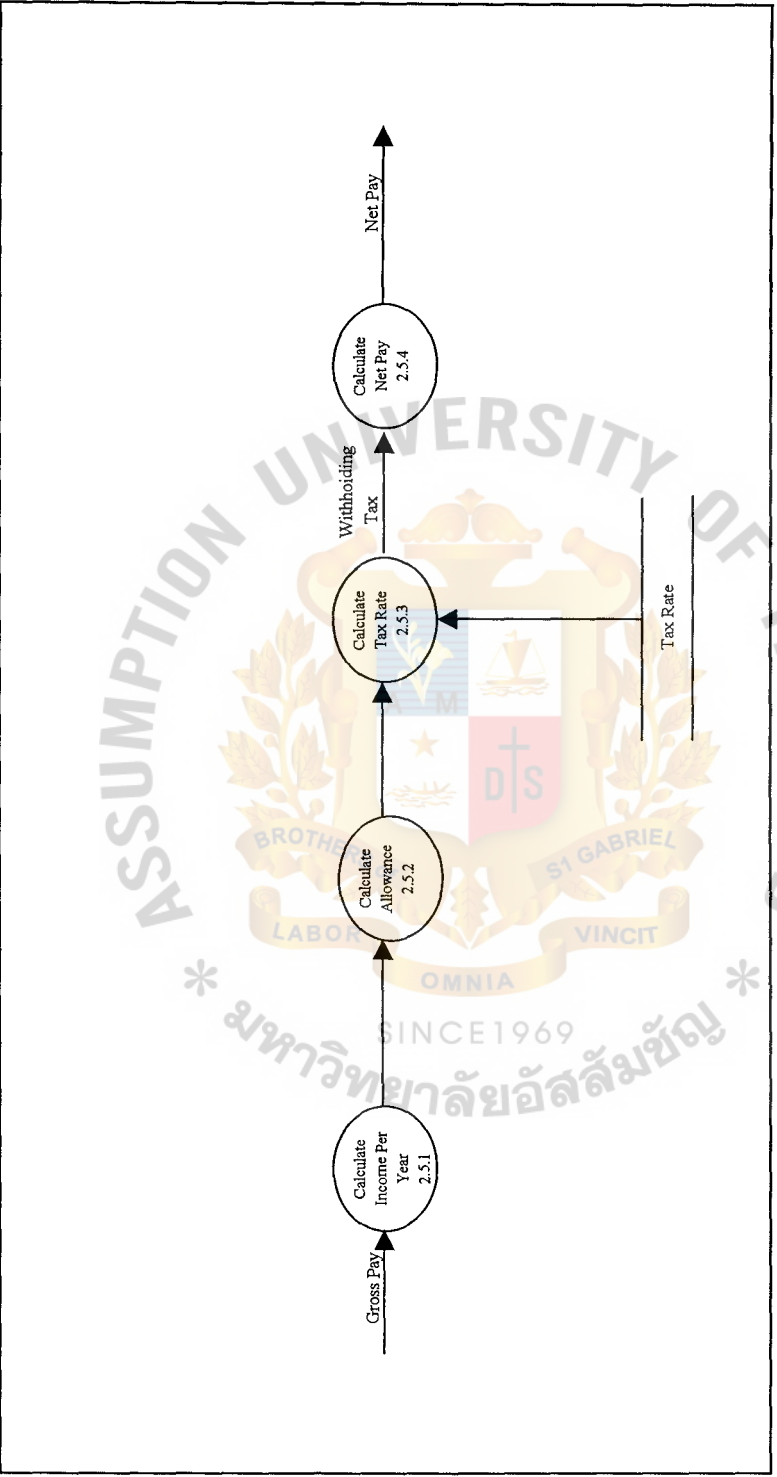


Figure 3.6. Data Flow Diagram Level 2 Process 2.5 Tax Rate.



### 3.3 Hardware and Software Requirements

Payroll System needs tools and requirements in system development and implementation that can be classified into hardware and software as follows:

The computer system which will be used for implementing this system can be a PC. Such a computer system can be found easily on the market, and allows much application software to run on. The system also supports the use of Thai characters set.

The selected computer configurations are as follows.

PROCESSOR	minimum CPU Intel 80486 DX - 33
SPEED	33 MHz Test 111 MHz
CACHE	256K, Internal 8K
MEMORY	4 MB Ram onboard
CONTROLLER	AT-BUS Super I/O (2S, 1P, 1G)
MULTI-I/O	2 Serials, 1 Parallel
DISK DRIVE	1.2 MB & 1.44 MB
MONITOR	Super VGA Color Monitor 14"
DISPLAY CARD	Super VGA Card 1 MB
THAI FEATURE	Thai 25 lines (IRC)
POWER	Power Supply 250 Watt
HARDDISK	850 MB

MOUSE

PRINTER  
Dot matrix 24 pin line with support the  
the printing of Thai and English.

Software system configuration (software, this is the minimum requirement)

- (1) Operation System.
- (2) Graphic Use Interface Tools Window97.

- (3) Programming and Database Development tools Microsoft Access 97.
- (4) Application Software.

### **3.4 Components of the Computer System**

#### **Input**

There are two forms of input or data entry to the computer system: (1) the program that tells the computer what operations to perform and in what order and (2) the data to be processed.

In this payroll system the forms of input are:

- (1) VDTs (video display terminals), which are used for the manual keyboard of data, for updating data already stored in the computer.
- (2) To use the diskette, an operation inserts the diskette into a slot on the VDT, after which the input data are keyboarded by the operation officer who inspects the contents shown on the display screen. Once the accuracy of the data is ensured, the data are recorded on the diskette for later transfer to the computer.

#### **Processing**

The main work area in the computer system is called the central processing unit (CPU), and within this area are the three operation unit outlines. Both data and instruction enter the primary storage unit (also called the memory) before the processing begins; or they may be stored in secondary storage.

#### **Output**

After a program has been run, the results of the computer operations, the output are communicated to its user. The instructions fed into the computer indicate the location in the storage unit of the output that is to be printed out, where it is to be printed, and the manner in which it will be printed.

The major kinds of output devices are described below.

- (1) Video display terminals, some which have the capability for displaying the copy in color, which enhances the presentation of graphic.
- (2) Printers will be printed the information after processed the program by computer.

### 3.5 Security and Controls

The personnel division operates the payroll system. Therefore, the payroll system is not for all persons to retrieve. Updating by unauthorized person may be damaging to the system. Security control is provided to save the system. Checking the authority of a person to access the system by using four digits password before entering the system is necessary. And, the program will not show the password keyed in on the screen in order to prevent others from seeing the password.

### 3.6 Cost/ Benefit Analysis

#### 3.6.1 Cost Analysis

The cost of the proposed system

Printer dot-matrix	1 unit	=	15,000	bahts
Microcomputer CPU 80486	1 unit	=	35,000	bahts
Hard Disk		=	4,500	bahts
Software Development Cost				
Software Analysis and Design Cost		=	13,000	bahts
Programming Cost (Microsoft Access 97)		=	7,000	bahts
Installation & Training Cost		=	3,000	bahts
Total development Cost		=	77,500	bahts
Annual operating cost				
Stationary Cost		=	5,000	bahts

Maintenance Cost	=	5,000	bahts
User' annual salary	=	144,000	bahts
(2 user 6,000 bahts each/month)			
Total operating cost	=	154,000	bahts

### 3.6.2 Benefit Analysis

The benefits of the proposed system have both intangible and tangible sides. Tangible benefits are those to which direct values can be attached or it can be measured in actual dollar term. Intangible benefits are those values that cannot be precisely determined and are the result of subjective judgement. The sum value of costs of items needed to implement the system is known as the cost of the system. The sum value of the saving made is known as the benefit of the new system.

#### Tangible Benefits

The benefits are shown in terms of reducing cost by year. In manual operation, the personnel division needs at least 4 staff to handle work and average overtime is 30 hour per month per person. The proposed system eliminates redundancy in recording the data and reduces work to personnel and to accounting divisions. Preparing reports takes a few minutes. The new system prints out to reports faster than the manual operation. The proposed system can decrease human errors, such as miss typing to reports. The decreased human errors will save cost, such as papers used in the system. The tangible benefits of the proposed system are as follows:

Excessive staffs' annual salary	=	144,000	bahts
(2persons 6,000 bahts per month)			
Reduction of human error (estimate)	=	6,000	bahts
Indirect cost	=	43,200	bahts
Total annual benefits	=	193,200	bahts

### Intangible benefits

Payroll System can improve service to all employees. We can compute the salary and prepare all time reports. In keeping a records and computing net pay, it is easy and take a few minute to process all the information, provides timely, accurate and up to date information. More employees means more information to keep record and compute data. The proposed system can help to save time and provide accurately in computing salary and improved efficiency of preparing report. This system has more security because it allows only authorized person to access, edit, and modify information. But the manual system takes a lot of time to process the information and preparing report takes a day or a week.

The benefit of the proposed system is that it increases the efficiency of the payroll system process. A formal quantitative analysis of the benefit can probably be calculated as follows.

#### 3.6.3 Payback Analysis

The time it takes for the initial investment to be recovered in terms of future cash flows; also referred to as payoff period. In this project, the discount rate is assumed to be 8%. Table 3.1 illustrates the proposed system's payback analysis, and Figure3.7 shows the proposed system's payback period.

Table 3.1. The Proposed System's Payback Analysis. (Unit=Bahts)

Cash Flow	Year					
	0	1	2	3	4	5
Development	-77,500.00					
Operating cost		-154,000.00	-154,000.00	-154,000.00	-154,000.00	-154,000.00
Discount cost	1	0.926	0.857	0.794	0.735	0.681
Time adjusted cost		-142,604.00	-131,978.00	-122,276.00	-113,190.00	-104,874.00
Cumulative time adjusted cost	-77,500.00	-220,104.00	-352,082.00	-474,358.00	-587,548.00	-692,422.00
Benefit derived from operatio	0	193,200.00	193,200.00	193,200.00	193,200.00	193,200.00
Discount factor	1	0.926	0.857	0.794	0.735	0.681
Time adjusted benefits		178,903.20	165,572.40	153,400.80	142,002.00	131,569.20
Cumulative time adjusted cost	0	178,903.20	344,475.60	497,876.40	639,878.40	771,447.60
Cumulative lifetime: time adju development cost +time adjust	-77,500.00	-41,200.80	-7,606.40	23,518.40	52,330.40	79,025.60



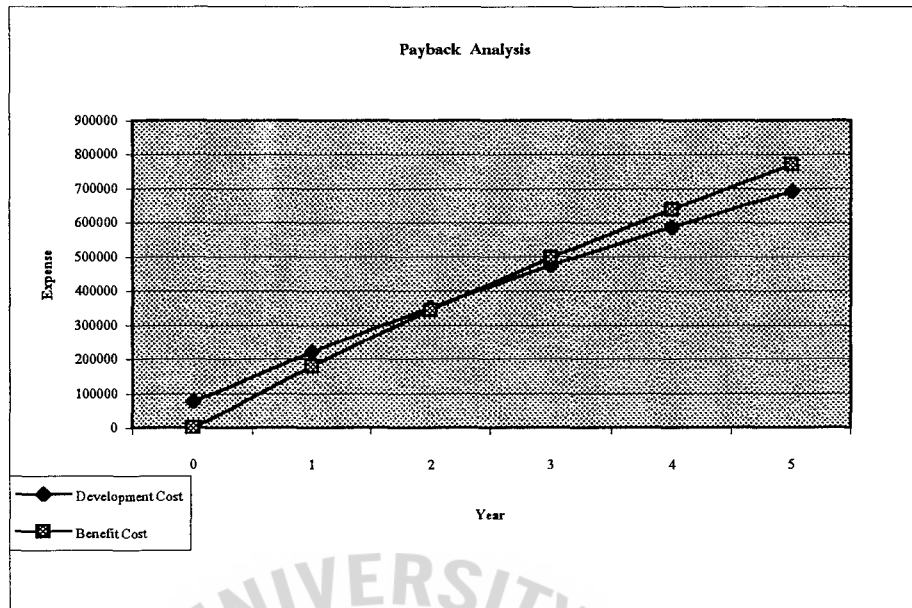


Figure 3.7. The Proposed System's Payback Period.

#### 3.6.4 Return-on-Investment Analysis

The return-on-investment analysis is a technique to compare the lifetime of alternative solutions or projects. The ROI can be calculated from the formula below.

$$\text{ROI} = \frac{\text{Estimated lifetime benefits} - \text{Estimated lifetime costs}}{\text{Estimated lifetime costs}}$$

The ROI of the proposed system can be calculated from Table 3.1

$$\begin{aligned} \text{ROI} &= \frac{(692,422 - 771,477.60)}{771,477.60} \\ &= 0.10 \\ &= 10\% \end{aligned}$$

#### 3.6.5 Net Present Value

The net present value of an investment can determine whether the project or the proposed system is worth developing or not. If the net present value of the system is positive, it means that the investment is good. Otherwise, the system should not be



implemented. The net present value can be calculated by the sum of the discounted costs from the sum of discounted benefits.

The net present value of the proposed system can also be calculated from Table 3.1.

$$\begin{aligned} \text{NPV} &= 771,447.60 - 692,422 \\ &= 79,025.60 \end{aligned}$$

### 3.6.6 Break-Even Analysis

The break-even analysis is analyzed on the point of total costs of the proposed system and the total costs of the existing system. It represents when the system becomes profitable for the business.

The costs of the manual system are as follows.

Staff <sup>2</sup> annual salary (4 persons 6,000 baht each per month)	=	288,000	bahts
Overtime cost (average 30 hour 30 baht each per hour)	=	43,200	bahts
Total annual cost of the manual system	=	331,200	bahts

Table 3.2 compares the cumulative cost of the proposed system with the cumulative cost of the manual system. In Table 3.2, the starting period of operating cost comes from the operating cost of the existing system. Figure 3.8 estimates the break-even point of the proposed system.

Table 3.2. The Break - Even Analysis. (Unit=Bahts)

Cash Flow	Year					
	0	1	2	3	4	5
Proposed System						
Development costs	-77,500.00					
Operating costs	331,200.00	154,000.00	154,000.00	154,000.00	154,000.00	154,000.00
Discount factor	1	0.926	0.857	0.794	0.735	0.681
Time adjusted costs	408,700.00	142,604.00	131,978.00	122,276.00	113,190.00	104,874.00
Cumulative time adjusted costs	408,700.00	551,304.00	683,282.00	805,558.00	918,748.00	1,023,622.00
Manual System						
Operating costs	331,200.00	331,200.00	331,200.00	331,200.00	331,200.00	331,200.00
Discount factor	1	0.926	0.857	0.794	0.735	0.681
Time adjusted costs	331,200.00	306,691.20	283,838.40	262,972.80	243,432.00	225,547.20
Cumulative time adjusted costs	331,200.00	637,891.20	921,729.60	1,184,702.40	1,428,134.40	1,653,681.60

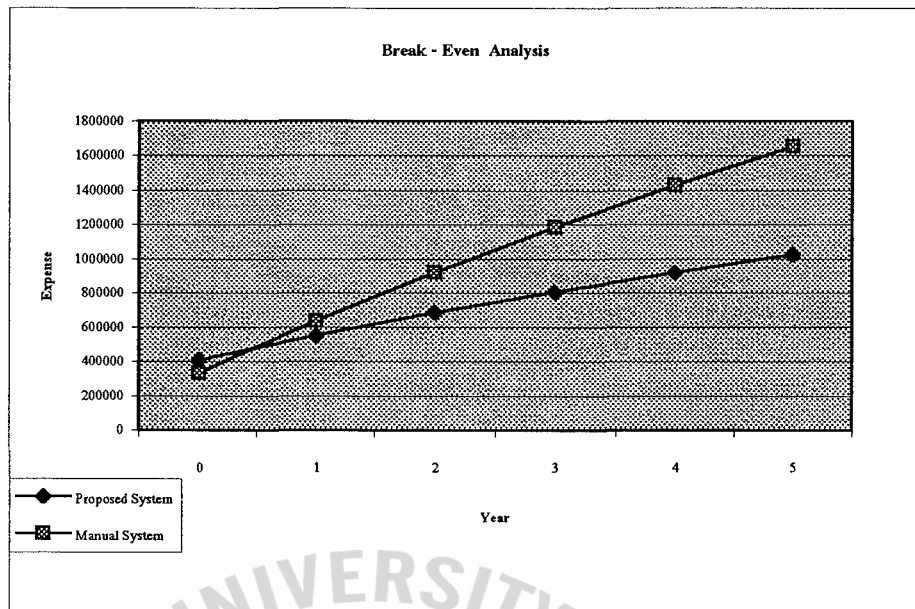


Figure 3.8. The Proposed System's Break-Even Analysis.

After several cost-benefit analysis techniques have been used, it can be concluded that the proposed system is worth developing. From the payback analysis, the payback period of the system is approximately less than 3 year. That is, the benefits of the system will recover the costs after the system has been developed for 3 year. Moreover the return-on-investment of the system is 10%. This means that after 5 years of system operation or project lifetime, the return of the system investment is also high or 10% of the costs. Finally, the net present value of the system is positive. In conclusion, the proposed system is a good investment for the Payroll System.

## **IV. PROJECT IMPLEMENTATION**

### **4.1 Selected Tools for Development Payroll System**

Microsoft Access provides many facilities that can be applied to the employee requirements of the developed payroll System. There are tools for developing database, queries, and screen templates and which can be composed with menus provided for each operation such as data entry, data correction, data inquiry, and report generation, etc. This tool provides the facilities for the programmers to generate all input and output as declared in the program specification. Furthermore, this tool provides facility to develop database and define relationship for each table that is used in the system. This tool can generate sample part of data dictionary. It makes this program easy to use and very user friendly. It will make the users easily to learn how to use the program.

### **4.2 Testing and Implementation**

4.2.1 Testing of the new system has the following subtasks.

- (a) Testing individual program: which is actually completed during the programming task.
- (b) Creating test data: is to test both valid and invalid data, test error routines, test normal processing routines and create all the possible real-life situations that can happen.
- (c) Link testing: for this payroll program also links all the programs and test run the data through each program.
- (d) System testing: the entire system must be run. The objective of the testing is to verify that programs meet the original programming specifications. To ensure that the computer operation staff has adequate documentation to run the system, and make sure that the entire system functions as a whole when all the programs are interconnected with the files and the inputs/outputs.

- (e) Backup and restart testing: we have the backup program to prevent the case of system break down.
- (f) Complete the documentation

#### 4.2.2 Implementation

This is the point at which the overall systems are run, interfaced with the different files and data. Implementation of the new system requires a parallel conversion. The subtasks that are performed during the implementations phase are:

- (a) Training users: training users to use the new system, explaining how to use the application program with the user manual, telling user the details of how to use each program, how to key in the data and the meaning of each field.
- (b) Writing procedures: explaining what is to be done, who is supposed to do it, and how it will be done. This subtask is included in the user manual.
- (c) Showing detail in Appendix: user manual screen and report.
- (d) Following up during the follow up. We must check that all the output is correct by comparing the old data with the new output data.

The Project Plan may be given in terms of the Gantt Chart. See Table 4.1.

Table 4.1. Project Development Plan.

Activities	July				August				September				October			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
System Analysis																
- Identify	*	*	*													
- Develop physical DFD of existing system			*	*												
- Identify the contents of existing data store				*	*											
Detail Analysis and Design :																
- Define new system requirements	*	*	*													
- Design new system			*	*	*											
* Data flow system					*											
* Data dictionary						*										
* Data store							*									
* Screen interface ( input, output )							*	*								
Implementation																
- Screen Layout							*	*								
- Report Layout									*	*						
- Data conversion										*	*					
- Training											*	*		*		
- Production												*	*	*		
- Documentation													*	*	*	*



## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **5.5 Conclusions**

As business is expanding rapidly day by day, and number of employees is numerous which increases the workload of the personnel division.

This system development project is developed for the KK Engineering System Co., Ltd. The area under study is the personnel division with which the existing manual procedure is quite inefficient. Work or decision-making cannot be done efficiently when the information is not up-to-date. The proposed computerized information system can solve those problems because it can provide several benefits such as save time and eliminate the redundant operations; information can be shared among several users and provide timely and accurate information.

After you read through this project, you will know how to operate the Payroll System for KK Engineering System Co., Ltd. The users can use this system by first entering the passwords, which are different among the levels of management and each level uses this system in different manners according to be responsibility of the user. If the user enters the correct password, the system will allow the user to go to the main menu, which can be divided into sub-menus. Each sub-menu can be selected by using the arrow key in moving the highlight to the choice he or she wants to process. The output of this system can be displayed on the screen and reported. The frequency of the report depends on the inquiry of the user.

The new system, after we designed from the manual to be the computerized, can be kept in the well organized from so it can reduce the data redundancy and is easy to the search record. This system finally increases the efficiency of the present work and maximizes the utilization of the resources. It can control the workflow. Furthermore, this system can support the expansion of the company in the future.



### 5.2 Recommendations

Developing the computerized system for the Payroll System. It can solve many problems within the division. In the long term, strategic planning will need information about the quantity and quality of the work force that is available to achieve the company's goals. Manpower planning serves this purpose. This type of planning involves identifying the payroll information needs to meet the organizational objectives specified in the strategic plan. This means forecasting the supply and demand of the required work force. The information is both internal and external.

Strong recommendations for this system are:

- (a) All systems in the organization ought to be linked and ought to shared information, so standard file and data base designs are important.
- (b) Inquiry menus should be increased support management level in manpower planning such as having many files selection for their own selection.



**APPENDIX A**  
**DATA DICTIONARY**

# St. Gabriel's Library

## Data Dictionary

### Enter New Date

Enter new date

Entering the current date in transaction

### Company Information

Company Name

Name of company

Address

Company address

Telephone

Telephone number of company

Tax ID

Company Tax Identification

Social\_ID

Company Social Security

### Edit Attendance

Date of Adjust

Date of Adjustment

Employee\_ID

Employee Identification

Overtime\_100%

Total hour of overtime at rate 100%

Overtime\_150%

Total hour of overtime at rate 150%

Overtime\_300%

Total hour of overtime at rate 300%

Per diem

Extra pay for employee survey work area at province.

Late

Total minute late

Sick Leave

Total number of sick leave

Business Leave

Total number of business leave

Absent

Total number of absent

Other Deduction

Other deduction cost for compute salary

### Employee Information

Employee\_ID

Employee Identification

Dept\_ID

Department Code

## Data Dictionary

Division_ID	Division Code
Position	Position of position
Name	Employee Name
Surname	Employee Surname
Sex	Sex of employee
Status	Employee Status (employed of resigned)
Birth Date	Employee Birth date
Date of Employed	Date of employed employee
Date of Terminate	Date of employee terminate
Home Address	Employee home address
Bank Code	Code of Bank
Account No	Bank Account number of employee
Salary	Current salary
Citizen	Citizen Identification of employee
Tax No	Tax identification of employee
Social No	Social Identification of employee
Kids at school	Number of kids at school
Kids not at school	Number of kids not at school
Marital Status	Marital status of employee

### Department

Dept_ID	Department Code
Dept_Name	Department Name

### Division

Division_ID	Division Code
-------------	---------------

## Data Dictionary

Division\_Name

Division Name

Bank Code

Bank Code

Code of Bank

Bank Name

Bank Name

Tax Table

1 - 50,000 – 0%	If net income per year after deduction of allowance is lower than 50,000, there is no need to pay tax
50,001 - 100,000 – 5%	If net income per year after deduction of allowance is between 50,001-100,000 bahts calculate tax at 5%
100,001 - 500,000 – 10%	If net income per year after deduction of allowance is between 100,001-500,000 bahts calculate tax at 10%
500,001 - 1,000,000 – 20%	If net income per year after deduction of allowance is between 500,001-1,000,000 bahts calculate tax at 20%
1,000,001 - 4,000,000 – 30%	If net income per year after deduction of allowance is between 1,000,001-4,000,000 bahts calculate tax at 30%
> - 4,000,001 – 37%	If net income per year after deduction of allowance is more than 4,000,001 bahts calculate tax at 37%

## Data Dictionary

### Adjust Salary

Employee_ID	Employee Identification
Date of adjust	Date of salary adjustment
Adjust Salary	New salary
Prior Salary	Old salary







Hierarchy plus Input-Process-Output (HIPO) is a technique for documenting programming system. An overview HIPO diagram is one of its kinds used to provide general information about a particular system. The overview diagram describes the inputs, processes, and outputs of the system procedures to determine program functions for coding purposes. The procedures of the proposed system to be described are as follows:

- (1) Hipo Chart of Payroll System (See Figure B.1)
- (2) Verify Employee File (See Figure B.2)
- (3) Monthly/Pretest Employee (See Figure B.3)
- (4) Time Keeping (See Figure B.4)
- (5) Computing Salary (See Figure B.5)
- (6) Salary (See Figure B.6)
- (7) Calculate Overtime (See Figure B.7)
- (8) Calculate Social Security (See Figure B.8)
- (9) Gross Pay (See Figure B.9)
- (10) Tax (See Figure B.10)
- (11) Calculate Total Income Per Year (See Figure B.11)
- (12) Calculate Allowance (See Figure B.12)
- (13) Calculate Tax Rate (See Figure B.13)
- (14) Calculate Net Pay (See Figure B.14)
- (15) Report (See Figure B.15)
- (16) Key in Transaction (See Figure B.16)
- (17) Print Slip Payment (See Figure B.17)
- (18) Cash Deposit to Bank (See Figure B.18)
- (19) Print Summary (See Figure B.19)

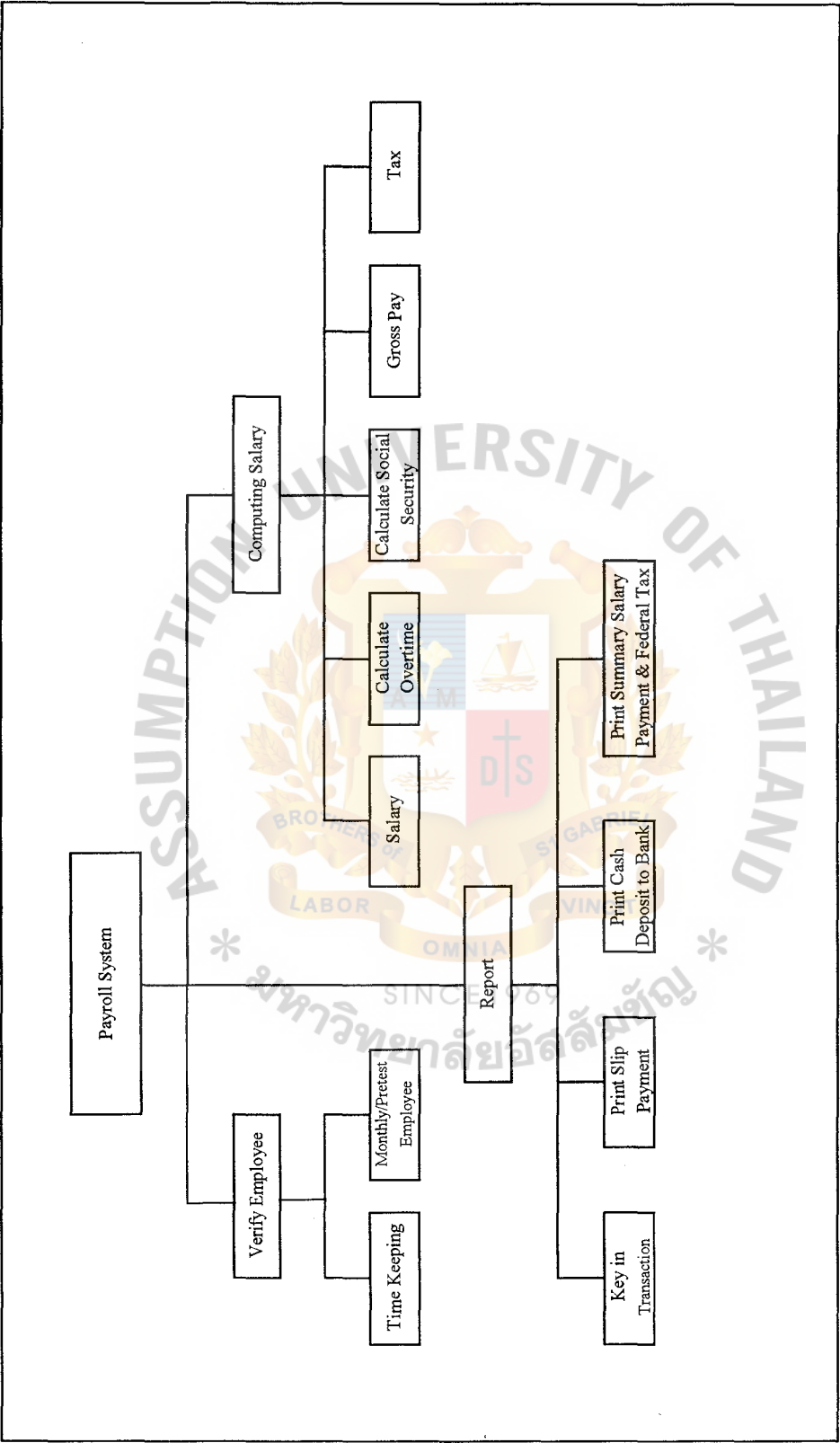


Figure B.1. Hipo Chart of Payroll System.

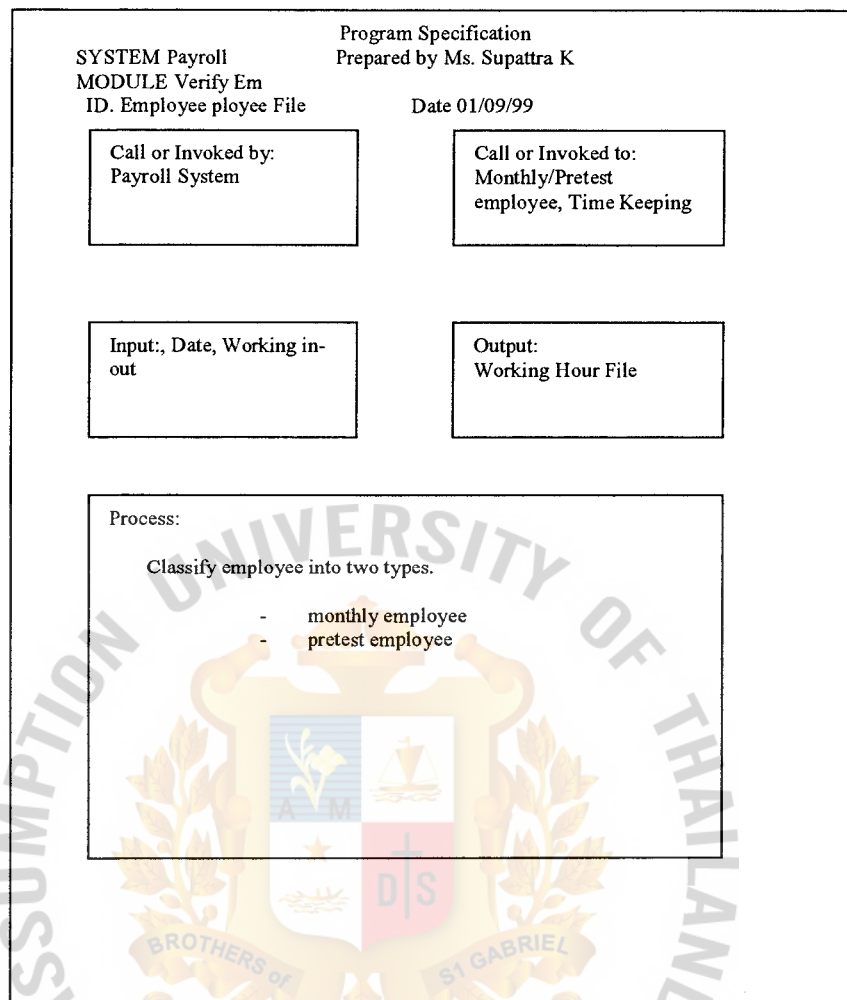


Figure B.2. HIPO Diagram: Verify Employee File.

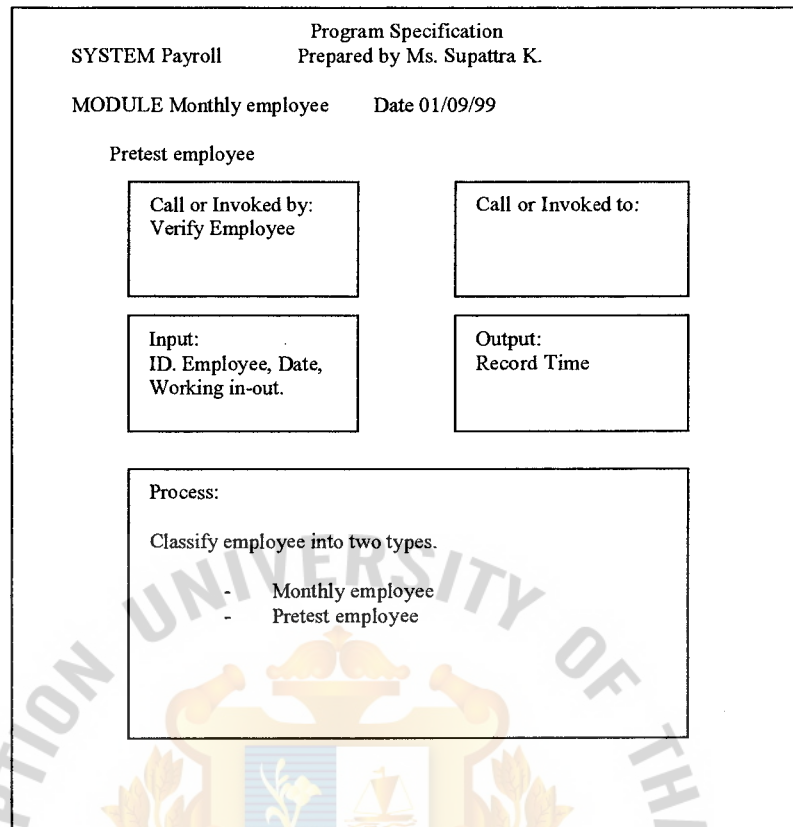


Figure B.3. HIPO Diagram: Monthly/Pretest Employee.

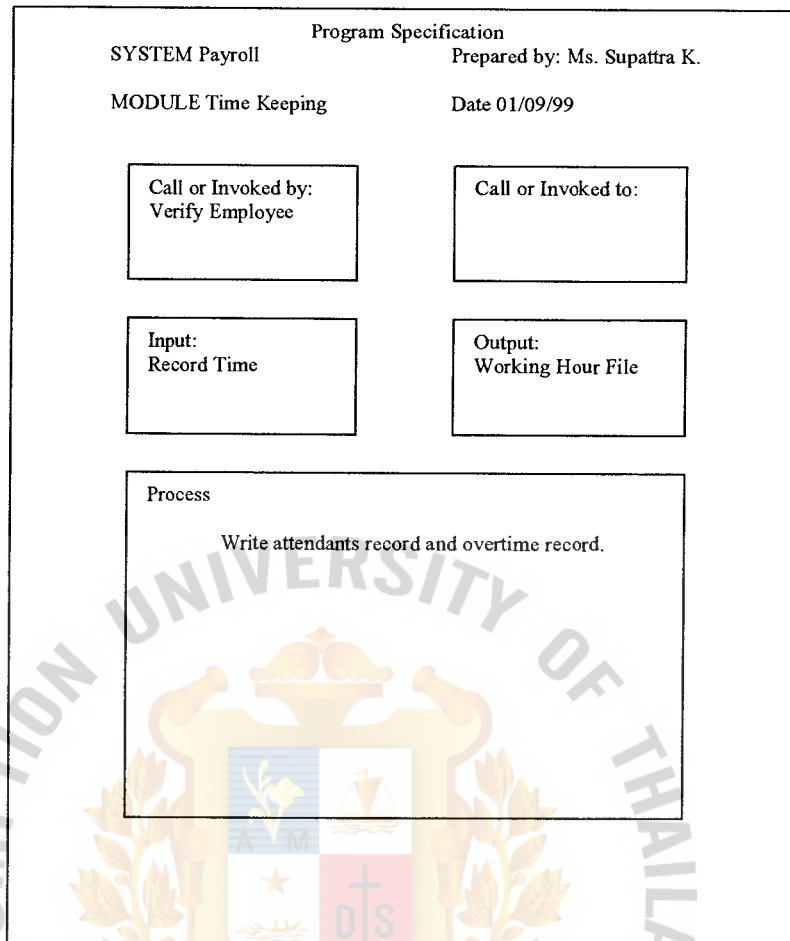


Figure B.4. HIPO Diagram: Time Keeping.

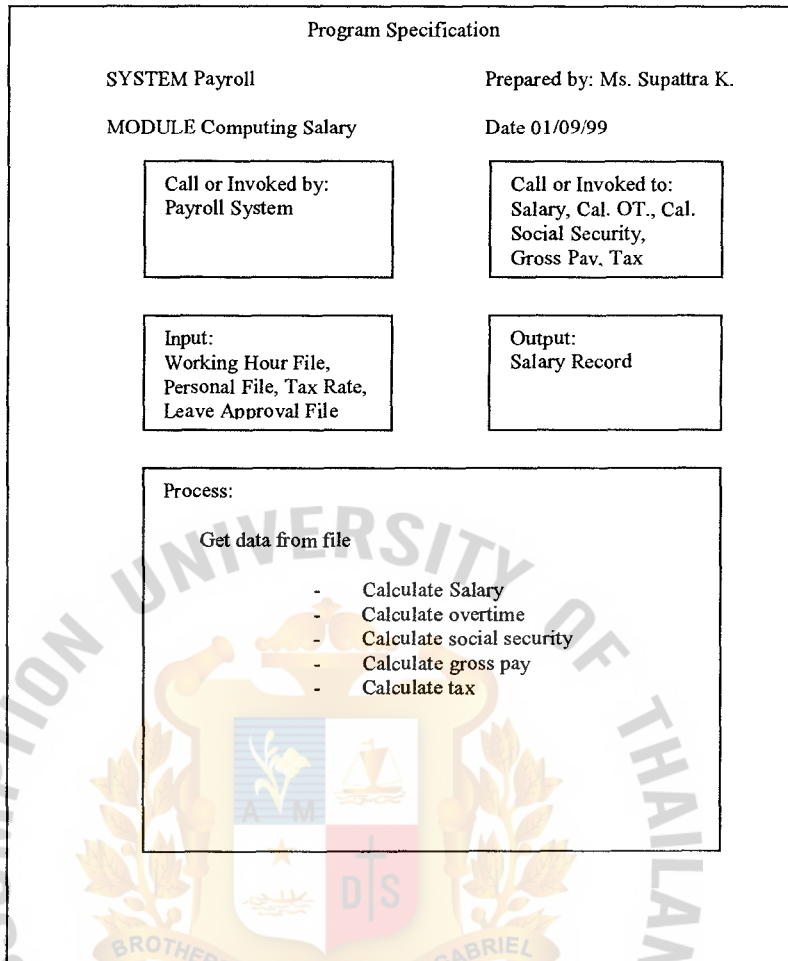


Figure B.5. HIPO Diagram: Computing Salary.

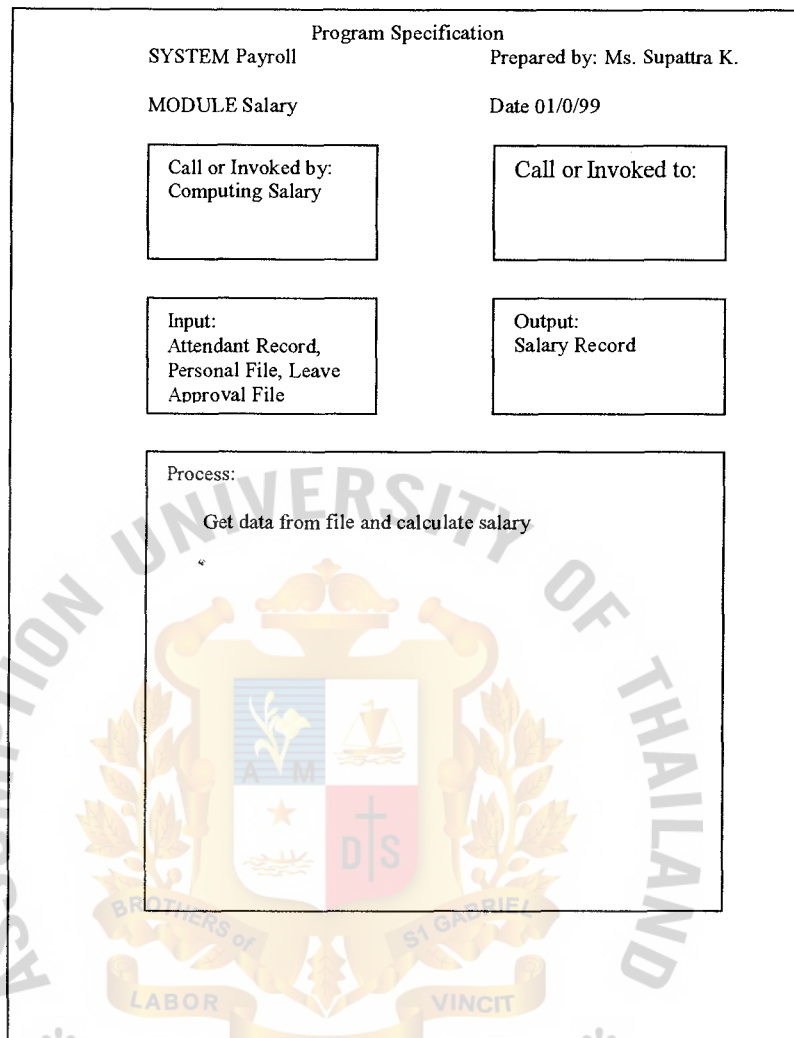


Figure B.6. HIPO Diagram: Salary.



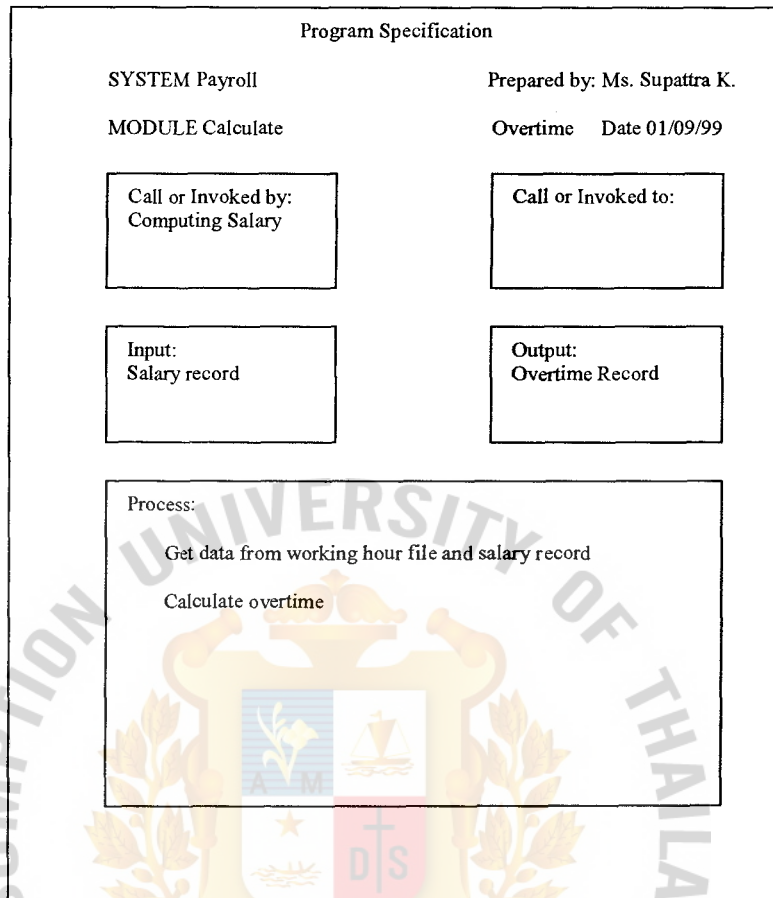


Figure B.7. HIPO Diagram: Calculate Overtime.

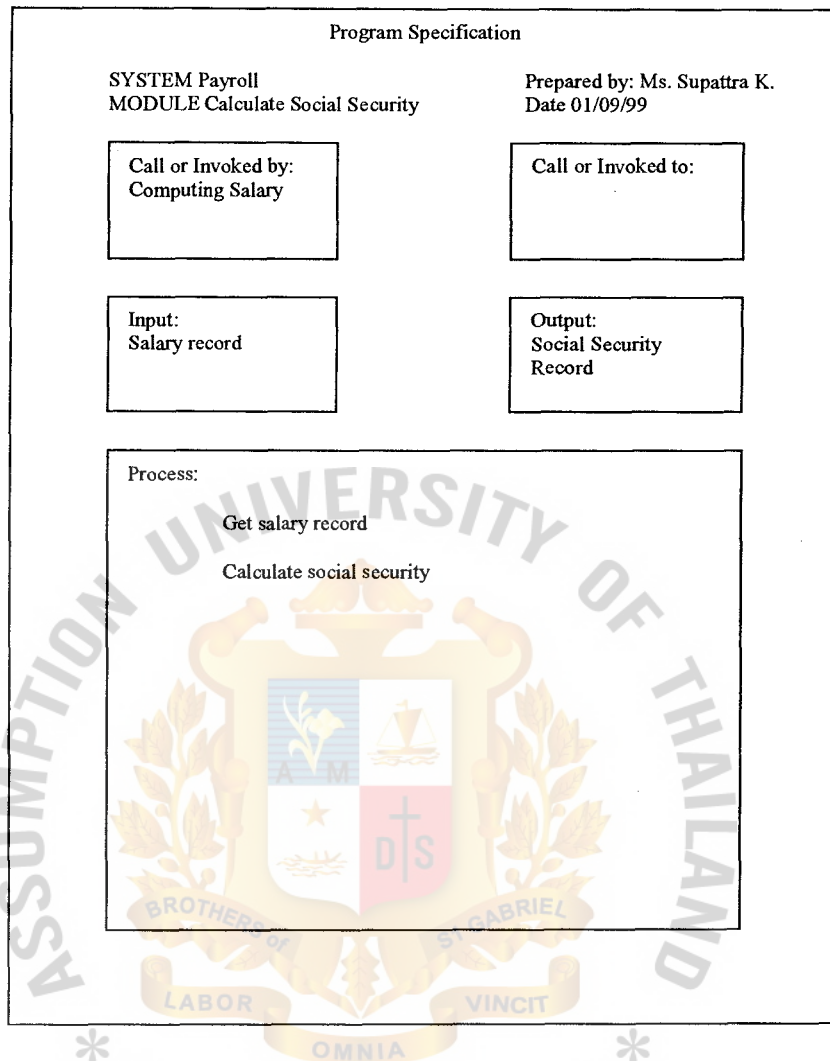


Figure B.8. HIPO Diagram: Calculate Social Security.

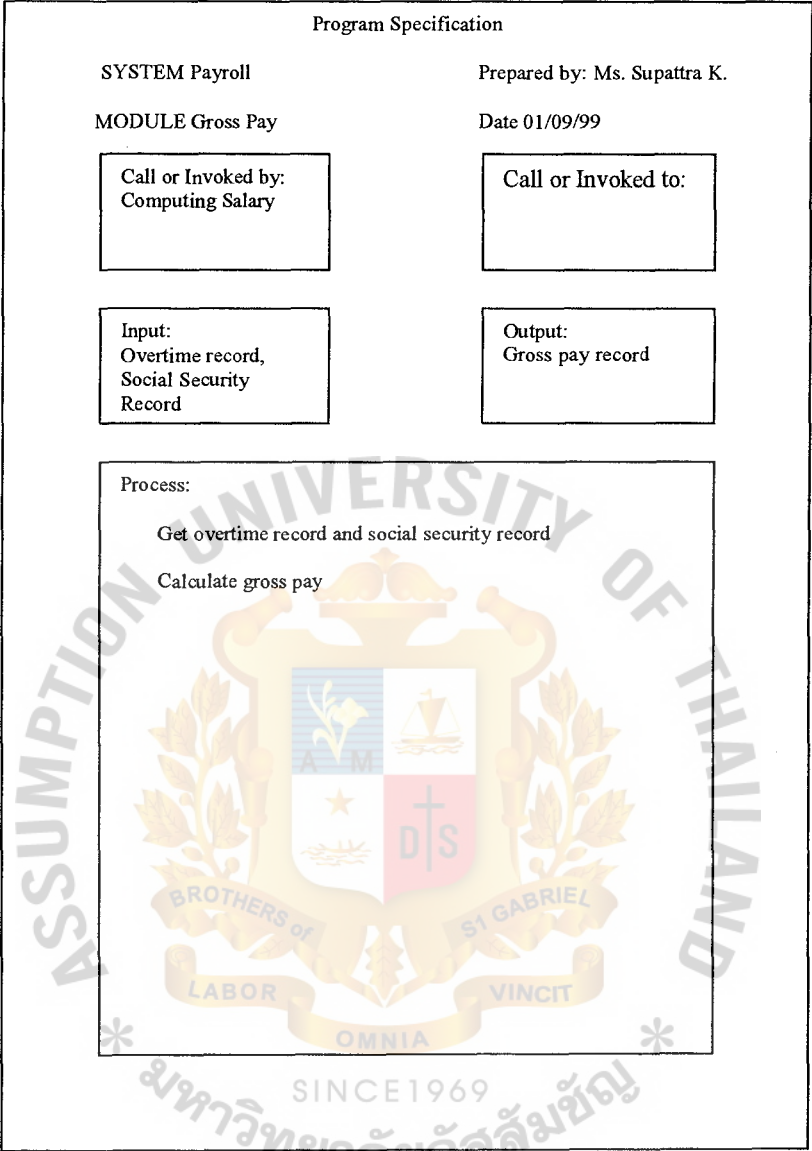


Figure B.9. HIPO Diagram: Gross Pay.

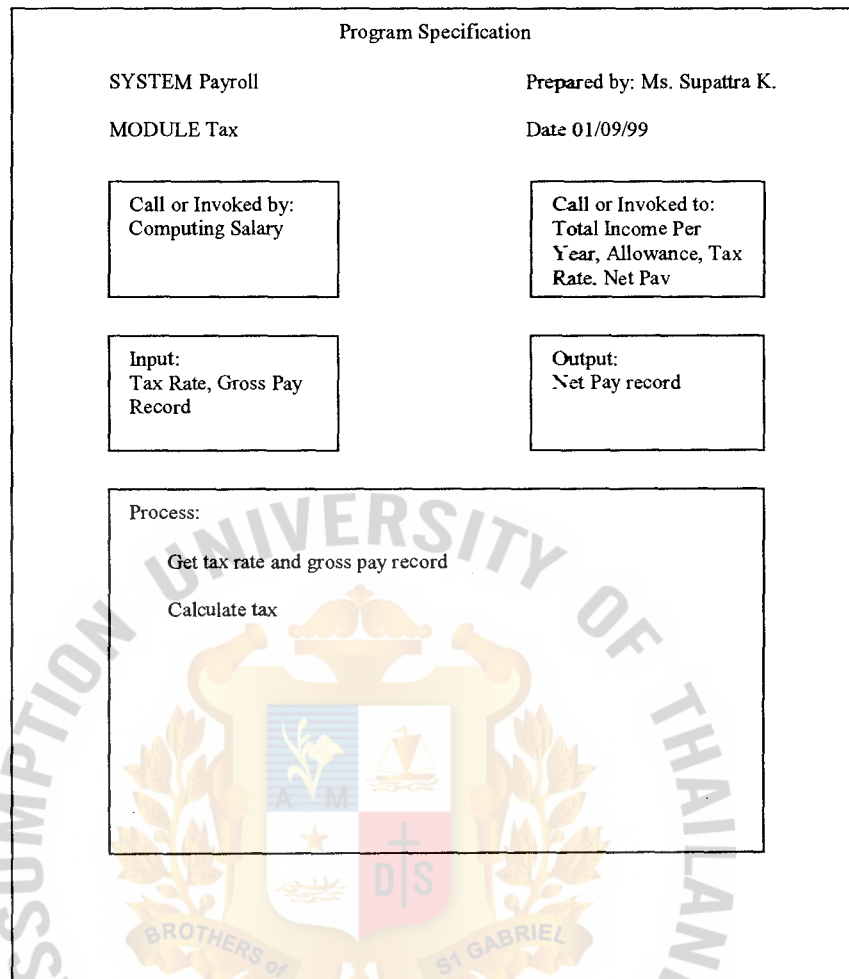


Figure B.10. HIPO Diagram: Tax.

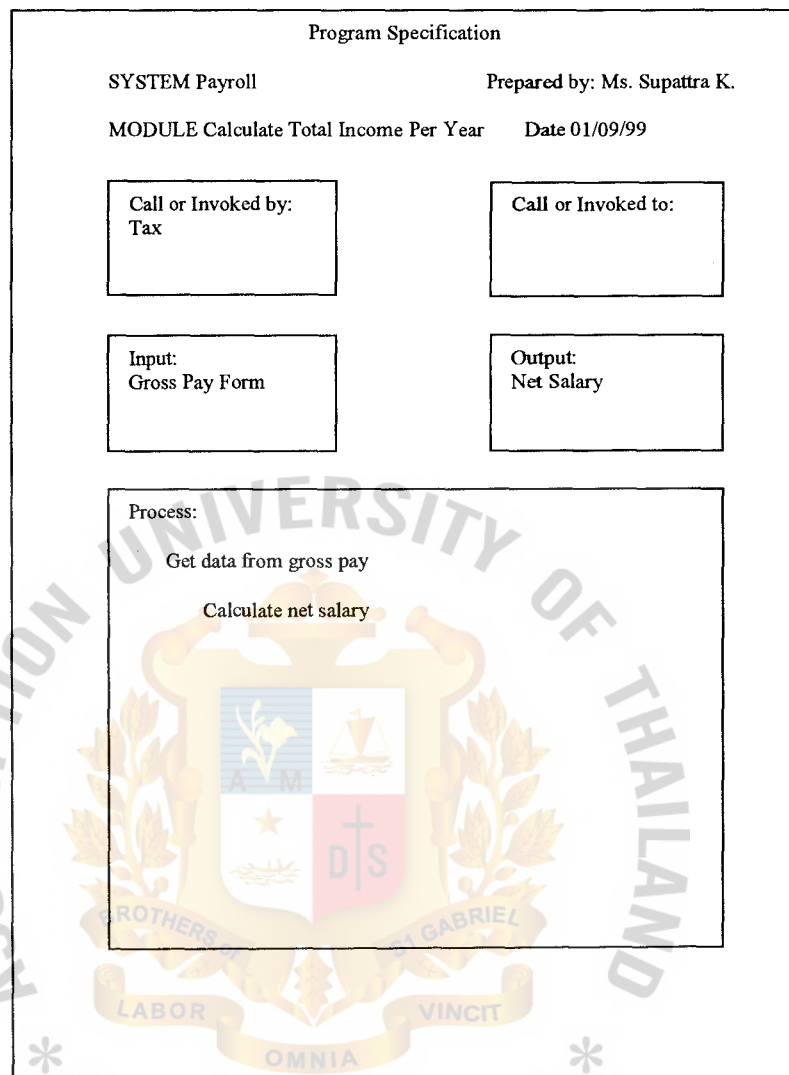


Figure B.11. HIPO Diagram: Calculate Total Income Per Year.

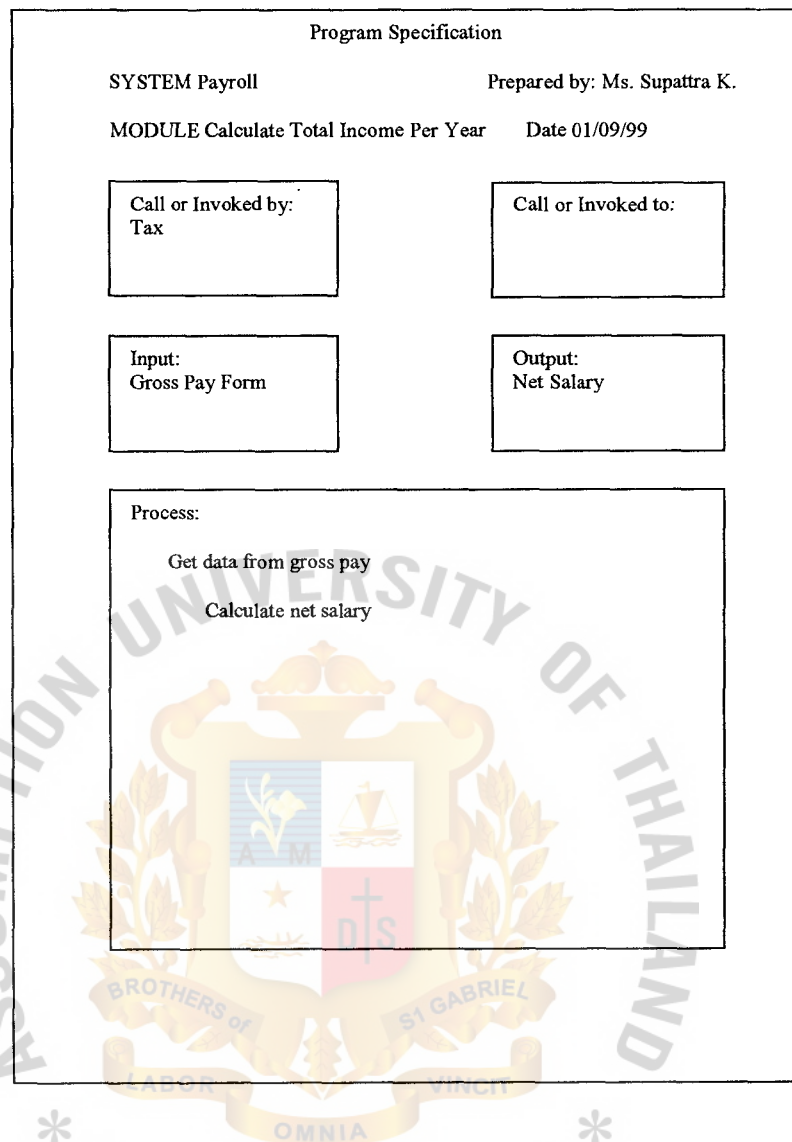


Figure B.11. HIPO Diagram: Calculate Total Income per Year.

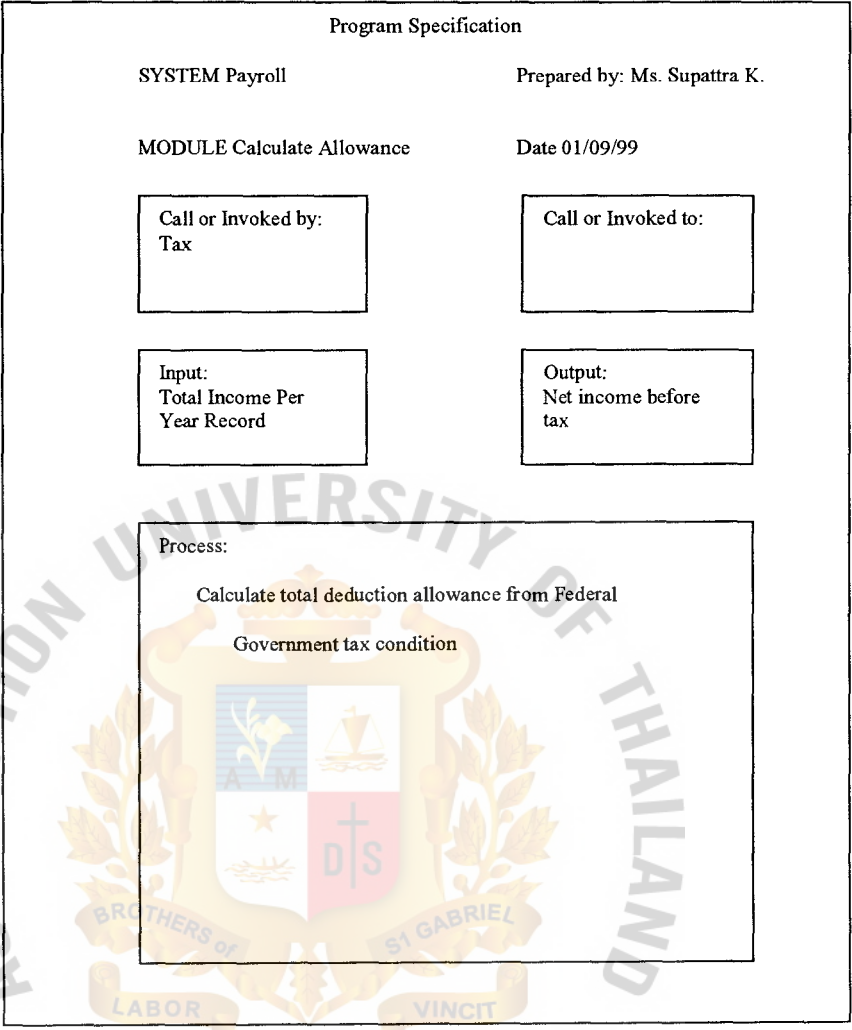


Figure B.12. HIPO Diagram: Calculate Allowance.



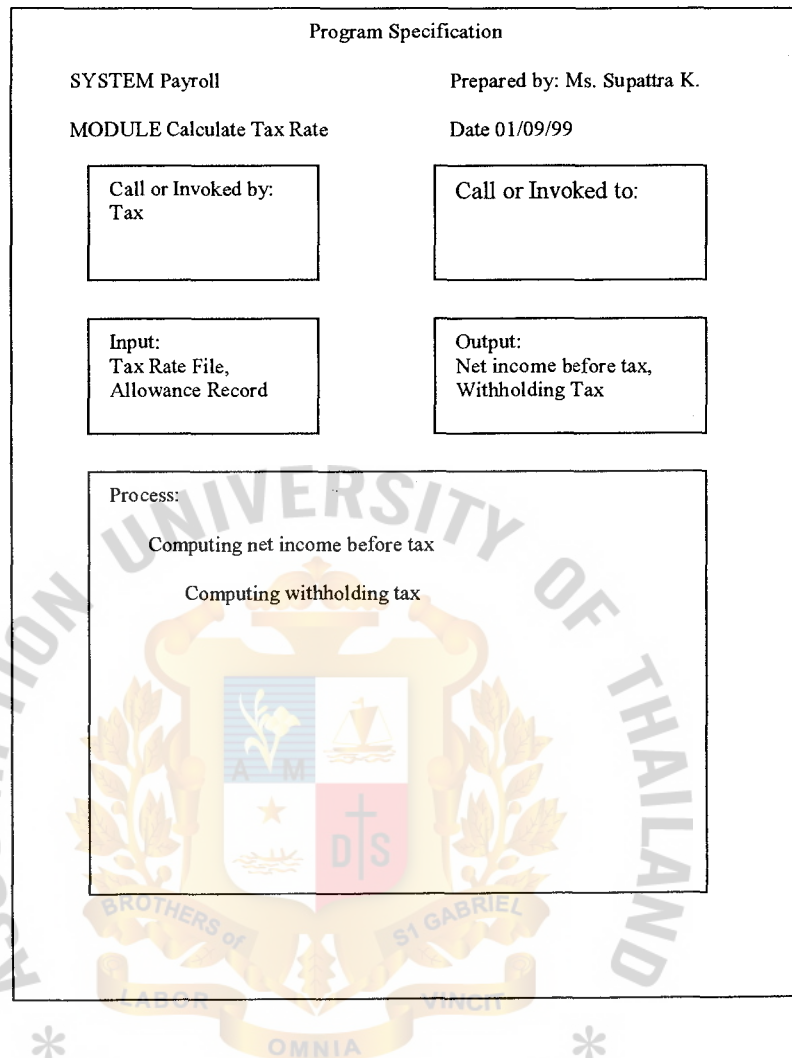


Figure B.13: HIPO Diagram: Calculate Tax Rate.

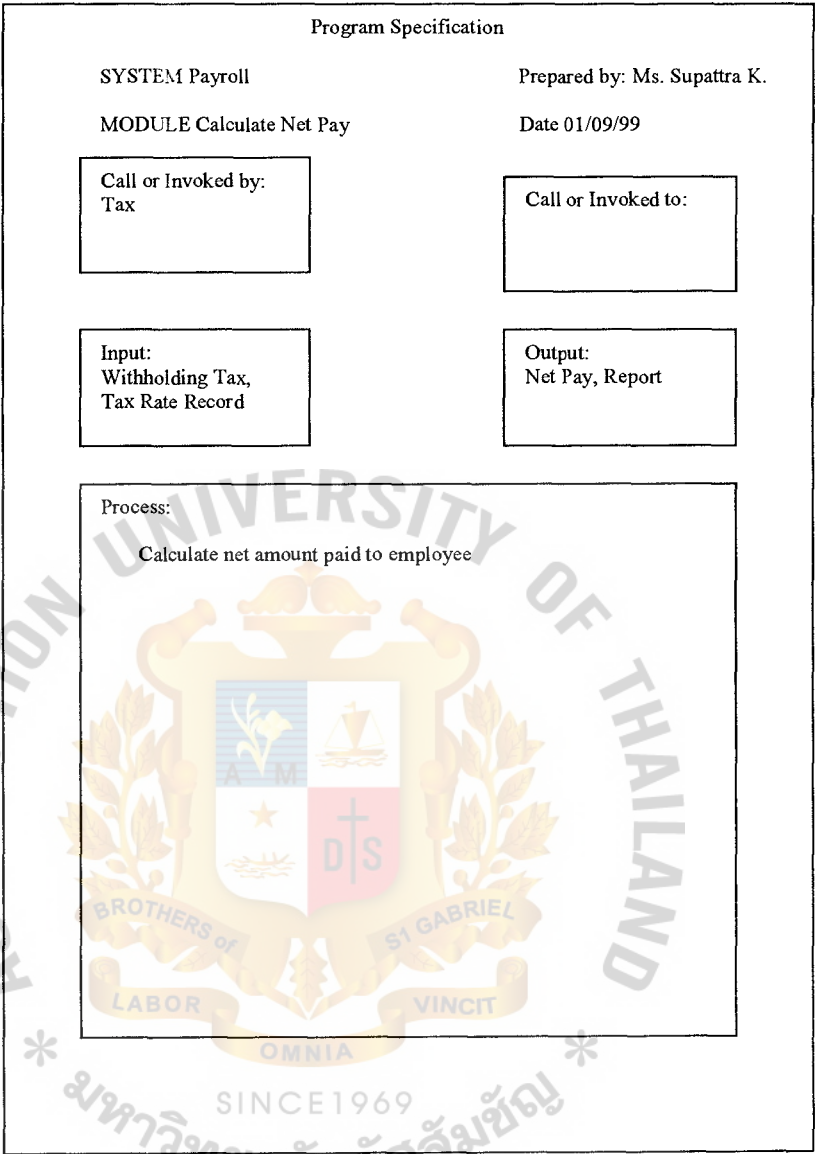


Figure B.14. HIPO Diagram: Calculate Net Pay.

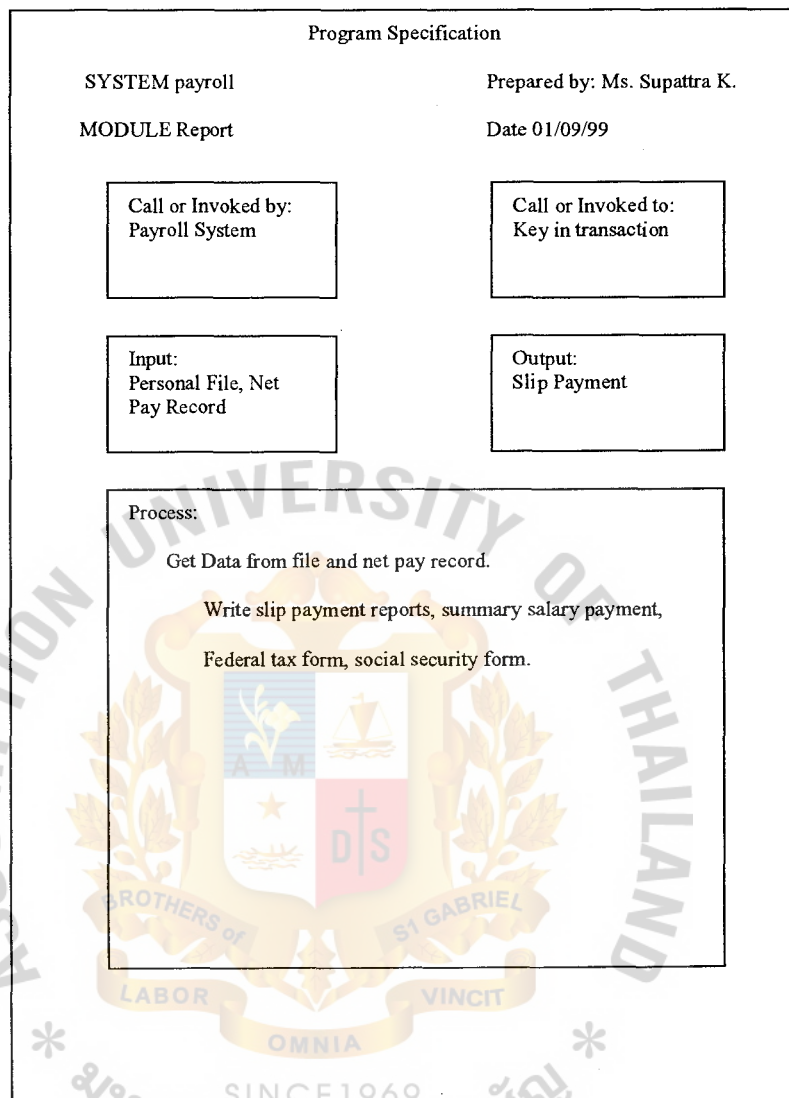


Figure B.15. HIPO Diagram: Report.

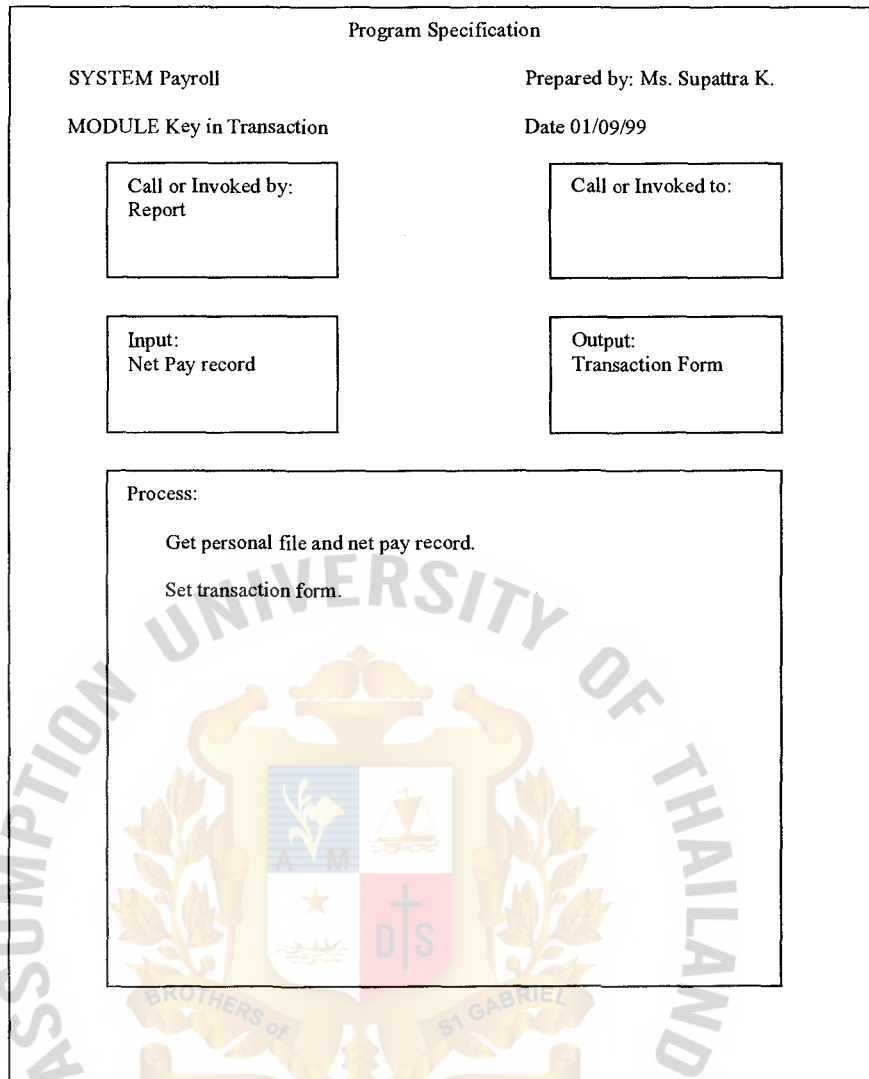


Figure B.16. HIPO Diagram: Key in Transaction.

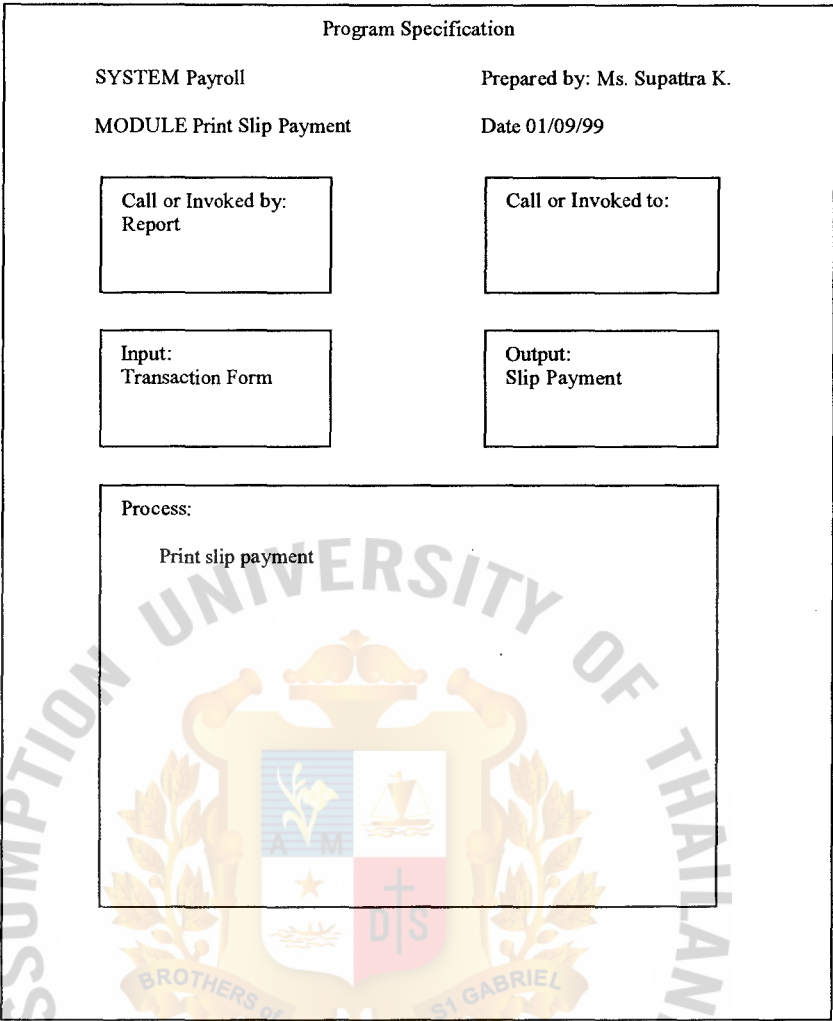


Figure B.17. HIPO Diagram: Print Payment Slip.

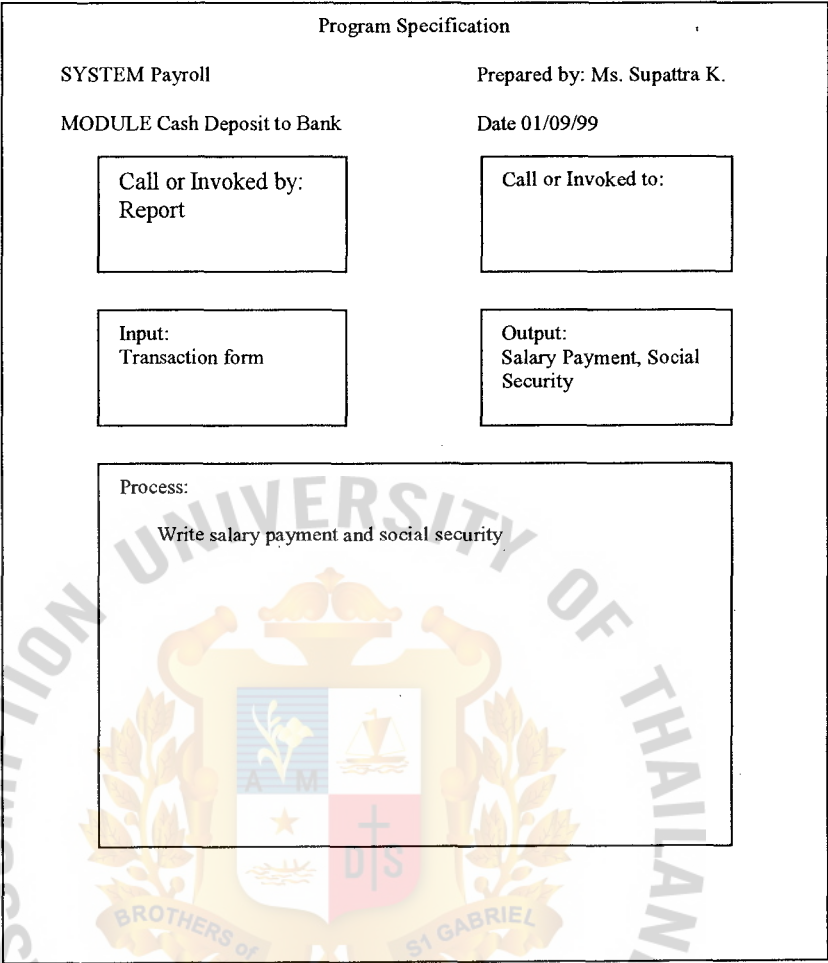


Figure B.18. HIPO Diagram: Cash Deposit Payment to Bank.

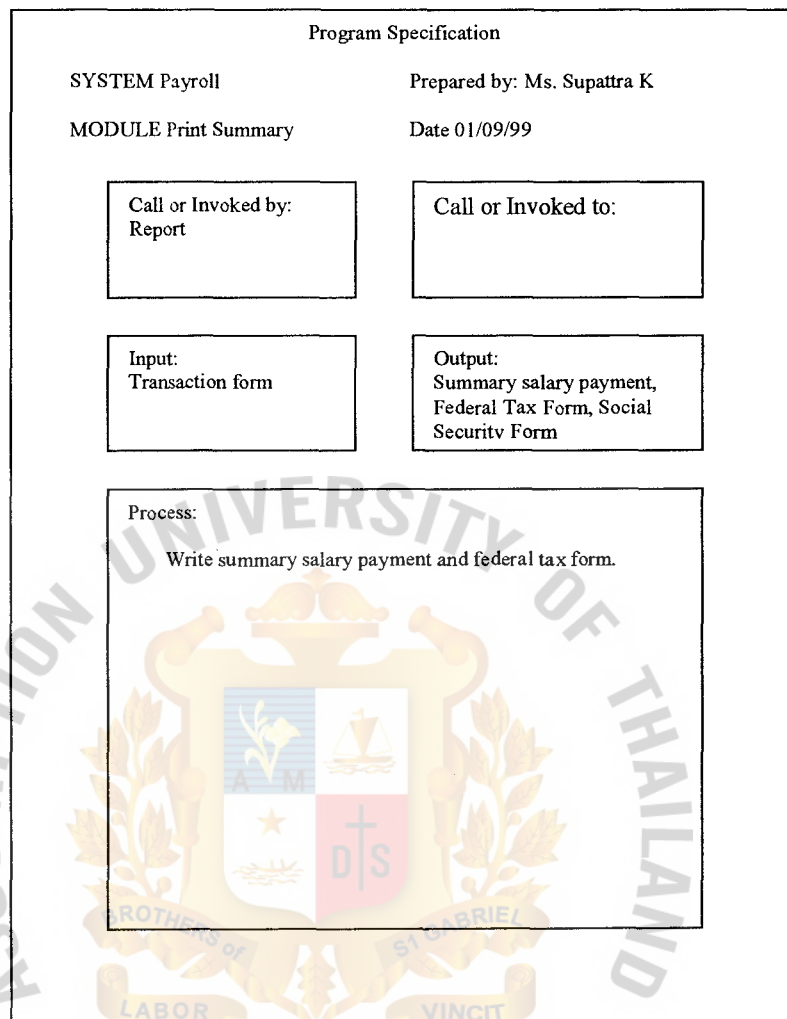


Figure B.19. HIPO Diagram: Print Summary.

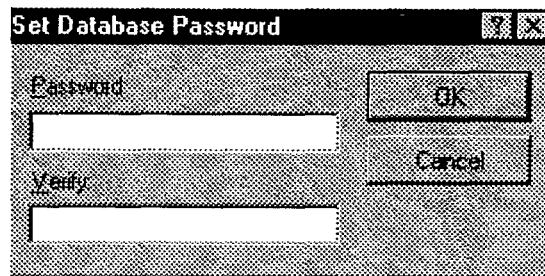




**APPENDIX C**  
**SCREEN DESIGN**

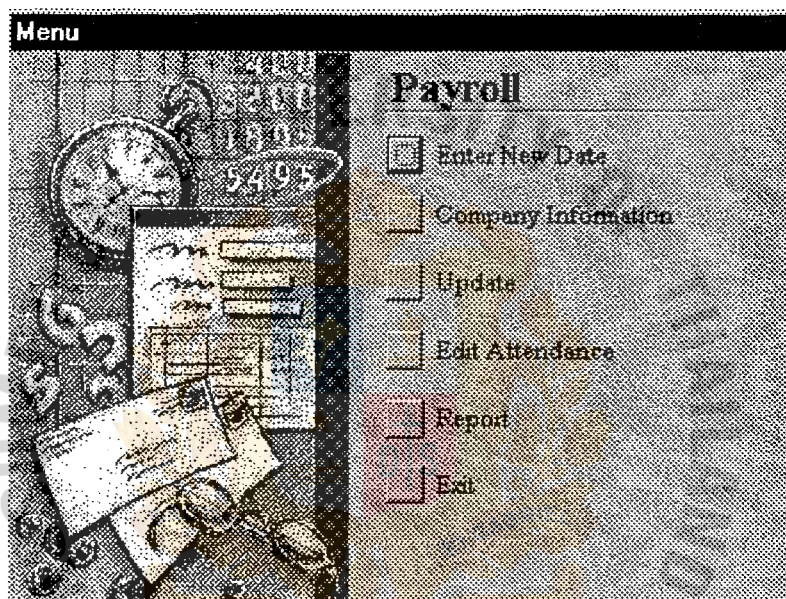
This is a design for input and output of data from the proposed system that display on screen. The data items that need to be available or to appear on the screen are developed in the following screen title.

- (1) Enter Password (See Figure C.1)
- (2) Payroll System Main Menu (See Figure C.2)
- (3) Enter New Date (See Figure C.3)
- (4) Company Information (See Figure C.4)
- (5) Update Menu (See Figure C.5)
- (6) Update Employee Information (See Figure C.6)
- (7) Update Department Information (See Figure C.7)
- (8) Update Division Information (See Figure C.8)
- (9) Update Bank Information (See Figure C.9)
- (10) Update Tax Table (See Figure C.10)
- (11) Update Adjust Salary (See Figure C.11)
- (12) Attendant (See Figure C.12)
- (13) Report Menu (See Figure C.13)
- (14) Employee Report (See Figure C.14)
- (15) Slip Payment (See Figure C.15)
- (16) Social Security Form (See Figure C.16)
- (17) Federal Income Form (See Figure C.17)
- (18) Summary Salary (See Figure C.18)



A dialog box titled "Set Database Password" with a standard Windows window border. It contains two text input fields: "Password" and "Verify". To the right of these fields are two buttons: "OK" and "Cancel".

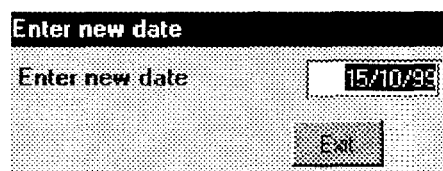
Figure C.1. Enter Password.



A main menu window titled "Menu". The left side features a decorative background with a clock, a calendar, and some papers. The right side is titled "Payroll" and contains a list of menu items, each preceded by a small square icon:

- ☐ Enter New Date
- ☐ Company Information
- ☐ Update
- ☐ Edit Attendance
- ☐ Report
- ☐ Exit

Figure C.2. Payroll System Main Menu.



A dialog box titled "Enter new date". It contains a text input field with the date "15/10/99" entered. Below the input field is an "Exit" button.

Figure C.3. Enter New Date.

Company Information	
Company Name	KK Engineering System Co. Ltd
Address	44/22-23 New Road 31, Samphantawong Bkk 10100
Telephone	7127000
Tax ID	111111111
Social_ID:	11-1111111-1
<input type="button" value="Exit"/>	

Figure C.4. Company Information.


Update	
	<input type="checkbox"/> Employee Information
	<input type="checkbox"/> Department
	<input type="checkbox"/> Division
	<input type="checkbox"/> Bank Code
	<input type="checkbox"/> Tax Table
	<input type="checkbox"/> Adjust Salary
	<input type="checkbox"/> Last of Employees
<input type="checkbox"/> Return to Menu	

Figure C.5. Update Menu.



**Employee Information**

Employee ID	001	Bank Code	006
Dept_ID	001	Account No	1542542856
Division_ID	0101	Salary	6,000.00
Position	Personnel	Citizen ID	2 5461 85215 21 3
Name	Mrs. Apinya	Tax No	2255516225
Surname	Kongkang	Social No	40 26315231
Sex	F (M=Male, F=Female)	Kids at school	1
Status	1 (1=Employed, 2=Resign)	Kids not at school	2
Birth Date	25/04/65	Marital Status	2 (1=Single, 2=M Spouse Working, 3=M Spouse Not Work, 4=Widow)
Date of Employed	01/06/99		
Date of Terminate			
Home Address	451 New road 31 Rd, Samphanthawong, Bkk.		

Record 14 of 1

Figure C.6. Update Employee Information.

**Department**

Dept_ID	001
Dept_Name	Administration

Exit

Record 14 of 4

Figure C.7. Update Department Information.

**Division**

Division_ID	0101
Division_Name	Personnel

Exit

Record 1 of 9

Figure C.8. Update Division Information.

**Bank Code**

Bank Code: 002

Bank Name: Bangkok Bank

Exit

Record: 1 of 3

Figure C.9. Update Bank Information.

**Tax Table**

Step of net income	Tax rate
1 - 50,000	0
50,001 - 100,000	5
100,001 - 500,000	10
500,001 - 1,000,000	20
1,000,001 - 4,000,000	30
> 4,000,000	37

Exit

Figure C.10. Update Tax Table.

Figure C.11. Update Adjust Salary.

Overtime_50%	0
Overtime_300%	0

Per diem	0.00
Late	15
Sick Leave	2
Business Leave	1
Absent	0
Other Deduction	0
Record	1 of 14

Figure C.12. Edit Attendant.



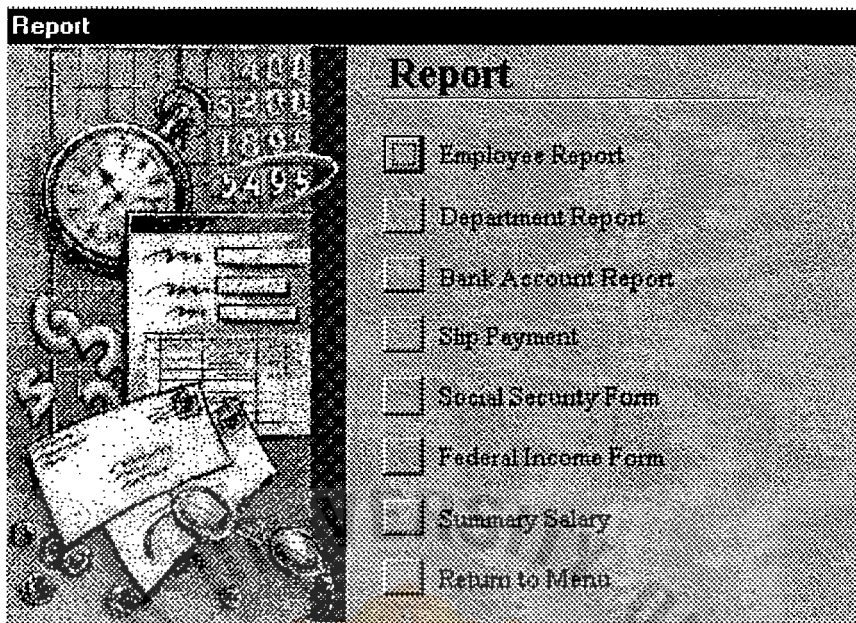


Figure C.13. Report Menu.

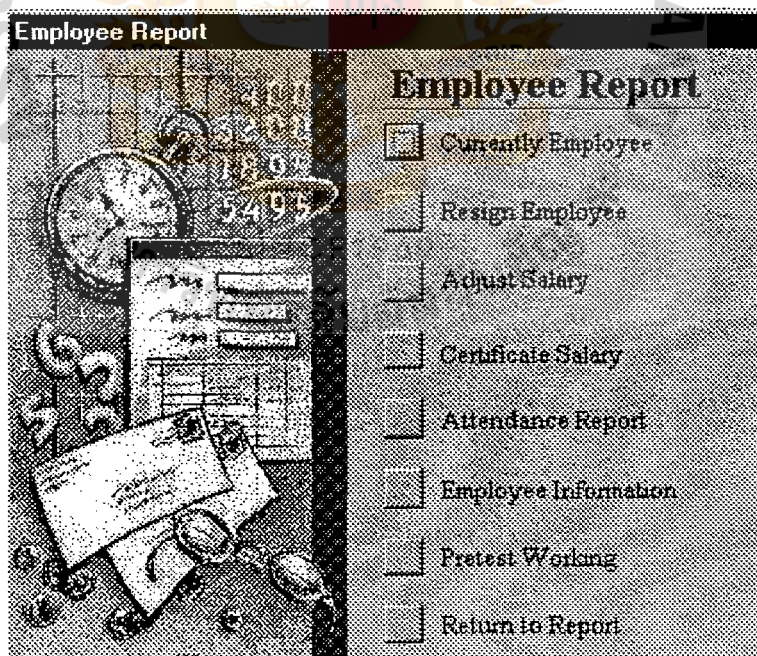


Figure C.14. Employee Report.

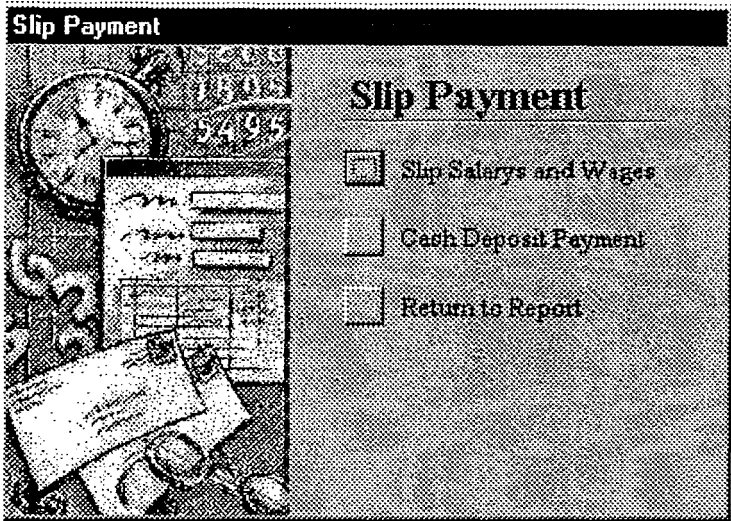


Figure C.15. Slip Payment.

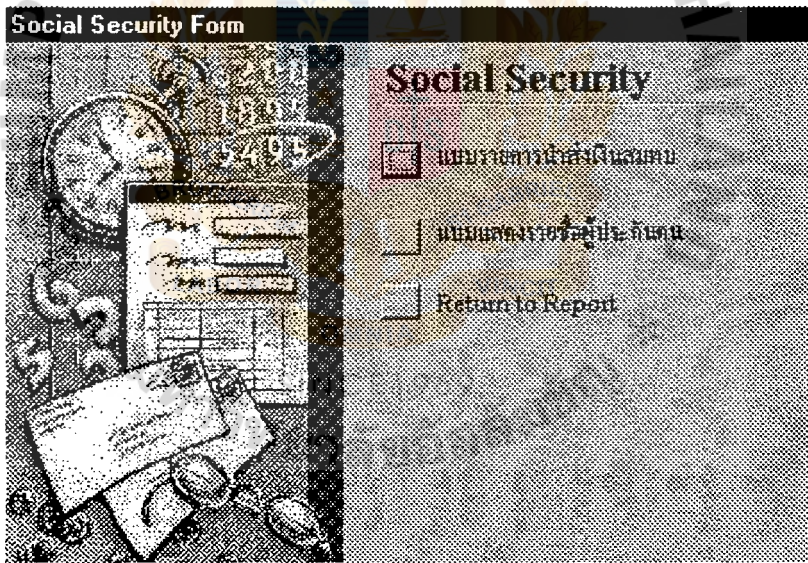
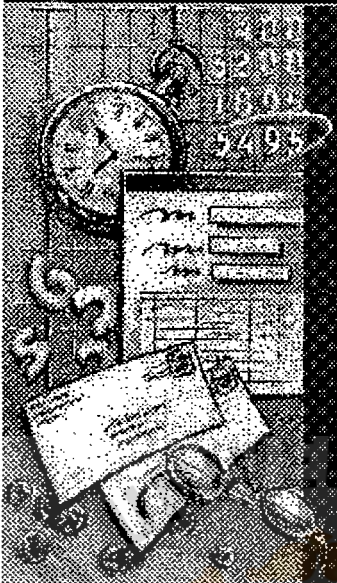


Figure C.16. Social Security Form.



Federal Income




Federal Income

☐ Personal Income Tax (i)
 ☐ Personal Income Tax (16)
 ☐ Personal Income Tax Form(91)
 ☐ Withholding Tax
 ☐ Return to Report

Figure C.17. Federal Income Form.

Summary Salary



Summary Salary

☐ Monthly Summary
 ☒ Yearly Summary
 ☐ Return to Report

Figure C.18. Summary Salary.



## APPENDIX D

### SAMPLE OUTPUT OF THE PROPOSED SYSTEM

The proposed system can generate the output reports as listed below

- (1) List of Employee (See Figure D.1)
- (2) Current Employee(See Figure D.2)
- (3) Resign Employee(See Figure D.3)
- (4) Adjust Salary(See Figure D.4)
- (5) Certificate Salary(See Figure D.5)
- (6) Attendance Report(See Figure D.6)
- (7) Department Report(See Figure D.7)
- (8) Bank Account Report(See Figure D.8)
- (9) Slip Salary and Wages(See Figure D.9)
- (10) Cash Deposit Payment(See Figure D.10)
- (11) Submit Form of Social Security (See Figure D.11) Cover Form
- (12) Submit Form of Social Security (See Figure D.12) Detail
- (13) List of Employee in Social Security Act(See Figure D.13)
- (14) Personal Income Tax(1) (See Figure D.13) Cover Form
- (15) Personal Income Tax (1) (See Figure D.15) Continue Form
- (16) Personal Income Tax (1n) (See Figure D.16) Cover Form
- (17) Personal Income Tax (1n) (See Figure D.17) Continue Form
- (18) Personal Income Tax Form (91) (See Figure D.18)
- (19) Withholding Tax(See Figure D.19)
- (20) Monthly Summary(See Figure D.20)
- (21) Yearly Summary(See Figure D.21)
- (22) Employee Information(See Figure D.22)
- (23) Pretest Working(See Figure D.23)

## Employee List

Employee_ID	Name	Surname	Position	Salary
<b>Department</b>		Administration		
11013	Mrs. Apinya	Kongkang	Personnel	6,000.00
11016	Miss Suluckana	Verasatein	Personnel	6,000.00
12027	Mr. Wuthichai	Yingyong	Finance	13,000.00
13035	Miss Pasuk	Taechapongpipat	Accounting	12,000.00
<b>Department</b>		Business Develop		
31005	Mr. Varakorn	Suprawan	Manager	28,000.00
<b>Department</b>		Implementation		
21012	Mr. Somchai	Nadee	Worker	6,500.00
21015	Mr. Krisana	Manamuti	Site Engineer	25,000.00
21019	Mr. Chumpol	Srisuk	Foreman	7,500.00
22028	Mr. Terawat	Ratanasiriwongw	Manager	36,000.00
92201	Mr. Somsak	Kornchana	Draftman	4,500.00
<b>Department</b>		Logistic		
41015	Mr. Verasak	Verasatein	Warehouse	6,500.00

15 October 1999

Page 1 of 1

Figure D.1. List of Employee.

## Currently Employee

Employee_ID	Name	Surname	Home Address	Date of Employed
001	Administration			
11013	Mrs. Apinya	Kongkang	451 New road 31 Rd., Samphantawong, Bkk.	01 Jun 1999
11016	Miss Suluckana	Verasatein	285 Charansanitwong Rd., Bang-phat, Bkk.	16 Jan 1997
12027	Mr. Wuthichai	Yingyong	41/1 Lardprao 84, Lardprao, Bkk	01 Dec 1998
13035	Miss Pasuk	Taechapongpip	10 Khaolarm, Samphantawong, Bkk.	01 Feb 1999
003	Business Development			
31005	Mr. Varakorn	Suprawan	250 Sukaphiban 1, Bangkok, Bkk.	16 May 1998
002	Implementation			
21015	Mr. Krisana	Manamuti	22/4 Sahamith, Bang-ruk, Bkk.	16 Mar 1997
22028	Mr. Terawat	Ratanasiriwong	26/1 Ladprao Rd., Ladprao, Bkk.	01 Jul 1999
92201	Mr. Somsak	Kornchana	744 Soi Vanich 2, Sampahntawong, Bkk.	01 Aug 1999
004	Logistic			
41015	Mr. Verasak	Verasatein	125 Yaowarad Rd., Samphantawong, Bkk.	01 Sep 1999

Figure D.2. Currently Employee.



## Resign Employee

Employee_ID	Name	Surname	Home Address	Date of Employed	Date of Terminate
002	Implementation				
21012	Mr. Somchai	Nadee	10 Moo 1, Suksri, Nonthaburi	01 Apr 1999	31 Mar 1999
21019	Mr. Chumpol	Srisuk	25 Moo 2 Nadee, Amphor Muang, Nakornrachasima	01 Jun 1999	30 Jun 1999

15 October 1999

Page 1 of 1

Figure D.3. Resign Employee.

Adjust\_salary

Employee_ID	Name	Surname	Division_Name	Date of adjust	Adjust Salary	Prior Salary
22028	Mr. Terawat	Ratanasiriwong	Design	10 Jan 1999	36,000.00	35,000.00

Departmentname      Implementation

15 October 1999

Page 1 of 1

Figure D.4. Adjust Salary.

KK ENGINEERING SYSTEM CO.,LTD.  
44/22-23 New Road 31, Samphantawong Bkk 10100  
Tel: 7127000

Certificate Salary  
September 30, 1999

To: whom it may concern

This is to certify that Mr. Teerawat Ratanasiriwongwut has been employed with the KK ENGINEERING CO.,LTD. As Manager in Design department since May 1, 1997 until September 30, 1999 with monthly basic salary Baht 36,000 (Thirty Six Thousand Baht Only)

For and on behalf of KK ENGINEERING CO.,LTD.

(xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

Adminstration Manager

Figure D.5. Certificate Salary.

Attendance Report							
Since		1/9/99 to 30/9/99					
Employee_ID	Name	Surname	Per diem	Late	Sick Leave	Business Leave	Absent
Department 001 Administration							
11013	Mrs. Apinya	Kongkang	0.00	30	0	0	0
11016	Miss Sulucka	Verasatein	250.00	60	1	2	2
12027	Mr. Wuthicha	Yingyong	0.00	0	0	0	0
13035	Miss Pasuk	Taechapongpip	0.00	4	2	2	0
Department 003 Business Development							
31005	Mr. Varakorn	Suprawan	0.00	0	0	2	0
Department 002 Implementation							
21012	Mr. Somchai	Nadee	0.00	30	1	0	0
21015	Mr. Krisana	Manamuti	0.00	0	0	0	0
15 October 1999							Page 1 of 2

Figure D.6. Attendance Report.

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## Department

---

Department_ID	Department Name
001	Administration
002	Implementation
003	Business Development
004	Logistic



Figure D.7. Department Report.

---

## Bank Account

---

Bank Code	Bank Name
002	Bangkok Bank
004	Thai Farmer Bank
006	Krungthai Bank



Figure D.8. Bank Account Report.

**PAY SLIP FOR THE MONTH OF 30 September 1999**  
**EMPLOYEE NO. 22028 DEPT NO. 002**  
**NAME Mr. Terawat Ratanasiriwongwut**

EARNING	OVERTIME	OTHER / BONUS	GROSS PAY	TOTAL INCOME
36,000.00				36,000.00
INCOME TAX	ABSEN, LATE	OTHER DEDUCT	SOCIAL SECURITY	TOTAL DEDUCTION
2,141.67			300.00	2,441.67
ACCUM-REV	ACCUM-TAX	NET PAY		
324,000.00	19,275.03	33,558.33		

Figure D.9. Salary and Wages Slip.




## Cash Deposit Payment

at the end of 30 September 1999

Employee_ID	Account No	Name	Surname	Net pay
<b>Bank Name</b>		<b>Bangkok Bank</b>		
11016	1037584201	Miss Suluckana	Verasatein	5,880.00
12027	1522222021	Mr. Wuthichai	Yingyong	12,740.00
21015	1530120210	Mr. Krisana	Manamuti	23,637.50
21019	1456224142	Mr. Chumpol	Srisuk	7,462.50
<b>Total</b>				<b>49,720.00</b>
<b>Bank Name</b>		<b>Thai Farmer Bank</b>		
13035	1234567890	Miss Pasuk	Taechapongpipat	11,793.00
31005	5242152152	Mr. Varakorn	Suprawan	26,400.00
21012	1544215212	Mr. Somchai	Nadee	6,516.25
22028	1542524562	Mr. Terawat	Ratanasiriwongwut	33,558.33
92201	7456130301	Mr. Somsak	Kornchana	4,477.50
<b>Total</b>				<b>82,745.08</b>
<b>Bank Name</b>		<b>Krungthai Bank</b>		
11013	1542542856	Mrs. Apinya	Kongkang	5,880.00
41015	*2032141242	Mr. Verasak	Verasatein*	6,467.50
<b>Total</b>				<b>12,347.50</b>

Figure D.10. Cash Deposit Payment.



**บริษัท วิศวกรรมระบบ จำกัด**  
 402/2 ซอยสุขุมวิท 111 แขวงคลองเตย เขตคลองเตย กรุงเทพฯ 10110  
 โทร 02-26111111 โทรสาร 02-26111111

แบบฟอร์ม 1-10 (หน้า 1)

ชื่อโครงการ: **ระบบสารสนเทศ**

ชื่อผู้จัดทำ: **นายสมชาย ใจดี**

ตำแหน่ง: **วิศวกรระบบ**

วันที่จัดทำ: **15/05/2555**

ชื่อหน่วยงาน: **กรมการปกครอง**

ตำแหน่ง: **ผู้อำนวยการ**

วันที่อนุมัติ: **15/05/2555**

ลำดับ	รายการ	จำนวน	ราคา	รวม
1	ค่าจ้างเขียนโปรแกรม	100	100,000.00	100,000.00
2	ค่าจ้างติดตั้งระบบ	100	100,000.00	100,000.00
3	ค่าจ้างฝึกอบรม	100	100,000.00	100,000.00
4	ค่าจ้างบำรุงรักษา	100	100,000.00	100,000.00
5	ค่าจ้างอื่นๆ	100	100,000.00	100,000.00
รวม		500	500,000.00	500,000.00

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

รวมเงินทั้งสิ้น: **500,000.00**

Figure D.11. Submit Form of Social Security (Cover Form).

สป.ส. 1-10 (ส่วนที่ 2)

รายละเอียดการนำส่งเงินสมทบ

สำหรับค่าจ้างเดือน

กันยายน

พ.ศ.

2542

แผ่นที่

1 ในจำนวน 2 แผ่น

เลขที่บัญชี

11-1111111-1

ชื่อสถานประกอบการ

KK ENGINEERING SYSTEM CO.,LTD.

ลำดับที่สาขา

000000

เพื่อประโยชน์ในการใช้สิทธิหรือรับประโยชน์ทดแทนของผู้ประกันตน ทุกครั้งที่น่าส่งเงินสมทบ กรอกรายการให้ครบถ้วนถูกต้อง และชัดเจนด้วยลายมือตัวบรรจงหรือพิมพ์ติด

ให้แสดงรายการเฉพาะผู้ประกันตนที่มีค่าจ้าง ผู้ไม่มีค่าจ้างไม่ต้องแสดง

1	2	3	4	5
ลำดับที่	เลขที่บัตรประกันสังคม	ชื่อ - ชื่อสกุลผู้ประกันตน	ค่าจ้าง (ไม่ต่ำกว่า 1,650.- ไม่เกิน 15,000.-)	เงินสมทบ ประกันตน
1	40-2631523-1	Mrs. Apinya Kongkang	6,000.00	120
2	39-2542548-2	Miss Suluckana Verasatein	6,000.00	120
3	41-2489484-5	Mr. Wuthichai Yingyong	13,000.00	260
4	39-1551521-1	Miss Pasuk Taechapongpipat	12,000.00	240
5	35-2521215-6	Mr. Varakorn Suprawan	15,000.00	300
6	41-2501215-2	Mr. Somchai Nadee	6,500.00	130
7	34-8987824-8	Mr. Krisana Manamuti	15,000.00	300
8	34-8521125-1	Mr. Chumpol Srisuk	7,500.00	150
9	34-4513131-2	Mr. Terawat Ratanasirivongwut	15,000.00	300
10	39-2222114-1	Mr. Somsak Kornchana	4,500.00	90
11	40-4152223-1	Mr. Verasak Verasatein	6,500.00	130

ลงชื่อ.....ผู้นำส่งเงิน

\*2 กรณีลูกจ้างเข้าใหม่ยังไม่มียศที่บัตรประกันสังคม ให้ยื่นแบบ สป.ส. 1-03. โดยตรงหรือทางไปรษณีย์ ณ สำนักงานประกันสังคมในท้องที่ที่สถานประกอบการตั้งอยู่

\*4 กรอกรายการค่าจ้างที่จ่ายจริง แต่ไม่ต่ำกว่า 1,650.- บาท และไม่เกิน 15,000.- บาท ถ้าผู้ประกันตนได้รับต่ำกว่า 1,650.- บาท ถ้าได้รับเกิน 15,000.- บาท ให้กรอก 15,000.- บาท

\*5 เงินสมทบผู้ประกันตนแต่ละคน หากมีเศษตั้งแต่ 50 สตางค์ขึ้นไป ให้ปัดขึ้นเป็น 1 บาท ถ้าร้อยละ 50 สตางค์ ให้ปัดทิ้ง และให้นำส่งเงินสมทบในส่วนของนายจ้างเท่ากับจำนวนเงินสมทบของผู้ประกันตนที่มีการปิดเศษสตางค์แล้ว

Figure D.12. Submit Form of Social Security (Detail).

แบบแสดงรายชื่อผู้ประกันตน

at the end of 30 September 1999


No.	Social_ID	Name	Surname	Salary
1	40-2631523-1	Mrs. Apinya	Kongkang	6,000.00
2	39-2542548-2	Miss Suluckana	Verasatein	6,000.00
3	41-2489484-5	Mr. Wuthichai	Yingyong	13,000.00
4	39-1551521-1	Miss Pasuk	Taechapongpipat	12,000.00
5	35-2521215-6	Mr. Varakorn	Suprawan	15,000.00
6	41-2501215-2	Mr. Somchai	Nadee	6,500.00
7	34-8987824-8	Mr. Krisana	Manamuti	15,000.00
8	34-8521125-1	Mr. Chumpol	Srisuk	7,500.00
9	34-4513131-2	Mr. Terawat	Ratanasiriwongw	15,000.00
10	39-2222114-1	Mr. Somsak	Kornchana	4,500.00
11	40-4152223-1	Mr. Verasak	Verasatein	6,500.00

15 October 1999

Page 1 of 1

Figure D.13. List of Employee in Social Security Act.





กรมสรรพากร  
กรมสรรพากร  
กรมสรรพากร

ภ.ง.ด. 1

ชื่อ-นามสกุล: **KK ENGINEERING SYSTEM**

เลขประจำตัวประชาชน: **9422-21**

ที่อยู่: **New Road 31 Samphanthawong Bangkok 10200**

โทรศัพท์: **7127000**

ปีภาษี: **1 0 1 0 0**

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

ปีภาษี	เงินได้พึงประเมิน	เงินได้สุทธิ	เงินภาษีเงินได้
11	151,421.76	151,421.76	4,475.17
11	151,421.76	151,421.76	4,475.17
			4,475.17

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

ข้าพเจ้าขอแจ้งให้ทราบถึงข้อมูลเกี่ยวกับภาษีเงินได้บุคคลธรรมดา

Figure D.14. Personal Income Tax (1n) Cover Form.











Figure D.17. Personal Income Tax (1<sup>st</sup>) Continue.

ถึง **Mr. Terawat Ratanasiriwongwut**

ยอดเงินได้และภาษีเงินได้หัก ณ ที่จ่าย ดังต่อไปนี้

(1)	เงินได้ (EARNING)				324,000.00
	ภานิชนายจ้างออก				
	เงินได้ทั้งลัน (TOTAL GROSS)				
	หัก กองทุนเลี้ยงชีพ (ส่วนที่เกิน 10,000 แต่ไม่เกิน 290,000)				
	เงินได้คงเหลือเพื่อคำนวณภานิช				324,000.00
(2)	รายการหักค่าใช้จ่ายและหักลดหย่อน (DEDUCTION)				
	ค่าใช้จ่ายในการเหมา 40% (แต่ไม่เกิน 60,000 บาท)				60,000.00
	(INDIVIDUAL ALLOWANCE DEDUCTION 40% BUT NOT MORE THAN 60.000 BAHTS)				
	ลดหย่อน ส่วนตัว (SINGLE)				30,000.00
	คู่สมรส (WIFE OR HUSBAND)				
	บุตร กำลังศึกษา 2 คน				-
	ไม่ได้ศึกษา 1 คน				-
	หัก เงินประกันสังคม (SOCIAL SECURITY)				2,700.00
	หัก ค่าประกัน (INSURANCE)				10,000.00
	หัก เงินบริจาค (DONATION)				
	หัก กองทุนสำรองเลี้ยงชีพ (PROVIDENT FOUND)				
	ลดหย่อนทั้งลัน (TOTAL DEDUCTION)				102,700.00
(3)	เหลือเงินได้สุทธิ (AMOUNT FOR TAXATION)				221,300.00
(4)	เงินภานิชที่คำนวณจากเงินได้สุทธิ			เสีย	
	1 - 50,000		0%		-
	50,001 - 100,000		5%		2,500.00
	100,001 - 500,000		10%		12,130.00
	500,001 - 1,000,000		20%		
	1,000,001 - 4,000,000		30%		
	4,000,001 - 99,999,999,999		37%		
	รวมเงินภานิชที่คำนวณจากเงินได้สุทธิ (TOTAL TAX)				14,630.00
(5)	รวมเงินภานิชเงินได้ที่หัก ณ ที่จ่ายและนำส่งแล้ว (WITHHOLD TAX)				19,275.03
(6)	ภานิชเงินได้ที่ต้องชำระเพิ่มเติม / ชำระไว้เกิน (ADDITION OR RET.)				4,645.03

Figure D.18. Personal Income Tax Form (91).

หนังสือรับรองการหักภาษี ณ ที่จ่าย ตามมาตรา 50 หัก แบ่งประมวลรัษฎากร				
ชื่อและที่อยู่ของผู้มีหน้าที่หักภาษี ณ ที่จ่าย (บุคคล คณะบุคคล นิติบุคคล ส่วนราชการ องค์การ (รัฐวิสาหกิจ ฯลฯ) KK ENGINEERING SYSTEM CO.,LTD. 44/22-23 New Road 31, Samphantawong BKK 10100 เลขประจำตัวผู้เสียภาษีอากร 1111111111	เงินได้ที่จ่าย	วัน เดือน ปี หรือ ปี ภาษีที่จ่าย	จำนวนเงินที่จ่าย	จำนวนเงิน ที่หักไว้
1. ชื่อและที่อยู่ของผู้มีหน้าที่หักภาษี ณ ที่จ่าย (บุคคล คณะบุคคล นิติบุคคล ส่วนราชการ องค์การ (รัฐวิสาหกิจ ฯลฯ) KK ENGINEERING SYSTEM CO.,LTD. 44/22-23 New Road 31, Samphantawong BKK 10100 เลขประจำตัวผู้เสียภาษีอากร 1111111111	1. เงินเดือน ค่าจ้าง เบี้ยเลี้ยง โบนัส ฯลฯ ตามมาตรา 40(1) 2. ค่าธรรมเนียม ค่าขายหน้า ฯลฯ ตามมาตรา 40(2) 3. ค่าแห่งลิขสิทธิ์ ฯลฯ ตามมาตรา 40(3) 4. (1) ค่าดอกเบี้ย ฯลฯ ตามมาตรา 40(4)(ก) (2) เงินปันผล เงินส่วนแบ่งออกกำไร ฯลฯ ตามมาตรา 40(4)(ข) 5. การจ่ายเงินได้ที่ต้องหักภาษี ณ ที่จ่ายตามคำสั่งกรมสรรพากร ที่ออกตามมาตรา 3 เดรต เช่น ค่าซื้อพืชผลทางการเกษตร (ยางพารา มันสำปะหลัง ปอ ข้าว ฯลฯ) รางวัลในภาพประกวด การแข่งขัน การชิงโชค ค่าแสดงภาพยนตร์ ร้องเพลง ดนตรี ค่าจ้างทำของ ค่าโฆษณา ค่าเช่า ฯลฯ 6. อื่น ๆ	30 September 1999	324,000.00	19,275.03
2. ชื่อและที่อยู่ของผู้มีหน้าที่หักภาษี ณ ที่จ่าย Mr. Teratwat Ratanasirivongwut 26/1 Ladprao Rd., Ladprao, Bkk. เลขประจำตัวผู้เสียภาษีอากร 4125125112	รวม		324,000.00	19,275.03
ขอรับรองว่า ข้อความและตัวเลขดังกล่าวข้างต้นถูกต้องตรงกับความจริงทุกประการ ลงชื่อ .....ผู้มีหน้าที่หักภาษี ณ ที่จ่าย				

Figure D.19. Withholding Tax.

## Monthly Salary

at the end of 30 September 1999

Employee_ID	Name	Surname	Salary	Overtime	Total
<b>Department</b>	Administration				
11013	Mrs. Apinya	Kongkang	6,000.00		6,000.00
11016	Miss Suluckana	Verasatein	6,000.00		6,000.00
12027	Mr. Wuthichai	Yingyong	13,000.00		13,000.00
13035	Miss Pasuk	Taechapongpipat	12,000.00		12,000.00
<b>Department</b>	Business Development				
31005	Mr. Varakorn	Suprawan	28,000.00		28,000.00
<b>Department</b>	Implementation				
21012	Mr. Somchai	Nadee	6,500.00	146.25	6,646.25
21015	Mr. Krisana	Manamuti	25,000.00		25,000.00
21019	Mr. Chumpol	Srisuk	7,500.00	112.50	7,612.50
22028	Mr. Terawat	Ratanasiriwongwut	36,000.00		36,000.00
92201	Mr. Somsak	Kornchana	4,500.00	67.50	4,567.50
<b>Department</b>	Logistic				
41015	Mr. Verasak	Verasatein	6,500.00	97.50	6,597.50
					151,423.75

15 October 1999

Page 1 of 1

Figure D.20. Monthly Summary.



## Yearly Salary

at the end of 30 September 1999

Employee_ID	Name	Surname	Salary	Overtime	Total
<b>Department Administration</b>					
11013	Mrs. Apinya	Kongkang	54,000.00		54,000.00
11016	Miss Suluckana	Verasatein	54,000.00		54,000.00
12027	Mr. Wuthichai	Yingyong	117,000.00		117,000.00
13035	Miss Pasuk	Taechapongpipat	108,000.00		108,000.00
<b>Department Business Development</b>					
31005	Mr. Varakorn	Suprawan	252,000.00		252,000.00
<b>Department Implementation</b>					
21012	Mr. Somchai	Nadee	58,500.00	146.25	58,646.25
21015	Mr. Krisana	Manamuti	225,000.00		225,000.00
21019	Mr. Chumpol	Srisuk	67,500.00	112.50	67,612.50
22028	Mr. Terawat	Ratanasiriwongwut	324,000.00		324,000.00
92201	Mr. Somsak	Kornchana	40,500.00	67.50	40,567.50
<b>Department Logistic</b>					
41015	Mr. Verasak	Verasatein	58,500.00	97.50	58,597.50
					<u>1,359,423.75</u>

15 October 1999

Page 1 of 1

Figure D.21. Yearly Summary.

Employee Information															
Employee_ID	Name	Surname	Position	Sex	Status	Home Address	Salary	Bank Code	Amount No	Children	ID	Secret_ID	Kids at school	Information of school	Married Status
Department															
11013	Mr. Ancho	Kongking	Personnel	P	1	451 New road 31 Rd., Sumpasawong, Bkk.	6,000.00	006	1565462876	2 3469	83313 71 3	23351 0225	40 2431221	1	2
	11016	Ms. Subasana	Yokasidin	F	1	283 Chonburiwong Rd., Bang phat, Bkk.	6,000.00	002	1037982931	2 3624	35149 23 4	425149251	39 2142548 2	0	1
	12027	Mr. Wutipol	Yongong	Finance	M	1	451 Ladprao St., Ladprao, Bkk.	13,000.00	002	1572222021	5 2724	52153 21 5	552532325	41 248484 5	3
12028	Ms. Pook	Techapongsaporn	Accounting	F	1	10 Krasadam, Sumpasawong, Bkk.	12,000.00	004	134454789	5 7870	11262 13 9	944864334 39	133131 3	0	1
Department															
11025	Mr. Vachon	Suppan	Manager	M	1	270 Sakhadon 1, Dongpho, Bkk.	38,000.00	004	9541153152	13145	41 014 16	23313 2721	33 231115 6	0	2
Department															
21012	Mr. Somchai	Ngiamniramon	Worker	M	2	10 Krasadam, Sumpasawong, Bkk.	6,500.00	004	154423212	4 2133	2311 11 1	47491311	41 599135 2	0	1
21015	Mr. Krasak	Phonphak	Sales Representative	M	1	124 Krasadam, Sumpasawong, Bkk.	25,000.00	002	159430210	9 2523	21212 42 1	857132655	34 8967824 8	0	1
21019	Mr. Chonpoo	Spak	Finance	M	2	23 Mee 2 Nakas, Angkor Saming, Ladprao, Bkk.	7,500.00	002	149224142	4 2415	15 24 21 5	8019402133	24 923121 1	2	1
21024	Mr. Pawan	Rakamwongwong	Manager	M	1	254 Ladprao St., Ladprao, Bkk.	36,000.00	004	154354542	4 2135	27099 89 8	487323117	34 431131 2	0	1
92301	Mr. Somak	Norichoke	Executive	M	1	744 Sae Vachon 1, Sumpasawong, Bkk.	4,500.00	004	7456130901	3 1453	31348 15 1	231414144 39	232114 1	0	1
Department															
41013	Mr. Vachon	Wachonwong	Warehouse	M	1	125 Yewwong Rd., Sumpasawong, Bkk.	6,500.00	006	2622141322	3 2331	21221 52 5	523858233	40 413712 1	0	1

Figure D 22. Employee Information.



Pretest Working

Employee_ID	Name	Surname	Home Address	Date of Employed	Total Day of
002	Implementation				
92201	Mr. Somsak	Kornchana	744 Soi Vanich 2, Sampahntawong, Bkk.	1/8/99	76

15 October 1999

Page 1 of 1

Figure D.23. Pretest Working.



**APPENDIX E**  
**USER MANUAL**

This section provides users with the knowledge of system's features and how to properly use them.

### Program Installation

To get the program up and running, install Microsoft Access Version 97 first in the target disk. It will create a Microsoft Access directory. The program may be installed for use within a hard disk. Hard disk is preferable because it offers faster execution, more ease of use, and more disk space.

### Starting Program

To begin working with Payroll System, the user must double click on Microsoft Access. Then you will access to Payroll System program. You must enter password first because this program allows only authorized person to access the information (See Appendix C, Figure C.1)

When password is verified, the payroll system main menu will show on screen. In this main menu you can entry data followed by the item shown on screen (See Appendix C, Figure C.2)

The list of main menu includes:

- (1) Enter New date(See Appendix C, Figure C.3)

Every time you access this program, you should update your system first.

- (2) Company Information (see Appendix C, Figure C.4)

On screen of Company Information, the user should enter:

- (a) Company Name
- (b) Address
- (c) Telephone Number
- (d) Tax Identification of the Company
- (e) Social Security Identification of the Company

After the user enters the data already, press Exit to go to the main menu.

### (3) Update

This menu is used to update all information of the payroll system as follows:

#### (a) Employee Information (See Appendix C, Figure C.6)

User will enter employee data one by one. We use Employee Identification as a primary key to search data. The user should enter all information requirements. This program is designed to ease uses such as user can click at Department Identification to find department code if he/she forgets it.

#### (b) Department Information (See Appendix C, Figure C.7)

This is used to add or edit department information. It includes department identification and department name that needs to be created. After you finished, press Exit and go to update menu.

#### (c) Division Information (See Appendix C, Figure C.8)

This is used to add or edit division information. It includes division identification and division name that needs to be created. After you finish, press Exit and go to update menu.

#### (d) Bank Information (See Appendix C, Figure C.9)

This is used to add or edit Bank information. It includes Bank Code and Bank name that needs to be created. After you finish, press Exit and go to update menu.

#### (e) Tax Table Information (See Appendix C, Figure C.10)

This tax rate is used to update from federal government law. If it changes tax rate, the user can use it to screen and to update tax table information. It is used as a base of computing tax rate salary.

(f) Adjust Salary Information (See Appendix C, Figure C.11)

User can update adjusted salary on this screen, then other screens that related to this information will change automatically. After you have adjusted already press Exit.

(4) Edit Attendance (See appendix C, Figure C-12)

This menu is used to update employee attendance in each month. The data include:

- (a) Date of Adjustment
- (b) Employee Information
- (c) Overtime rate; the user should enter the overtime work hour in each overtime rate.
- (d) Per diem
- (e) Late; the user should enter the minute late of employee.
- (f) Sick Leave
- (g) Business Leave
- (h) Absent
- (i) Other Deduction

(5) Report

On menu report, it is used to print out the outputs of information as follows:

- (a) Employee Report
  - (1) Current Employee (See Appendix D, Figure D.2)
    - (i) It is the report of current employees who are working at KKES.
  - (2) Resign Employee (See Appendix D, Figure D.3).
    - (i) This lists the employees who are resigned from the company.
  - (3) Adjust salary (See Appendix D, Figure D.4)

- (i) It is the report that lists the employee who is adjusting salary.

Output includes Employee Identification, Name and Surname, Division, Date of Adjust Salary, Adjust Salary and Prior Salary.

The information is sorted by department.

(4) Certificate Salary (See Appendix D, Figure D.5)

- (i) This report is printed out when the employee wishes to use it.

(b) Attendance Report (See Appendix D, Figure D.6)

This report shows all the records of employee attendant. The user should enter the start date requirement first and then enter the end date of requirement. The report summarizes the attendant record between the period requirement.

(c) Department Report (See Appendix D, Figure D.7)

This report prints out the total number of departments in the company. The information includes department name and department code that the user set.

(d) Bank Account Report (See Appendix D Figure D.8)

This report prints out the total number of Bank Names in the company. The information includes Bank Code and Bank Name

(e) Payment Slip (See Appendix D, Figure D.9)

(1) Salary and Wages Slip (See Appendix D, Figure D.9)

- (i) This is the form of payment slip. Before printing out this form, the user should enter the period of data requirement, then press OK. If the user would like to cancel it, press Cancel bottom.

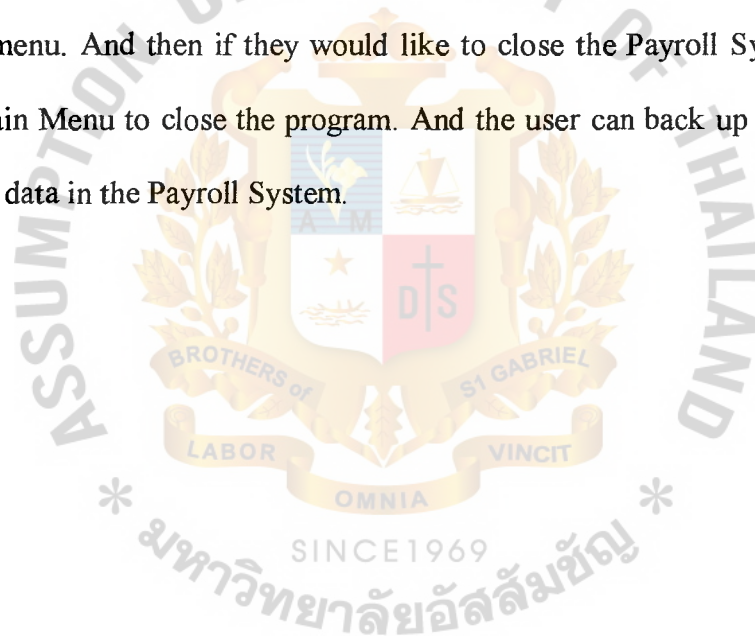
(2) Cash Deposit Payment (See Appendix D, Figure D.10)



- (i) This report prints out the total amount of net pay to employee and submits it to the bank account to transfer the salary payment to each employee.
- (f) Social Security Form
  - (1) Submit the form of Social Security (See Appendix D, Figure D.11 and Figure D.12)
    - (i) This form is submitted to Social Security Act each month. It includes the employee in Social Security Act and the total amount of Social Deduction. That compute from 2% of the salary rate between 1,650-15,000 baths.
  - (2) List of Employee in Social Security Act (See Appendix D, Figure D.13)
    - (i) This is the list of employee in Social Security Act including the rate of salary that is used to compute the Social Security Form.
- (g) Federal Income Form
  - (1) Personal Income Tax (1) (See Appendix D, Figure D.14 and Figure D.15)
  - (2) Personal I income Tax (1๙) (See Appendix D, Figure D.16 and Figure D-17)
  - (3) Personal Income Tax Form (91) (See Appendix D, Figure D.18)
  - (4) Withholding Tax (See Appendix D, Figure D.19)
- (h) Summary Salary
  - (1) Monthly Summary (See Appendix D, Figure D.20)
    - (i) This is the summary of salary paid each month.
  - (2) Yearly Summary (See Appendix D, Figure D-21)

- (i) This is the total of salary paid at the beginning period up to the end period.
- (i) Employee Information (See Appendix D, Figure D.22)
  - (a) It is the report that shows all the information of employees.
- (j) Pretest Working (See Appendix D, Figure D.23).
  - (a) It is the report that shows the total number of employees who are on probation in company.
  - (b) It shows the starting date of work and the total date of work at present.

After the users finished their report requirements, they can press the button of return to menu. And then if they would like to close the Payroll System, press button Exit at Main Menu to close the program. And the user can back up the data to prevent the loss of data in the Payroll System.



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