Practical Development of Information System in Business Context:
System revolution project for V.Screen Industrial Supply Co., Ltd.

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Project Name:      Practical Internship ....... System revolution project, V.Screen
                   Industrial Supply Co., Ltd

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The Department of Business Information Systems, ABAC School of Management has

approved the aforementioned project, which includes complete Project Write-up and

System submitted as the fulfillment of the 3-credit course BIS 4995 Information System

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Administration in Business Information Systems

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March 2003

**Practical Development of Information System in Business Context: System revolution project for V.Screen Industrial Supply Co., Ltd**

Advisor: A. Dhirachat Chayaporn

**Project Write up**

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Submitted in Partial Fulfillment
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# I. INTRODUCTION

## 1.1. Background of Organization

The company acts as an intermediary that receives orders from the customer such orders are coat the pan, repair the damaged wall by recovering cement and other kinds of coating and repairing items. After receiving an order, the company finds the factory or the construction company that'll be the solution for the customer's order, then the company sends the customer's order to that factory or company to let it estimate the total cost of customer's order. The company will markup the estimate cost with the desired amount to be the cost of the order then offer it to the customer. The company also sells the chemical product such as silicon and coating liquid by ordering the chemical product from the supplier and stock it as inventory for the sale purpose.

Organization Chart



Figure 1-1 Organization Chart

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Department Chart

```
                    ┌─────────────────────────┐
                    │  Sakchai Jirashirichok   │
                    │      Sales Manager       │
                    └─────────────────────────┘
                                 │
        ┌────────────────────────┼────────────────────────┐
┌───────────────────┐  ┌───────────────────┐  ┌───────────────────┐
│ Chunsuk jitiwiriya │  │  Amornpan Chanlim  │  │ Noppawan Jiripanpa │
│  Sales supervisor  │  │  Sales Supervivor  │  │  Sales Supervisor  │
└───────────────────┘  └───────────────────┘  └───────────────────┘
```

Figure 1-2   Department Chart of V.Screen Industrial Supply

In Sales Department we have 3 supervisor to find the work for company. All of the tree of the employee have to report to the sales manager. After manager get report or work from each employee than sales manager will report to the Ceo of the company later on.

**1.2   Objective Of the System**

(1)   For support the customer requirement

(2)   Reduce the paper waste

(3)   Manage the information to be automatic

(4)   Increase the performance for competitive

(5)   Prevent the problem of redundancy

(6)   Accuracy in calculation for accounting

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## 1.3 Scope of the System

(1)     System can maintain the information customer , supplies and products.

(2)     Search button for specific customers, suppliers, and products.

(3)     Print report to manager.

(4)     Password for security level.

(5)     Detect Low limit of Item.

(6)     The system will automatically cut inventories from stock.

(7)     Calculate the profit for accountants by daily, monthly, and yearly report.

(8)     Message Alert when inventory below than setting.

(9)     System calculate support the rental

## 1.4 Project Plan

Project plan for Evolution program study the existing system for the first week of November and second week for identify the existing problem and third week for existing data flow diagram. Define the objective and scope, hardware and software requirement finished within the last week of November. We finished process specification and Entity relationship diagram in the second week of December. Database design process specification, data flow diagram and data dictionary in the second week of January. Interface and report design in the third of January Coding finished within the first month of February. Testing plan for third week of February. Write-up and document are finished in the last week of February.

| No. | Task Name | November | | | | December | | | | January | | | | February | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| | I. Analysis of the Existing System | █ | █ | █ | █ | █ | | | | | | | | | | | |
| 1. | Study the Existing System | ▓ | ▓ | ▓ | | | | | | | | | | | | | |
| 2. | Identify the Existing Problems | | █ | █ | | | | | | | | | | | | | |
| 3. | Existing Data Flow Diagram | | | ▓ | ▓ | | | | | | | | | | | | |
| | II. Preliminary Investigation | | | | | █ | █ | | | | | | | | | | |
| 4. | Define the objectives and scope | | | | | █ | █ | | | | | | | | | | |
| 5. | Hardware Requirements | | | | | | ▓ | ▓ | | | | | | | | | |
| 6. | Software Requirements | | | | | | | █ | █ | | | | | | | | |
| | III. Analysis and Design of the Proposed System | | | | | | █ | █ | █ | █ | █ | █ | █ | | | | |
| 7. | Data Flow Diagram | | | | | | ▓ | ▓ | | | | | | | | | |
| 8. | Entity-Relationship Diagram | | | | | | | █ | | | | | | | | | |
| 9. | Database Design | | | | | | | ▓ | ▓ | | | | | | | | |
| 10. | Process specification | | | | | | | █ | █ | | | | | | | | |
| 11. | Data Dictionary | | | | | | | | | ▓ | ▓ | | | | | | |
| 12. | Interface Design | | | | | | | | | █ | █ | █ | | | | | |
| 13. | Report Design | | | | | | | | | | ▓ | ▓ | | | | | |
| | IV. Implementation of the Proposed System | █ | | | | | | | | | | █ | █ | █ | █ | █ | █ |
| 14. | Coding | | | | | | | | | | | | █ | █ | █ | | |
| 15. | Testing | | | | | | | | | | | | | | | ▓ | ▓ |
| 16. | Documentation | | | | | | | | | | | | | █ | | | █ |

Figure 4   Project Plan for V.Screen Industrial Supply Co., Ltd.  System revolution project

## II. THE EXISTING SYSTEM

## 2.1 Background of Existing System

In the existing system of company, it uses a lot of paper to write down information of customer and collect data of sale department in the book. When there's a need of information, the personnel must search through the book. It uses the calculator to perform a performance report of the company. It has to use one personnel to draw a graph for see the past performance.



Figure 2-1    Context Diagram of Existing System

### 2.2 Problem definition

(1) Difficulty finding the desired information

In the existing system the company keeps all information about customer, supplier, employee and sale in the paper, so it's very difficult for the company's officer to find the desired information from paper when needs.

(2) Calculation problem

It's very important when we have much information about sales and CEO of the company or manager wants to see statistic of sale in last month or last 6 month. Personnel have to calculate the figure by the calculator that's very time consuming and the mistake can easily happen.

(3) A lot of paper problem

There's also a tendency that there'll be a lot of paper in the future and they can be loss and damaged if they aren't well kept.

(4) Difficulty to checking stock

If the personnel want to check the stock on hand of the inventory, he/she must count the physical inventory one by one for knowing the total number of stock on hand of each product.

# III.  THE PROPOSED SYSTEM

## 3.1  System Specification

(1)  Hardware Requirements

Table 3-1  Hardware Requirements

| HAREWARE | SPECIFICATION |
|---|---|
| CPU | Intel Pentium 90 |
| RAM | SDRam 32 MB |
| Hard disk | 10 Gigabytes |
| CD-ROM | Minimum Speed 2x |
| VGA Card | TNT2-64 MB |
| Main board | Soltech A6J445 |
| Monitor | 17" Flatron |

Our group decides to use this set of hardware because it is suitable with the system and we also use it to get the results efficiency and effectively. The total cost of this set of hardware is 22,000 Baht, which is very suitable with its capacity.  The CPU that we use is Pentium III 800 MHZ which is more suitable with our system than the other models when compare with its prices and the necessity for the tasks.  We use SDRam 32 MB, Hard disk capacity that we use is 10 gigabytes, VGA is TNT2-64MB which gives the high quality scenes.  For the main board, we use Soltech A6J445 which is sound on board, so there are no need to add any sound card.  Monitor is LG 17" Flatron, mouse and keyboard is A4 Tech.  This spec was suitable with the system and can used for a long time with no need to upgrade.

(2) Software Requirements

Table 3-2 Software Requirements

| SOFTWARE | SPECIFICATION |
|---|---|
| Operating System | Windows 98 or higher |
| Application | 1. Microsoft Visual Basic 6<br><br>2. Microsoft Office 2000<br><br>3. Crystal Report 9.2<br><br>4. MDAC 2.5 or Upper |

We decide to support the old version operating system of windows to test that program can run in the old version of windows and the newest version of windows because it's may have problem when it create in the one windows but it can't open in the other version of windows. Our programs that create by Microsoft visual basic 6 we decide to used this program because it's the famous program and our group similar with it in the advance application subject. And we use Microsoft office 2000 to do some document. For example like Microsoft word, Microsoft power point to make a presentation. . Also we plan to use Adobe Photoshop to manage all of about the pictures to make effect of change the picture for our purpose. Microsoft Visio to draw the Dataflow diagram in level 0 and level 1 or all kind of chart. Because Visio that user can edit some work from Visio files that we provide.

## 3.2   System Design

### (1)  Data Flow Diagram



Figure 3-1   Context Diagram

Figure 3-2 Data Flow Diagram – Level 0

Figure 3-3   Data Flow Diagram – Level 1 for Process 1

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Figure 3-4 Data Flow Diagram – Level 1 for Process 2

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Figure 3-5   Data Flow Diagram – Level 1 for Process 3

Figure 3-6   Data Flow Diagram – Level 1 for Process 4

Figure 3-7   Data Flow Diagram – Level 1 for Process 5

## (2) Entity-Relationship Diagram



Figure 3-8   Entity-Relationship Diagram

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(3)    Database design

In design the database, we have been designing 14 database tables which composed of Customer Table, Item Master Table, Items Type Table, Supplier Table, Employee Table, Plant Table, Customer Order Table and Customer Order Detail Table, we design it to keep the data that useful in the company's operation. The list of databases tables are as the follows.

Table A-1 Customer Table: Keep customer records

Table A-2 Employee table : Keep employee records.

Table A-3 Supplier Table : Keep supplier records.

Table A-4 Plant Table: Keep Plant records

Table A-5 Item Master Table: Keep Product records

Table A-6 Item Type : Record type of Item

Table A-7 Item Grade : Record quality of Item

Table A-8 Customer Order Table: Keep customer order records

Table A-9 Customer Order Detail Table: Keep Detail customer order

Table A-10 Service Table : Keep record of service.

Table A-11 Service Order Table : Record service order from customers.

Table A-12 Service order detail Table : Detail of service order

Table A-13 Supplier Order Table :Record Order to suppliers.

Table A-14 Supplier Order detail Table : Detail of Supplier Order

All of Databases Design are exhibited in Appendix A.

(4)    Process Specification

Table 3-3   Process Specification for Process 1.0

| Process Name: | Accept  Customer inquiry |
|---|---|
| Data In: | (1)   Customer identification, new customer information<br><br>(2)   Service/product inquiry (from customer)<br><br>(3)   Service/product order information (to customer)<br><br>(4)   Order Acceptance/rejection information<br><br>(5)   Customer information<br><br>(6)   Product information (from customer)<br><br>(7)   Service information (from customer) |
| Data Out: | (1)   Service/product information ( to customer)<br><br>(2)   Customer information<br><br>(3)   Accepted service/product order (from customer) |
| Process: | (1)   Receive customer's inquiry<br><br>(2)   Give service/product information to the customer<br><br>(3)   Receive customer order for service and product<br><br>(4)   Add new customer |
| Attachment: | (1)   Customer<br><br>(2)   Data Store D1<br><br>(3)   Data Store D7<br><br>(4)   Data Store D12 |

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Table 3-4  Process Specification for Process 1.1

| Process Name: | Add new Customer |
|---|---|
| Data In: | (1)   New customer information |
| Data Out: | (1)   New customer information |
| Process: | (1)   Get new customer information and keep it in the Data Store D1 |
| Attachment: | (1)   Customer<br><br>(2)   Data Store D1 |

Table 3-5  Process Specification for Process 1.2

| Process Name: | Provide product inquiry |
|---|---|
| Data In: | (1)   Product inquiry<br><br>(2)   Product information |
| Data Out: | (1)   Product information |
| Process: | (1)   Receive customer's product inquiry<br><br>(2)   Get the product information<br><br>(3)   Send the product information to the customer |
| Attachment: | (1)   Customer<br><br>(2)   Data Store D7 |

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Table 3-6  Process Specification for Process 1.3

| Process Name: | Provide service inquiry |
|---|---|
| Data In: | (1)   Service inquiry<br><br>(2)   Service information |
| Data Out: | (1)   Service information |
| Process: | (1)   Receive customer's service information inquiry<br><br>(2)   Get the service information<br><br>(3)   Send the service information to the customer |
| Attachment: | (1)   Customer<br><br>(2)   Data Store D12 |

Table 3-7  Process Specification for Process 1.4

| Process Name: | Accept product order and service order |
|---|---|
| Data In: | (1)   Product order information<br><br>(2)   Service order information |
| Data Out: | (1)   Accepted service/product  order |
| Process: | (1)   Get service/product order information then send it to process 1.2 |
| Attachment: | (1)   Customer |

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Table 3-8   Process Specification for Process 2.0

| Process Name: | Handle order |
|---|---|
| Data In: | (1)   Accepted service/product order (from process 1.0)<br><br>(2)   Plant quotation (from plant)<br><br>(3)   Plant invoice information (from plant)<br><br>(4)   Service/product order cancellation request (from customer)<br><br>(5)   Plant information (from plant) |
| Data Out: | (1)   Service order information (to Data Store D13)<br><br>(2)   Customer identification, product order id (to Data Store D5)<br><br>(3)   Customer identification, service order id, employee identification (to Data Store D13)<br><br>(4)   Plant quotation<br><br>(5)   Product order id<br><br>(6)   Service/product order information (to process 3.0)<br><br>(7)   Customer quotation (to customer) |
| Process: | (1)   Receive Accepted service/product order from process 1.0<br><br>(2)   Get quotation from plant<br><br>(3)   Keep service order information and plant quotation in Data Store D13<br><br>(4)   Send quotation to the customer |

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| | |
|---|---|
| | (5) Keep product order information in<br><br>Data Store D5<br><br>(6) Receive service and product order cancellation<br><br>Update service and product order cancellation |
| Attachment: | (1) Plant<br><br>(2) Customer<br><br>(3) Data Store D5<br><br>(4) Data Store D13<br><br>(5) Data Store D15<br><br>(6) Data Store D3 |

Table 3-9  Process Specification for Process 2.1

| Process Name: | Receive product order and service order |
|---|---|
| Data In: | (1) Accepted service/product order<br><br>(2) Product name and quantity |
| Data Out: | (1) Service order information<br><br>(2) Accepted service order id<br><br>(3) Accepted product order id<br><br>(4) Customer id, product order id<br><br>(5) Product order id, product id<br><br>(6) Service order id, service id<br><br>(7) Customer identification, service order id, employee identification |
| Process: | (1) Receive Accepted service/product order from process 1.0<br><br>(1) Keep service order information customer information and employee information in Data Store D13<br><br>(2) Keep service order information and service information in Data Store D14<br><br>(3) Keep product order and product information in Data Store D5<br><br>(4) Keep customer information and product order information in Data Store D5<br><br>(5) Send accepted product order information to the process 2.2 |

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| | |
|---|---|
| | (6) Send Service/product information to process 3.0 <br><br> (7) Send accepted service order information to the process 2.3 |
| Attachment: | (1) Data Store D5 <br><br> (2) Data Store D13 <br><br> (3) Data Store D14 <br><br> (4) Data Store D3 |

Table 3-10  Process Specification for Process 2.2

| Process Name: | Check stock and Update inventory |
|---|---|
| Data In: | (1) Product name, quantity<br><br>(2) Accepted product order id |
| Data Out: | (1) Accepted product order id<br><br>(2) Product name, quantity<br><br>(3) Accepted product order id |
| Process: | (1) Check inventory to see it's enough for the order<br><br>(2) Update inventory according to the number of product sale |
| Attachment: | (1) Data Store D15<br><br>(2) Data Store D7 |

Table 3-11  Process Specification for Process 2.3

| Process Name: | Get Plant quotation |
|---|---|
| Data In: | (1)   Accepted service order id<br><br>(2)   Plant quotation<br><br>(3)   Plant invoice information<br><br>(4)   Plant information |
| Data Out: | (1)   Service order information<br><br>(2)   Customer quotation<br><br>(3)   Employee commission<br><br>(4)   Plant quotation |
| Process: | (1)   Receive accepted service order id from process 2.2<br><br>(2)   Get plant information to find the suitable plant and send service information to the plant for plant quotation<br><br>(3)   Keep plant quotation in Data Store D13 and send the quotation to the customer<br><br>(4)   Receive plant invoice and calculate commission for the employee who responsible for the project |
| Attachment: | (1)   Plant<br><br>(2)   Customer<br><br>(3)   Data Store D3<br><br>(4)   Data Store D13 |

Table 3-12 Process Specification for Process 2.4

| Process Name: | Receive Cancellation request |
|---|---|
| Data In: | (1)     Service/product order cancellation request |
| Data Out: | (1)     Product order cancellation request<br><br>(2)     Service order cancellation request |
| Process: | (1)     Receive service and product order cancellation request from the customer<br><br>(2)     Cancel the service and update the data in Data Store D14<br><br>(3)     Cancel the product and update the data in Data Store D5 |
| Attachment: | (1)     Customer<br><br>(2)     Data Store D5<br><br>(3)     Data Store D14 |

Table 3-13  Process Specification for Process 3.0

| Process Name: | Prepare invoice |
|---|---|
| Data In: | (1)  Service/product order cancellation request |
| Data Out: | (1)  Service/product order information (from process 2.0)<br><br>(2)  Product name, price (Data Store D7)<br><br>(3)  Service name (Data Store D2)<br><br>(4)  Customer identification, product order id (Data Store D5)<br><br>(5)  Customer identification, service order id, employee identification (Data Store D13) |
| Process: | (1)  Receive service and product order information from process 2.0<br><br>(2)  Ger the service and product information according to the service and product order information from the Data Store D13, Data Store D5, Data Store D12 and Data Store D7 |
| Attachment: | (1)  Customer<br><br>(2)  Data Store D5<br><br>(3)  Data Store D7<br><br>(4)  Data Store D12<br><br>(5)  Data Store D13 |

Table 3-14  Process Specification for Process 3.1

| Process Name: | Get service order information |
|---|---|
| Data In: | (1) Service order information<br><br>(2) Customer identification, service order id, total price, employee identification<br><br>(3) Service order id, service id<br><br>(4) Service id, service name |
| Data Out: | (1) Service invoice information |
| Process: | (1) Receive service order information from process 2.0<br><br>(2) Get data according to the service order information from Data Store D12, Data Store D13, Data Store D14<br><br>(3) Send those data to the process 3.3 |
| Attachment: | (1) Data Store D12<br><br>(2) Data Store D13<br><br>(3) Data Store D14 |

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Table 3-15  Process Specification for Process 3.2

| Process Name: | Get product order information |
|---|---|
| Data In: | (1)     Product order information<br><br>(2)     Customer identification, product order id<br><br>(3)     Product order id, product id<br><br>(4)     Product id, product name, price |
| Data Out: | (1)     Product invoice information |
| Process: | (1)     Receive product order information from process 2.0<br><br>(2)     Get data according to the product order information from Data Store D5, Data Store D6, Data Store D7<br><br>(3)     Send those data to the process 3.3 |
| Attachment: | (4)     Data Store D5<br><br>(5)     Data Store D6<br><br>(6)     Data Store D7 |

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Table 3-16  Process Specification for Process 3.3

| Process Name: | Print invoice |
|---|---|
| Data In: | (1) Service invoice information<br><br>(2) Product invoice information |
| Data Out: | (1) Service invoice information,<br><br>(2) Product invoice information |
| Process: | (1) Receive service invoice information from process 3.1<br><br>(2) Receive product invoice information from process 3.2<br><br>(3) Print service invoice and send to the customer<br><br>(4) Print product invoice and send to the customer |
| Attachment: | (1) Customer |

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Table 3-17  Process Specification for Process 4.0

| Process Name: | Print report |
|---|---|
| Data In: | (1) Customer information<br><br>(2) Product information<br><br>(3) Service information<br><br>(4) Product order information<br><br>(5) Service order information |
| Data Out: | (1) Management report |
| Process: | (1) Get the desired information for making the report form Data Store D1, Data Store D5, Data Store D7, Data Store D12, Data Store D13,<br><br>(2) Print the management report according the desired information and send to the manager |
| Attachment: | (1) Manager<br><br>(2) Data Store D1<br><br>(3) Data Store D5<br><br>(4) Data Store D7<br><br>(5) Data Store D12<br><br>(6) Data Store D13 |

Table 3-18  Process Specification for Process 4.1

| Process Name: | Get report information |
|---|---|
| Data In: | (1)     Customer information<br><br>(2)     Product information<br><br>(3)     Service information<br><br>(4)     Product order information<br><br>(5)     Service order information<br><br>(6)     Employee information<br><br>(7)     Plant information<br><br>(8)     Supplier information<br><br>(9)     Supplier Product order information |
| Data Out: | (1)     Management report information |
| Process: | (1)     Get the desired information for making the report form Data Store D1, Data Store D2, Data Store D3, Data Store D4, Data Store D5, Data Store D7, Data Store D10, Data Store D12, Data Store D13,<br><br>(2)     Send the management report information to the process 4.2 |
| Attachment: | (1)     Data Store D1<br><br>(2)     Data Store D2<br><br>(3)     Data Store D3<br><br>(4)     Data Store D4<br><br>(5)     Data Store D5<br><br>(6)     Data Store D7 |

|  | (7)   Data Store D10 |
|  | (8)   Data Store D12 |
|  | (9)   Data Store D13 |

Table 3-19  Process Specification for Process 4.2

| Process Name: | Get report information |
|---|---|
| Data In: | (1)  Management report information |
| Data Out: | (1)  Management report |
| Process: | (1)  Get the management report information from process 4.1<br><br>(2)  Print the management report according to the management report information and send the management report to the manager |
| Attachment: | (1)  Manager |

Table 3-20  Process Specification for Process 5.0

| Process Name: | Refill inventory |
|---|---|
| Data In: | (1) Stock on hand information, product id (from Data Store D7)<br><br>(2) Supplier information (from Data Store D4)<br><br>(3) Product information (from supplier)<br><br>(4) Supplier invoice information (from supplier) |
| Data Out: | (1) Product id, date received, quantity (information of the product received)<br><br>(2) New product order information (information of the new product received from supplier)<br><br>(3) Supplier order information ( issue order to the supplier for the product) |
| Process: | (1) Get Stock on hand information and product id and issue the order to the supplier for the product which has low stock on hand<br><br>(2) After receiving the product, update the product for the quantity as well as update for the new product<br><br>(3) Add new supplier if he's not exist in the database. |
| Attachment: | (1) Supplier<br><br>(2) Data Store D4<br><br>(3) Data Store D7<br><br>(4) Data Store D15 |

Table 3-21  Process Specification for Process 5.1

| Process Name: | Get inventory information |
|---|---|
| Data In: | (1)  Stock on hand information, product id |
| Data Out: | (1)  Product order information |
| Process: | (1)  Get Stock on hand information and  product id from the Data Store D15 and send to the process 5.2 |
| Attachment: | (1)  Data Store D15 |

Table 3-22  Process Specification for Process 5.2

| Process Name: | Make purchase order |
|---|---|
| Data In: | (1)  Product order information<br>(2)  Supplier invoice  information<br>(3)  Product order information<br>(4)  Supplier information |
| Data Out: | (1)  Supplier order information<br>(2)  Product id, date received, quantity |
| Process: | (1)  Get the product order information from process 5.1 and find the suitable supplier<br>(2)  Issue the order to the supplier<br>(3)  After receive the product, send the product information to the process 5.3 |
| Attachment: | (1)  Supplier<br>(2)  Data Store D4 |

Table 3-23  Process Specification for Process 5.3

| Process Name: | Update inventory |
|---|---|
| Data In: | (1)　Product id, date received, quantity |
| Data Out: | (1)　Product id, date received, quantity<br><br>(2)　New product order information |
| Process: | (1)　Get the product information from process 5.2<br><br>(2)　Update the data in Data Store D15 according to the receiving information<br><br>(3)　If there's new product, and new product information in the Data Store D7 |
| Attachment: | (1)　Data Store D7<br><br>(2)　Data Store D15 |

Table 3-24  Process Specification for Process 5.4

| Process Name: | Add new supplier |
|---|---|
| Data In: | (1)　New supplier information |
| Data Out: | (1)　New supplier information |
| Process: | (1)　Get new supplier information from the supplier<br><br>(2)　Add new supplier information to the Data Store D4 |
| Attachment: | (1)　Supplier<br><br>(2)　Data Store D4 |

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(5)    Data Dictionary

Table 3-10    Data Dictionary of Evolution Program Database

| Field Name | Meaning |
|---|---|
| Accepted quotation | Permission for admit to do the job. |
| Commission | Special money for employee who can sales our job. |
| Commission info | Information of employee's commission |
| Commission report | The summary of commission's information |
| Confirmed quotation | Message to show confirm quotation. |
| Cust id | Identification number of customer |
| Customer information | Information of customer |
| Customer order | Order from customer |
| Customer quotation | The amount that we send to customer for decision. |
| Customer record | Customer's record. |
| Customer report | Report to manager about customer |
| Employee access level | Level of system that accept which position to enter to system level |
| Employee id | Identification number of employee |
| Employee information | Information of Employee. |
| Employee rec | Record of Employee |
| Employee report | The summary of employee's information send to manager |
| Employee salary | Total monthly salary of the employees |
| Invalid employee id | Message to show that employee's ID didn't have in our |

data base.

| | |
|---|---|
| Invalid manager id | Message to show that manager's ID didn't have in our data base. |
| Invalid cust id | Message to show that Customer's ID didn't have in our data base. |
| Invalid plant id | Message to show that Plant's ID didn't have in our data base. |
| Invalid supplier id | Message to show that Supplier's ID didn't have in our data base. |
| Inventory report | Report about inventory to manager |
| Invoice information | Paper show information about our invoice. |
| Invoice report | Report about invoice to manager |
| Manager access level | Level of manger can access to our system |
| Manager id | Identification number of manager. |
| Manager information | Information of manager. |
| Manager rec | Record that keep information of manager. |
| Order | the order placed to our company by the customer |
| Order information | Information of order. |
| Order report | Report about order to manager |
| Payment | About money from customer or pay salary |
| Plant description | Description about each plant that contact with us |
| Plant id | Identification number of Plant. |
| Plant information | Plant information |
| Plant invoice | Paper that show the price of the product of plant |
| Plant quotation | The amount that plant send to us to make a decision |

| | |
|---|---|
| Plant rec | Record of plant |
| Plant receipt | Bill which is plant give to us |
| Plant report | The report of plant send to manager |
| Product | The product that plant give to us and send to customer |
| Product price | Price of product |
| Rejected quotation | The amount of price which is rejected |
| Report request | Report which the manager want |
| Salary | Money give to employee and manager |
| Salary information | The information that use to calculate the salary |
| Stock on hand | The amount of product in the inventory |
| Stock out | Stock empty |
| Supplier information | The information of the supplier |
| Supplier rec | Record of the supplier |
| Supplier receipt | Bill of the supplier give to us |
| Suppler id | Identification of the supplier |
| Supplier report | The summary of supplier's information send to manager |
| Total price | The overall price that is calculated and send to manager |
| Updated cust inf | Replace the existing customer's information by new |
| Updated employee inf | Replace the existing employee's information by new information |
| Updated manager inf | Replace the existing manager's information by new information |
| Updated plant inf | Replace the existing plant's information by new information |
| Updated supplier inf | Replace the existing supplier's information by new |

information

Updated work status      Replace the existing work status by new information

Work cancellation      Cancel all the work

Work confirmation      Starting the work that already prepared

Work information      The information of work

(6)     Interface Design

We have 22 lists of interface designs, which are:

B-1     Authentication Form: This form use to protect unauthorized person to use this application.

B-2     Customer Information Form.  Users can use this screen to record the customers information.  Users can put more record whenever they want.  If there are any mistakes, users can change and save the information.  User can search any record they want

B-3 Customer Order Form.  User can use this part to calculate the total price of the order and keep it in the database.  It use to enter the product that customer want and keep it in the system.

B-4     Employee Information Form.  Users can use this screen to record the employees information.  Users can put more record whenever they want.  If there are any mistakes, users can change and save the information.  User can search any record they want

B-5     Plant Information Form.  Users can use this screen to record the plants information.  Users can put more record whenever they want.  If there are any mistakes, users can change and save the information.  User can search any record they want.

B-6     Add Plant Service Form.  Users can use this screen to record the customers information.  Users can put more record whenever they want.  If there are any mistakes, users can change and save the information. And users can see all of the service and we can know that which service which plant will take responsibility. User can search any record they want.

B-7 Supplier Information Form. Users can use this screen to record the plants information. Users can put more record whenever they want. If there are any mistakes, users can change and save the information. User can search any record they want.

B-8 Order Supplier Form. User can enter the information about the product that they want to purchase and also calculate the price of product and print it out. After user enter the information they can add it to database by click Add Product.

B-9 Receive Product Form. User can enter the purchase order number and they can see that when the product order to the supplier and they will record the product that they received.

B-10 Cancel Po Code Form. User can cancel the Purchase Order which is not used by using this screen.

B-11 Item under low limit warning Form. User can use this screen to check which product is under limit, it will warn the company that what time the company have to purchase the items.

B-12 Check PO from Date Form. User can use this screen to check the Purchase Order from the specific date of time in order to know how many purchase order during the specific date.

B-13 Change Password Form. User can use this screen to change username and password whenever they want and whatever the like in order to protect the system from the unauthorized person.

B-14 New Service Order Form. This screen will help user to match the customer with the service that the customer want and keep it in the system

in order to quote the price of the service. It can also tell that which service is served by which employee.

B-15 Plant Quotation Form. User can use this form to calculate the price of the service and also the markup price commission and time of the service and keep it in the database wait for the customer to confirm.

B-16 Customer Confirmation Form. User can use this form to select the plant that customer choose and confirm. It will keep the record of the plant that give service to particular customer.

B-17 Customer Report Form. This form will be the form that divide the report for the user to choose which customer record they wanted.

B-18 Employee Report Form. This form will be the form that divide the report for the user to choose which employee record they wanted.

B-19 Plant Report Form. This form will keep the report about the services that offered by plants.

B-20 Supplier Report Form. This form will be the form that divide the report for the user to choose which supplier record they wanted.

B-21 Project or Service Report Form. This form will be the form that divide the report for the user to choose which service record they wanted.

B-22 Product Report Form. This form will be the form that divide the report for the user to choose which product record they wanted.

All of interface designs are in the Appendix B

(7)    Report Design

We Design many report for manager to see and bring to decision for some plan of the business transaction for example like sales data or the best or worst sales. The information of the employee , customer , supplier  or plants. We provide 24 report to manager to see and look at that report.

Figure C-1    The good customer for service part by month Report.:  This report will show the information about the service that customer required.  It will show form the highest amount.

Figure C-2   Premium customer for service part by year Report.  This report will show the record of the new customer who purchase the products in year.

Figure C-3   The good customers for product part by month Report.   This report will show the information about the product that customer purchase in month.  It will show form the highest amount.

Figure C-4    The good customers for product part by year Report.  This report will show the information about the product that customer purchase in year.  It will show form the highest amount.

Figure C-5   Employee commission rank by month Report.  This report will show the record of the employee who get the commission.  It will rank from the highest commission to lowest commission in month.  User can compare the commission of each customer.

Figure C-6    Employee commission rank by year Report.  This report will show the record of the employee who get the commission.  It will rank from the highest commission to lowest commission in year.  User can compare the commission of each customer.

Figure C-7    Employee with the complete work report. This report will show the record about which employee have responsibility to which job and when the job start and finish

Figure C-8    Plants with their offered services.  This report will show all of the plants and it will tell that the plant will vide the summary

Figure C-9    The supplier whom we purchase the most in order by month Report.  : This report will show the transaction between supplier and com To show the statistics.

Figure C-10    The supplier whom we purchase the most in order by year Report.

This report will show the transaction between supplier and company and it will show that which supplier the company do the most transaction with month by month.

Figure C-11    Suppliers with their product lines Report.  This report will show the record of each supplier who sell their product to the company and it will tell the price of each product of each supplier.

Figure C-12    The project which plant's quoted Report.  This report will show all of the jobs that plant quote the price of service to company.  It will list the services that already quoted.

Figure C-13    The project which plant's not quoted Report.  This report will show the jobs that plant do not quote the price of service yet.

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Figure C-14    The project which customer's confirmed Report.  This report will show the services that customers confirm to do with the company after they consider the quoted price.

Figure C-15    The project which customer's cancelled Report.  This report will show the list of services that customers do not want to do with the company after they consider the quoted price.

Figure C-16    Most Profitable Project Report.  This report will show the project that can make profit to the company and it will list from the highest profit to lowest profit.

Figure C-17    The most demand service in each month Report.  This report will show the demand of the customer in each month listed from the highest to lowest.

Figure C-18    The most demand service in each year Report.  This report will show the demand of the customer in each year listed from the highest to lowest.

Figure C-19    Profit for each product by product type Report.  This report will list the product line and also the product in each product line in order to show the cost, selling price and the profit that company get form each product or service.

Figure C-20  Product sale by each month Report.  This report will show that in each month what kind of product or service company sell to customer at what price and how many quantities.

Figure C-21    Product sale by each year Report.  This report will show that in each year what kind of product or service company sell to customer at what price and how many quantities.

Figure C-22   Sale of each product type by month Report.   This report will show the company about the type of product that company sell to their customers.

Figure C-23   Best selling product in order by month Report.   This report will show that which product company can sell best in each month.   It also tell the user about the quantity and net price.

Figure C-24   Best selling product in order by year Report.   This report will show that which product company can sell best in each year.   It also tell the user about the quantity and net price.

The Report Design is exhibited in Appendix C.

# IV. SYSTEM IMPLEMENTATION

## 4.1 Overview of the System Implementation

We decide to use Post-Implementation to change from the old system to the new system. To ensure that the new sys system meets specific requirements, complies with user objectives, and achieves anticipated benefits than the old system and help to improve IT development practices by providing feedbacks. It would be advantage because a manual one or old system will be replace by a computerized system .

## 4.2 Test Plan

Programmers must create both valid and invalid test data. These Data run to see base on routines work and also catch error. And check all of module. Created test data test possible minimum and maximum values as well as all possible variations in format and code and check output that have any error or not.

After we test by using the test data . We will bring the real data that company used and tried to put in the program. We will see that data can work completely with our program. And we tried to catch the error from this process.

# V. CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Conclusions

After finish all of the process. Since the company background and study with the existing system after that we concern to the proposal system. We try to design about Data Flow Diagram of the existing system and find the problem of the project and we scope our program what the purpose of our system and spec with hardware requirement and software requirement. We will have the New data flow diagram for the proposal system and manager with new database that direct to the data flow diagram. In this company, it is not a big company and they have only a few transactions but they have 2 modules in the company for example, service part and selling part. It is very difficult to manage this two modules in one program. Our system will separate two part to support each of them. In the first times it has a lot of problem in many kind. For example like the update information of customer and plant. So we try to find the way to change from the manual to the computerize and try to correct problems that occur in this system. We use Visual Basic to design and implement this system and this system can help the company reduce the time to use manual record and The user of this system can record more information and more detail than the past. When we do this system it can help us to practice a lot of things such as how to draw data flow diagram or how to normalization the database in the database design.

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## 5.2 Recommendations

Our system still didn't cover all of the transaction in other business because we study the structure only this company. Actually system should use in all of the company. And other things of this system is the Visual Basic complier because in our system they have a lot of bug and more problems that very difficult to solve and finding the cause of the problem. And the times to implement the whole system is very limited. We have a lot of problem in the coding system because it's not easy to the plan that we plan in the first times. We think that after we develop this system, it will have any advantage for the one who is interested.

APPENDIX A
DATABASE DESIGN

Table A-1   Customers Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|-----------|-----------|-------|--------|----------|---------------|----------|---------------------|
| 1 | Customer id | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | Company Name | Char(30) | Y | | | | | |
| 3 | Contactf | Char(20) | | | | | | |
| 4 | Contactl | Char(30) | | | | | | |
| 5 | MobileContact | Char(11) | | | | | | |
| 6 | Bill Address | Varchar(80) | | | | | | |
| 7 | Phone  Number | Varchar(12) | | | | (99)-999-9999 | | |
| 8 | Fax number | Varchar(12) | | | Y | (99)-999-9999 | | |
| 9 | Email | Varchar(20) | | | Y | | | |

Table A-2   Employees Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|-----------|-----------|-------|--------|----------|---------------|----------|---------------------|
| 1 | Employee id | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | EmployeeName | Char(20) | Y | | | | | |
| 3 | EmployeeLname | Char(30) | | | | | | |
| 4 | Address | Varchar(80) | | | | | | |
| 5 | Phone number | Char(11) | | | | (99)-999-9999 | | |

Table A-3   Service Order Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Rderenced Table |
|-----|-----------|-----------|-------|--------|----------|----------------|----------|--------------------|
| 1 | Service Order ID | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | Project Name | Varchar(12) | | | | | | |
| 3 | Order Date | Date/Time | | | | DD-MM-YY | | |
| 4 | Total cost | Int(11) | | | | | | |
| 5 | Total price | Int(11) | | | | | | |
| 6 | Quodate | Date/Time | | | | | | |
| 7 | Commission | Int(11) | | | | | | |
| 8 | Commission date | | | | | | | |
| 9 | Canceldate | Date/Time | | | | | | |
| 10 | IsPlantQua | Int(1) | | | | | | |
| 11 | isCustCon | Int(1) | | | | | | |
| 12 | Duration | Int(11) | | | | | | |
| 13 | Duedate | Date/Time | | | | DD-MM-YY | | |
| 14 | CustomerID | Char(11) | Y | Y | | X999-9999 | | Customer |
| 15 | EmployeeID | Char(11) | Y | Y | | X999-9999 | | Employee |

Table A-4   Service Order Detail Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|------------|------------|-------|--------|----------|----------------|----------|---------------------|
| 1 | ServiceOrderID | Char(11) | Y | Y | | X999-9999 | FK | ServiceOrder |
| 2 | ServiceID | Char(11) | Y | Y | | X999-9999 | FK | Service |
| 3 | Description | Varchar(80) | | | | | | |
| 4 | Price | Int(11) | | | | | | |
| 5 | Dualation | Int(11) | | | | | | |

Table A-5   Service Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|------------|------------|-------|--------|----------|----------------|----------|---------------------|
| 1 | ServiceID | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | ServiceName | Varchar(20) | | | | | | |
| 3 | PlantID | Char(11) | Y | Y | | X999-9999 | FK | Plant |

The last database that we decide to normalize is service table because it has a lot of detail we have two more table to collect the database of its. Service order table and service order detail table.

Table A-6   Customer Order detail Table

| No. | Field Name | Field Type | Index | Unique | Null | Validity Check | Key Type | FK Referenced Table |
|---|---|---|---|---|---|---|---|---|
| 1 | Customer Order detail id | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | Item Model | Char(11) | Y | Y | | X999-9999 | FK | Item Master |
| 3 | Item type code | Char(11) | Y | Y | | X999-9999 | FK | Item typeCode |
| 4 | Unit Price | Int(11) | | | | | | |
| 5 | Item Quality | Int(10) | | | | | | |
| 6 | Net | Int(11) | | | | | | |

Table A-7   Customer Orders Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|-----------|-----------|-------|--------|----------|----------------|----------|---------------------|
| 1 | Customer Order id | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | Order Date | Date/Time | | | | DD-MM-YY | | |
| 3 | Net Total | Int(11) | | | | | | |
| 4 | Order Flag | Int(1) | | | | | | |
| 5 | Customer ID | Char(11) | Y | Y | | X999-9999 | Fk | Customer |
| | | | | | | | | |

In customer order table we normalization to two table for the customer order detail because one customer order and more customer order detail and it's can't collect in one table. We keep price and quality of each product in one customer order in this table. One customer order may have a lot of product and it can't keep in only one table.

Table A-8   Plants Table

| No. | Field Name | Field Type | dex | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|-----------|-----------|-----|--------|----------|---------------|----------|---------------------|
| 1 | PlantID | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | PlantName | Char(11) | | | | | | |
| 3 | Contactf | Char(20) | | | | | | |
| 4 | Contactl | Char(30) | | | | | | |
| 3 | Address | Char(80) | | | | | | |
| 4 | Phone | Int(11) | | | | | | |

Table A-9   Item Master Table

| No | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|----|------------|------------|-------|--------|----------|----------------|----------|---------------------|
| 1 | ItemModel | Varchar(12) | | Y | | X999-9999 | PK | |
| 2 | ItemTypeCode | Varchar(12) | | Y | | X999-9999 | FK | ItemTypeCode |
| 3 | BrandCode | Varchar(12) | | | | X999-9999 | FK | BrandName |
| 4 | ShortName | Varchar(12) | | | | | | |
| 5 | FullName | Varchar(12) | | | | | | |
| 6 | Cost | Int(11) | | | | | | |
| 7 | Sellprice | Int(11) | | | | | | |
| 8 | SupplierCode | Varchar(12) | | | | X999-9999 | FK | Supplier |
| 9 | Detail | | | | | | | |
| 10 | Numberinstock | Int(11) | | | | | | |
| 11 | NumberInOrder | Int(11) | | | | | | |
| 12 | LowLimitToWarning | Int(11) | | | | | | |
| 13 | BrandPictureFileName | Char(20) | | | | | | |
| 14 | ItemPictureFileName | Char(20) | | | | | | |
| 15 | ItemStatus | Int(1) | | | | | | |

Table A-10   Item TypeTable

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|------------|------------|-------|--------|----------|----------------|----------|---------------------|
| 1 | ItemTypeCode | Varchar(12) | Y | Y | | X999-9999 | PK | |
| 2 | ItemTypeName | Char(11) | | | | | | |

Table A-11   Brand Name Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|------------|------------|-------|--------|----------|----------------|----------|---------------------|
| 1 | BrandCode | Varchar(12) | Y | Y | | X999-9999 | PK | |
| 2 | BrandName | Char(11) | | | | | | |

Next table is Item Master table we decide to normalize in three table is Item Master table and ItemTypecode table , Brand name table, Item master table it keep only detail of product and inventory stock. Item type is table to collect information that product is what type. Because our company have more type of product such as silicone , water protect , Wall Protect, the last things in product field is brand

name because the product have the different quantity of product and percentage of chemical in the product for example like 100% or 90 % and Etc.

Table A-12   Supplier Order Detail Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|---|---|---|---|---|---|---|---|---|
| 1 | ItemModel | Varchar(12) | Y | | | X999-9999 | PK | |
| 2 | ItemTypeCode | Varchar(12) | Y | Y | | X999-9999 | FK | ITemType |
| 3 | POCode | Varchar(12) | | | | | | |
| 4 | Cost | Int(11) | | | | | | |
| 5 | Quantity | Int(11) | | | | | | |
| 6 | Discount | Int(11) | | | | | | |
| 7 | Vat | Int(11) | | | | | | |
| 8 | Net | Int(11) | | | | | | |

Table A-13   TransactionLog Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|---|---|---|---|---|---|---|---|---|
| 1 | TLCode | Varchar(12) | Y | | | X999-9999 | PK | |
| 2 | ItemModel | Varchar(12) | Y | Y | | X999-9999 | F | ITemType |
| 3 | ItemNum | Varchar(12) | | | | | | |
| 4 | SupplierCode | Int(11) | | | | | | |
| 5 | TransactionCode | Int(11) | | | | | | |
| 6 | TransactionDate | Int(11) | | | | | | |
| 7 | DocumentRef | Int(11) | | | | | | |
| 8 | TransactionDetail | | | | | | | |

Table A-14   Supplier Order Table

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|---|---|---|---|---|---|---|---|---|
| 1 | SupplierCode | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | POCode | Varchar(12) | | | | XX-999999 | | |
| 3 | OrderDate | Date/Time | | | | DD-MM-YY | | |
| 4 | ReceiveDate | Date/Time | | | | DD-MM-YY | | |
| 5 | DueDate | Date/Time | | | | DD-MM-YY | | |
| 6 | NetTotal | Int(11) | | | | | | |
| 7 | OrderFlag | Int(1) | | | | | | |
| 8 | IsReceived | Int(1) | | | | | | |
| 9 | IsPaid | Int(1) | | | | | | |

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Database about supplier order in E-R diagram. One supplier order can order a lot of product in one time it's meaning that one supplier order can more more supplier order detail. This table the reason to normalize is same as customer order table.

Table A-15   Supplier Tabel

| No. | Field Name | Field Type | Index | Unique | Nullable | Validity Check | Key Type | FK Referenced Table |
|-----|-----------|-----------|-------|--------|----------|----------------|----------|---------------------|
| 1 | SupplierCode | Char(11) | Y | Y | | X999-9999 | PK | |
| 2 | NameInThai | Varchar(12) | | | | | | |
| 3 | ItemDescription | Varchar(80) | | | | | | |
| 4 | Address | Varchar(80) | | | | | | |
| 5 | ContactName1 | Char(20) | | | | | | |
| 6 | Contacl | Char(30) | | | | | | |
| 7 | Telephone | Int(11) | | | | (99)-999-9999 | | |
| 8 | Email | Varchar(12) | | | | | | |
| 9 | Homepage | Varchar(12) | | | | | | |
| 10 | Fax | Int(11) | | | | (99)-999-9999 | | |

At first times before normalization we have only 8 Table such as customer table because it collect the information of the customer don't have to normalization, The employee table, Plant table and supplier table is also the external entity and it doesn't want to normalize because it only collect the main data and they didn't have FK in their table.
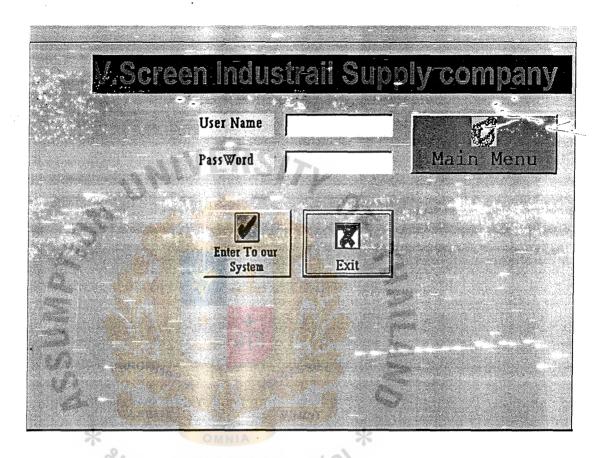
APPENDIX B
INTERFACE DESIGN
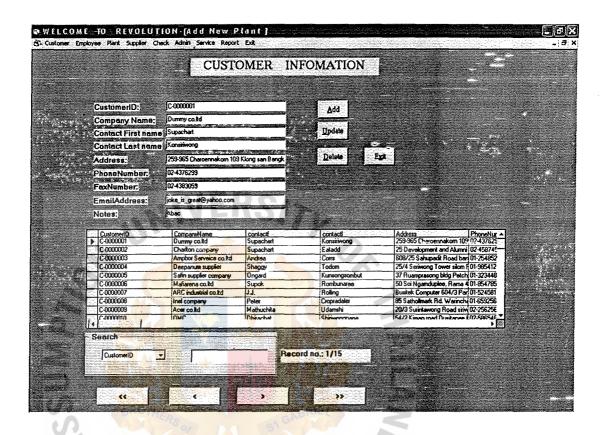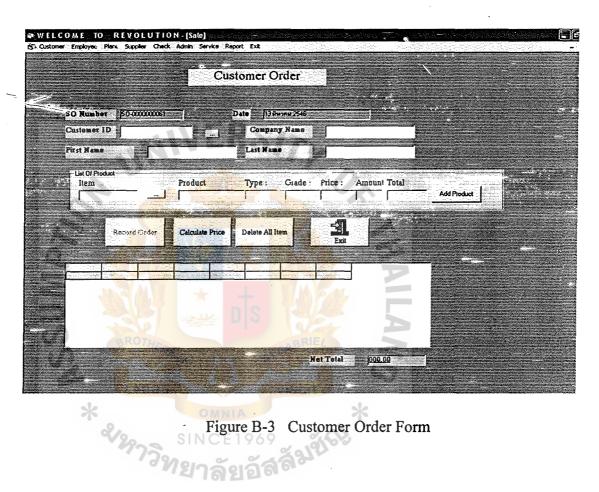
Figure B-1   Login Menu Form

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Figure B-2   Customer Information Form

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Figure B-3   Customer Order Form

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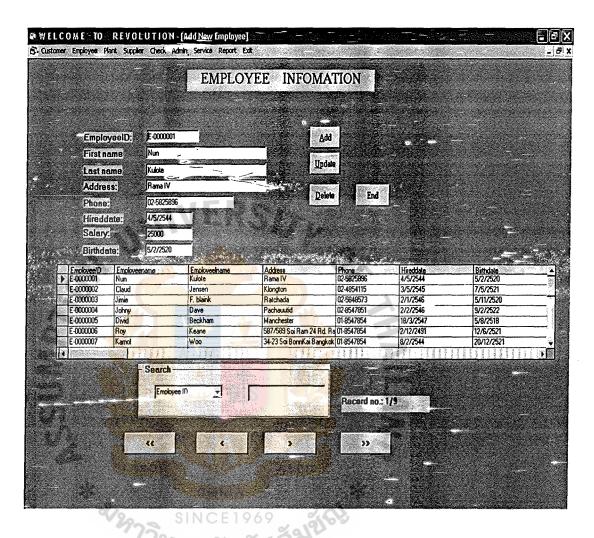Figure B-4  Employee Information Form

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Figure B-5  Plant Information Form

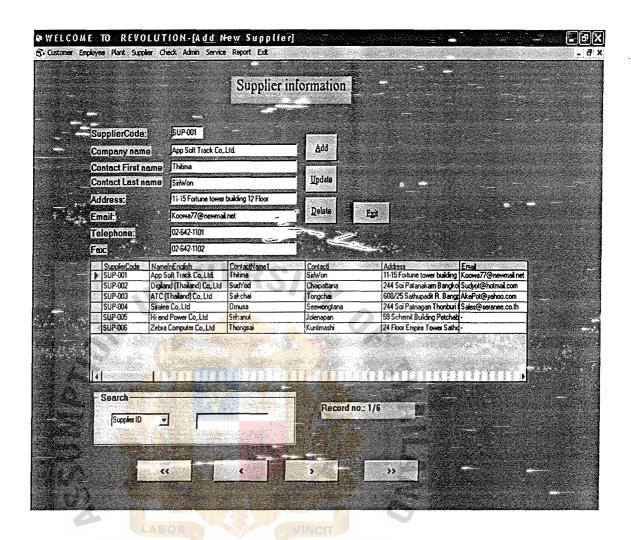Figure B-6   Add Plant Service Information Form
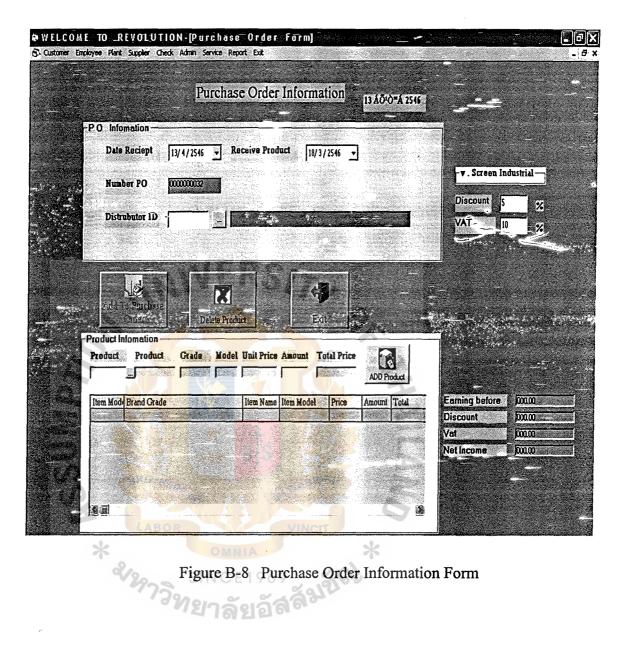
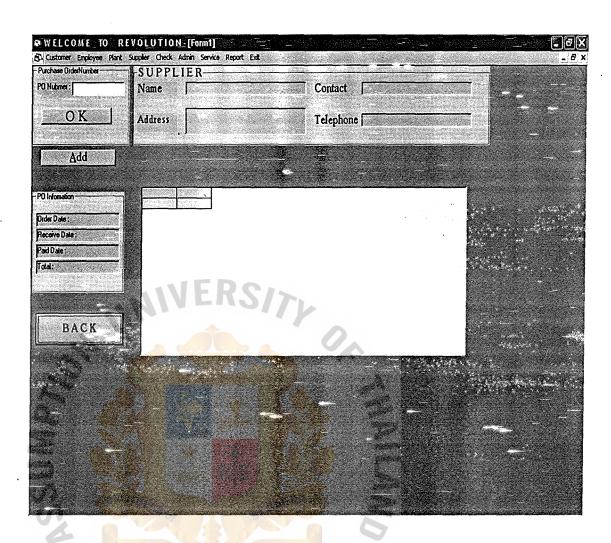Figure B-7   Supplier Information Form

Figure B-8   Purchase Order Information Form

Figure B-9 Receive Product Form

Figure B-10 Cancel PO Form

Figure B-11 Item Low Limit Warning Form

Figure B-12   Check PO from Date Form
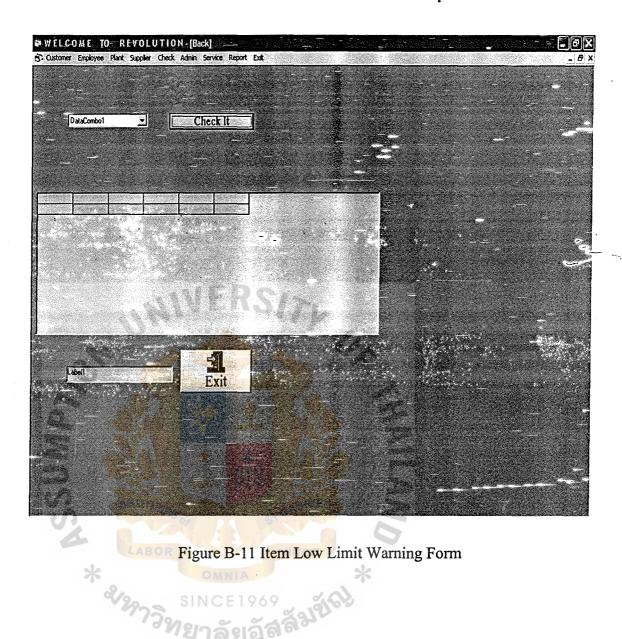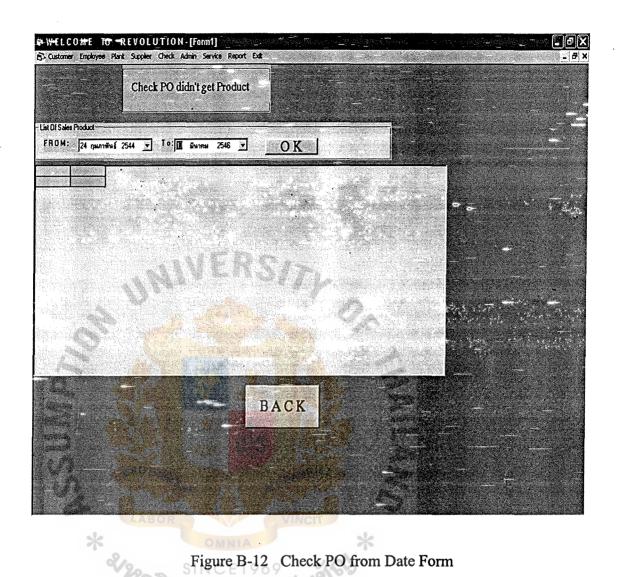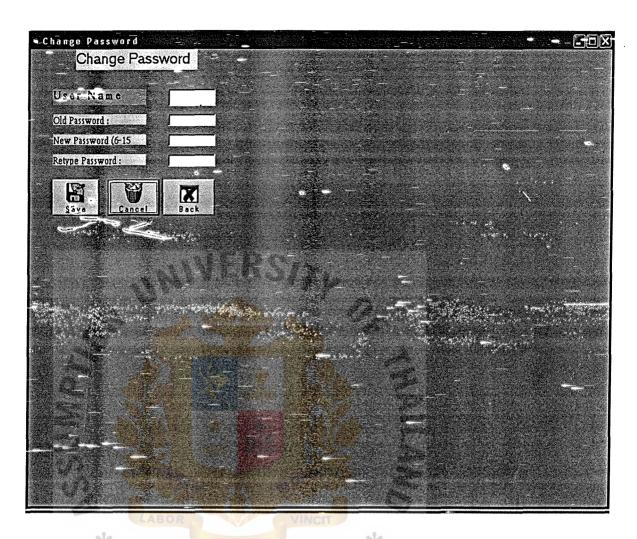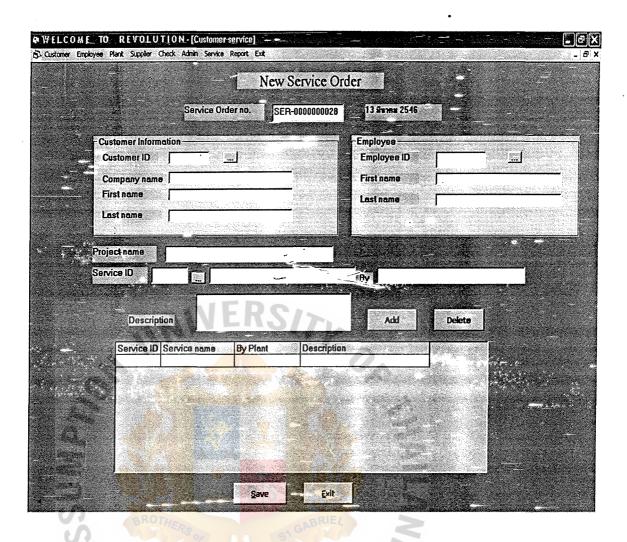
Figure B-13  Change Password Form

Figure B-14 New Service Order Form

Figure B-15   Plant Quotation Form

Figure B-16   Customer Confirmation Form

**Figure B-17** Customer Report Form

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Figure B-18 Employee Report Form

Figure B-19 Plant Report Form

Figure B-20 Supplier Report Form

Figure B-21 Project Report Form

Figure B-22 Product Report Form

APPENDIX C
REPORT DESIGN

# V Screen Co.ltd
## The Good Customers for service part
## By Month

**13/3/2546**

| Customer ID | | From Company/Customer | Total Amount |
|---|---|---|---|
| **For the Month** | **1/2545** | | |
| C-0000003 | | Ampbor Serveice co.ltd | 2,500.00 |
| C-0000001 | | Dummy co.ltd | 1,250.00 |
| C-0000015 | | RF Supplie co.ltd | 1,250.00 |
| | | | |
| **For the Month** | **5/2545** | | |
| C-0000004 | | Deepanum supplier | 106,250.00 |
| C-0000015 | | RF Supplie co.ltd | 87,500.00 |
| C-0000008 | | Inel company | 79,400.00 |
| C-0000002 | | Charlton company | 68,750.00 |
| C-0000003 | | Ampbor Serveice co.ltd | 49,432.00 |
| C-0000001 | | Dummy co.ltd | 43,750.00 |

Figure C-1  The Good customers for service part Report
By Month

## V Screen Co.ltd

## The Good Customers for service part
## by Year

**13/3/2546**

| Customer ID | From Company/Customer | Total price |
|---|---|---|
| **For the year** 2545 | | |
| C-0000004 | Deepanum supplier | 106,250.00 |
| C-0000015 | RF Supplie co.ltd | 88,750.00 |
| C-0000008 | Inel company | 79,400.00 |
| C-0000002 | Charlton company | 68,750.00 |
| C-0000003 | Ampbor Serveice co.ltd | 51,932.00 |
| C-0000001 | Dummy co.ltd | 45,000.00 |
| C-0000013 | Venushouse | 12,500.00 |

Figure C-2   Good Customer for Service Part Report

By Year

**V Screen Co.ltd**
**The Good Customers for Product part**
**by Year**

**13/3/2546**

| Customer ID | | From Company/Customer | Total price |
|---|---|---|---|
| For the year | 2545 | | |
| C-0000007 | | ARC industrial co.ltd | 1,188,200.00 |
| C-0000004 | | Deepanum supplier | 739,500.00 |
| C-0000002 | | Charlton company | 652,100.00 |
| C-0000003 | | Ampbor Serveice co.ltd | 614,200.00 |
| C-0000012 | | Technology Square | 588,200.00 |
| C-0000015 | | RF Supplie co.ltd | 501,000.00 |
| C-0000013 | | Venushouse | 489,100.00 |
| C-0000009 | | Acer co.ltd | 378,000.00 |
| C-0000011 | | Prime Consultant | 347,000.00 |
| C-0000014 | | Innovation Crop. | 330,000.00 |
| C-0000006 | | Mafiarena co.ltd | 275,600.00 |
| C-0000010 | | OMC | 202,500.00 |

Figure C-3   The Good Customers for Product Part Report

By year

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**The Good Customers for product part**
**By Month**

13/3/2546

| Customer ID | From Company/Customer | Total price |
|---|---|---|
| **For the Month**    1/2545 | | |
| C-0000007 | ARC industrial co.ltd | 418,100.00 |
| C-0000003 | Ampbor Serveice co.ltd | 210,500.00 |
| C-0000008 | Inel company | 138,000.00 |
| C-0000015 | RF Supplie co.ltd | 127,000.00 |
| C-0000002 | Charlton company | 122,500.00 |
| C-0000009 | Acer co.ltd | 120,000.00 |
| C-0000013 | Venushouse | 116,100.00 |
| C-0000014 | Innovation Crop. | 99,500.00 |
| **For the Month**    2/2545 | | |
| C-0000004 | Deepanum supplier | 368,500.00 |
| C-0000007 | ARC industrial co.ltd | 250,000.00 |
| C-0000002 | Charlton company | 245,500.00 |

Figure C-4  The Good Customers for Product Part Report
By month

## V Screen Co.ltd
## Employee commission rank by month

**13/3/2546**

| Employee ID | | Firstname | Lastname | Total commission |
|---|---|---|---|---|
| For the Month | 1/2545 | | | |
| E-0000009 | | Y. | Chai | 250.00 |
| E-0000002 | | Jensen | Claud | 125.00 |
| E-0000007 | | Woo | Kamol | 125.00 |
| For the Month | 5/2545 | | | |
| E-0000005 | | Beckham | Divid | 11,250.00 |
| E-0000001 | | Kulote | Nun | 8,258.00 |
| E-0000003 | | F. blaink | Jimie | 8,125.00 |
| E-0000006 | | Keane | Roy | 6,250.00 |
| E-0000008 | | Beaties | Jame | 6,250.00 |
| E-0000007 | | Woo | Kamol | 4,625.00 |

Figure C-5   Employee Commission Rank Report

By month

# Employee commission rank by Year

**13/3/254¢**

| Employee ID | Firstname | Lastname | Total commission |
|---|---|---|---|
| 2545 | | | |
| E-0000005 | Beckham | Divid | 11,250.00 |
| E-0000001 | Kulote | Nun | 8,258.00 |
| E-0000003 | F. blaink | Jimie | 8,125.00 |
| E-0000006 | Keane | Roy | 6,250.00 |
| E-0000008 | Beaties | Jame | 6,250.00 |
| E-0000007 | Woo | Kamol | 4,750.00 |
| E-0000009 | Y. | Chai | 250.00 |
| E-0000002 | Jensen | Claud | 125.00 |

Figure C-6   Employee Commission Rank Report

By Year

# V Screen Co.ltd
## Employee With The Completed work

**13/3/254**

| Employee name | | Project name | Confirmdate |
|---|---|---|---|
| Chai | Y. | Tohome | 5-ม.ค.-2002 |
| Claud | Jensen | Wall | 5-ม.ค.-2002 |
| Divid | Beckham | Wall Secure | 1-พ.ค.-2002 |
| | | Tapping floor | 1-พ.ค.-2002 |
| Jame | Beaties | Hole Full | 1-พ.ค.-2002 |
| | | cfgt | 1-พ.ค.-2002 |
| Jimie | F. blaink | Wall Fix | 1-พ.ค.-2002 |
| | | dun | 1-พ.ค.-2002 |
| | | Vensu | 1-พ.ค.-2002 |

Figure C-7   Employee With The Complete Work Report

96

# V Screen Co.ltd
# Service by each Plant

### 13/3/2546

**Plant :**   **B&N**

**Contact name**   Peter   Cropdarender

12/3 Charoennakorn 109 Klong san Bangkok 10600
02-2426262

| Service ID | Service Name |
|---|---|
| S-0008 | Paint Funiture |
| S-0010 | Cover Roof |
| S-0011 | Cover Stanled Spoon |

**Plant .**   Brew

Figure C-8  Plants With Their Offered Service Report

97

# V Screen Co.ltd
## The Supplier whom we purchase the most in order by month

### 13/3/2546

| Supplier | Item description | Telephone | Total Amount |
|---|---|---|---|
| **For the Month        1/2545** | | | |
| Hi end Power Co,.Ltd | Wall Protection for all purpose | 02-861-1700 | 334,400.00 |
| Digiland (Thailand) Co,.Ltd | Water Protection for all purpose | 02-722-0241-8 | 308,275.00 |
| App Soft Track Co,.Ltd. | Special Silicon for Meterial | 02-642-1101 | 305,663.00 |
| Siralee Co,.Ltd | Floor Protection for all purpose | 02-670-0680 | 282,150.00 |
| ATC (Thailand) Co,.Ltd | Glass Protection for all purpose | 02-259-1192 | 135,850.00 |
| **For the Month        2/2545** | | | |
| Hi end Power Co,.Ltd | Wall Protection for all purpose | 02-861-1700 | 135,850.00 |

Figure C-9  The Supplier Whom We Purchase The Most Report

By Month

# V Screen Co.ltd
## The Supplier whom we purchase the most in order by Year

### 13/3/254C

| Supplier | | Item description | Telephone | Total Amount |
|---|---|---|---|---|
| **For the Year** | **2545** | | | |
| Siralee Co,.Ltd | | Floor Protection for all purpose | 02-670-0680 | 1,456,730.00 |
| Digiland (Thailand) Co,.Ltd | | Water Protection for all purpose | 02-722-0241-8 | 1,014,695.00 |
| App Soft Track Co,.Ltd. | | Special Silicon for Meterial | 02-642-1101 | 981,778.00 |
| Hi end Power Co,.Ltd | | Wall Protection for all purpose | 02-861-1700 | 747,175.00 |
| ATC (Thailand) Co,.Ltd | | Glass Protection for all purpose | 02-259-1192 | 593,560.00 |
| Zebra Computer Co,.Ltd | | RestRoom Protection for all purpose | 02-651-6000 | 73,150.00 |
| **For the Year** | **2546** | | | |
| App Soft Track Co,.Ltd. | | Special Silicon for Meterial | 02-642-1101 | 64,790.00 |
| **For the Year** | **2547** | | | |
| App Soft Track Co,.Ltd. | | Special Silicon for Meterial | 02-642-1101 | 33,962.50 |

Figure C-10 The Supplier Whom We Purchase The Most Report

By Year

99

# V Screen Co.ltd
# Product list by each Supplier

**13/3/2546**

SUP-001      App Soft Track Co,. Ltd.

Thitima         SiriWon

11-15 Fortune tower building 12 Floor

02-642-1101      Koowa77@newmail.net

Special Silicon for Meterial

| Product | Price |
|---|---|
| Seliclone 100 % | 12,000.00 |
| Seliclone 80 % | 5,000.00 |
| Seliclone 60 % | 6,000.00 |
| Seliclon55 % | 6,200.00 |
| Seliclone 50 % | 6,500.00 |
| Glass Protection 65 Percent | 3,000.00 |
| Glass Protection 55 Percent | 3,250.00 |

Figure C-11  Supplier With Their Product Lines Report

100

# The project which plant's quoted

13/3/2546

| ServiceorderID | Project Name | Total cost | From Customer | Quoted Date |
|---|---|---|---|---|
| **For the Month** | **5/2545** | | | |
| SER-0000000022 | b | 66,722 | Deepanum supplier | 1-พ.ค.-2002 |
| | | | | |
| **For the Month** | **3/2546** | | | |
| SER-0000000009 | Super Wall Protect | -68 | Deepanum supplier | 13-มี.ค.-2003 |
| SER-0000000012 | fixed wall | 68 | Deepanum supplier | 13-มี.ค.-2003 |

Figure C-12  The Project With Plant's Quoted Report

101

# The project which plant's not quoted

### 13/3/2546

| Serviceorder ID | Project Name | From Customer | Orderdate |
|---|---|---|---|
| **For the Month** | **3/2545** | | |
| SER-0000000013 | Charlton | Charlton company | 28-มิ.ค.-2002 |
| SER-0000000014 | Dummny poof | Dummy co.ltd | 28-มิ.ค.-2002 |
| **For the Month** | **4/2545** | | |
| SER-0000000016 | cover pan | Inel company | 3-เม.ย.-2002 |
| SER-0000000019 | hole10 | Charlton company | 18-เม.ย.-2002 |
| SER-0000000021 | Dummy5 | Dummy co.ltd | 18-เม.ย.-2002 |
| **For the Month** | **5/2545** | | |
| SER-0000000023 | Max Paln | Inel company | 24-พ.ค.-2002 |
| **For the Month** | **6/2545** | | |
| SER-0000000024 | Jame June | Dummy co.ltd | 22-มิ.ย.-2002 |
| SER-0000000025 | Super Jim | ARC industrial co.ltd | 22-มิ.ย.-2002 |
| SER-0000000026 | Komol | Prime Consultant | 22-มิ.ย.-2002 |

Figure C-13  The Project With Plant's not quoted Report

# V Screen Co.ltd
## The project which Customer's confirmed

**13/3/2546**

| Serviceorder ID | Project name | Total price | Duration | Company Name | Confirmdate |
|---|---|---|---|---|---|
| For the Month | 1/2545 | | | | |
| SER-0000000001 | Tohome | 2,500 | 2 | Ampbor Serveice co.ltd | 05-มกราคม-2002 |
| SER-0000000002 | Wall | 1,250 | 2 | Dummy co.ltd | 05-มกราคม-2002 |
| SER-0000000004 | Water Polution | 1,250 | 3 | RF Supplie co.ltd | 05-มกราคม-2002 |
| For the Month | 5/2545 | | | | |
| SER-0000000010 | Tapping floor | 87,500 | 10 | RF Supplie co.ltd | 01-พฤษภาคม-2002 |
| SER-0000000005 | Pan ReNew | 62,500 | 5 | Deepanum supplier | 01-พฤษภาคม-2002 |
| SER-0000000015 | pan | 49,432 | 9 | Ampbor Serveice co.ltd | 01-พฤษภาคม-2002 |
| SER-0000000008 | Special Deal | 46,250 | 12 | Inel company | 01-พฤษภาคม-2002 |
| SER-0000000017 | cfgt | 43,750 | 5 | Charlton company | 01-พฤษภาคม-2002 |
| SER-0000000007 | Wall Fix | 43,750 | 7 | Deepanum supplier | 01-พฤษภาคม-2002 |

Figure C-14  The Project With Customer's Confirmed Report

# V Screen Co.ltd
## The project which Customer's cancelled
### 13/3/2546

| Service orderID | Project name | Total price | Duration | Company Name | Cancell date |
|---|---|---|---|---|---|
| For the Month | | | | | |

Figure C-15  The Project with Customer's Cancelled Report

# V Screen Co.ltd
# The most profitable project
**13/3/2546**

| Project name | Total price | Profit | Company Name | Confirm date |
|---|---|---|---|---|
| Tapping floor | 87,500 | 8,750.00 | RF Supplie co.ltd | 01-พ.ค.-2002 |
| Pan ReNew | 62,500 | 6,250.00 | Deepanum supplier | 01-พ.ค.-2002 |
| pan | 49,432 | 4,943.00 | Ampbor Serveice co.ltd | 01-พ.ค.-2002 |
| Special Deal | 46,250 | 4,625.00 | Inel company | 01-พ.ค.-2002 |
| Wall Fix | 43,750 | 4,375.00 | Deepanum supplier | 01-พ.ค.-2002 |
| cfgt | 43,750 | 4,375.00 | Charlton company | 01-พ.ค.-2002 |
| Wonderfull project | 33,150 | 3,315.00 | Inel company | 01-พ.ค.-2002 |
| Wall Secure | 25,000 | 2,500.00 | Charlton company | 01-พ.ค.-2002 |
| dun | 25,000 | 2,500.00 | Dummy co.ltd | 01-พ.ค.-2002 |
| Hole Full | 18,750 | 1,875.00 | Dummy co.ltd | 01-พ.ค.-2002 |
| Vensu | 12,500 | 1,250.00 | Venushouse | 01-พ.ค.-2002 |
| Tohome | 2,500 | 250.00 | Ampbor Serveice co.ltd | 05-ม.ค.-2002 |
| Wall | 1,250 | 125.00 | Dummy co.ltd | 05-ม.ค.-2002 |
| Water Polution | 1,250 | 125.00 | RF Supplie co.ltd | 05-ม.ค.-2002 |

Figure C-16  The Most Profitable Project Report

# The most demand sevice in each month

13/3/2546

| Service ID | | Service name | Time | Plant name |
|---|---|---|---|---|
| **Service ID** | | **Service name** | **Time** | **Plant name** |
| For the Month | 1/2545 | | | |
| S-0003 | | Repair wall | 2.00 | Brew |
| S-0001 | | TapLon | 1.00 | Morgan |
| S-0002 | | Cover Pan | 1.00 | Brew |
| S-0005 | | Fix a hole | 1.00 | Morgan |
| S-0010 | | Cover Roof | 1.00 | B&N |
| For the Month | 2/2545 | | | |
| S-0002 | | Cover Pan | 2.00 | Brew |
| S-0001 | | TapLon | 1.00 | Morgan |
| S-0003 | | Repair wall | 1.00 | Brew |
| S-0004 | | Paint wall | 1.00 | Brew |
| S-0007 | | Wax Sofa | 1.00 | Tanasiri Ind. |
| S-0008 | | Paint Funiture | 1.00 | B&N |
| S-0010 | | Cover Roof | 1.00 | B&N |
| S-0011 | | Cover Stanled Spoon | 1.00 | B&N |

Figure C-17  The Most Demand Service in Each Month Report

# V Screen Co.ltd
## The most demand sevice in each Year

13/3/254ɛ

| Service ID | Service name | Time | Plant name |
|---|---|---|---|
| For the Year | 2545 | | |
| S-0002 | Cover Pan | 5.00 | Brew |
| S-0003 | Repair wall | 3.00 | Brew |
| S-0001 | TapLon | 2.00 | Morgan |
| S-0005 | Fix a hole | 2.00 | Morgan |
| S-0008 | Paint Funiture | 2.00 | B&N |
| S-0010 | Cover Roof | 2.00 | B&N |
| S-0011 | Cover Stanled Spoon | 2.00 | B&N |
| S-0004 | Paint wall | 1.00 | Brew |
| S-0006 | Wax Floor | 1.00 | Tanasiri Ind. |
| S-0007 | Wax Sofa | 1.00 | Tanasiri Ind. |

Figure C-18  The Most Demand Service in Each Year Report

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# V Screen Co.ltd
# The Most Profit Product for each
# Product type

### 13/3/2546

| ItemModel | FullName | SellPrice | Cost | Profit | From Supplier |
|---|---|---|---|---|---|
| Product type | FloorProTect | | | | |
| FL4 | Floor Protect Clean 75 Percent | 6,500 | 5,500.00 | 1,000.00 | Digiland (Thailand) Co,.L |
| FL6 | Floor Protect Clean 50 Percent | 6,500 | 5,800.00 | 700.00 | ATC (Thailand) Co,.Ltd |
| FL1 | Floor Protect Clean 55 Percent | 5,500 | 5,000.00 | 500.00 | App Soft Track Co,.Ltd. |
| FL2 | Floor Protect Clean 90 Percent | 6,000 | 5,500.00 | 500.00 | Digiland (Thailand) Co,.L |
| FL3 | Floor Protect Clean 80 Percent | 6,500 | 6,000.00 | 500.00 | App Soft Track Co,.Ltd. |
| FL5 | Floor Protect Clean 80 Percent Special | 6,500 | 6,000.00 | 500.00 | ATC (Thailand) Co,.Ltd |
| Product type | GlassproTect | | | | |
| GL5 | Glass Protection 55 Percent | 4,500 | 3,250.00 | 1,250.00 | App Soft Track Co,.Ltd. |
| GL1 | Glass Protection 95 Percent | 6,000 | 5,000.00 | 1,000.00 | Hi end Power Co,.Ltd |
| GL4 | Glass Protection 65 Percent | 4,000 | 3,000.00 | 1,000.00 | App Soft Track Co,.Ltd. |
| GL6 | Glass Protection 45 Percent | 5,000 | 4,500.00 | 500.00 | App Soft Track Co,.Ltd. |
| GL2 | Glass Protection 85 Percent | 6,300 | 6,000.00 | 300.00 | Siralee Co,.Ltd |

Figure C-19  Profit For Each Product By Product Type Report

108

# V Screen Co.ltd
# Product sale by each month
### 13/3/2546

| ItemModel | FullName | ItemQuant | UnitPrice | Net |
|-----------|----------|-----------|-----------|-----|
| | 1/2545 | | | |
| GL4 | Glass Protection 65 Percent | 20 | 4,000.00 | 80,000.00 |
| GL4 | Glass Protection 65 Percent | 15 | 4,000.00 | 60,000.00 |
| FL4 | Floor Protect Clean 75 Percent | 10 | 6,500.00 | 65,000.00 |
| GL2 | Glass Protection 85 Percent | 10 | 6,300.00 | 63,000.00 |
| REST4 | Liquid For Restroom Protect 60 Percent | 10 | 7,200.00 | 72,000.00 |
| GL5 | Glass Protection 55 Percent | 10 | 4,500.00 | 45,000.00 |
| REST3 | Liquid For Restroom Protect55 Percent | 10 | 7,300.00 | 73,000.00 |
| FL5 | Floor Protect Clean 80 Percent Special | 10 | 6,500.00 | 65,000.00 |
| GL2 | Glass Protection 85 Percent | 10 | 6,300.00 | 63,000.00 |
| GL5 | Glass Protection 55 Percent | 10 | 4,500.00 | 45,000.00 |
| GL2 | Glass Protection 85 Percent | 10 | 6,300.00 | 63,000.00 |
| REST4 | Liquid For Restroom Protect 60 Percent | 10 | 7,200.00 | 72,000.00 |
| REST5 | Liquid For Restroom Protect 65 Percent | 7 | 7,300.00 | 51,100.00 |
| GL2 | Glass Protection 85 Percent | 7 | 6,300.00 | 44,100.00 |

Figure C-20  Profit Sale By Each Month Report

109

# V Screen Co.ltd
## Product sale by each Year

13/3/2546

| ItemModel | FullName | ItemQuant | UnitPrice | Net |
|-----------|----------|-----------|-----------|-----|
| 2545 | | | | |
| GL4 | Glass Protection 65 Percent | 20 | 4,000.00 | 80,000.0 |
| REST4 | Liquid For Restroom Protect 60 | 20 | 7,200.00 | 144,000.0 |
| Se6 | Seliclone 50 % | 20 | 8,500.00 | 170,000.0 |
| Wa6 | Protect Water 50 % | 15 | 6,200.00 | 93,000.0 |
| GL4 | Glass Protection 65 Percent | 15 | 4,000.00 | 60,000.0 |
| FL5 | Floor Protect Clean 80 Percent 5 | 10 | 6,500.00 | 65,000.0 |
| FL4 | Floor Protect Clean 75 Percent | 10 | 6,500.00 | 65,000.0 |
| GL2 | Glass Protection 85 Percent | 10 | 6,300.00 | 63,000.0 |
| Se3 | Seliclone 80 % | 10 | 6,000.00 | 60,000.0 |
| GL4 | Glass Protection 65 Percent | 10 | 4,000.00 | 40,000.0 |
| REST2 | Liquid For Restroom Protect 95 | 10 | 6,900.00 | 69,000.0 |

Figure C-21 Product Sale By Each Year

110

## Sale of each Product type by Month

**13/3/2546**

| | | |
|---|---|---|
| **For the month** | 1/2545 | |
| **Product type** | FloorProTect | |
| | FL4 | |
| | Floor75 | |
| | Price | 6,500 |
| | Quantity Sold | 5 |
| | Net Total | 32,500.00 |
| | | |
| | FL5 | |
| | Floor80se | |
| | Price | 6,500 |
| | Quantity Sold | 5 |
| | Net Total | 32,500.00 |
| | | |
| | FL5 | |
| | Floor80se | |
| | Price | 6,500 |
| | Quantity Sold | 10 |
| | Net Total | 65,000.00 |

Figure C-22  Sale Of Each Product Type Report

By Month

111

# V Screen Co.ltd
## Best selling  Product in order by Month

### 13/3/2546

| Model | Name | Qty Sold | Price | Net Total |
|-------|------|----------|-------|-----------|
| **For the Month** 1/2545 | | | | |
| GL2 | Glass85 | 42.00 | 6,300.00 | 264,600.00 |
| GL4 | Glass65 | 40.00 | 4,000.00 | 160,000.00 |
| REST4 | Rest60 | 25.00 | 7,200.00 | 180,000.00 |
| FL4 | Floor75 | 20.00 | 6,500.00 | 130,000.00 |
| GL5 | Glass55 | 20.00 | 4,500.00 | 90,000.00 |
| FL5 | Floor80se | 15.00 | 6,500.00 | 97,500.00 |
| REST3 | Rest55 | 15.00 | 7,300.00 | 109,500.00 |
| FL3 | Floor80 | 13.00 | 6,500.00 | 84,500.00 |
| REST5 | Rest65 | 7.00 | 7,300.00 | 51,100.00 |
| GL3 | Glass75 | 5.00 | 7,300.00 | 36,500.00 |
| GL6 | Glass45 | 5.00 | 5,000.00 | 25,000.00 |
| Se1 | Selicon100 | 5.00 | 15,000.00 | 75,000.00 |
| Se2 | Selicon95 | 5.00 | 6,000.00 | 30,000.00 |
| FL2 | Floor90 | 3.00 | 6,000.00 | 18,000.00 |
| **For the Month** 2/2545 | | | | |
| Se2 | Selicon95 | 40.00 | 6,000.00 | 240,000.00 |
| Se6 | selicon50 | 25.00 | 8,500.00 | 212,500.00 |

Figure C-23  Best Selling Product In Order Report

By Month

112

# V Screen Co.ltd
## Best selling  Product in order by Year

13/3/2546

| Model | | Name | Qty Sold | Price | Net Total |
|---|---|---|---|---|---|
| For the year | 2545 | | | | |
| GL2 | | Glass85 | 98.00 | 6,300.00 | 617,400.00 |
| REST4 | | Rest60 | 86.00 | 7,200.00 | 619,200.00 |
| FL4 | | Floor75 | 66.00 | 6,500.00 | 429,000.00 |
| GL4 | | Glass65 | 66.00 | 4,000.00 | 264,000.00 |
| GL5 | | Glass55 | 63.00 | 4,500.00 | 283,500.00 |
| Se2 | | Selicon95 | 61.00 | 6,000.00 | 366,000.00 |
| Se6 | | selicon50 | 49.00 | 8,500.00 | 416,500.00 |
| FL3 | | Floor80 | 44.00 | 6,500.00 | 286,000.00 |
| FL5 | | Floor80se | 43.00 | 6,500.00 | 279,500.00 |
| GL1 | | Glass95 | 43.00 | 6,000.00 | 258,000.00 |
| FL1 | | Floor55 | 35.00 | 5,500.00 | 192,500.00 |
| REST3 | | Rest55 | 29.00 | 7,300.00 | 211,700.00 |
| FL6 | | Floor50 | 27.00 | 6,500.00 | 175,500.00 |

Figure C-24  Best Selling Product In Order Report

By Year

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