



ASSUMPTION UNIVERSITY

SEWING SUPPLIES INVENTORY SYSTEM

By

Mr. Thitiswasdi Nakswasdi

**Final Report of the Three - Credit Course
CS 6998 System Development Project**

**Submitted In Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer Information Systems
Assumption University**

November 1994

MS (CIS)

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Project Title : Sewing Supplies Inventory System
Name : Mr.Thitiswasdi Nakwsedi
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Academic year : 1994

The Graduate School of Assumption University had approved this final report of the three-credit course, CS 6998 System Development Project, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer Information Systems.

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November, 1994

ABSTRACT

The firm performs business as a wholesaler and distributor of sewing products. The original motivation of this inventory system was to develop a more cost effective and reliable method to progress orders for the Jiraporn's thousands of products sold to its customers. The work functions of the overall system can be divided into three systems which are: order processing system, purchasing system, and inventory system. There are thirteen main products line. These products are different in its brand name, color, type, and size of products. The prices are different due to the nature of product and the unit of measurement of product sold. There are alot of transactions everyday, therefore it is essential to develop a computerized system. Because the transactions of the business involves mostly with the procurement and supplying products, so the inventory system is very important, therefore the new system design is recommended. There are the development of flows of data, documents and reports.

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This project has been finished by kindly coordinate of Surin Kawseewongworanun who gives all information and details of company's work functions.

Thanks Suresak Yuttitumnon for his advice of programs coding for this project.

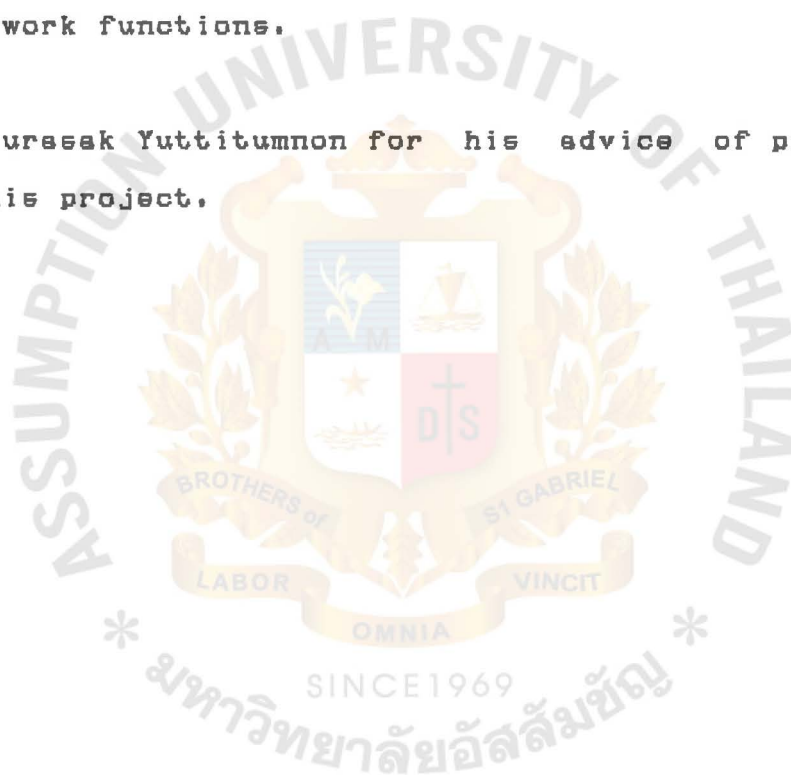


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1. INTRODUCTION

1.1 BACKGROUND OF THE PROJECT

The firm performs business as a sewing supplies wholesaler and retailer. There are many product types such as cloths, buttons, thread, zip etc. Each line of product is totally different in term of physical characteristics that effect the management of inventory system. The key business functions are procurement of products and supplying products.

The original motivation of the sewing supplies inventory system was to develop a more cost effective and more reliable method to process orders for thousands of sewing products sold to its customers. Sewing products can be differentiated by type, color, brandname and size. Owing to the unit of measurement and brandname of products, the prices are different. The large number of trading transactions occurred each day is another reason of using computerized system to help in processing the transactions and in managing the inventory system. This new system will prevent the inventory from shortage or over stock in some products and also will offer advantage in sales analysis.

1.2 OBJECTIVE OF THE PROJECT

The objectives of the project on the sewing supplies inventory system are as follows :

- (1) To study the manual sewing supplies inventory system.
- (2) To design a computerized inventory system for the sewing supplies wholesaler.
- (3) To develop and test the software package for the sewing supplies wholesaler inventory system (which is to be written in Clipper.)

1.3 SCOPE OF THE PROJECT

This project is initiated to study the functions of a sewing supply firm composed of sales, finance and accounting, inventory then focus on the area of the inventory control system which includes :

- (1) Physical stock handling
 - Inventory order
 - Inventory received
 - Inventory sold
 - Adjustment of inventory
- (2) Inventory management report

2.EXISTING SYSTEM

2.1 BACKGROUND OF THE ORGANIZATION

The firm perform business as a wholesaler and retailer of sewing products for many years. There are many product lines such as cloths, buttons, thread, zip, sewing machine's spareparts. Each line of products is totally different in terms of physical characteristics that effect the management of inventory system. The firm has more than one hundred of customers coming to buy four items of products in average everyday. That means there more than 400 transactions of products need to be updated excluding the products purchased from twenty suppliers every week.

2.2 EXIXTING BUSINESS FUNCTIONS

The work functions of the overall system of the firm can be divided into three sections :

- (1) Sale and purchasing section
- (2) Inventory section
- (3) Financial section

All those systems are shown in context diagrams. in Figure 1.1 to 1.8

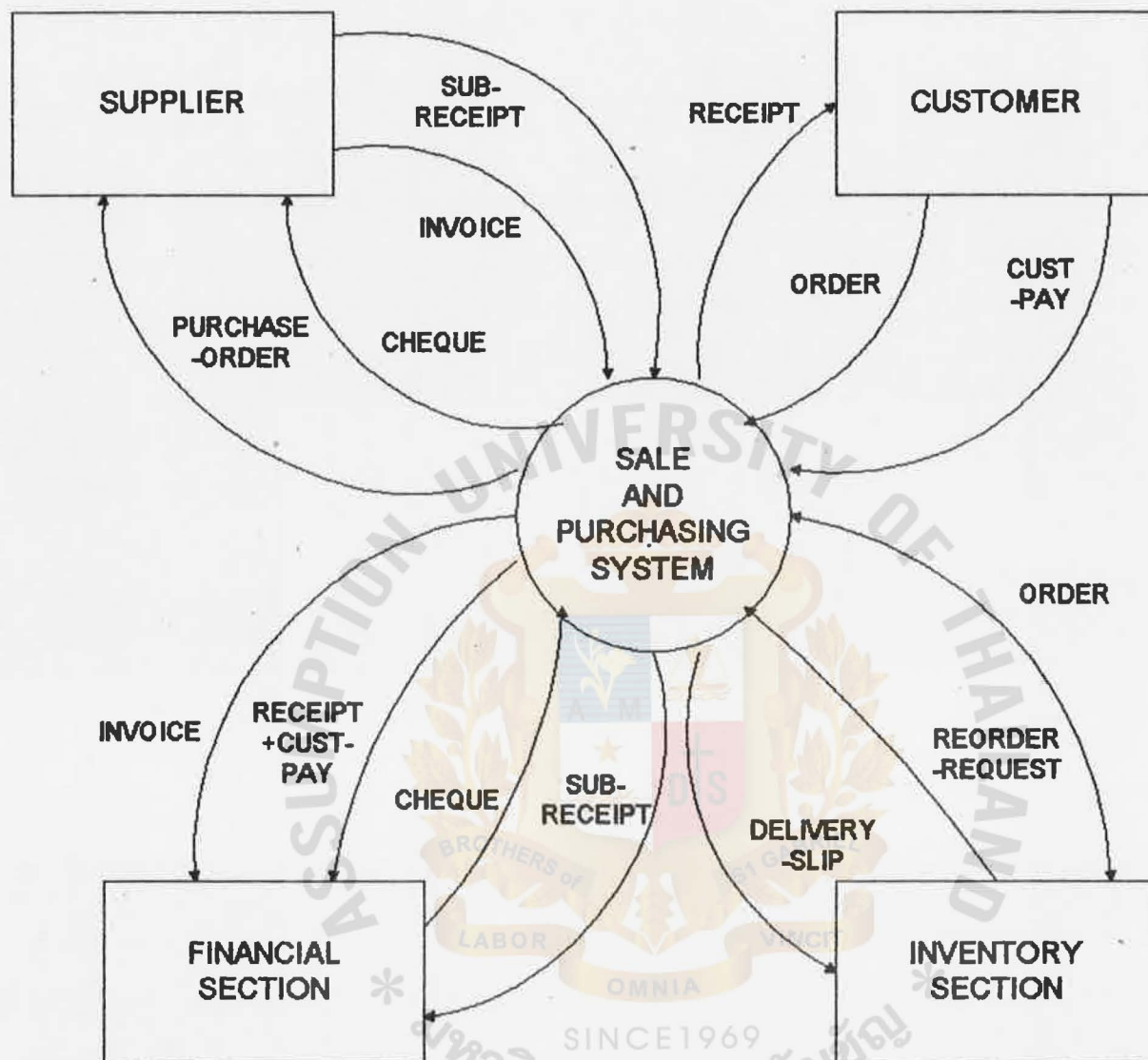


Figure 1.1 CONTEXT DIAGRAM OF EXISTING SALE AND PURCHASING SYSTEM

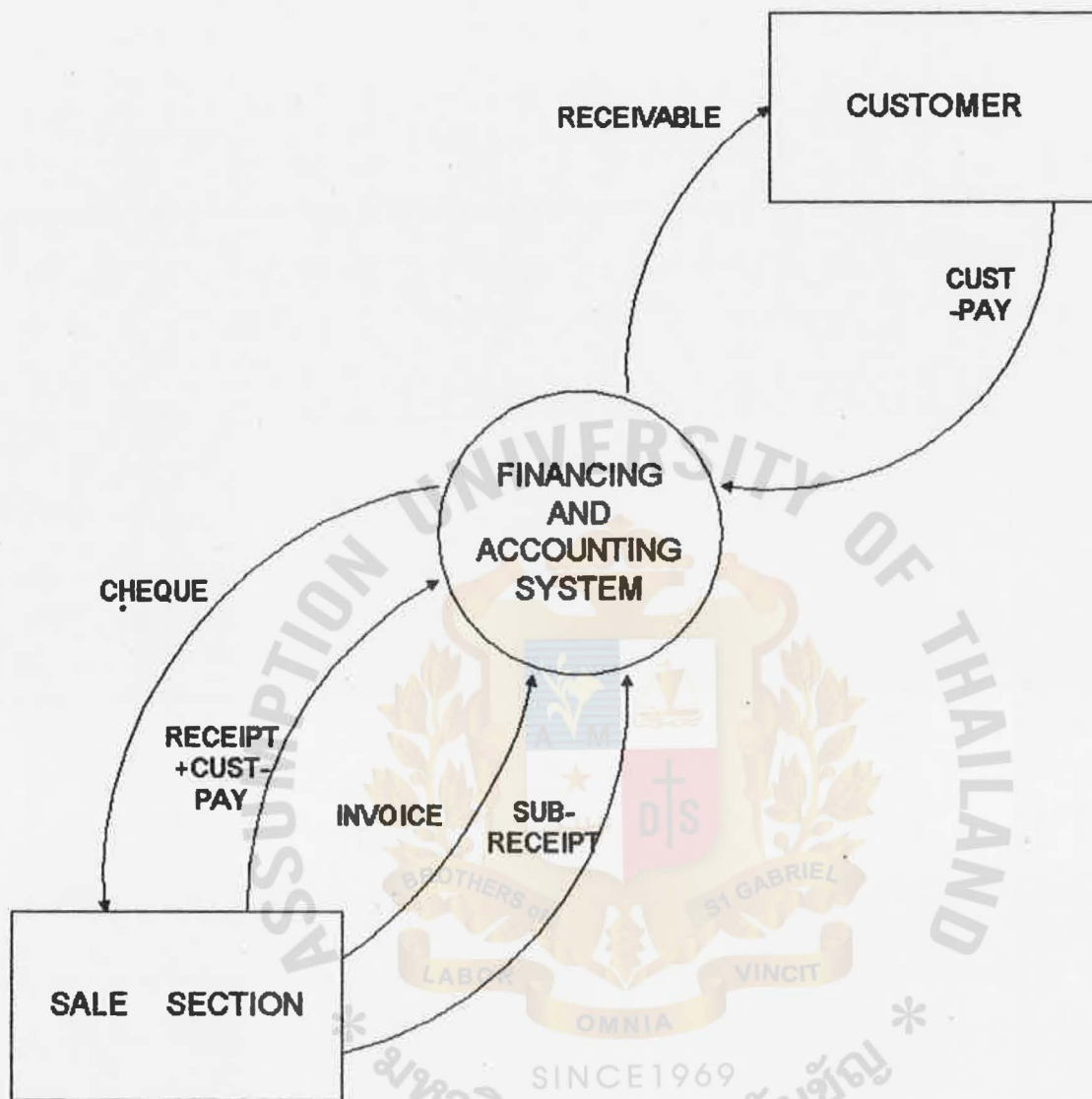


Figure1.2 CONTEXT DIAGRAM OF EXISTING FINANCING AND ACCOUNTING SYSTEM

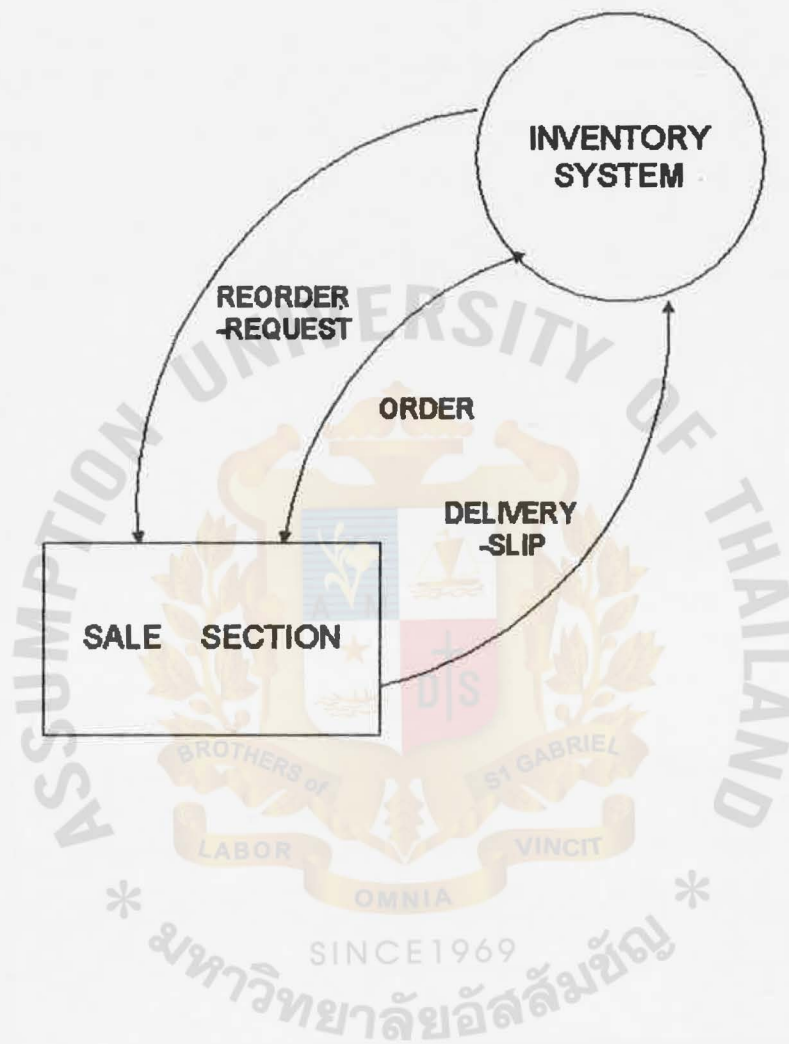


Figure1.3 CONTEXT DIAGRAM OF EXISTING INVENTORY SYSTEM

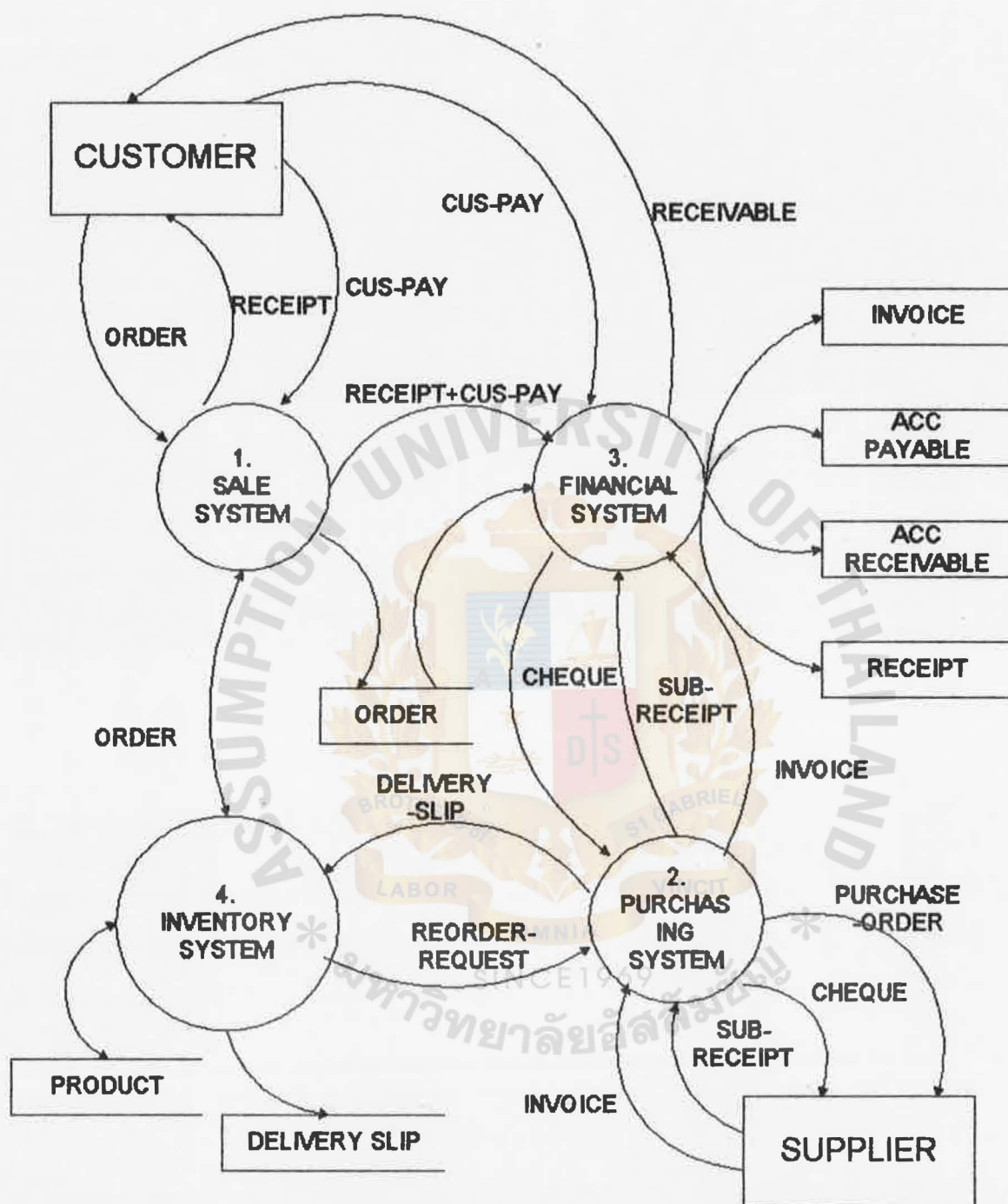
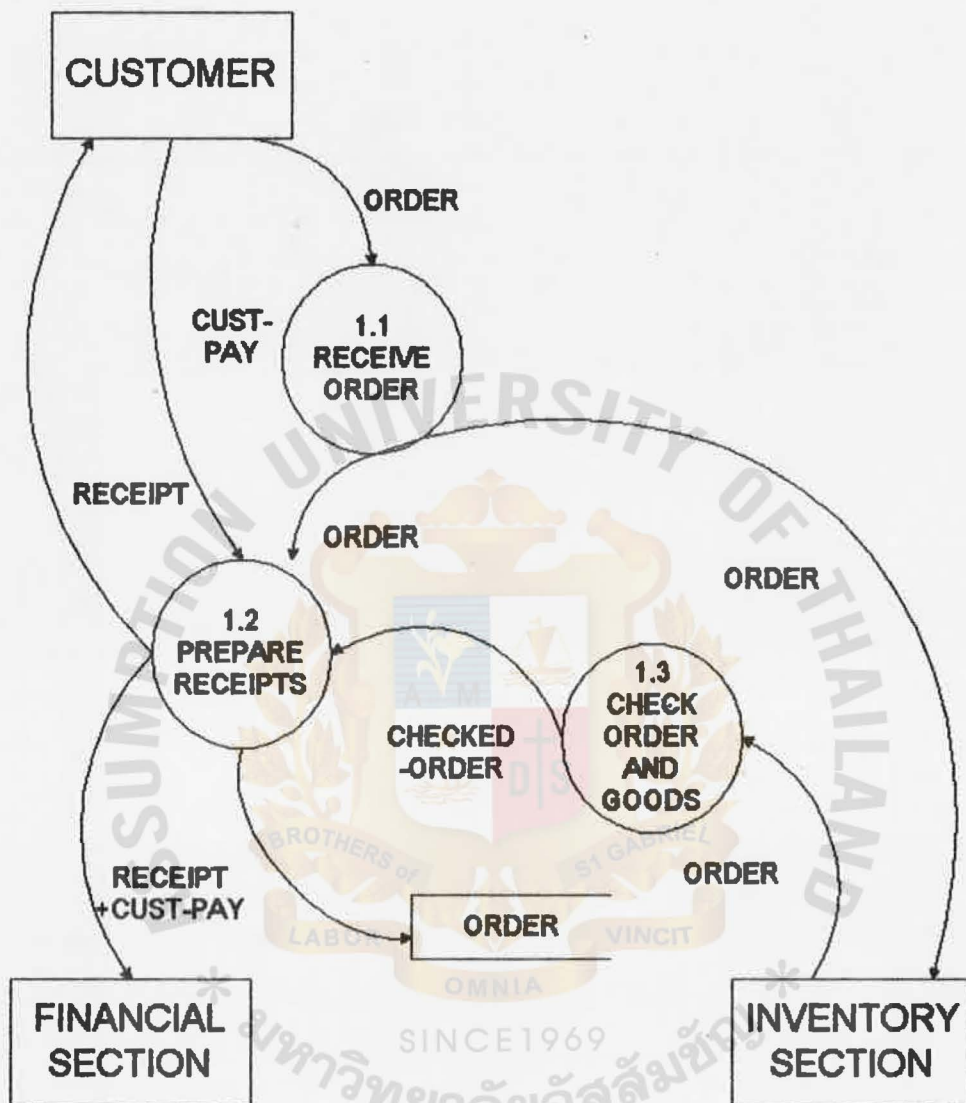
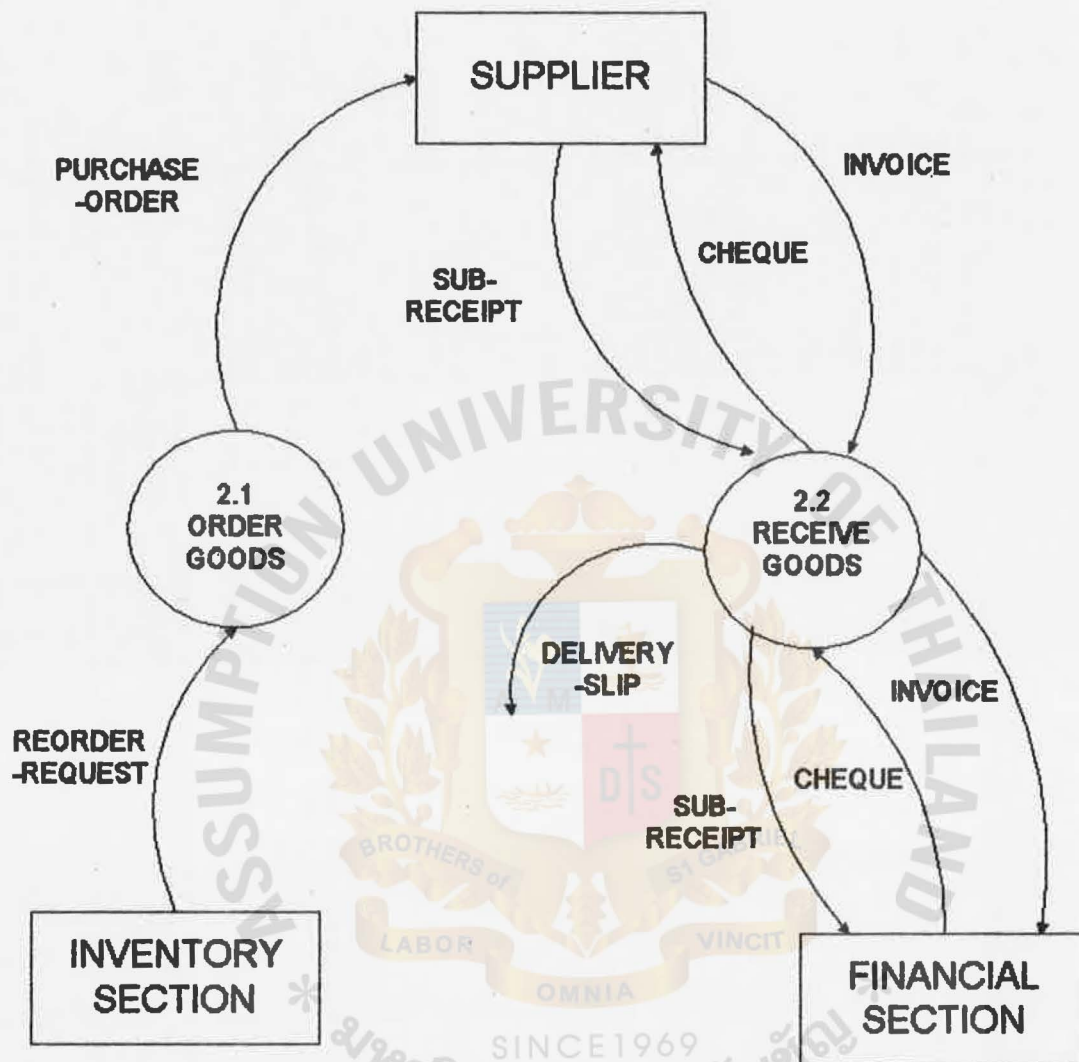


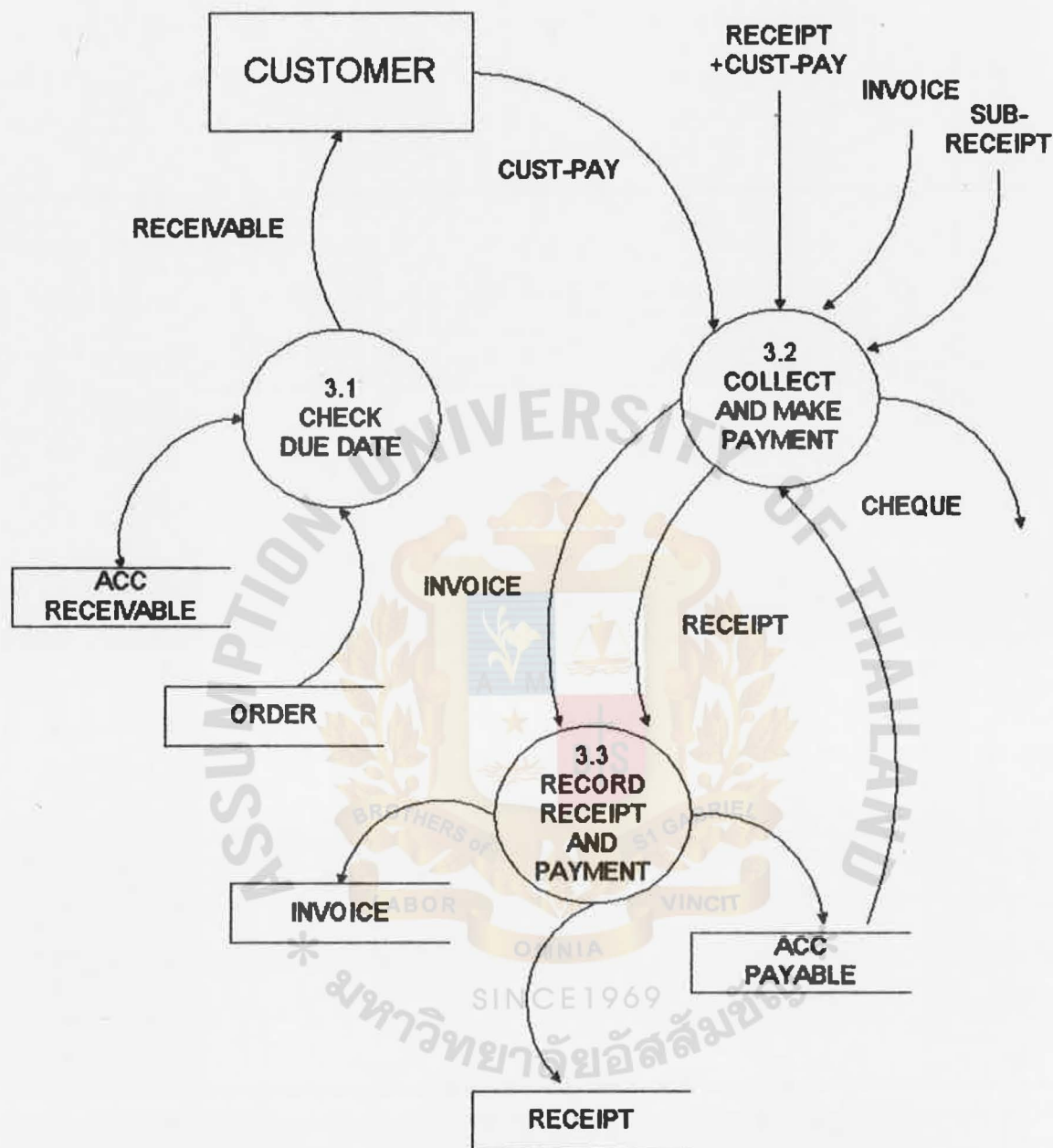
Figure1.4 LEVEL 0 DATA FLOW DIAGRAM OF OVERALL EXISTING SYSTEM



**Figure1.5 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 1.0 SALE SYSTEM
(EXISTING SYSTEM)**

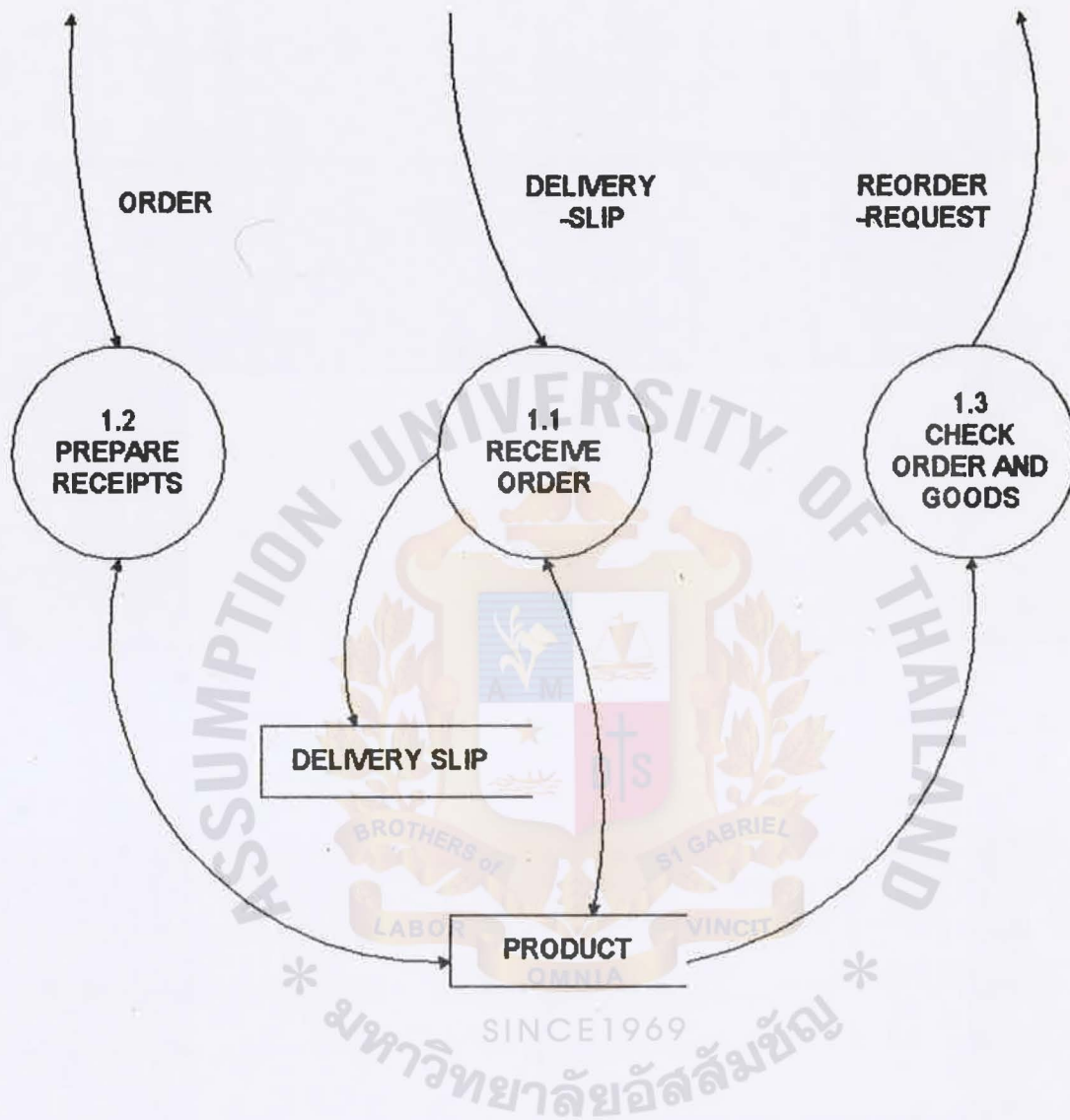


**Figure1.6 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 2.0 PURCHASING SYSTEM
(EXISTING SYSTEM)**



**Figure1.7 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 3.0 FINANCIAL SYSTEM
(EXISTING SYSTEM)**

1313 ๑.3



**Figure1.8 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 4.0 INVENTORY SYSTEM
(EXISTING SYSTEM)**

From the diagrams, the customers make orders to the firm then the firm prepare products according to these orders and prepare two copies of receipts in the case of cash payment. The receipt will be sent to the customers along with the products. The receipt copy will be kept by the financial and accounting section. In the purchasing system, after checking stock of products in the stores, the workers list out the items that have small amount left. This list of products will be sent to the manager. The manager will order these items from the suppliers. This list will be kept in the temporary file so that it can be checked whether the products have been ordered and received. After sending purchased orders to the suppliers, the suppliers dispatch their goods to the firm with invoices. The inspector checks these products with the invoices for products' types, brands, sizes, color, quantities and prices. If all details are correct, the inspectors who receives products will sign receiver's name on the invoice and return it to the supplier, the other copy of the invoice will be sent to the accounting section for later payment. Then the products will be placed in the stores.

The key business function of the firm concern mostly with the procurement of products and supplying products. So inventory system is considered to be the most important system. The daily business transactions involve directly the receiving and delivery of products. From the study, the firm has the large amount of products which leads to some problems in the inventory control system of the firm. The stock of products require a lot of space to store because there are a large amount of product types and quantities and also a large numbers of trading transactions. Everyday the users

of the system rarely involve in the work of transactions records. In this case computer is considered to be the solution to apply in this area.

2.3 CURRENT PROBLEMS AND AREAS FOR IMPROVEMENTS

From the study, the problems are found and stated as follows

- (1) There is no record of suppliers' list only the manager knows where to order some products from, therefore it is difficult to make purchasing order when he was absent or busy.
- (2) In the order processing system, the problem can be occurred if the order got lost along the processes.
- (3) It is time consuming to update information so the data is rarely updated. The firm can not know the exact quantities of products left in the store. Some products may be over stock or under stock and also impossible to do purchase planning.
- (4) It is slow to search for some items needed to serve customers' order.
- (5) It is difficult and unreliable to analysis the financial status because the data are not recorded in the proper manner.
- (6) Misplacement of items.
- (7) Too much investment in stock and items obsolescence.

3. DESIGN OF THE PROPOSED SYSTEM

3.1 USER REQUIREMENT

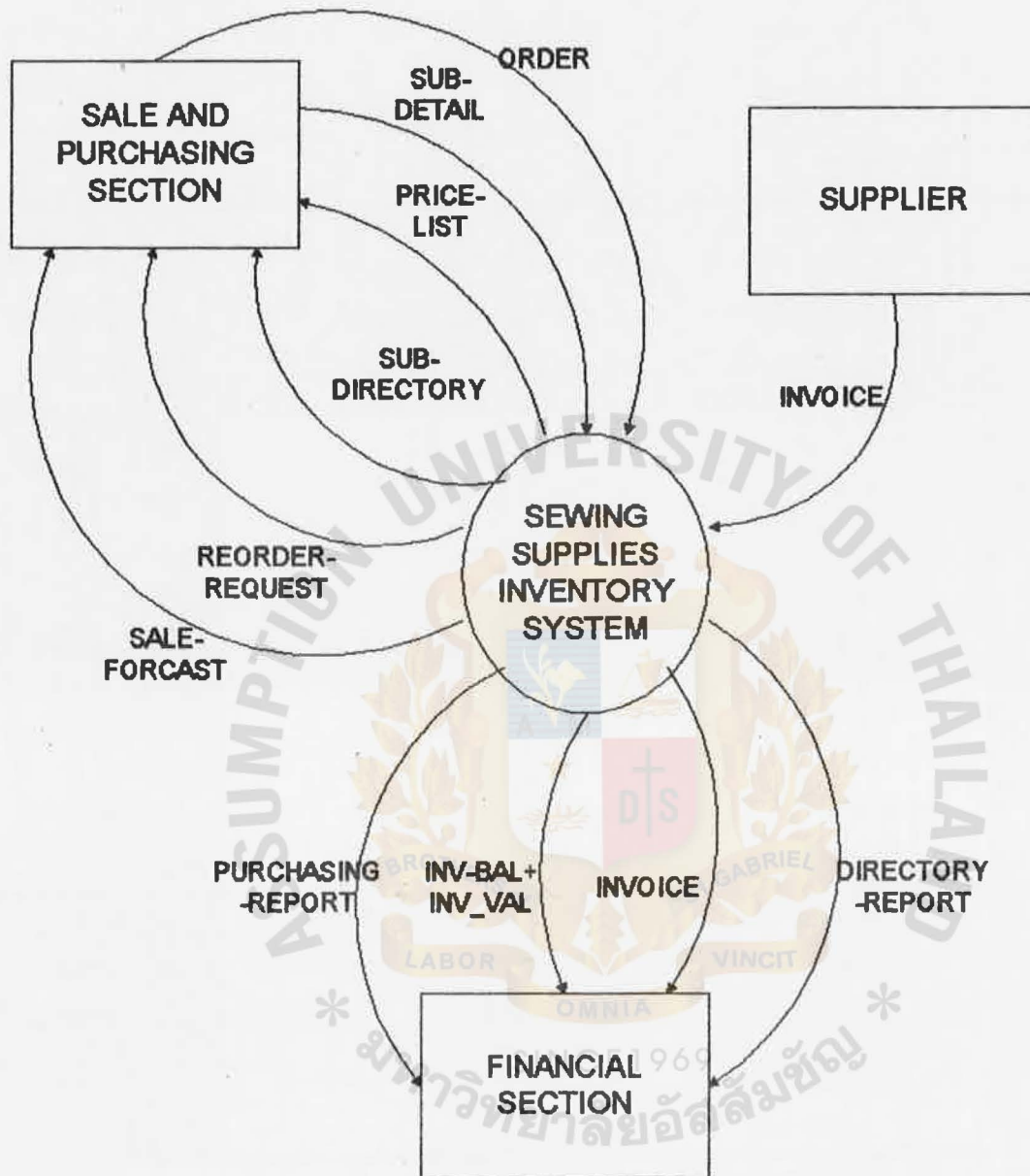
User requirement for the project are stated as follows

3.1.1 The information system must provide the information for the managerial level to help them in decision making. Such as :

- Inventory balance report
- Purchasing report
- Inactive items report
- Inventory value report
- Sales forecasting

3.1.2 The users also need the system that help in improving the regular work performance in inventory section, sales and purchasing section and some parts of accounting section. This must provides :

- Reorder request
- Product price list
- Inventory adjustment report
- Customer directory
- Supplier directory



**Figure2.1 CONTEXT DIAGRAM
SEWING SUPPLIES INVENTORY SYSTEM**

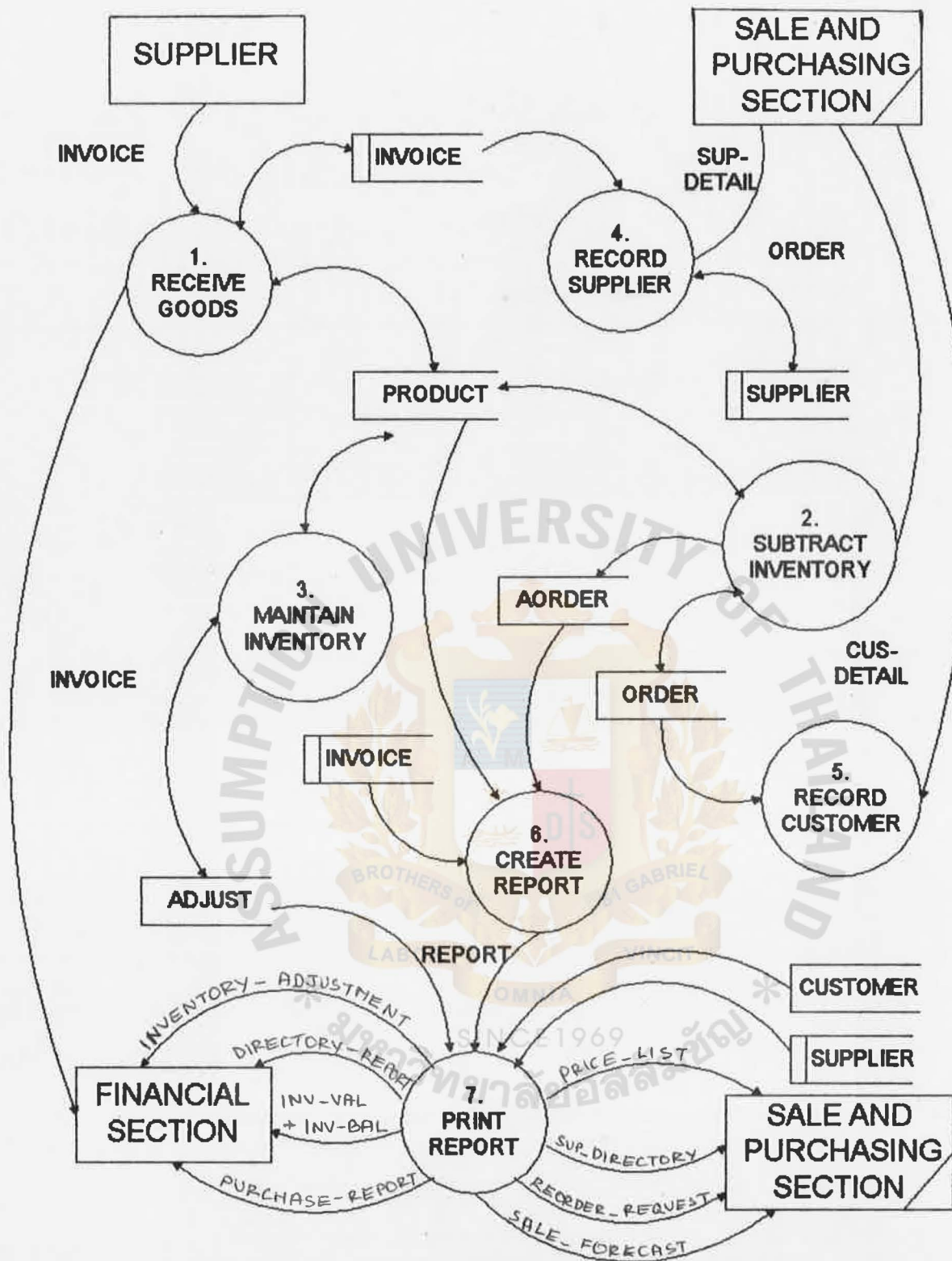
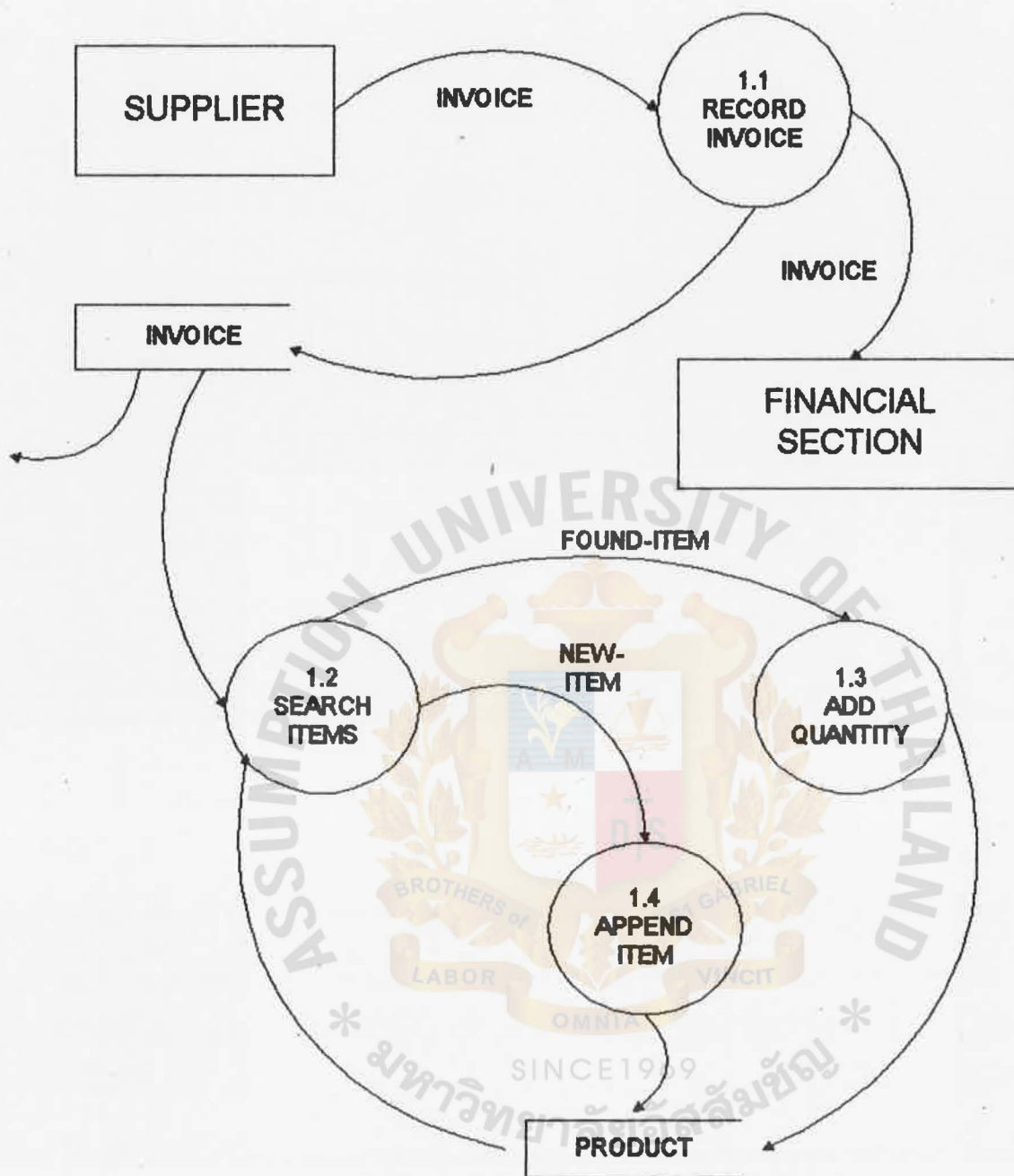
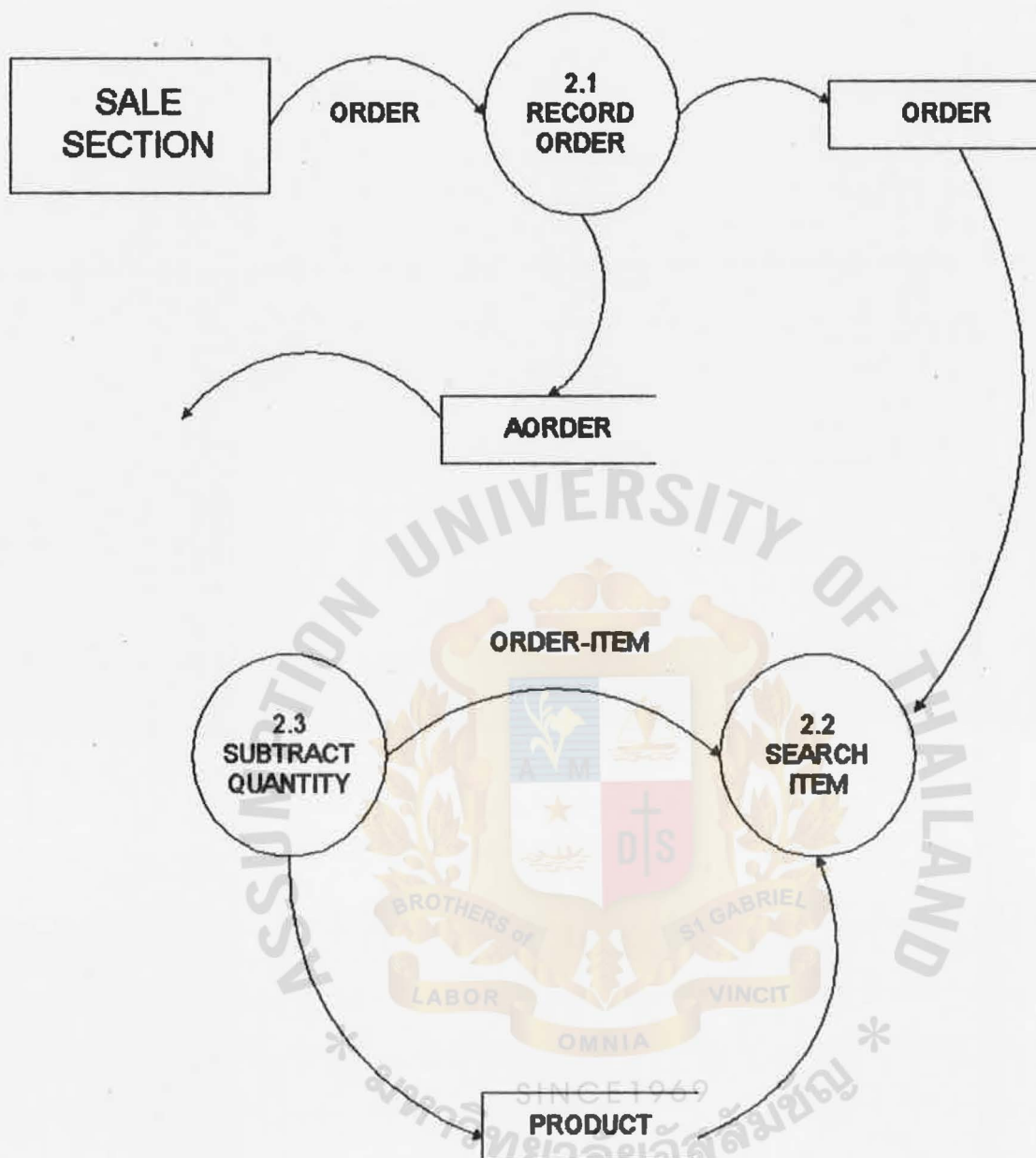


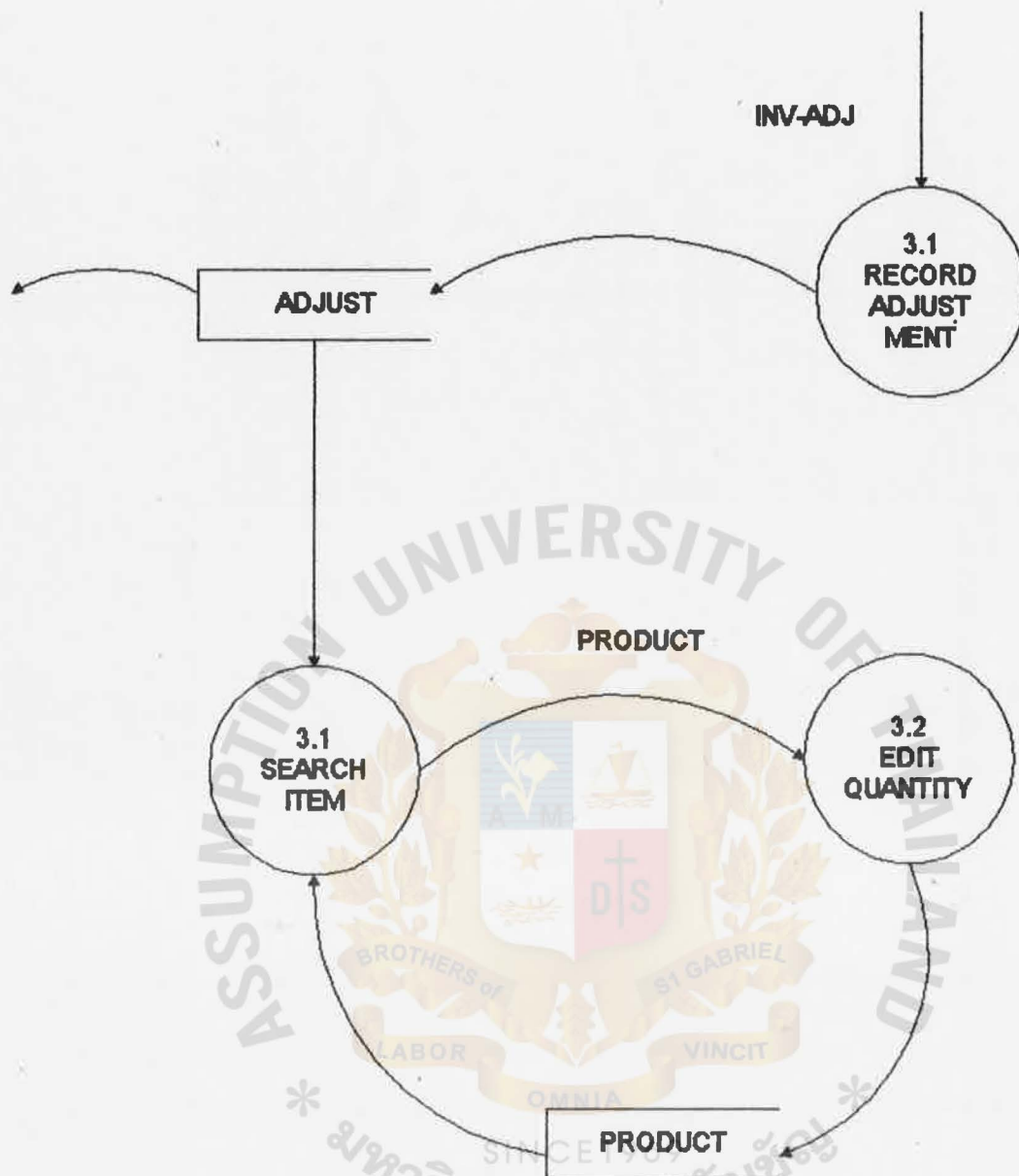
Figure2.2 LEVEL 0 DATA FLOW DIAGRAM
INVENTORY SYSTEM



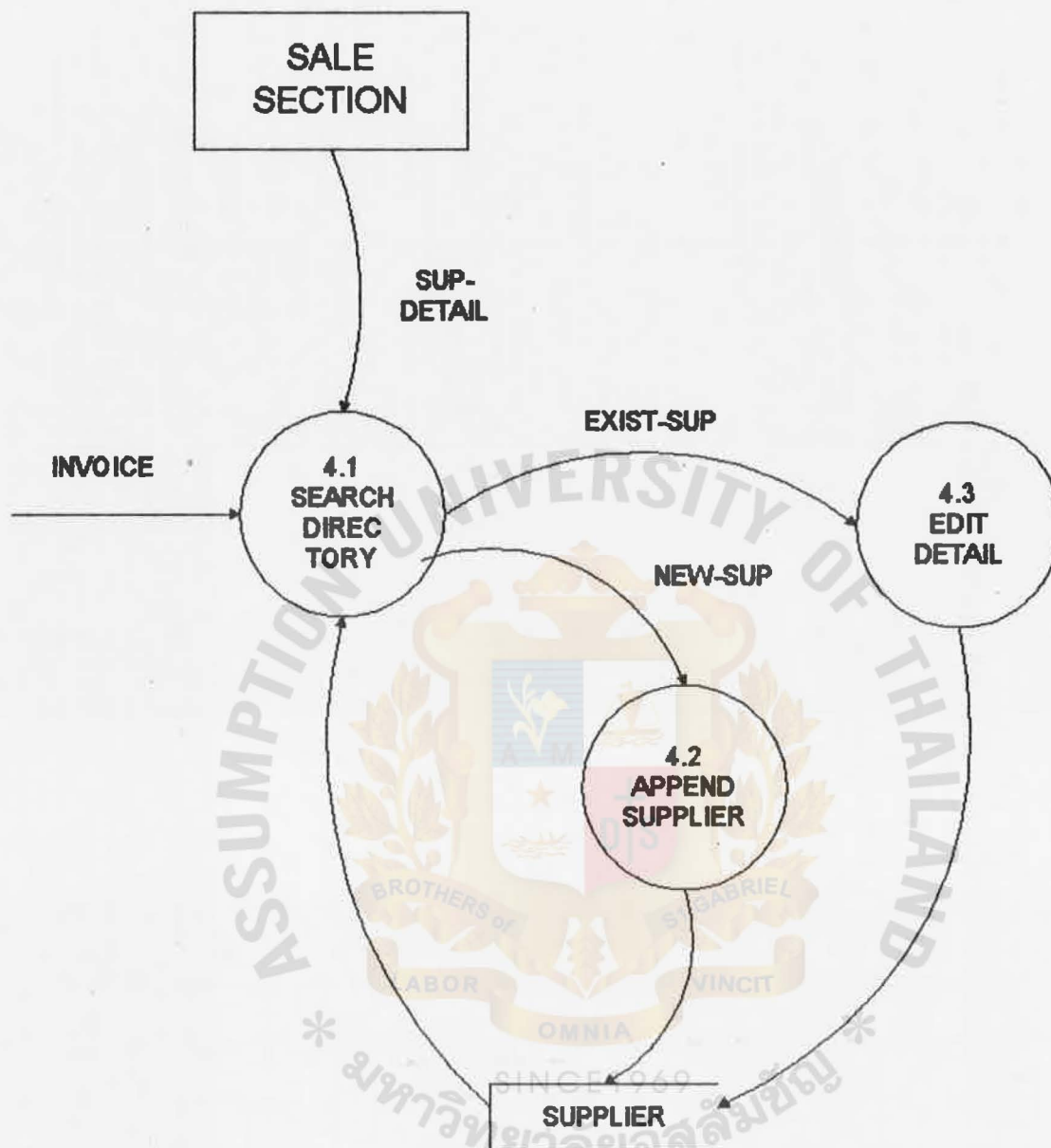
**Figure2.3 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 1.0 RECEIVE GOODS**



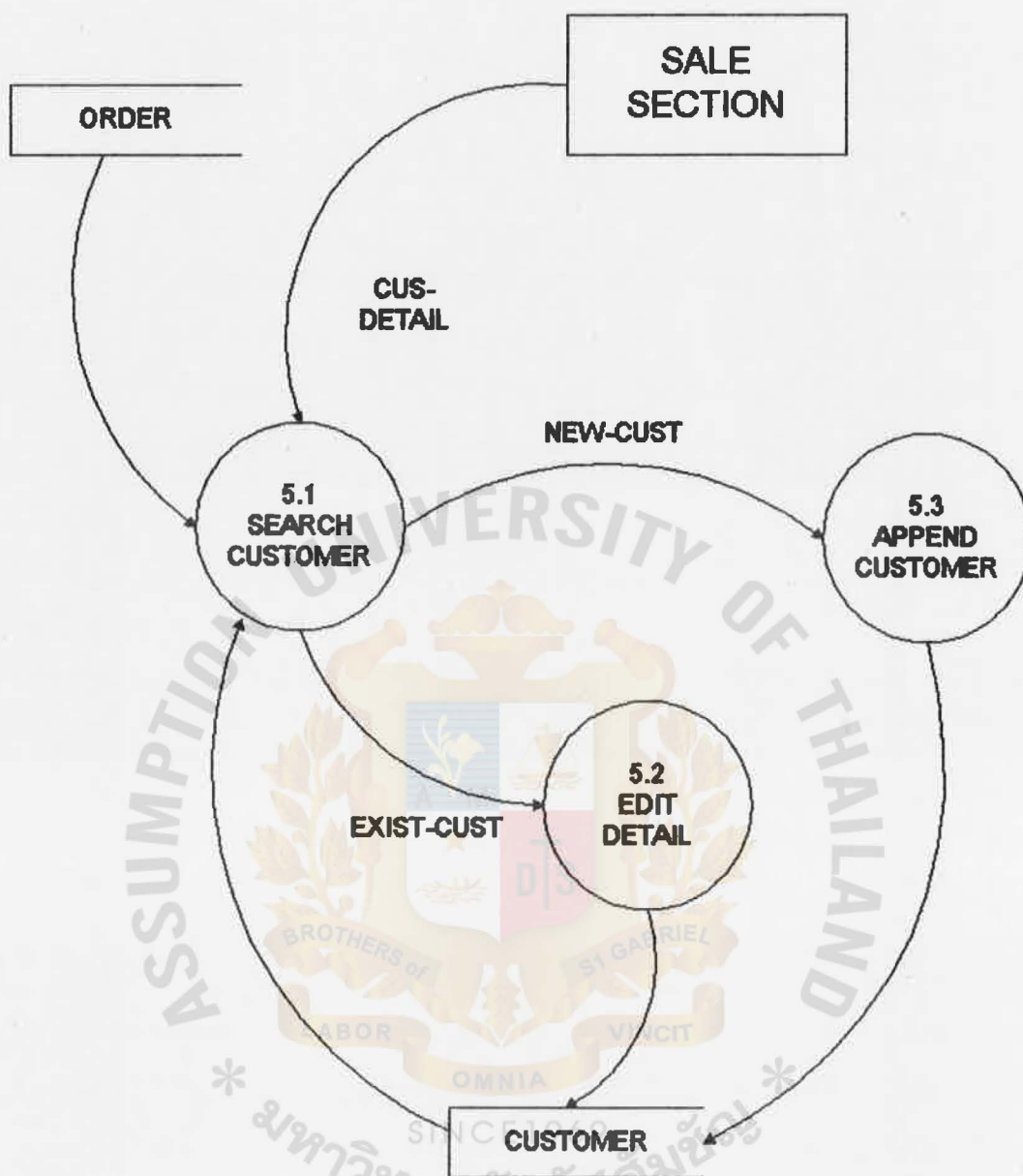
**Figure 2.4 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 2.0 SUBTRACT INVENTORY**



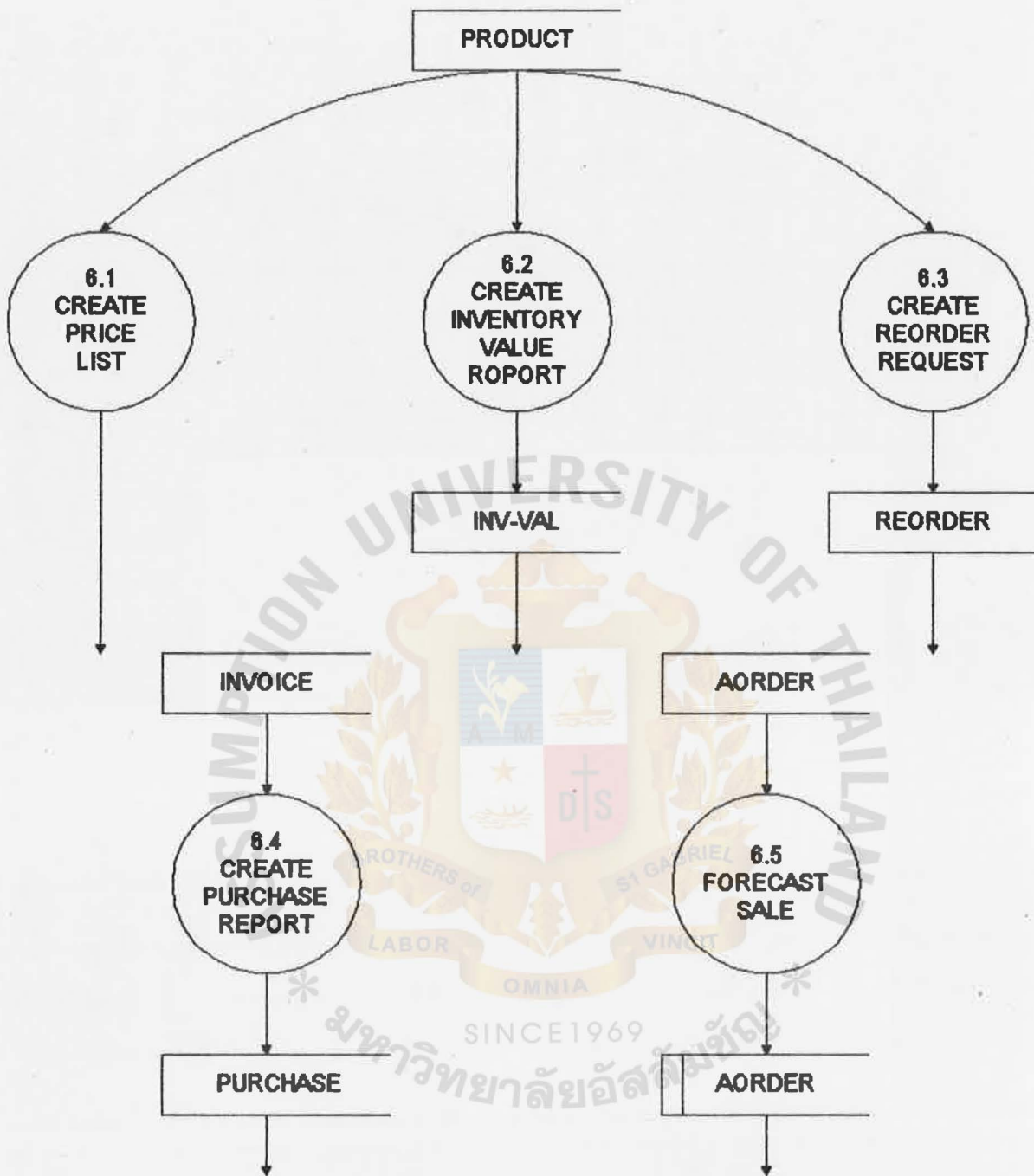
**Figure2.5 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 3.0 MAINTAIN INVENTORY**



**Figure 2.6 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 4.0 RECORD SUPPLIER**



**Figure2.7 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 5.0 RECORD CUSTOMER**



**Figure2.8 LEVEL 1 DATA FLOW DIAGRAM
PROCESS 6.0 CREATE REPORT**

3.3 HARDWARE AND SOFTWARE SPECIFICATION

The proposed system provides the hardware and software specification as the followings :

Hardware

- Microcomputer 1 Unit
 - RAM 4 MB
 - CPU 80486 DX-33 with Math-coprocessor
 - V1-Bus IDE & Multi I/O card
 - 1.2 MB and 1.44 MB Floppy disk drive
 - 245 MB Hard disk drive
 - Power supply 200 Watts
 - Monitor 14" SVGA color
- Dot matrix printer 24 pins NEC P1200 1 Unit
 - Paper for printing
- Power supply 1 Unit
- Floppy diskettes 1.44 MB HD 2 Boxes

SOFTWARE

- MS DOS Version 6.0
- Clipper compiler
- Program for sewing supplies inventory system

3.4 SECURITY AND CONTROL

The following security and controls should be concerned for the computer based inventory system :

3.4.1 Data accuracy

- All the data entry and modification must be double checked either from the screen display or from printout that generated after processes.
- Every parcels of the products must have at least product code and location code written to ensure the stock keeping and retrieving.
- All the source documents must be checked by the authorized officer when they passed from one process to another.

3.4.2 System security

- The authorized computer operator must keep the password entry to the system in secret. Only authorized operator can access to the system.
- All the data files and system programs must be stored on secondary storage medium such as floppy diskettes to ensure the correctness of data and operations.
- Back up all the files everytimes the database are updated or modified. And it recommended that the backup should be done within that day and separately keep all the files at safe place.
- All the source documents must be stored at a safe place.

- The computer hardware room must be securely locked after office hours.
- Only the authorized personnel should sign in the source documents as request and the copy of those documents should be sent to other related sections for reference.
- Produce only the required output reports.



3.5 COST/BENEFIT ANALYSIS

COST ANALYSIS

The major cost for the proposed system are investment cost and operating cost as follows :

<u>Investment cost</u>	(BAHT)
- Microcomputer 80486 DX2-66	54,000
- Printer NEC P1200	7,500
- Power supply	15,000
- Computer table	5,000
- Development cost	<u>50,000</u>
Total hardware cost	<u>131,500</u>
<u>Operating cost per year</u>	
- Floppy diskettes 3.5" HD 5 boxes	2,100
- Continuous paper for printing 5 boxes	2,500
- One operator's salary 9,000/month	<u>108,000</u>
Total cost per year	<u>112,600</u>

BENEFIT ANALYSIS

The proposed system provide tangible and intangible benefits as follows :

TANGIBLE BENEFITS

- Cost reduction due to the elimination of manual operations and time.
- Increase chances to sale 200 more orders per year which increase income about 40,000 Baht/year.
- Cost reduction due to the improvement of the inventory system efficiency such as the decrease in stock value about 200,000 Baht/year.

$$\begin{aligned}
 \text{Net Total Annual Saving} &= \text{Total saving to Implement} \\
 &\quad - \text{Annual Operating Cost} \\
 &= (40,000 + 200,000) - 112,600 \\
 &= 127,400 \text{ Baht/year}
 \end{aligned}$$

The Payback Period Formula

$$P = \frac{I}{(1-T)R}$$

P = Payback Period (year)

I = Investment Cost

T = Tax Rate

R = Annual Saving realized by investment

$$P = \frac{131,500}{127,400}$$

$$= 1.03 \text{ year}$$

INTANGIBLE BENEFITS

- Provide better information system for managerial level helping in decision making and inventory control.
- Improve the quality and speed of service and operation.
- Provide less paper work.

4. PROJECT IMPLEMENTATION

4.1 PROJECT IMPLEMENTATION SCHEDULE

The project plan is represented in Gantt Chart as shown in
Table 1.0 Project Implementation Schedule

ACTIVITIES	APR	MAY	JUN	JUL	AUG	SEP
	1234	1234	1234	1234	1234	1234
<u>System analysis</u> :						
-Context diagram of the existing system	xx					
-Identify the area under study	xx					
-Develop the logical DFD of the existing system		xx				
<u>System design</u> :						
-Develop the logical DFD of new system		xx	x			
-Identify the contents of the data stores for the new system			xx			
-Data Dictionary			xx			
-Develop economic cost comparison			x	x		
-Develop the physical DFD of the new system				xx		

Table 1.0 Project Implementation Schedule (Continued)

ACTIVITIES	APR	MAY	JUN	JUL	AUG	SEP
	1234	1234	1234	1234	1234	1234
<u>Implementation</u> :						
-Pseudocode				xx		
-Programing				x	xxx	
-Screen Layout				x	x	
-Report Layout					xx	
-Data Conversion					x	x
-Testing						x
-Documentation						xxx

4.2 Testing and implementation

Testing the proposed system includes the following tasks :

- Testing each program individually.
- Data entry can be done using the real data cover all possible cases. And use data testing for the interconnection programs testing.
- System testing can be done by running the whole system to make sure that the whole system programs run perfectly and meet the original programming specifications.

The implementation of the proposed system includes :

- User training : Introduce and train the user of the system for the new design system, the form filling and the output generating.
- Documentation : Writing the documentation about system program and the way to operate it. It includes the user manual (Appendix E)

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The objective of this project is to analyze, design and implement the inventory system for the sewing supply firm. During the analysis of existing system, some problems are founded. The operations are done manually with improper data recording and time consuming. Therefore, the new system has been designed to solve these problems. Searching for specific type and quality of goods can be done faster and more effective. The goods can be retrieved correctly and quickly. The operations can meet user objectives and serve customer demand with fast, complete and accurate information.

The security and control include data accuracy control, backup copies concern, authorized personel allowance and installation of hardware and software concern. The use of password can protect access of the system from unauthorized person and the source documents copies are giving to those interrelated sections.

5.2 RECOMMENDATIONS

The scope of this project covers the inventory section, for further development the following suggestions are recommended :

1. The fully computerized system should be established not only for this section but for all sections in the firm. So a distribution database on LAN is recommended. However it takes time for the system to be modified to new system. The feasibility study should be carried out carefully.
2. The user interface should be made more friendly in the revised version.

For this project, the operator should have some basic knowledge about sewing goods and sewing machine spareparts. The example of codes used in this project are given in Appendix B. The table for these codes should be uniquely set up to prevent from the confusion of using them.

All the source documents must be kept separately for a period of time for reference. The inventory operator must be well trained before operating and controlling the new computerized inventory system. For the data detection, the parcel should be labeled with product code in order to retrieve correctly.

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- 6.PAGE-JONES, Meilir The Practical Guide To Structured Systems Design London Prentice-Hall International, Inc., 1988



DATA DICTIONARY

DATA STORE

ACCOUNT_PAYABLES = {account_payable}
account_payable = **

ACCOUNT_RECEIVABLES = {account_receivable}
account_receivable = **

ADJUSTS = {adjust}
adjust = refno +
pcode +
descript +
msa +
ladjdate +
orgunit +
adjprice +
tunitchg +
adjunit +
orgprice

AORDERS = {aorder}
aorder = apgroup +
mnth +
year +
tmonunit +
forecast +
group

CUSTOMERS = {customer}

customer = ccode +
 cname +
 contact +
 addr +
 city +
 zip +
 taxid +
 phone1 +
 phone2 +
 fax +
 custype +
 lsdate +
 lsamt

DELIVERY_SLIPS = {delivery_slip}

delivery slip = * products delivery slip *
 **

INVOICES = {invoice}

invoice = refer_no +
 b_date +
 scode +
 pcode +
 unit +
 pmes +
 bprice

```

INV_VALS      = {inv_val}
inv_val       = mnth      +
                yr        +
                vpgroup   +
                vtoitem   +
                vtocost   +
                vtohunit   +
                vunitchg  +
                vcostchg

```

```

ORDERS
order         = {order}
              = refer_no  +
                s_date    +
                ccode     +
                pcode     +
                unit      +
                smea       +
                sprice     +
                cost

```

PRODUCTS = {product}
 product = pcode +

descript +

bin +

minimum +

order +

mes +

scode +

lupdate +

lpunit +

stdcost +

avgcost +

lpprice +

ldate +

lsunit +

scode1 +

scode2 +

ohunit +

sprice +

pgroup

PURCHASES = {purchase}
 purchase = refer_no +

purdate +

pcode +

descript +

punit +

mes +

scode +

cost

RECEIPTS = {receipt}
 receipt = **

REORDERS = {reorder}
 reorder = date +
 ref +
 pcode +
 descript +
 scode +
 scode1 +
 scode2 +
 mea +
 ohunit +
 lpprice +
 stdcost +
 lupdate

SUPPLIERS = {supplier}
 supplier = scode +
 sname +
 contact +
 address +
 city +
 zip +
 taxid +
 phone1 +
 phone2 +
 fax +
 lupdate +
 lpamt

DATA FLOW

acctype = * account type : 1-cash account
 2-credit account *
 [1|2]

address = * address *
 {legal_character}

adjprice = * price adjusted *
 {number}

adjunit = * unite of product adjusted *
 {number}

avgcost = * average cost *
 {number}

bin = * product's location *
 {legal_character}5

bprice = * purchased price *
 {number}

ccode = * customer's code *
 {legal_character}6

checked_order = * customer's order *
 **

cheque = * cheque sent to customer *
**

city = {legal_character}

cname = * customer's name *
{legal_character}

contact = * person to contact *
{legal_character}

cost = * cost of product purchased *
{number}

cus_directory = * customer directory *
**

cust_pay = * customer's payment *
**

custype = * customer classification *
[A|B|C]

directory_report = sub_directory +
cus_directory

descript = * product's description *
{legal_character}

exist_cus = * customer existed in the list *
 customer

exist_sup = * supplier existed in the list *
 supplier

fax = * fax number *
 {legal_character}7

forecast = * forecasting units of product to
 be added on this month *
 {number}

found_item = * items of products that exist
 in inventory *
 product

inv_adj = adjust

inv_bal = * inventory balance report *
 date +
 pcode +
 descript +
 mes +
 ohunit

inventory_adjustment = * inventory adjustment report *
 adjust

ladjdate = * last adjustment date *
{legal_character}

legal_character = [A-Z|a-z|0-9|'|"|.|,| |]

lpamt = * last purchase amount *
{legal_character}

lupdate = * last purchase date *
{legal_character}

lpprice = * last purchase price *
{number}

lsamt = * last sale amount *
{number}

ldate = * last sale date *
{legal_character}

mes = * measurement of product *
{legal_character}

minimum = * reordering level of product's
quantity *
{number}5

mnth = * month *
{legal_character}

new_cust = * new customer *
customer

new_item = * new product items do not exist
in inventory *
product

new_sup = * new supplier *
supplier

number = [0-9]

ohunit = * units of product on hand *
{number}

order_item = * product items that the customer
ordered *

orderqty = * quantities of product to order
each time *
{number}

orgprice = * original price of product *
{number}

orgunit = * original unit of product *
{number}

b_date = * purchased date *
{legal_character}

pcode = * product code *
 {legal_character}7

pcostchg = * percentage of cost changed *
 {number}

pgroup = * product group name *
 {legal_character}

phone1 = * telephone number *
 {number}7

phone2 = * telephone number *
 {number}7

mea = * product measurement *
 {legal_character}

price_list = pricelist

punitchg = * percentage of unit changed *
 {number}

purchase_order = * purchase order sent to
 suppliers *
 purchase

purchasing_report = * report of products purchased on
 this month *
 purchase

purdate = * purchase date *
 {legal_character}

receivable = * amount of account receivable
 sent to customer for payment *
 **

reorder_request = * items of product needed to be
 reorder *
 reorder

report = pricelist +
 inv_val +
 reorder +
 purchase +
 sorder

return_note = * goods returned note sent to
 supplier for changing goods *
 **

sale_forecast = * sale forecast *
 **

scode = * supplier code *
 {legal_character}5

scode1 = * supplier code *
 {legal_character}5

scode2 = * supplier code *
 {legal_character}5

smea = * measurement of product sold *
 {legal_character}

soldate = * sold date *
 {legal_character}

sprice = * selling price *
 {number}

sub_detail = * supplier's detail *
 sname +
 contact +
 addr +
 city +
 zip +
 taxid +
 phone1 +
 phone2 +
 fax

sub_directory = * supplier directory *
 **

sup_receipt = * supplier's receipt *
 **

taxid = * tax identification number *
 {legal_character}10

tmonunit = * total number of product's unit
 sold within the month *
 {number}

tocost = * total cost of products on hand *
 {number}

tohunit = * total units of product on hand *
 {number}

toitem = * total number of product items *
 {number}

tunitchg = * total units of product changed *
 {number}

unit = * units of product *
 {number}

vcostchg = * percentage of cost changed *
 {number}

vpgroup = * products group name *
 {legal_character}

vtocost = * total cost of products on hand *
{number}

vtohunit = * total units of product on hand *
{number}

vtotitem = * total number of product items *
{number}

vtunitchg = * percentage of unit changed *
{number}

year = * year *
{legal_character}

yr = * year *
{legal_character}

zip = * zip code *
{legal_character}5

APPENDIX B

STANDARD FORMATS OF CODES



Standard Formats of Codes

Design of standard formats of codes

1. Standard of identification of product using product's code
Product's code (pcode field) used in the database is represented by seven alphanumeric format into 13 product groups as follows :

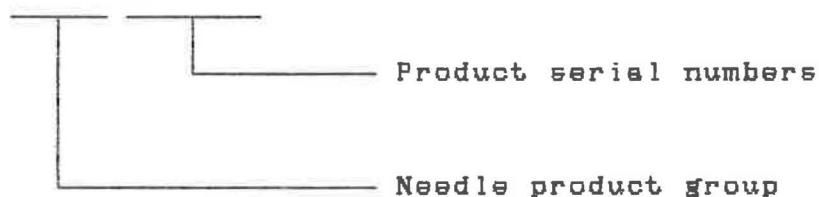
Product group 1 : Scissors

S	C	I	X	X	X	X
---	---	---	---	---	---	---



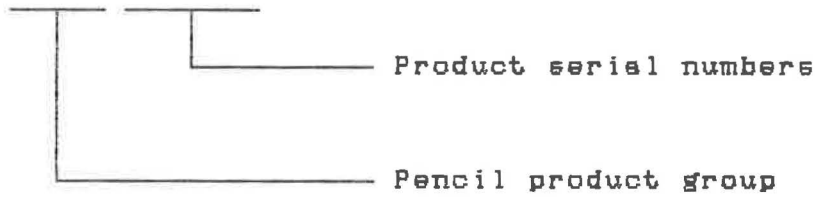
Product group 2 : Needle

N	E	E	X	X	X	X
---	---	---	---	---	---	---



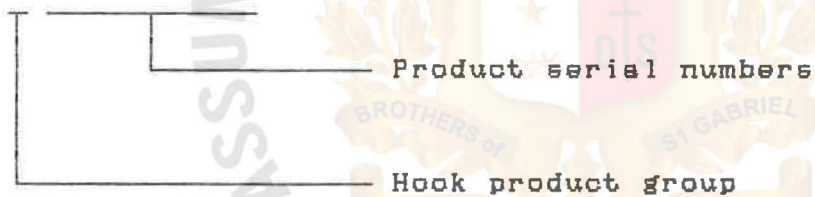
Product group 3 : Pencil

P	E	N	X	X	X	X
---	---	---	---	---	---	---



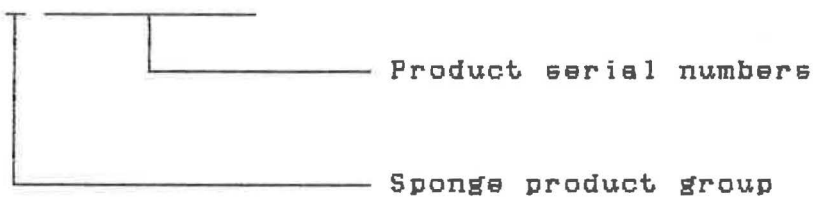
Product group 4 : Hook

H	X	X	X	X	X	X
---	---	---	---	---	---	---



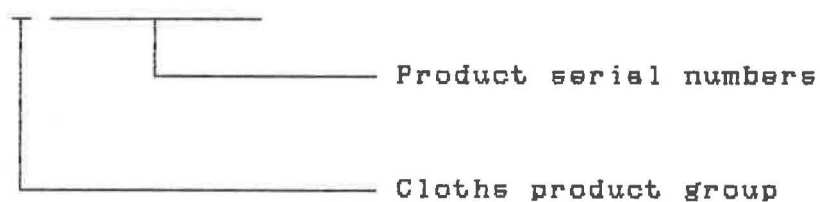
Product group 5 : Sponge

S	X	X	X	X	X	X
---	---	---	---	---	---	---



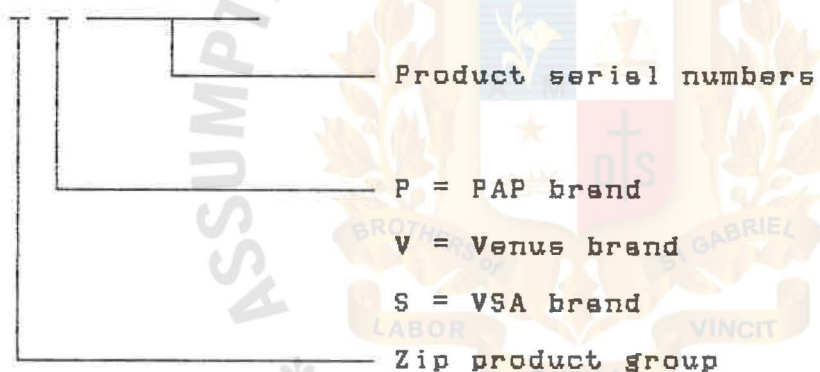
Product group 6 : Cloths

C	X	X	X	X	X	X
---	---	---	---	---	---	---



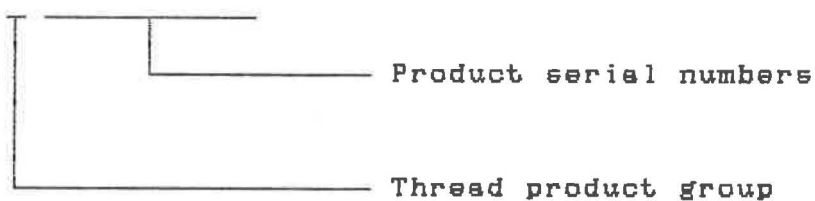
Product group 7 : Zip

Z	X	X	X	X	X	X
---	---	---	---	---	---	---



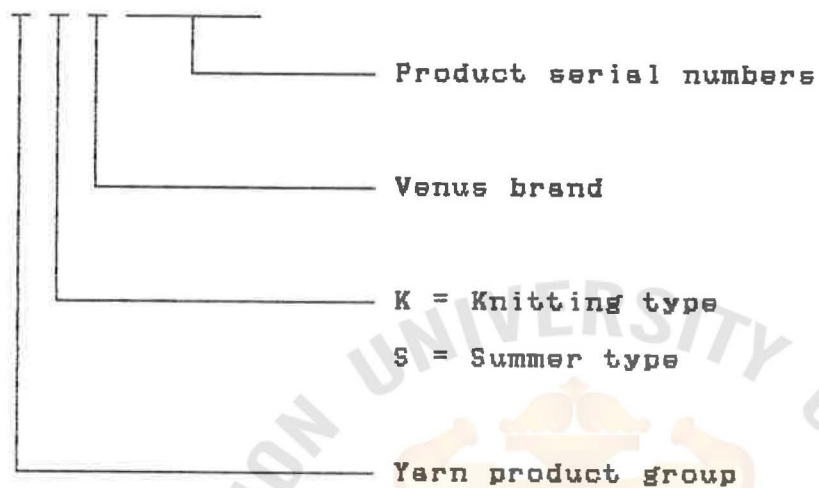
Product group 8 : Thread

T	X	X	X	X	X	X
---	---	---	---	---	---	---



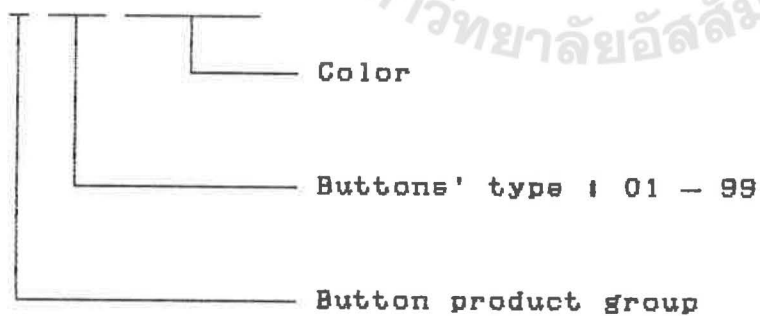
Product group 9 : Yarn

Y	X	V	X	X	X	X
---	---	---	---	---	---	---



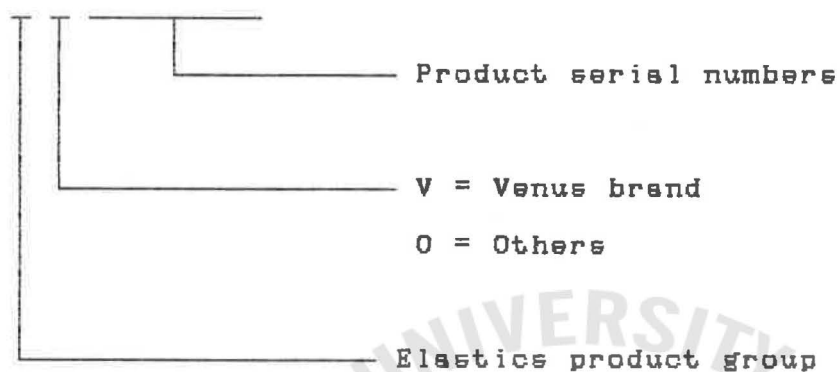
Product group 10 : Buttons

B	X	X	X	X	X	X
---	---	---	---	---	---	---



Product group 11 : Elastics

E	X	X	X	X	X	X
---	---	---	---	---	---	---



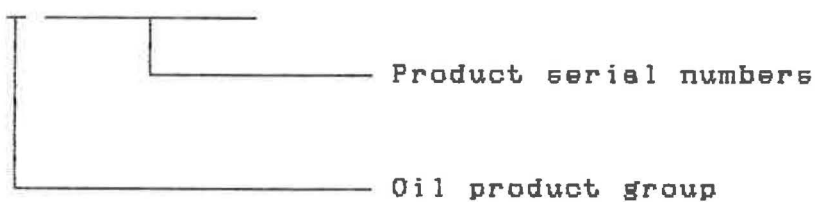
Product group 12 : Parts

P	X	X	X	X	X	X
---	---	---	---	---	---	---



Product group 13 : Oil

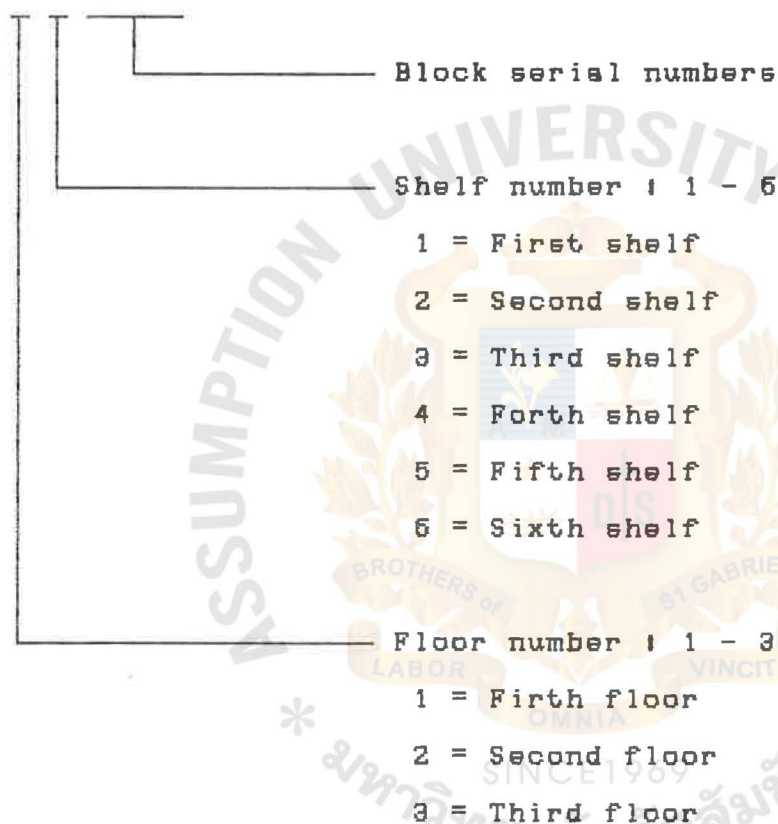
O	X	X	X	X	X	X
---	---	---	---	---	---	---



2. Standard of identification of product's location

Product's location code (Bin field) used in the database is represented by 5 alphanumeric format as follow :

X	X	X	X	X
---	---	---	---	---



APPENDIX C

PHYSICAL DATABASE FILE
STRUCTURES OF THE NEW SYSTEM



PHYSICAL DATABASE FILE STRUCTURES OF THE NEW SYSTEM

1. Structure for database : Adjust.dbf

Index file : Adjpcode.ntx --> Indexed on pcode

Adjdcrpt.ntx --> Indexex on descript

Adjref.ntx --> Indexed on refno + pcode

Table 2.1 Structure for database file ADJUST.DBF

Field Name	Type	Width	Dec	Description
Refno	C	5		Reference number
Pcode	C	7		Product's code
Descript	C	30		Product's description
Mes	C	2		Measurement of product
Ladjdate	D	8		Last adjustment date
Orgunit	N	9	2	Original unit number
Adjunit	N	9	2	Unit of product adjusted
Orgprice	N	8	2	Original price of product
Adjprice	N	8	2	Price per unit adjusted
Tunitchg	N	9	2	Total units of product changed

2. Structure for database : Aorder.dbf

Index file : Aordate.ntx --> Indexed on year
+ mnth + apgroup

Table 2.2 Structure for database file AORDER.DBF

Field Name	Type	Width	Dec	Description
Year	N	4		Year
Mnth	N	2		Month
Apgroup	N	2		Product group number
group	C	10		Product group
Tmonunit	N	8	2	Total number of product's units sold within the month
Forecast	N	8	2	Forecasting units of product to be sold on next month

3. Structure for database : Customer.dbf

Index file : Cuscode.ntx --> Indexed on Ccode

Cusname.ntx --> Indexed on Cname

Table 2.3 Structure for database file CUSTOMER.DBF

Field Name	Type	Width	Dec	Description
Ccode	C	6		Customer's code
Cname	C	30		Customer's name
Contact	C	30		Person to contact with
Addr	C	30		Customer's address
City	C	15		City
Zip	C	5		Zip code
Taxid	C	10		Customer's tax ID
Phone1	C	7		Telephone number
Phone2	C	7		Telephone number
Fax	C	7		Fax number
Custype	C	1		Customer classification
Lsdate	D	8		Last sales date
Lsamt	N	11	2	Last sales amount

4. Structure for database : Invoice.dbf

Index file : Inpcodex.ntx --> Indexed on Pcode

Inrefer.ntx --> Indexed on Refer_no

Indate.ntx --> Indexed on B_date

Table 2.4 Structure for database file INVOICE.DBF

Field Name	Type	Width	Dec	Description
Refer_no	C	6		Reference number
B_date	D	8		Purchased date
Scode	C	6		Supplier's code
Pcode	C	7		Product's code
Unit	N	9	2	Unit purchased
Pmee	C	2		Measure of product
Bprice	N	8	2	Purchased price

5. Structure for database : Inv_val.dbf

Index file : Valdate.ntx --> Indexed on Yr + Mnth
+ Vpgroup

Table 2.5 Structure for database file INV_VAL.DBF

Field Name	Type	Width	Dec	Description
Yr	N	4		Year
Mnth	N	2		Month
Vpgroup	N	2		Product's group number
Vtoitem	N	9		Total number of Product items
Vtocost	N	10	2	Total cost of products onhand
Vtohunit	N	10		Total units of product onhand
Vunitchg	N	6	1	Percentage of unit change
Vcostchg	N	6	1	Percentage of cost change

6. Structure for database : Order.dbf

Index file : Outpcode.ntx --> Indexed on Pcode
 Outrefer.ntx --> Indexed on Refer_no
 Outdate.ntx --> Indexed on S_date

Table 2.6 Structure for database file ORDER.DBF

Field Name	Type	Width	Dec	Description
Refer_n	C	6		Reference number
S_date	D	8		Sold date
Ccode	C	6		Customer's code
Pcode	C	7		Product's code
Unit	N	9	2	Unit sold
Smea	C	2		Measure of product
Sprice	N	8	2	Purchased price
Cost	N	8	2	Cost of product purchased

7. Structure for database : Product.dbf

Index file : Prodcodex.ntx --> Indexed on Pcode
 Prodname.ntx --> Indexed on Descript
 Prdgroup.ntx --> Indexed on Pgroup

Table 2.7 Structure for database file PRODUCT.DBF

Field Name	Type	Width	Dec	Description
Pcode	C	7		Product's code
Descript	C	30		Product's description
Bin	C	5		Product's location
Minimum	N	5		Reordering quantity of product
Order	N	9		Quantities to order
Mea	C	2		Product measurement
Scode	C	6		Supplier's code
Lpdate	D	8		Last purchase date
Lpamt	N	9	2	Last purchase unit
Stdcost	N	8	2	Standard cost of product per unit
Avgcost	N	8	2	Average cost of product per unit
Lpprice	N	8	2	Last purchase price per unit
Lsdate	D	8		Last sales date
Lsamt	N	9	2	Last sales amount
Scode1	C	6		Alternative Supplier's code 1

Table 2.7 Structure for database file PRODUCT.DBF (continued)

Field Name	Type	Width	Dec	Description
Scode2	C	6		Alternative Supplier's code 2
Ohunit	N	9	2	Units of products onhand
Sprice	N	8	2	Sale price per unit
Pgroup	C	10		Product's group name



8. Structure for database : Purchase.dbf

Index file : Pcpurdate.ntx --> Indexed on Purdate
 Pcpcode.ntx --> Indexed on Pcode
 Pcrefer.ntx --> Indexed on Refer_no

Table 2.8 Structure for database file PURCHASE.DBF

Field Name	Type	Width	Dec	Description
Refer_no	C	6		Reference number
Purdate	D	8		Purchased date
Pcode	C	7		Product's code
Descript	C	30		Product description
Punit	N	9		Unit ordered
Mes	C	2		Measure of product
Scode	C	6		Supplier's code
Cost	N	8	2	Cost of product per unit

9. Structure for database : Reorder.dbf

Index file : Repcode.ntx --> Indexed on Pcode

Rescode.ntx --> Indexed on Scode

Reref.ntx --> Indexed on Ref

Table 2.9 Structure for database file REORDER.DBF

Field name	Type	Width	Dec	Description
Ref	C	5		Reference number
Pcode	C	7		Product's code
Descript	C	30		Product's description
Scode	C	6		Supplier's code
Scode1	C	6		Alternative Supplier's code 1
Scode2	C	6		Alternative Supplier's code 2
Mes	C	2		Product measurement
Ohunit	N	9	2	Units of products onhand
Stdcost	N	8	2	Standard cost of product per unit
Lpprice	N	8	2	Last purchase price per unit
Lpdate	D	8		Last purchase date
Date	D	8		Report produced date

10. Structure for database : Supplier.dbf

Index file : Supcode.ntx --> Indexed on Scode

Supname.ntx --> Indexed on Sname

Table 2.10 Structure for database file SUPPLIER.DBF

Field Name	Type	Width	Dec	Description
Scode	C	6		Supplier's code
Sname	C	30		Supplier's name
Contact	C	30		Person to contact with
Address	C	30		Supplier's address
City	C	15		City
Zip	C	5		Zip code
Taxid	C	10		Supplier's tax ID
Phone1	C	7		Telephone number
Phone2	C	7		Telephone number
Fax	C	7		Fax number
Lpdate	D	8		Last purchase date
Lpamt	N	11	2	Last purchase amount

APPENDIX D

SCREEN DESIGN



Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time
<p>Enter password :</p>	

Figure3.1 Enter Password Screen

Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time

MAIN MENU
1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit

Figure3.2 Main Menu Screen

Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time

MAIN MENU			
<ul style="list-style-type: none"> 1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px; text-align: center;">Setup parameter</td> </tr> <tr> <td style="padding: 5px;"> Company name : Address : Zip Code : Data Directory : </td> </tr> </table>	Setup parameter	Company name : Address : Zip Code : Data Directory :
Setup parameter			
Company name : Address : Zip Code : Data Directory :			

Figure3.3 Parameter Setup Screen

Inventory System of sewing supplies	Day Month Date, Year
Surin Sewing Supplies	Time

MAIN MENU			
<ul style="list-style-type: none"> 1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;">File maintenance</td> </tr> <tr> <td style="padding: 5px;"> <p>Database File Maintenance and</p> <p>Indexed File Updating</p> <p>Enter password :</p> </td> </tr> </table>	File maintenance	<p>Database File Maintenance and</p> <p>Indexed File Updating</p> <p>Enter password :</p>
File maintenance			
<p>Database File Maintenance and</p> <p>Indexed File Updating</p> <p>Enter password :</p>			

Figure3.4 File Maintenance Screen

REORDER REQUEST					
Product Code	Product Description	Mea	Order Quantity	Unit Onhand	Supplier Code

[PgUp]-Previous [PgDn]-Next [Home]-1st Page [End]-Last Page F1-Print

Figure3.5 Reorder Request Screen

Inventory System of sewing supplies	Day Month Date, Year
Surin Sewing Supplies	Time

MAIN MENU	Daily transaction
<ol style="list-style-type: none"> 1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit 	<ol style="list-style-type: none"> 1. Receive from supplier 2. Sell to customer 3. Update/Edit Product 4. Inquiry customer code 5. Inquiry supplier code

Figure3.6 Daily Transaction Menu Screen

Inventory System of sewing supplies		Day Month Date,Year			
Surin Sewing Supplies		Time			
Input products received from supplier					
P_code	Description				
Supplier code					
P_code	Description	Unit	Mea	Price	Amount

Figure3.7 Input Products Received From Supplier Screen

Inventory System of sewing supplies		Day Month Date, Year	
Surin Sewing Supplies		Time	
Input products sold to customer			
P_code	Description		
Supplier code			
P_code	Description	Unit	Mea Price Amount

Figure3.8 Input Products Sold to Customer Screen

Inventory System of sewing supplies		Day Month Date, Year	
Surin Sewing Supplies		Time	

APPEND / EDIT PRODUCT			
Code			
Description		Product Information	
Bin		Minimum Reorder	
Purchase Information		Sales Information	
Measure		Sale price	
Sup no.		Last sale date	
Last purchase date		Alternative supplier	
Costs		Sup no.	
Std.	Avg.	Sup no.	
Last purchase price		Units	
Last purchase		Last sale	On hand

Figure3.9 Append/Edit Product Screen

Inquiry Customer Code			
Date			Time
Cus_name	Customer Name	Tel.	Type
Code			

Enter name/partial name to find customer code, or ESC key to exit

Figure3.10 Inquiry Customer Code Screen

Inquiry Supplier Code		
Date		Time
Sup_name	Supplier Name	Tel.
Code		

Enter name/partial name to find supplier code, or ESC key to exit

Figure3.11 Inquiry Supplier Code Screen

Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time

MAIN MENU			
<ul style="list-style-type: none">1. Parameter Set up2. File Maintenance3. Reorder Request4. Daily Transaction5. Input Data6. Product Inquiry7. Print Report8. Exit	<table border="1" style="width: 100%;"><tr><td style="text-align: center;">Input Data</td></tr><tr><td><ul style="list-style-type: none">1. Customer detail2. Supplier detail3. Inventory adjustment4. Exit</td></tr></table>	Input Data	<ul style="list-style-type: none">1. Customer detail2. Supplier detail3. Inventory adjustment4. Exit
Input Data			
<ul style="list-style-type: none">1. Customer detail2. Supplier detail3. Inventory adjustment4. Exit			

Figure3.12 Input Data Menu Screen

Inventory System of sewing supplies		Day Month Date,Year	
Surin Sewing Supplies		Time	
----- APPEND / EDIT CUSTOMER DETAIL -----			
Code			
----- Customer Information -----			
Name		Phone	
Contact		Fax	
Address		Tax ID	
City	Zip		
Customer type		Sales Information	
Last sale date			
Last sale amount			

Figure3.13 Append/Edit Customer Detail Screen

Inventory System of sewing supplies		Day Month Date,Year	
Surin Sewing Supplies		Time	
----- APPEND / EDIT SUPPLIER DETAIL -----			
Code			
----- Supplier Information -----			
Name		Phone	
Contact		Fax	
Address		Tax ID	
City	Zip	----- Purchase Information -----	
Last purchase date			
Last purchase amount			

Figure3.14 Append/Edit Supplier Detail Screen

Inventory System of sewing supplies			Day Month Date,Year		
Surin Sewing Supplies			Time		
Input products to be adjusted					
Date			Ref. no.		
P_code	Description	Unit	Adjust	Price	Adjust

Figure3.15 Input Products to be Adjusted Screen

PRODUCT INQUIRY						
Product						
Code	Product Description	Shelf	Mea	Price	Cost	Unit Onhand

Input Product Description for Inquiry

Figure3.16 Product Inquiry Screen

Inventory System of sewing supplies

Day Month Date,Year

Surin Sewing Supplies

Time

MAIN MENU									
1. Parameter Set up	<table border="1"><thead><tr><th>Print Report</th></tr></thead><tbody><tr><td>1. Directory</td></tr><tr><td>2. Reorder request</td></tr><tr><td>3. Purchasing report</td></tr><tr><td>4. Price list</td></tr><tr><td>5. Inventory reports</td></tr><tr><td>6. Sale forecasting report</td></tr><tr><td>7. Exit</td></tr></tbody></table>	Print Report	1. Directory	2. Reorder request	3. Purchasing report	4. Price list	5. Inventory reports	6. Sale forecasting report	7. Exit
Print Report									
1. Directory									
2. Reorder request									
3. Purchasing report									
4. Price list									
5. Inventory reports									
6. Sale forecasting report									
7. Exit									
2. File Maintenance									
3. Reorder Request									
4. Daily Transaction									
5. Input Data									
6. Product Inquiry									
7. Print Report									
8. Exit									

Figure3.17 Print Report Menu Screen

Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time

MAIN MENU									
1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px; text-align: center;">Print Report</td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> 1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit </td> <td style="width: 50%; padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px; text-align: center;">Directory</td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> 1. Customer directory 2. Supplier directory 3. Exit </td> <td style="width: 50%;"></td> </tr> </table> </td> </tr> </table>	Print Report		1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px; text-align: center;">Directory</td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> 1. Customer directory 2. Supplier directory 3. Exit </td> <td style="width: 50%;"></td> </tr> </table>	Directory		1. Customer directory 2. Supplier directory 3. Exit	
Print Report									
1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px; text-align: center;">Directory</td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> 1. Customer directory 2. Supplier directory 3. Exit </td> <td style="width: 50%;"></td> </tr> </table>	Directory		1. Customer directory 2. Supplier directory 3. Exit					
Directory									
1. Customer directory 2. Supplier directory 3. Exit									

Figure3.18 Directory Menu Screen

Inventory System of sewing supplies	Day Month Date,Year
Surin Sewing Supplies	Time

MAIN MENU							
1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px; text-align: center;">Print Report</td> <td style="width: 50%;"></td> </tr> <tr> <td style="padding: 5px; vertical-align: top;"> 1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit </td> <td style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100%; padding: 5px; text-align: center;">Customer Directory</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Sorted by Code/Name?</td> </tr> </table> </td> </tr> </table>	Print Report		1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100%; padding: 5px; text-align: center;">Customer Directory</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Sorted by Code/Name?</td> </tr> </table>	Customer Directory	Sorted by Code/Name?
Print Report							
1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100%; padding: 5px; text-align: center;">Customer Directory</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Sorted by Code/Name?</td> </tr> </table>	Customer Directory	Sorted by Code/Name?				
Customer Directory							
Sorted by Code/Name?							

Figure3.19 Choose to Sort Customer Directory Screen

MAIN MENU									
1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit	<table border="1"><thead><tr><th colspan="2">Print Report</th></tr></thead><tbody><tr><td>1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit</td><td><table border="1"><thead><tr><th colspan="2">Supplier Directory</th></tr></thead><tbody><tr><td colspan="2">Sorted by Code/Name?</td></tr></tbody></table></td></tr></tbody></table>	Print Report		1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1"><thead><tr><th colspan="2">Supplier Directory</th></tr></thead><tbody><tr><td colspan="2">Sorted by Code/Name?</td></tr></tbody></table>	Supplier Directory		Sorted by Code/Name?	
Print Report									
1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1"><thead><tr><th colspan="2">Supplier Directory</th></tr></thead><tbody><tr><td colspan="2">Sorted by Code/Name?</td></tr></tbody></table>	Supplier Directory		Sorted by Code/Name?					
Supplier Directory									
Sorted by Code/Name?									

Figure3.20 Choose to Sort Supplier Directory Screen

Inventory System of sewing supplies		Day Month Date,Year
Surin Sewing Supplies		Time

<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;">MAIN MENU</div> <div style="border: 1px solid black; padding: 5px;"> 1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;">Print Report</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%; border: 1px solid black; padding: 5px;"> 1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit </div> <div style="width: 50%; border: 1px solid black; padding: 5px;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;">Purchasing Report</div> <div style="border: 1px solid black; padding: 5px;"> This report is supposed to produce at the end of month Continue (Y/N)? </div> </div> </div>
--	--

Figure3.21 Purchasing Report Menu Screen

Inventory System of sewing supplies		Day Month Date, Year
Surin Sewing Supplies		Time

MAIN MENU	Print Report	Inventory report
<ol style="list-style-type: none"> 1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit 	<ol style="list-style-type: none"> 1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit 	<ol style="list-style-type: none"> 1. Inventory balance 2. Inventory value 3. Inventory adjustment 4. Inactive items 5. Exit

Figure3.22 Inventory Report Menu Screen

MAIN MENU							
1. Parameter Set up 2. File Maintenance 3. Reorder Request 4. Daily Transaction 5. Input Data 6. Product Inquiry 7. Print Report 8. Exit	<table border="1"><thead><tr><th colspan="2">Print Report</th></tr></thead><tbody><tr><td>1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit</td><td><table border="1"><thead><tr><th>Sale Forecasting</th></tr></thead><tbody><tr><td>This report is supposed to produce at the end of month Continue (Y/N)?</td></tr></tbody></table></td></tr></tbody></table>	Print Report		1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1"><thead><tr><th>Sale Forecasting</th></tr></thead><tbody><tr><td>This report is supposed to produce at the end of month Continue (Y/N)?</td></tr></tbody></table>	Sale Forecasting	This report is supposed to produce at the end of month Continue (Y/N)?
Print Report							
1. Directory 2. Reorder request 3. Purchasing report 4. Price list 5. Inventory report 6. Sale forecasting 7. Exit	<table border="1"><thead><tr><th>Sale Forecasting</th></tr></thead><tbody><tr><td>This report is supposed to produce at the end of month Continue (Y/N)?</td></tr></tbody></table>	Sale Forecasting	This report is supposed to produce at the end of month Continue (Y/N)?				
Sale Forecasting							
This report is supposed to produce at the end of month Continue (Y/N)?							

Figure3.23 Sale Forecasting Menu Screen

APPENDIX E

USER MANUAL OF SEWING SUPPLIES
INVENTORY SYSTEM



USER MANUAL OF SEWING SUPPLIES INVENTORY SYSTEM

When entering the system, you have three chances to enter the password to get into the system. After the correct password was entered, the main menu, hiding many submenus inside, appear. To get out of each menu functions, press Esc, enter a blank data or select the EXIT menu.

Main menu comprises of eight selections as follows :

1.PARAMETER SET UP

This function allows you to set up or change the parameters of the owner of the system, for example, company's name, address, zip code and storing disk drive.

2.FILE MAINTENANCE

Because of the importance of databases, the system allows only the authorized persons who have the password access to this function. After entering the password, file maintenance program will ask whether you want to create new database files or not. If your answer is 'Y', it would rebuild a new database file for you and the old file was replaced.

3.REORDER REQUEST

This program will check all the items in inventory whether their quantities reach reordering point or not. The program shows the list of items that need to be

reordered including price and quantities to order each time.

4. DAILY TRANSACTION

When you enter this menu, it shows up another five submenus.

4.1 Receive from supplier

It allows you to enter the detail of goods received from suppliers.

4.2 Sell to customer

It allows you to enter the detail of goods sold to each customer.

4.3 Update/Edit Products

After entering this function, the program will ask you to enter the product code which you want to edit then shows up the detail of that specified product. You can move the cursor to edit the detail freely and press ENTER when complete the correction. It will ask you whether to save that record correction or not. If yes, press 'Y'. If the new product code is entered, the program gives you a blank record to key in details of that product.

4.4 Inquiry customer code

This function shows the detail of customer such as customer code, customer name, telephone number

and type when the name or partial name of the customer was entered.

4.5 Inquiry supplier code

This function shows the detail of supplier such as supplier code, supplier name, telephone number when the name or partial name of the supplier was entered.

5.INPUT DATA

Submenus with four selections will appear when you select this menu.

5.1 Customer detail

The customer code will be asked to key in. If that code is existed, the program shows current informations of that customer which you move the cursor to edit them. If a new customer code is entered, the program gives you a blank record to key in the customer detail.

5.2 Supplier detail

The supplier code will be asked to key in. If that code is existed, the program shows current informations of that supplier which you move the cursor to edit them. If a new supplier code is entered, the program gives you a blank record to key in the supplier detail.

5.3 Inventory Adjustment

You have to input the right product code to adjust the number of units on hand and price of that product. If you enter a blank product code, the program will ask you to save the data by answering 'Y' then the program will quit the function.

5.4 Exit

Choosing this menu will bring you back to mainmenu.

6.PRODUCT INQUIRY

This function provide you with detail of products. By entering the description or partial description of the inquire product, the program will bring out detail of products that have the same partial description.

7.PRINT REPORT

This function has seven submenus as follows :

7.1 Directory

It has three submenus.

7.1.1 Customer Directory

It generates customer directory.

7.1.2 Supplier Directory

It generates supplier directory.

7.1.3 Exit

Go back to print report menu.

7.2 Reorder Request

It generates Reorder Request Report listed of products that should be reordered.

7.3 Purchasing Report

It generates Purchasing Report listed of products just purchased from supplier last month.

7.4 Price List

It generates product price list.

7.5 Inventory Reports

It comprises four submenus as follows :

7.5.1 Inventory balance report

Report of every products inventory balance is generated.

7.5.2 Inventory value report

Inventory value of every product groups is generated.

7.5.3 Inventory adjustment report

It generates report of products which are adjusted last month.

7.5.4 Inactive items report

It generates list of products which are not move more than six months.

7.5.5 Exit

Go back to the print report menu.

7.6 Sale Forecasting Report

It generates sale forecast units of each product groups expected to be sold next month.

7.7 Exit

Go back to the main menu.



APPENDIX F

REPORT FORM



Date : 31/10/94
Time :21:25:14
Sorted by :Customer Code

SURIN'S SEWING SUPPLIES COMPANY
CUSTOMER DIRECTORY REPORT

Page: 1

No. Cust Code	Customer Name	Contact	Address	Phone	Fax	Type
------------------	------------------	---------	---------	-------	-----	------

Figure 4.1 Customer directory report

End

Date : 31/10/94

Time :21:31:59

Sorted by :Product Code

SURIN'S SEWING SUPPLIES COMPANY
INACTIVE PRODUCTS

Page: 1

Product Code	Product Description	Last Sale Date	Mea	Unit On Hand	Cost Value
-----------------	------------------------	-------------------	-----	-----------------	---------------

End of Report

Figure 4.2 Inactive item report

Date : 31/10/94

Time :21:31:39

Sorted by :Product Code

INVENTORY ADJUSTMENT

Month :October

Page: 1

Adjusted Ref.no Date	Product Code	Description	Mea Unit	Adjusted Price
-------------------------	-----------------	-------------	-------------	-------------------

Figure 4.3 Inventory adjustment report

End of Report

Date : 31/10/94
Time :21:28:57
Sorted by :Product Code

SURIN'S SEWING SUPPLIES COMPANY
PRODUCT LISTING

Page: 1

Product Code	Product Description	Shelf	Price	Measure	Avg. Cost	Quantity On hand
-----------------	---------------------	-------	-------	---------	--------------	---------------------

Figure 4.4 inventory balance report

End

Date : 01/11/94
Time :22:29:11

SURIN'S SEWING SUPPLIES COMPANY
INVENTORY VALUE REPORT
Month :November 1994

Product Group	Total Items	Total Unit On Hand	%change	Total Cost	%change
------------------	----------------	-----------------------	---------	---------------	---------

Figure 4.5 Inventory value report

End of Report

Date : 31/10/94

SURIN'S SEWING SUPPLIES COMPANY

Page: 1

Time :21:27:47

PRODUCT PRICE LISTING

Sorted by :Product Code

Product Code	Product Description	Shelf	Mea	Sell Price
-----------------	------------------------	-------	-----	---------------

Figure 4.6 Product price list

End of Report

Date : 31/10/94
Time :23:59:51
Sorted by :Product Code

SURIN'S SEWING SUPPLIES COMPANY
PURCHASING REPORT
From 1 to 31/10/94

Page: 1

Purchase Date	Product Code	Description	Supplier Mea	Unit	Total Cost
------------------	-----------------	-------------	--------------	------	---------------

Figure 4.7 Purchasing report

End

Date : 31/10/94

SURIN'S SEWING SUPPLIES COMPANY
REORDER REQUEST

Page: 1

Sorted by :Product Code

Product Code	Product Description	Mea	Unit On Hand	Std. Cost	Last Price	Order Sup. Qty Code
-----------------	------------------------	-----	-----------------	--------------	---------------	------------------------

End

Figure 4.8 Reorder request

Date : 31/10/94
Time :21:32:18

SURIN'S SEWING SUPPLIES COMPANY
SALE FORECASTING
Month: September 1994

Product Group	Sale Unit	Sale Forecast of next month
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Figure 4.9 Sale forecasting report

End of Report

Date : 31/10/94
Time :21:25:47
Sorted by :Supplier Code

SURIN'S SEWING SUPPLIES COMPANY
SUPPLIER DIRECTORY REPORT

Page: 1

Mo. Sup_code	Supplier Name	Contact	Address	Phone	Fax
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Figure 4.10 Supplier directory

End