The Sales Order Processing for a Snack Business

By

Ms. Nuchanart Vannissorn

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

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer and Engineering Management
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Project Title	The Sales Order Processing for a Snack Business
Name	Ms. Nuchanart Vannissorn
Project Advisor	Dr. Thotsapon Sortrakul
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The Graduate School of Assumption University has approved this final report of the three-credit course, CE 6998 PROJECT, submitted in partial fulfillment of the requirements of the degree of Master of Science in Computer and Engineering Management.

Approval Committee:

(Dr. Thotsapon Sortrakul)
Advisor

(Prof.Dr. Srisakdi Charmonman)
Chairman

(Dr. Chamnon hirapanich)
Dean and Co-advisor

(Assist.Prof.Dr. Boonmark Sirinaovakul)
Member

(Dr. Prapon Phasukyud)
Member

(Assoc.Prof. Somchai Thayainyong)
MUA Representative

November 1999

ABSTRACT

This project examines the analysis, design, and implementation of the Sale Order Processing System for Khanom Thai Co., Ltd. This system is proposed in order to solve all problems occurring in the current system.

The Sales Order Processing System has been proposed because nowadays, the snack industry is highly competitive. Therefore, we, as Khanom Thai Co., Ltd., should provide quality products and services, both delivery and information, to the customers. Khanom Thai Co., Ltd. decides to use an information system as a company strategy. We have been planning the proposed system in order to replace the current system, which is already obsolete, and had no support system for management. As a result, the company has developed a business application for all users.

In order to develop this Sales Order Processing System, a team developer first finds what problems the company is facing by analyzing the current system. The team developer then decides what systems would be able to solve those problems. Afterwards, they will design and develop the new system as a proposed system for implementation. This proposed system will then be analyzed for its worth by using Cost/Benefit Analysis. If this proposed system is worthwhile for investment, the team developer then starts to implement it in the company by using the parallel technique. The team developer will also provide training and manuals for all users during this implementation period.

At the end of this project, the conclusion is provided as a summarized overview of this project, and with recommendations for any development for Khanom Thai Co., Ltd. in the future.

ACKNOWLEDGEMENTS

In order to complete this project, I am indebted to the following people. Indeed, without them this project would not have been possible.

I wish to express sincere gratitude to my advisor, Dr. Thotsapon Sortrakul. His patient assistance and guidance has led me from the project inception to the project completion. Also I would like to express appreciation to Dr. Suphamit Chittayasothorn for his Database knowledge guidance, and to Dr. Vichit Avatchanakorn for his System Analysis and Design Course.

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At last, I would like to express special appreciation to my family for their fervent and continuous encouragement.

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I. INTRODUCTION

For the snack industry, there are many competitors in the marketplace. Offering high-quality products, services, and support with efficiency can be the key for future revenue and profitability. Thus, Khanom Thai Co., Ltd. needs to respond and to deliver more quickly and move superior than other companies. To accomplish this objective, the company uses an information system as a strategy to gain a competitive advantage.

Currently, the company uses both computer and manual systems that cause many problems such as the delay in meeting customer orders and delivery, insufficient reporting system, no support for sales promotion, obsolete inventory data, the inability to keep track of customers, inconsistency, and repetition. Due to these reasons, the Sales Order Processing (SOP) has been developed to enhance the productivity of the Sales Management Department, Accounting Department and Delivery section by automating existing operations such as issuing sales orders, picking list, dispatch notes, goods return document, and many supporting reports. These can be used for inventory forecasting and sales analysis. In essence, the development project aims to integrate the business application to increase its efficiency and support accurate information for all management levels.

In order to be able to work efficiently and reliably with sales orders, the most current and accurate information on customers must be easily accessible. The customers can be grouped together, and be classified for a variety of reasons, especially for analysizing purposes.

Sales Order Processing (SOP) speeds up on-line customer order processing by streaming many functions such as sales orders, pricing, promotion, discounts,

acknowledgement handling, picking, dispatch, invoicing and goods returned. Sales Order Processing will improve customer services and fast delivery by improving real-time and comprehensive customer order information. To increase the efficiency of the delivery process, Sales Order Processing automatically schedules and releases picking lists, and dispatch documents.

1.1 Objectives of the Project

(a) To study and analyze the existing system functions.

The company plans to change the computerized system in order to support daily work operation as well as Y2K. So, the team developer has to study and analyze the old system to find the current problem.

(b) To design the proposed system which will solve the problems caused by the existing problems.

When the team developer find out the current problem, they will propose a new computerized system to enhance work operation.

(c) To improve the quality, efficiency and effectiveness of Sales Order Processing.

The proposed computer system will enhance all work operation that cause the improvement of timely, accurate and up-to-date data support to all company users.

(d) To prepare and maintain the standard of the manual systems.

Arrange an operation handout that contains information about operation process, method of operation of the existing system and develop new Sales Order Processing at the same time.

(e) To reduce data redundancy, reduce cost and reduce loss and defect.

The proposed computer system will reduce data and document redundancy, the cost of paper and human error, and the loss and defect of data. This is because the proposed computer system can back up data for a longer time than the existing system. It can also inquire and generate reports, in which data is integrated altogether more easily.

(f) To increase productivity, accuracy, reliability of sales order processing, other benefits and data safety.

Since all data is integrated, it enhances the productivity, accuracy and reliability of Sales Order Processing such as daily and monthly reports, which support the top management in decision making. Moreover, the company has a security plan to prevent unauthorized people from accessing the system. Assuredly, all data is protected.

1.2 Scopes of the Project

To develop the program in the module of sales Order Processing which covers the major parts of the industry, consisting of:

(a) Code Setup, Control, Promotion, and Customer Master File

Before using data in a transaction, we have to set up all data including such as a salesperson , a credit term, credit limit, division control, sales promotion, product and customer information. The Sales Administration Department has to set all data in order to be updated with the new data.

(b) Sales Order Entry

When the Sales Administration Department receives the customer order, the system will generate Sales Order which include, sales price,

discount, free goods and reserves the quality of goods equal to the ordered quantity.

(c) Issue of Picking List and Dispatch Notes

After receiving a Sales Order from the Sales Administration The Department, Delivery Division has to generate the Picking Lists and Dispatch Notes to pick and prepare the finished goods from the warehouse for loading according to the Dispatch Notes.

(d) Issue of Invoice

The Delivery section will generate an invoice and send it to customers after they load the products in the truck. They will send the products and the invoice to the customer. When all processes are completed, they will update the invoices.

(e) Goods Returned

If the customers return the product back to the company in the case of date expiration, products damage or order duplication. The delivery section has to receive goods returned in order to send them back to the store.

(f) Generate Report

Every involved department or section should generate the daily and monthly reports to support their work.

(g) All reports are created to assist the sales order processing, such as:

(1) Code set up report

(2) Salesperson report

(3) Customer report

(4) Sales commission report

(5) Free goods report

(6) Customer over credit limit report

(7) Sales Order Detail

(8) Order by order

(9) Outstanding sales orders

(10) Aged Order Summary report by quantity

1.3 Outlines of the Project

This project is separated in to 5 parts as follows:

(a) Chapter I. Introduction

This part includes the project introduction, objectives, and scope. The Khanom Thai Co., Ltd. plans to change the old computerized system, which does not support the daily work operation nor Y2K, to the proposed computer system. The proposed computer system will support all user requirements.

(b) Chapter II. Review of Theories

This part includes the standard concepts in developing the proposed computer system which consist of personal computers, the centralized computerized system, data communication, local area network (LAN), system development life cycle (SDLC), data flow diagrams, flow charts, database management system, data dictionaries, MICROSOFT VISUAL BASIC, and UNIX as an operating system.

(c) Chapter III. Existing System

This part is about the current system, including the background of the organization, current problem and areas of improvement, and the existing system (invoicing and credit notes).

(d) Chapter IV. Proposed New System

This part is about the team developers analysis and design system according to user requirements. This part includes user requirements, proposed system details, proposed of a new data base design, proposal of a new network configuration, software and hardware requirement, benefit/cost analysis, and project testing and implementation.

(e) Chapter V. Conclusions and Recommendations

This part is defined in summary of the entire project and recommendations for enhancement of this project.

II. REVIEW OF THEORIES

The system, which is being operated currently by Khanom Thai Co., Ltd., is a combination of manual and computer system. The company faces many problems such as redundancy of procedure, data and documents and time-consumption for analyzing the information to support decision making of executive management. Therefore, the company tries to improve the work procedures by developing a new computer system. The company plans to use the system tools and implement the new application software as follows:

2.1 Computers or Personal Computers

This is often called the microcomputer, which is a machine that can be programmed to process data (input) into useful information (output). A computer system requires four main aspects of data handling; input, processing, output, and storage.

(a) Input

This is data that is accepted into the computer. Common input devices are a keyboard, a mouse, and a wand reader or bar code reader. A keyboard is a device that users can input data by typing on it. A mouse is a device which translates movements of a ball on a flat surface to actions on the screen. A wand reader or bar code reader is a device that uses laser beams to read special letters, numbers, or symbols.

(b) Processor, or Central Processing Unit (CPU)

This device processes raw data into meaningful, useful information. The CPU interprets and executes program instructions and communicates with the input, output, and storage devices.

(c) Output

This is the result since the raw data is processed by a CPU, called information. It is used in the form of words, numbers, and graphics. The users can see output displayed on screens and use printers to display output on paper.

2.2 Centralized Computerized System

The Centralized Computerized System is the system where all processing is done at the host computer or server. Many terminals can access the host at the same time (Multi-user), and it can run multiple applications simultaneously, called multi-tasking. This means that a number of users are connected to a computer system through terminals, or workstations.

Terminals or workstations here do not do any processing in a centralized computing system, and they have appropriately been labeled as 'dumb terminals'. The terminal passes its request onto the host CPU by sending requests from its keyboard. The host application processes the requests and sends the answer back to the terminal as characters to be displayed on its screen. Connected terminals can be local via direct connection or remote via telephone lines. The host, therefore, acts as a central repository for application, data, and backups.

2.3 Data Communication and Local Area Network (LAN)

Data communication, called teleprocessing or telecommunications, is the electronic transmission of data from a source to a destination. This is the movement of computer information from one point to another by means of electrical optical transmission systems. Such systems often are called data communication networks. Analysts must be aware of the capabilities of data communications if they are to design

system that may often employ such technology. Some of the objectives of the data communication network are:

(a) Reduce the time, effort, and cost required to perform various business tasks.

(b) Capture business data at its source and rapidly disseminate it.

(c) Support improved management control of the organization.

2.4 System Develop Life Cycle (SDLC)

The SDLC is a phased approach to analysis and design which holds that system are best developed through the use of a specific cycle of analyst and user activities. Analysts disagree on exactly how many phases there are in the SDLC, but generally there are 8 steps as are listed below:

2.4.1 Identifying Problems, Opportunities, and Objectives

In this first phase of the SDLC, the analyst is concerned with identifying problems, opportunities, and objectives. This stage is critical to the success of the rest of the project, since no one wants to waste subsequent time addressing the wrong problem.

The first phase requires that the analyst look honestly at what is occurring in a business. Then the analyst pinpoints problems. Often, others will bring these problems up and they are the reason the analyst was initially called in. Opportunities are situations that the analyst believes can be improved through the use of computerized information systems. Seizing opportunities may allow the business to gain a competitive edge or set an industry standard.

Identifying objectives is also an important component of the first phase. First, the analyst must discover what the business is trying to do. Then the analyst will be able to see if some aspect of information systems applications can help the business reach its objectives by addressing specific problems or opportunities.

2.4.2 Determining Information Requirements

The next phase that the analyst enters is that of determining information requirements for the particular users involved. Among the tools used to define information requirements in the business are: sampling and investigating hard data, interviewing, questionnaires, observing decision makers' behavior and office environments, and even prototyping.

In this phase, the analyst is striving to understand what information users need to perform their jobs. You can see that several of the methods for determining information requirements involve interacting directly with users. This phase serves to fill in the picture that the analyst has of the organization and its objectives. Sometimes only the first two phases of the SDLC are completed. This kind of study may have a different purpose and is carried out by a specialist called an information analyst (IA).

The people involved in this phase are the analysts and users, typically operations managers and operations workers. The system analyst needs to know the details of current system functions for consideration of designing the new system.

2.4.3 Analyzing System Needs

The next phase that the systems analyst undertakes involves analyzing system need. Analysis is the phase in which the requirements for a new information system are identified. It is the process of studying an existing system to determine how it works and how it meets user needs. System analysis lays the groundwork for improvements to the system. It also involves an investigation, which in turn usually involves establishing a relationship with the client for whom the analysis is being done, and with the users of the system.

2.4.4 Designing the Recommended System

In this phase of the SDLC, the systems analyst uses the information collected earlier to accomplish the logical design of the information system. Design is the phase in which those requirements are used to create blueprints, or actual plans, for the new system. It is the process of developing a plan for an improved system, based on the results of the system analysis. The analyst designs accurate data-entry procedures so that data going into the information system is correct. In addition, the analyst also provides for effective input to the information system by using techniques of good form and screen design.

2.4.5 Developing and Documenting Software

In this fifth phase of the SDLC, the analyst works with programmers to develop any original software that is needed. Some of the structured techniques for designing and documenting software include structure charts, the HIPO method, flowcharts, Nassi-Shneiderman charts, Warnier-Orr diagrams, and Pseudocode. The analyst uses one or more of these devices to communicate to the programmer what needs to be programmed. During this phase, the analyst also works with users to develop effective documentation for software, including procedure manuals. Documentation tells users how to use software and also what to do if software problems occur.

2.4.6 Testing and Maintaining the System

System testing is recognized as an important part of quality assurance. Testing proceeds parallel with system development. Here, a test plan is developed in parallel with system design. The test plan is then used to develop test cases that are used in system testing. Testing proceeds through a number of steps. First, individual program modules are tested by their developers. Once individual modules are tested, the next step is to test whether they can be combined. This is known as integration testing.

During integration testing, groups of modules are combined into test modules and tested together. The goal is to determine whether the interfaces between modules work. Then the entire system is tested. It is important to design test cases that test all the conditions that can arise in system inputs, while at the same time ensuring that the tests do not take too long.

Before the information system can be used, it must be tested. It is much less costly to catch problems before the system is signed over to the users. Some of the testing is completed by programmers alone, some of it by systems analysts in conjunction with programmers. A series of tests to pinpoint problems is run first with sample data and eventually with actual data from the current system. Also maintenance of the system and its documentation begins in this phase and is carried out routinely throughout the life of the information system.

Maintenance is necessary to eliminate errors in the system during its working life and to tune the system to any variations in its working environment. There are always some errors detected that must be corrected. Often small system deficiencies are found as a system is brought into operation, and changes are made to remove these deficiencies. Information planners must always plan for resource availability to carry out these maintenance functions.

If a major change to a system is needed, a new project may have to be set up to carry out the change. This new project will then proceed through all the mentioned system development life cycle phases.

2.4.7 Implementing the System

Here, the analyst helps implement the information system. This involves training users to handle the system. Some training is done by vendors, but oversight of training

is the responsibility of the systems analyst. Additionally, the analyst needs to plan for a smooth conversion from the old system to the new one. This process includes converting files from old formats to new ones or building a database, installing equipment, and bringing the new system into production. Here, the key criterion that must be satisfied is whether the intended users are indeed using the system. There are four strategies for converting from the old system to the new system:

(a) Direct Changeover

This is the conversion that on a specified date, the old system is dropped and the new system is put into use. It can only be successful if extensive testing is done beforehand and it works best when some delays in processing can be tolerated.

(b) Parallel Conversion

This refers to running the old system and the new system at the same time, in parallel. This is the most frequently used conversion approach, but its popularity may be in decline because it works best when a computerized system replaces a manual one.

Both systems are run simultaneously for a specified period of time, and the reliability of results is examined. When the same results can be gained over time, the new system is put into use, and the old one is stopped.

(c) Gradual Conversion

This type of conversion attempts to combine the best features of the earlier two plans, without incurring all of the risks. In this plan, the volume of transactions handled by the new system is gradually increased as the system is phased in.

(d) Distributed Conversion

This refers to a situation in which many installations of the same systems are contemplated, as is the case in banking or in franchises such as restaurants or clothing stores. One entire conversion is done (with any of the four approaches considered already) at one site. When that conversion is successfully completed, other conversions are done for other sites.

2.4.8 Evaluating the System

Throughout the system development life cycle, the analyst, management, and users have been evaluating the evolving information system in order to give feedback for its eventual improvement. Evaluation is also called for following system implementation. In recognition of the fact that ongoing evaluation of information systems is important, many evaluation techniques have been devised. These techniques include cost-benefit analysis. Also the information system utility approach for evaluating information systems can be a comprehensive and fruitful technique for measuring the success of a developed system.

2.5 Data Flow Diagram

Here, the systems analyst needs to make use of the conceptual freedom afforded by data flow diagrams (DFD), which graphically characterize data-processes and flows in a business system. When systems analysts attempt to understand the information requirements of users, they must be able to conceptualize how data moves through the organization, the processes or transformation that the data undergoes, and what the outputs are.

Through a structured analysis technique called data flow diagrams (DFD), the systems analyst can put together a graphical representation of data-processes throughout

the organization. The data flow approach emphasizes the logic underlying the system.

Data flow diagrams use a number of symbols to represent a system. Most data flow modeling methods use four basic symbols to represent four kinds of system components as shown in Figure 2.1. Data Flow Diagram's Symbols.

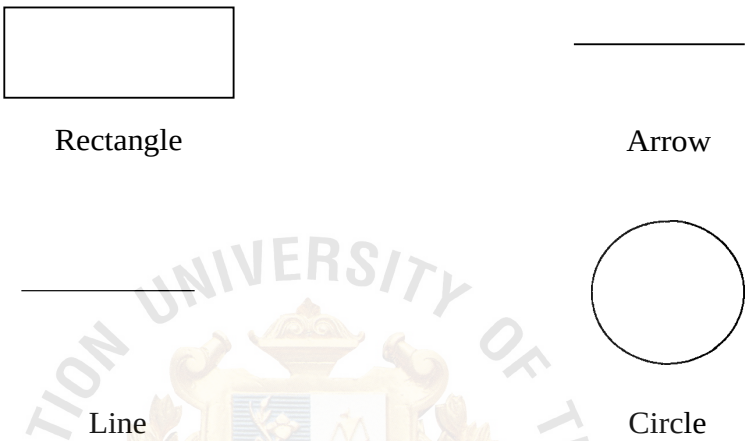


Figure 2.1. Data Flow Diagram Symbols.

The rectangle is used to depict an external entity such as another department, a business, a person, and a machine. This entity can send data to or receive data from the system. The external entity is also called a source or destination of data. Each external entity is labeled with an appropriate name, with a noun. The same external entity may be used more than once on a given data flow diagram to avoid crossing data flow lines.

The arrow shows movement of data from one point to another, with the head of the arrow pointing toward the data's destination. Data flows occurring simultaneously can be depicted doing just that through the use of parallel arrows. Since an arrow represents data about a person, place, or thing, it too should be described with a noun.

A circle is used to show the occurrence of a transforming process. Processes always denote a change in or transformation of data; thus, the data flow leaving a

process is always labeled differently from the one entering it. Processes represent works being performed within the system and should be named clearly by using one of the following formats:

(a) Assign the name of the whole system as a noun when naming a high level process.

(b) Use verb-adjective-noun format for detailed processes.

The processes must also be given a unique identifying number indicating the level of the diagram. Several data flows may go into and out of each process.

The last basic symbol used in DFD represents a data store and is a line symbol. This symbol is drawn only wide enough to allow identifying of its name, as a noun. In DFD, the type of physical storage such as a tape or a diskette is not specified. This means that at this point, the data store symbol is simply showing a depository for data that allows addition and retrieval of data. After finishing designing Data flow diagrams, they need to be drawn systematically. We can use a Top-Down Approach to accomplish the Data flow diagrams by:

(a) Making a list of business activities and use it to determine

(1) External Entities

(2) Data Flows

(3) Processes

(4) Data Stores

(b) Creating a context diagram which shows external entities and data flow to and from the system. Do not show any detailed processes or data stores.

(c) Drawing Diagram 0, the next level. Show processes, but keep them general. Show data stores at this level.

(d) Creating a child diagram for each of the processes in Diagram 0

(e) Checking for errors and making sure the labels you assign to each process and data flow are meaningful.

(f) Developing a physical data flow diagram from the logical data flow diagram. Distinguish between manual and automated processes, describe actual files and reports by name, and add controls to indicate when processes are complete or errors occur.

(g) Partitioning the physical data flow diagram by separating or grouping parts of the diagram in order to facilitate programming and implementation.

2.6 Flow Chart

A system flowchart is a graphic way of showing the major inputs, outputs, and processes of a system. In some cases, a system flowchart can be used in place of a data flow diagram; in other cases, it is a useful supplement. Some analysts start by creating a system flowchart, then move on to the data flow diagram as their understanding of the system grows. A system flowchart uses a finite set of symbols to represent system components, which may be physical hardware devices, information stores or flows, as well as process. Figure 2.1 below show symbols used to represent computer components such as punched cards, terminals, magnetic tape, and so on.

When drawing system flowcharts, we represent each physical system component by one of the system flowchart symbols. Then we look at information flows between these components and join the corresponding representations on the system flowchart.

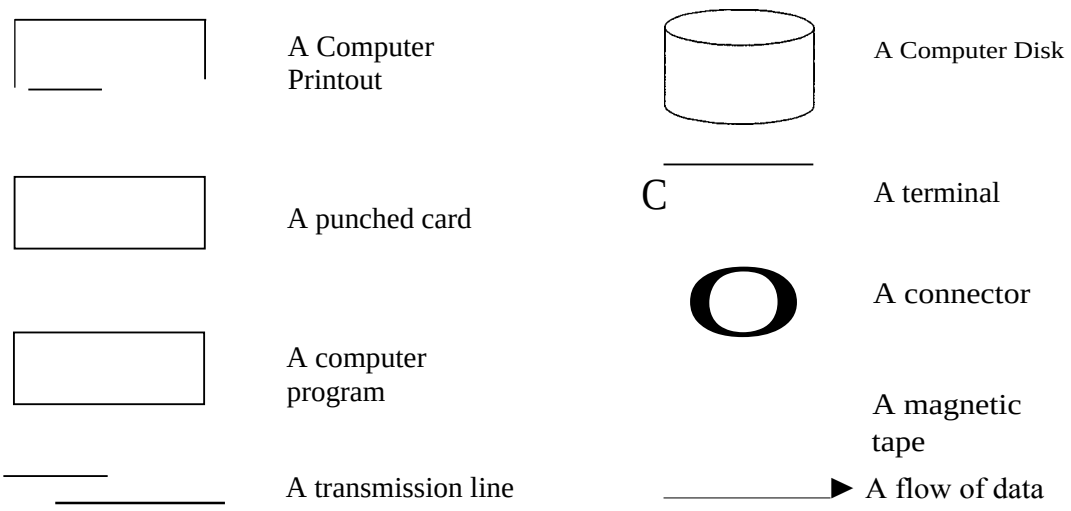


Figure 2.2. System Flowchart Symbols for Computing Components.

Figure 2.2. illustrates symbols used to represent data storage devices and user activities in the procedure.

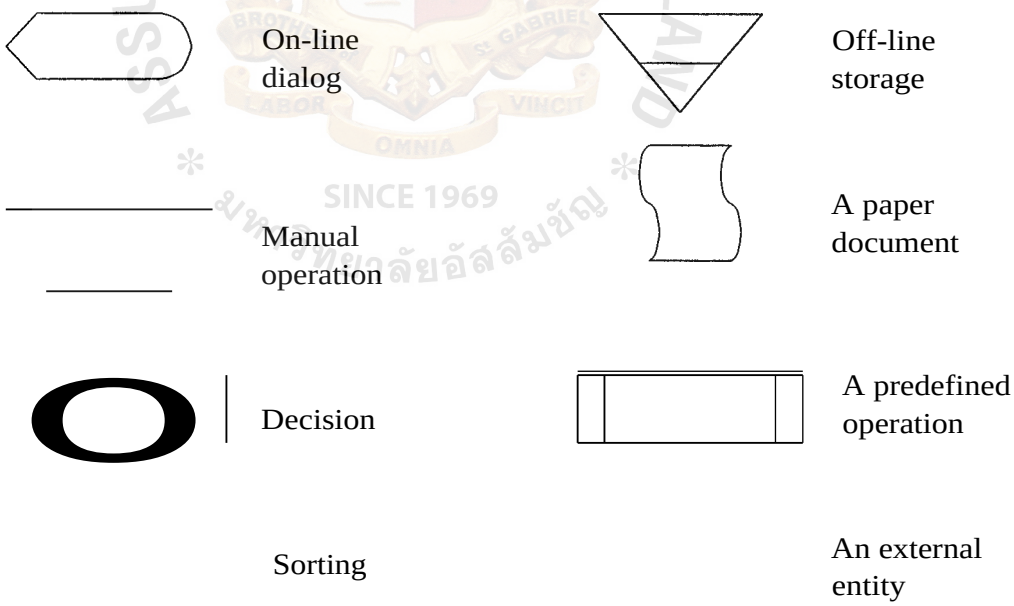


Figure 2.3. System Flowchart Symbols for Non-computing Components.

2.7 Database Management System

A database system is essentially nothing more than a computerized record-keeping system. The database itself can be regarded as a kind of electronic filing cabinet. It is a repository for a collection of computerized data files. The user of the system will be given facilities to perform a variety of operations on such files, including the following among others:

(a) Adding new, empty files to the database

(b) Inserting new data into existing files

(c) Retrieving data from existing files

(d) Updating data in existing files

(e) Deleting data from existing files

(f) Removing existing files, empty or otherwise, from the database

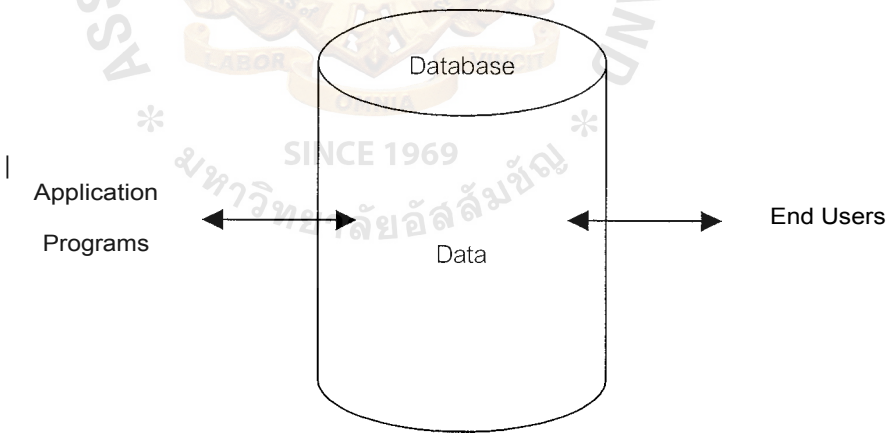


Figure 2.4. The Database System.

A database system involves four major components, namely, data, hardware, software, and users as shown in Figure 2.4.

(a) Data and Database

Database systems are available on machines that range all the way from quite small micros as PCs to the largest mainframes. In particular, systems on large machines or large systems tend to be multi-user, whereas, those on smaller machines or small systems tend to be a single-user.

(b) Hardware

The hardware portions of the system consist of:

(1) The secondary storage volumes that are used to hold the stored data, together with the associated I/O devices, device controllers, I/O channels, and etc.

(2) The processor and associated main memory that are used to support the execution of the database system software

(c) Software

Between the physical database and the users of the system is a layer of software called the database manager or database management system (DBMS). All requests from users for access to the database are handled by the DBMS for adding and removing files, retrieving data from and updating data in such files or tables.

(d) Users

There are three considerable classes of users:

(1) First, there are the application programmers, who are responsible for writing application programs that use the database.

(2) Second, the class of end users who interact with the system from online workstations or terminals. A given end user can access the

database via one of the online applications or he/she can use an interface provided as an integral part of the database system software.

(3) The third class of users is the database administrator or DBA. This is the person who makes the strategic and policy decisions regarding the data of the enterprise. Also he/she is the person who provides the necessary technical support for implementing those decisions. Thus, the DBA is responsible for the overall control of the system at a technical level.

(e) Relational Database Management Systems

The relational model stores data as a set of tables or relations. In a relational DBMS, each such relation would be defined using the system's definition language. Commands provided by the DBMS would then be used to store and retrieve data.

(f) Network Database Management Systems

DBMSs that support network structures store data as record types. Furthermore, parent-child relationships can be established between these record types. Such relationships are illustrated in Figure 2.12. In a network model, each record type can be a parent of any other record types. It can also have any number of parents.

(g) Hierarchical Database Management Systems

The hierarchical data model differs from the network model. This is because each record type can have only one parent. Figure 2.13 illustrates the example of this kind of DBMS.

(h) Benefits of the Database Approach

(1) Redundancy can be reduced

The database approach can often lead to considerable redundancy in stored data, with resultant waste in storage space.

(2) Inconsistency can be avoided

An inconsistent database is supplying incorrect or contradictory information to its users; therefore, it is necessary that the two entries will not agree when one of the two has been updated and the other has not.

(3) The data can be shared

Sharing means not only that existing applications can share the data in the database, but also that new application can be developed to operate against that same stored data.

2.8 Data Dictionaries

After successive levels of data flow diagrams are complete, system analysts use them to help catalog the data processes, flows, stores, structures, and elements in a data dictionary. This means that the system analysts need to make the name meaningful for the data component names.

The data dictionary is an integral component of structured analysis, since data flow diagrams by themselves do not fully describe the subject of the investigation. The data dictionary provides additional information about the system.

The data dictionary is a specialized application of the kinds of dictionaries used as references in everyday life. The data dictionary is a reference work of data about data compiled by system analysts to guide them through analysis and design. As a document, the data dictionary collects, coordinates, and confirms what a specific data term means

to different people in the organization. In other words, it is a catalog or a repository of the elements in a system. As the name suggests, these elements center on data and the way they are structured to meet user requirements and organization needs. The data dictionary stores details and descriptions of these elements.

System analysts must be aware of and catalog different terms that refer to the same data item. This helps to avoid duplication of effort, allows better communication between organizational departments sharing a database, and makes maintenance more straightforward. The data dictionary can also serve as a consistent standard for data elements. Thus, the data dictionaries can be used for five important reasons:

(a) To manage the detail in large systems

(b) To communicate a common meaning for all system elements

(c) To document the features of the system

(d) To facilitate analysis of the details in order to evaluate characteristics and determine where system changes should be made

(e) To locate errors and omissions in the system

Data dictionary entries may be created after the data flow diagram has been completed or constructed as the data flow diagram is being developed. The use of algebraic notation and structural records allows the analyst to develop the data dictionary and the data flow diagram using a top-down approach. This means that the analyst may concurrently create the data dictionary entries with the Diagram 0 of data flow diagrams.

2.9 Microsoft Visual Basic

Visual Basic is, of course, a language. Its roots extend back to earlier versions of the basic programming language. However, Visual Basic varied greatly from Basic in

that it provided a visual environment for your development activities. Visual Basic provided a way to extend this development environment with components.

As Visual Basic has evolved, the core language has been extended to add new functionality. However, when you compare the enhancements made to the language versus the enhancements made to the ability to construct applications, you will probably agree that the bulk of enhancements have been made to the application programming environment.

Visual basic truly much more a "programming environment" than just a language. Using this environment, a single developer can quickly create a simple application; a team of developers can create a sophisticated, distributed application.

III. EXISTING SYSTEM

3.1 Background of the Organization

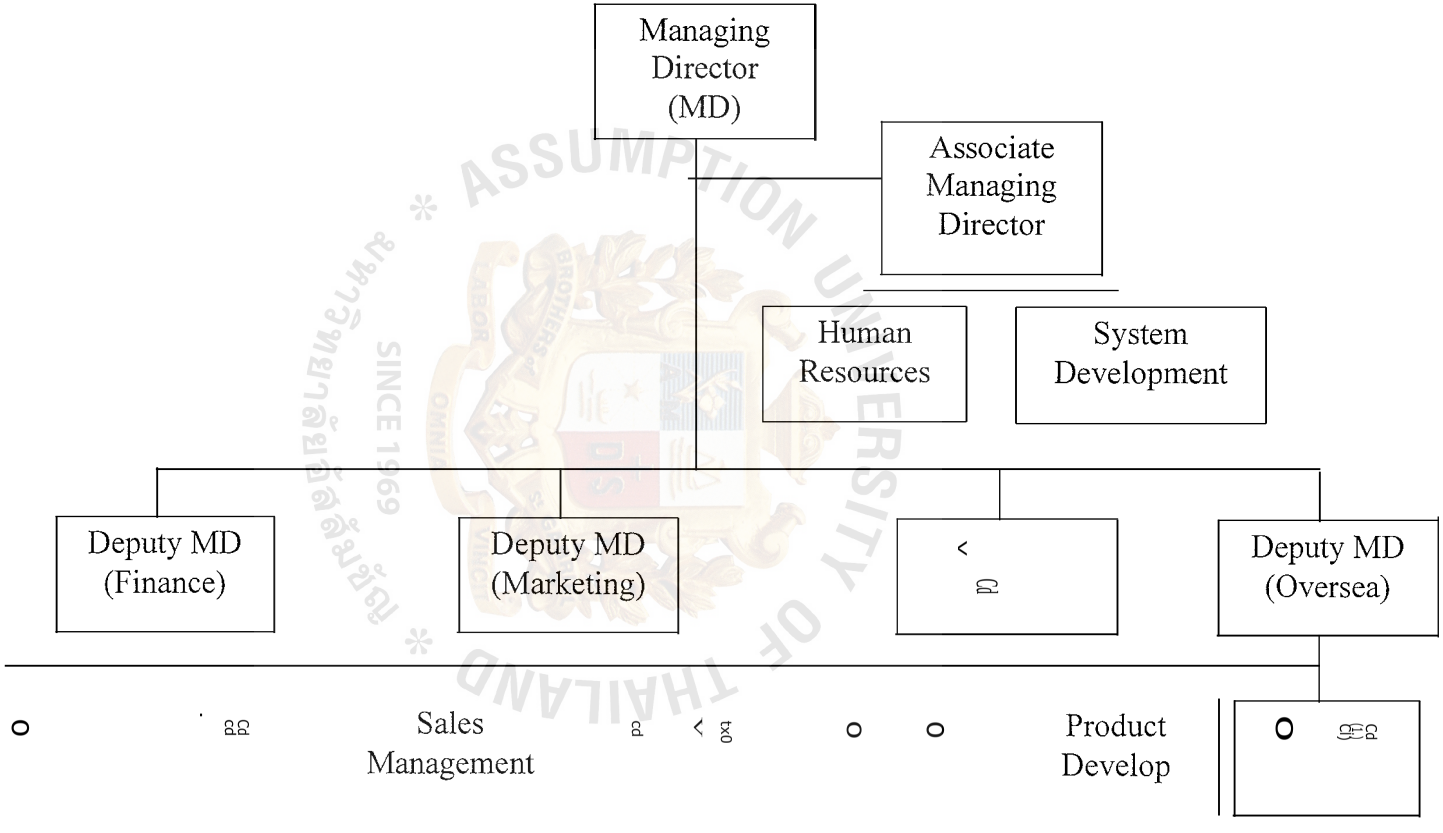
3.1.1 Company Background

Khanom Thai Co., Ltd. was established on December 5, 1976 with an initial registered capital of 5.8 million bahts by a group of far-sighted business people who saw bright prospects for the snack market. The first plant was set up on a 5-rai plot of land in Bang Chan Industrial Estate and produced `Hanami', a highly successful brand of snack. The plant was equipped with modern technology and machinery using advanced and hygienic production processes. Currently the company has diversified its operations and extended its product range to cover prawn crackers, corn chips, cookies, biscuits, wafers and mini cookies. The workforce has risen from 15 to 800 employees. Constant research and development is conducted to create products of international standard.

3.1.2 Company Policy

"They shall grow and prosper on the business with firm commitment. Their policy has always been to put their customers first. Every step in production and development is made with the customer's satisfaction in mind. As their name `Khanom Thai' implies, sincerity and honesty are cornerstones of their way of doing business. It has been that way from the opening day until now, and where they have developed to become the leader in the Thai snack food industry. Their goal is to secure a place of trust and Khanom Thai Co., Ltd. in the hearts and minds of everyone who tries their products."

The Establishment of Khanom Thai Co., Ltd.



The Company Organization.

S t.

3.1.3 Production Potential

Excellent research and development of a wide range of quality snacks, cookies, biscuits and wafers are the reason for their rapid expansion to the Number One position in the Thai market now. Currently, they have production lines as Shrimp Chips (Prawn Crackers), Corn Chips, and Biscuits & Cookies.

3.1.4 Dynamic Expansions

The reason for their strong support from consumers over the last twenty years is their commitment to offering only the best in terms of high quality at reasonable prices. Yet they continually strive to improve their performance in every area of their operation including:

Products : Top quality products for the benefit of the consumer.

Marketing : Fast and efficient distribution so that their products reach the consumer quickly.

Human Resources : Locate and develop quality staff in order to achieve effective production and management planning.

3.1.5 The International Business Alliance

With far-sighted management, the company has realized the importance of expanding its business in Thailand and overseas markets, especially Indo-China. Thus the company decided to enter a joint-venture with Japan's leading snack manufacturer, `Japan Snack Inc.' to establish 'KT& JS Co., Ltd.' with Khanom Thai Co., Ltd. being the major shareholder and thus in control of management and marketing while Japan Snack Inc. assist on production and R&D.

KT&JS Co., Ltd. started operating in 1990 at the Bang Chan Industrial Estate and has manufactured these products:

1989 Corn Snack

1991 Crispy Green Peas Snack

1992 Potato Chips

1994 Fried Green Peas Snack

3.1.6 Effective Distribution Services

A speedy and efficient delivery service is vital to a business. Effective packing, stocking, delivery, and transportation are areas in which they excel. They have also established various distribution outlets to obtain fast service and the widest coverage. Wholesalers and retailers, (including wholesale shops, supermarkets, hypermarts and retail shops nationwide), receive either direct distribution or are supplied by distributors.

The last two decades have seen the company expand from a 5 rai plot in the Bang Chan Industrial Estate with 15 employees to 800 employees. Grasping the opportunity to expand into overseas markets, particularly Indo-China, the company has decided to build a new factory in the Kabin-buri Industrial Estate in Prachinburi Province on an area of 93 rai. This factory will expand manufacturing capacity of existing products as well as coping with new products lines. These products will serve both the domestic and overseas markets.

3.1.7 Giving to the Thai Society

Similar to their aim of providing the best for their consumers, Khanom Thai Company Limited are also active in making social contributions. Thus the company allocates budget annually for social benefits to such important beneficiaries such as the Raj-Withee House, the Orphanage of Thailand, Pak-Kred Orphan House and Mahamake Boy's Home. Moreover, they always actively support various activities throughout the year. These include events for youth development such as the charity and musical talent

contests, as well as activities for social welfare and underprivileged children. For example they have organised visits to orphanages by renowned singers in order to entertain and to give educational scholarships to these children.The Khanom Thai Co., Ltd.. the company producing, subcontracts and distributing snacks, biscuits, chocolate, and wafers. The customers are retailers, wholesalers, super store, department stores, convenience stores and gas stations.

According to the considerable expansion and future plan to capture new international market, in 1997 the company planned to set the computer systems to help facilitate current and future business operations in three major areas-distribution, finance, and manufacturing.

3.2 Current Problems and Areas of Improvement

3.2.1 Delay in Meeting Customer Order and Delivery

The salespersons receive purchase order and send to them the sales administration to enter the order to the current system and generate the invoice without a sales order, picking list or dispatch notes. This causes delay in delivery.

3.2.2 Insufficient Report System

There is only one report from the current system "Sales Order Report " which they use to check the data entry. l or other reports, they use the manual report which causes some mistakes and is difficult to check the history data. The management does not receive reports in time, nor obtains enough reports. Therefore, the management requires a system that is able to generate more reports or information.

3.2.3 No Support for Sales Promotion

Now, the sales administrations have to write the free goods on the invoice which causes some errors. Because of promotion errors, the customers call to complain that they have received the wrong goods and it takes time to return them to the company.

3.2.4 Obsolete Inventory Data

Some computer and manual systems cause an abundance of paperwork and some inconsistencies and repetitions. This brings about incorrect information concerning the product available in stock.

3.2.5 The Inability to Keep Customers Records.

The company is unable to keep customer records. Some data is lost and it is difficult and time-consuming to trace back the customer's history. The company cannot check customer performance.

3.2.6 The Old System Does Not Support Y2K

The old system is IBM SYSTEM36, which does not support Y2K in the area of an operating system and an application program. The cost inmigrating to IBM AS400 is too high because the company has to pay outsource to them in a developing new application.

3.3 Existing System

3.3.1 Invoice System

When the salesperson receives customer orders, they will send all orders to the sales administration, who will enter into the current computer system in order to generate the invoice and sales order report. Then they check data entry according to purchase order, write free goods on invoices and send all invoices which are printed out from the current system to the delivery section to select the location and manual issue picking list the products to the customers. The customer will receive the product and

invoice. All processes are the combination of a computer system and a manual system and are represented in Figure 3.2. Current Context Diagram.

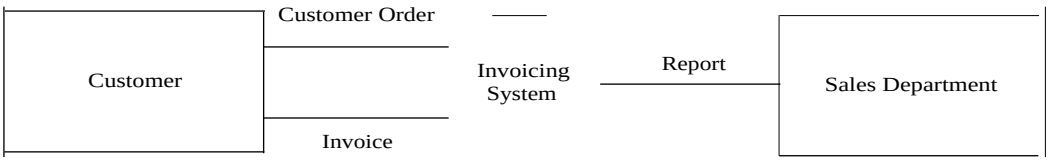


Figure 3.2. Current Context Diagram.

For Figure 3.3. System Flow Chart of Invoicing System represents the current system which is issuing invoice to send to the customers. For the current invoicing system, there are many problem in work operation. The Sales Administrative staffs have to cancel a lot of invoice at the end of month because the old computerized system cannot check the quantity available. They issue invoice before sending the product. When their is stock shortage, the delivery section cannot send the product to the customer. They will send back all invoices which cannot send the product to the customer on time to the Sales Administration Department to cancel all non-sending invoices. Eventhough the existing system cannot automatically calculate discount and free goods. The Sales Administration staff has to write on the invoice about discounts and free goods. There are many mistakes because the discounts and free goods depend on the Sales Administration staff, of which the company has many groups.

For Figure 3.4. The Current Logical Data Flow Diagram, it represents the current system analysis and design which does not support all work operation. This logical data flow diagram does not integrate another module. It causes redundancy and not up-to-date data.

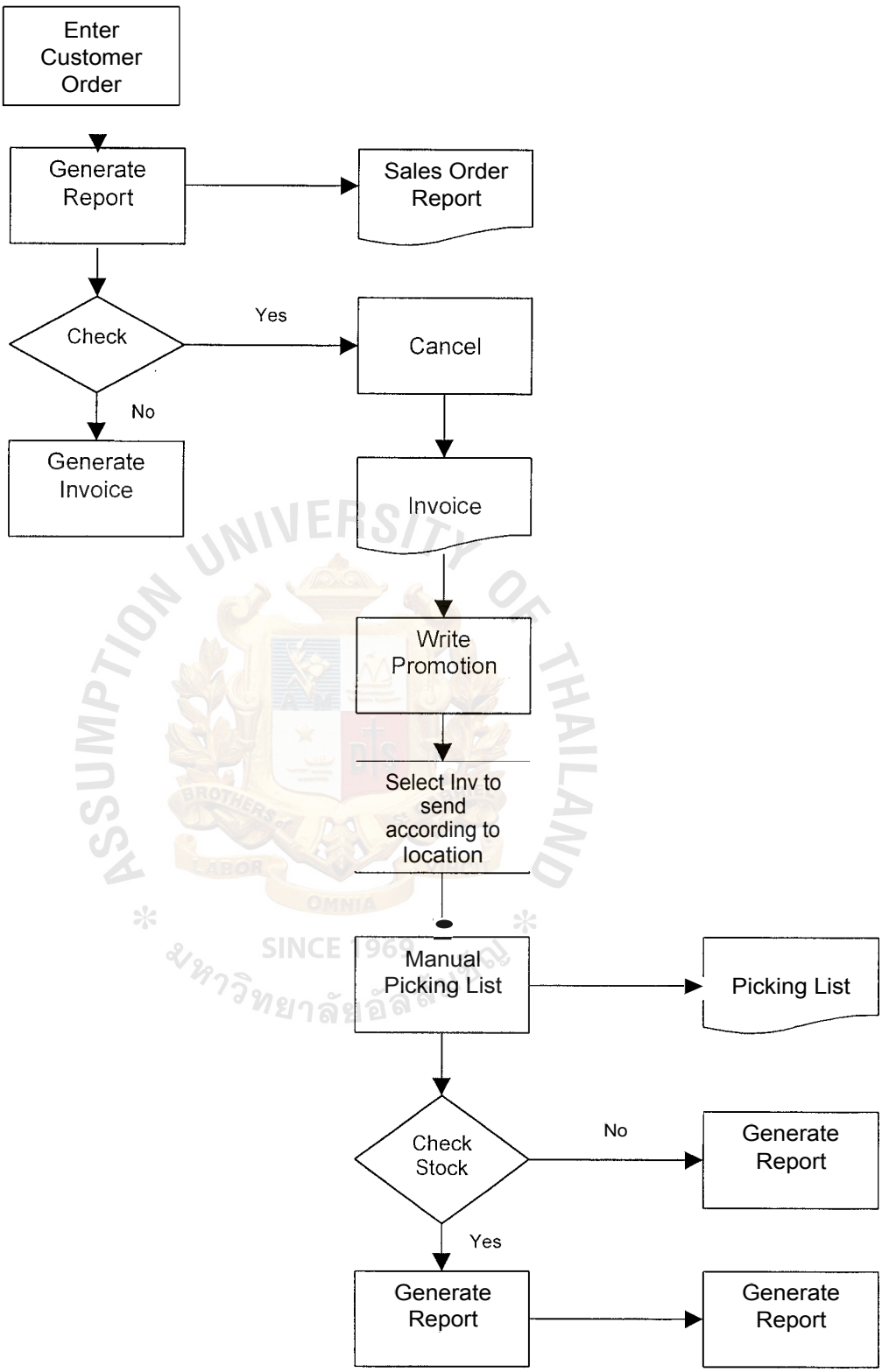


Figure 3.3. System Flow Chart of Invoice System.

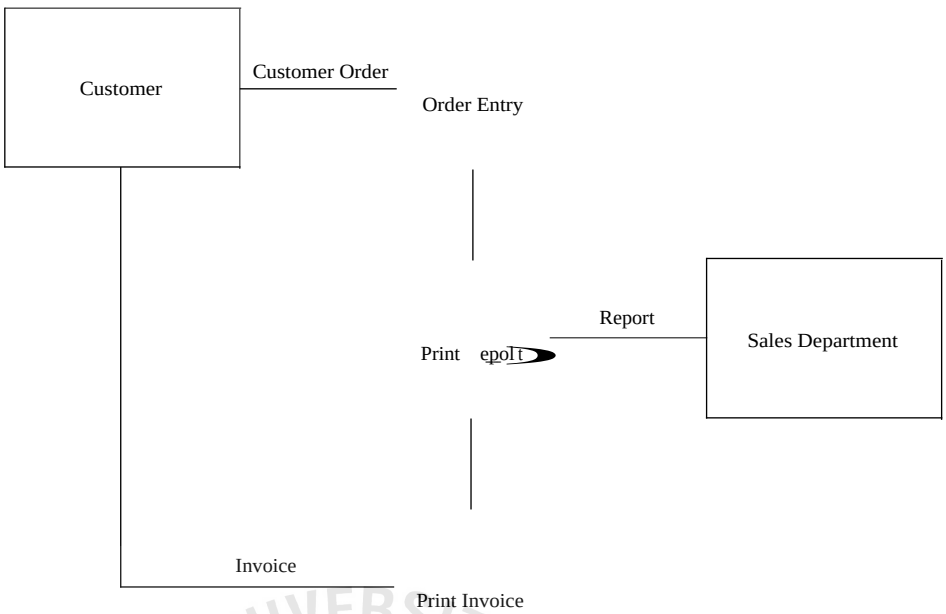


Figure 3.4. Current Logical Data Flow Diagram.

3.3.2 Goods Return System

When the customers find the product deflection, they send it back to the delivery section. The delivery section manually issues goods returned notes to the customers and sends the goods to the Quality Control section (QC) to check if the goods should be repacked or scrapped. All processes are represented in Figure 3.5. System Flow Chart of Goods Returned.

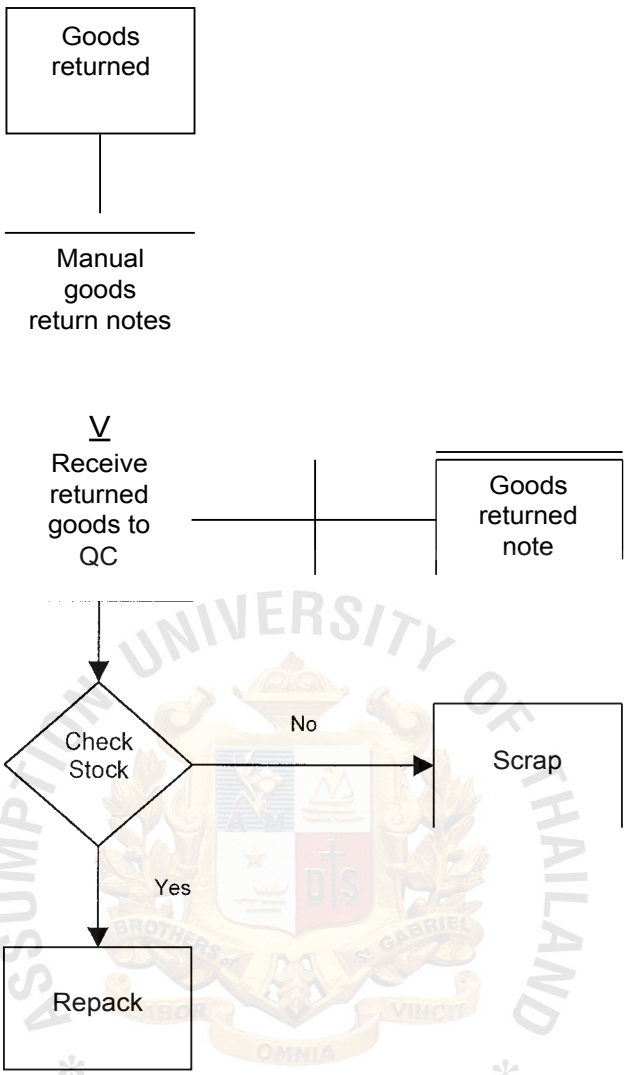


Figure 3.5. System Flow Chart of Goods Return.

3.3.3 Current Network Configuration

The current network configuration is a token ring (Figure 3.6. Current Network Configuration). The current network has slow speed because of small bandwidth. In the token ring network, if a cable breaks, no workstations start.

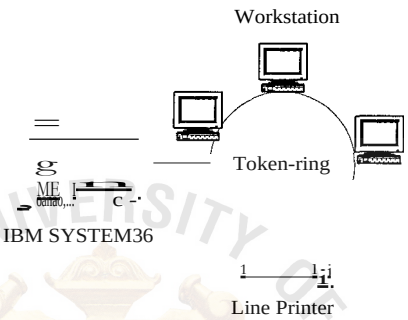


Figure 3.6. Current Network Configuration.

IV. PROPOSED NEW SYSTEM

4.1 User Requirements

(a) Automatic issuing of business documents

This provides the required business documents such as Sales Order, Picking List, Dispatch Note, Invoice and Credit note Notes that would be automatically generated by the computer system.

(b) Automatic sales promotion

This provides automatic sales promotion such as sales discount and free goods.

(c) Flexible supported report

This provides the flexible report support for operation and management level such as Customer Reports, Salesperson Reports, Free Goods Reports, Customer Over Credit Limit Reports and Outstanding Order Reports. All reports can be used to analyze sales volume and customer performance.

(d) On-line information system

This provides the integration of a business application system in which all data is linked together. The users can inquire and generate reports from all workstations.

(e) Reduce data redundancy

This provides accurate data to management and operation level. It reduces redundancy and time-consumption in creating reports.

4.2 Proposed System Details

The new system design is represented in a whole picture in Figure 4.1. Context Diagram of the Proposed System. In the context diagram, it shows the relationship of entities and processes. The entities include Sales Administration Department, Customers, Warehouse and Accounting Department. The work procedures includes inputs, process and outputs.

(a) Inputs are represented as the arrow lines pointing to the circle. There are 4 inputs as follows:

(1) Customer orders

(2) Finished goods return

(3) Customer information

(4) Product information

(b) Process is represented as a circle which is Sales Order Processing (SOP).

(c) Outputs represent as the arrow lines pointing out of the circle. There are 7 outputs as follows:

(1) Sales orders

(2) Pick and dispatch notes

(3) Invoices

(4) Goods returned note and credit note

(5) Invoice updates

(6) Credit note updates

(7) Daily and monthly reports

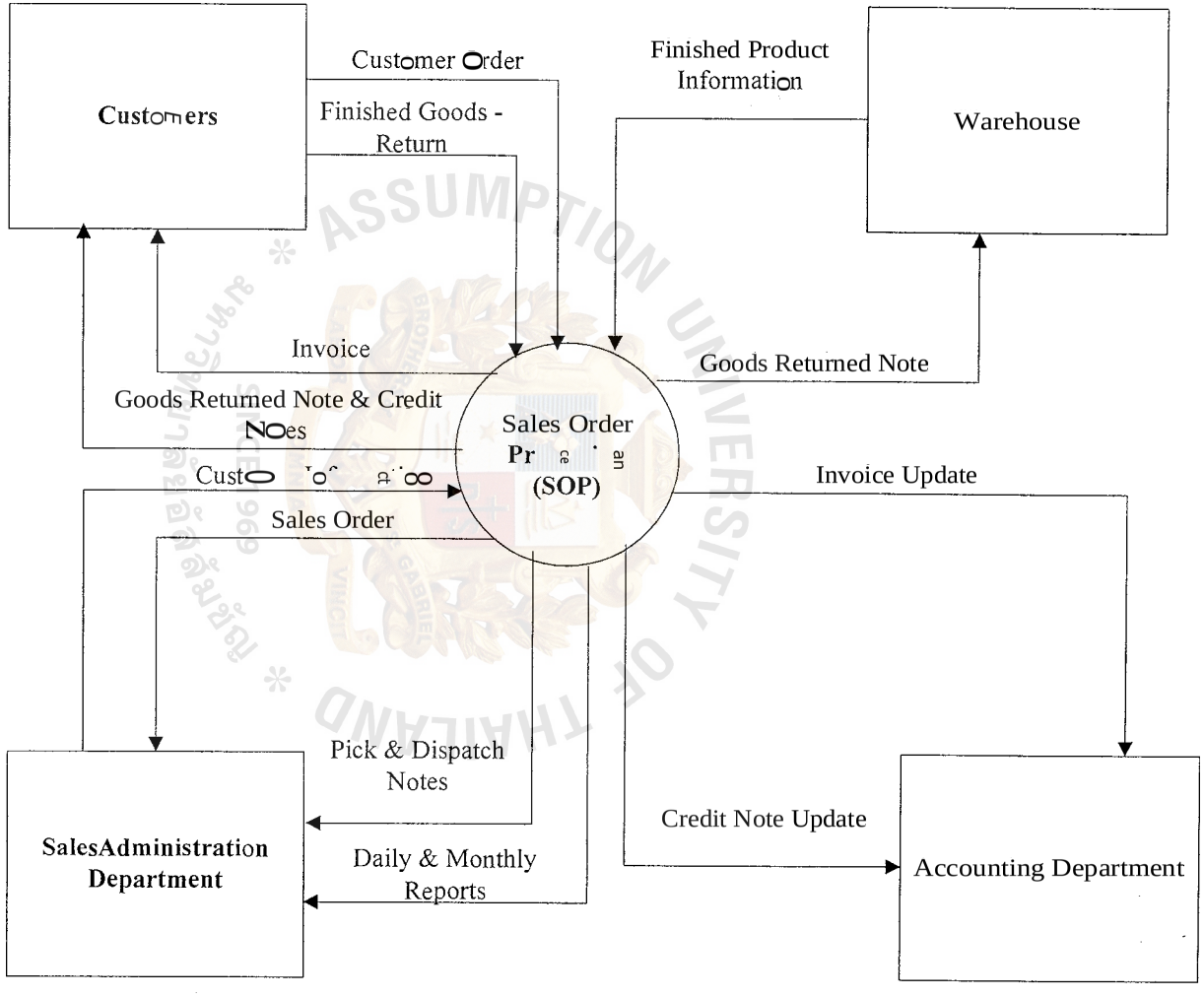


Figure 4.1. Context Diagram of the Proposed System.

Figure 4.2. Logical Data Flow of the Proposed System (Level 0) divides the whole system into six parts as follows:

(a) Code Setup, Control, Promotion, and Customer Master

Before using data in transaction, we have to set up all data including salesperson , credit term, credit limit, division control, sales promotion, product and customer information. The Marketing division has to set all data in order to be updated with the new data.

(b) Sales Order Entry

When the Marketing Division receives the customer order, the Sales Administration Department checks if customer payment history is not good and then rejects the customer order, if not, the system will generated Sales Order that include, sales price, discount, free goods and reserve the quality of goods equal to the ordered quantity. After Sales Order details are filled out, the system will automatically calculate the total amount of that Sales Order.

(c) Issue of Picking List and Dispatch Note

After receiving the Sales Order from the Sales Administration Department, Delivery Division has to generate the Picking List and Dispatch Note to pick and prepare the finished goods from warehouse waiting to loading according to the Dispatch Note.

(d) Issue of Invoice

The Delivery section will generate an invoice sent to customers after they load the products to the truck. They will send the products and invoice to the customer. When all processes are complete, they will update the invoices.

(e) Issue of Credit Note

If the customer returns the product back to the company in the case of date expiry, product damage or order duplication, the delivery section has to receive a credit note in order to send the goods back to the store.

(f) Generate Report

Every involving department or section, can generate the daily and monthly report to support their work.

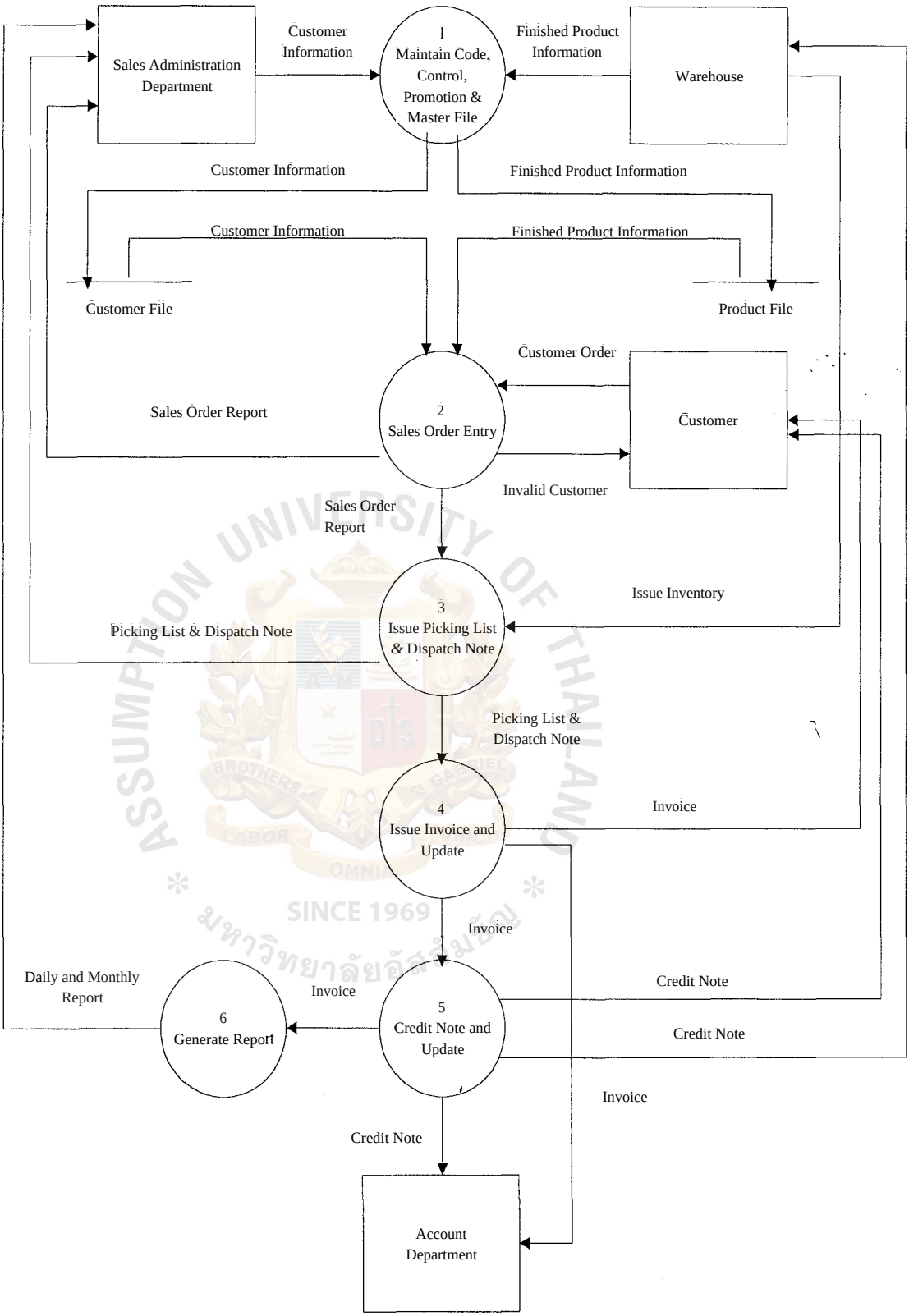


Figure 4.2. Logical Data Flow Diagram of the Proposed System (Level 0).

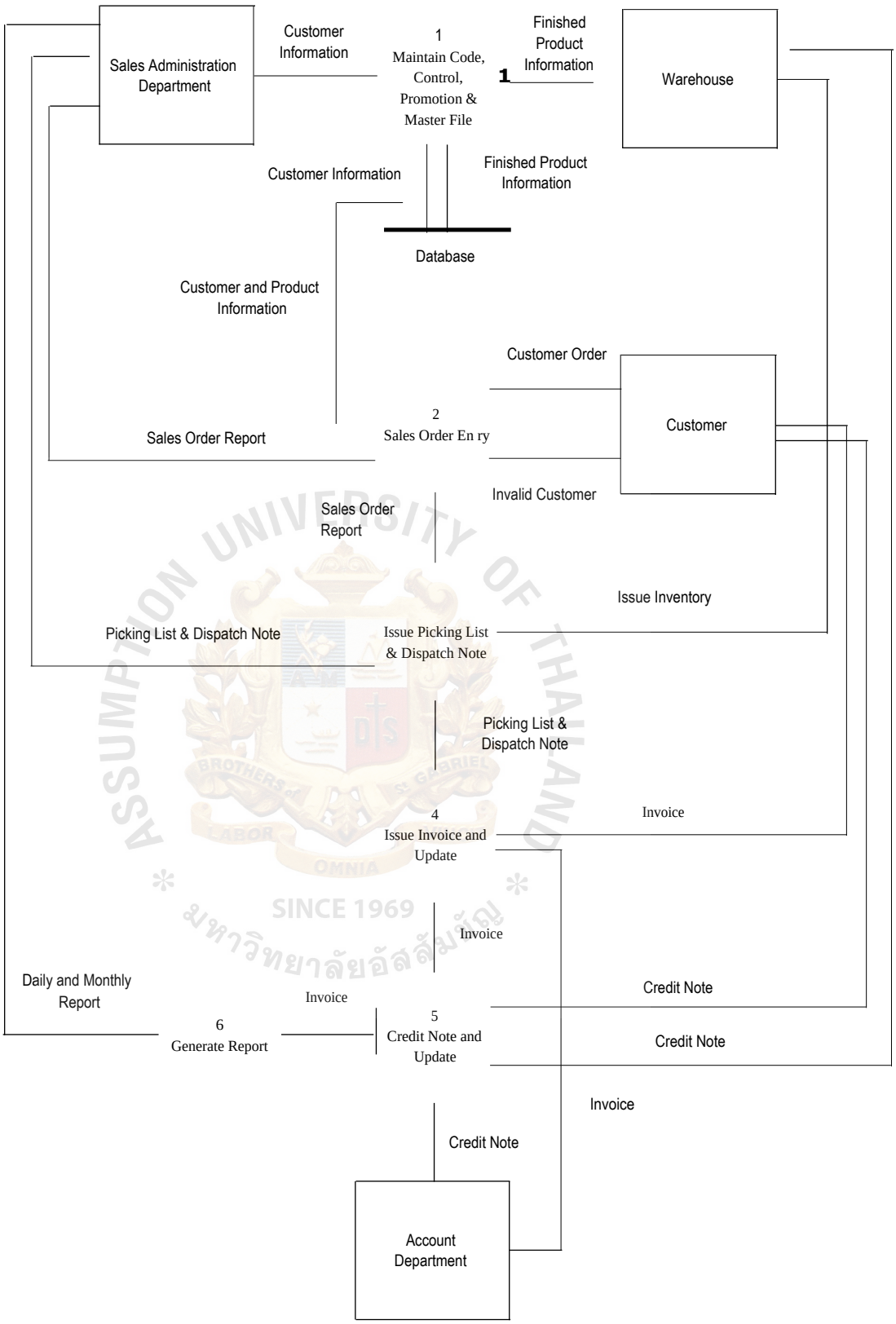


Figure 4.3. Physical Data Flow Diagram of the Proposed System.

Figure 4.4and Figure 4.8 represent the entities and processes in detail. They can be divided into 4 parts as follows:

(a) Customer Validation

The program will check the customer information. The customer information should enable validation for making the in transaction.

(b) Order Entry

The Sales Administration staffs enter the new order from customers into the Sales Order Processing module.

(c) Automatically Discounted and Free Goods

When sales order line entries are complete, the system will automatically calculate discounted and free goods. At this point the proposed system solves the current problems which do not support company promotion (discounted and free goods).

(d) Print Sales Order

The Sales Administration staff has to print sales order and sales order report to generate the picking list and dispatch note.

Figure 4.5 and Figure 4.9 represent the entities and processes in detail. In these processes, they solve the problem of cancel invoices at the end of the month because they can check the stock before issuing the products. This can be divided into 4 parts as follows:

(a) Generate picking list

The Sales Administration staff has to select the sales order to generate the picking list in order to reserve stock.

(b) Print picking list

They print picking lists and send them to the Warehouse to reserve and issue stock.

(c) Print dispatch note

They print a dispatch note to load all products to the truck.

(d) Confirm dispatch note

They have to confirm the dispatch note in order to generate the invoice.

Figure 4.6 and Figure 4.10 represent the entities and processes in detail. They can be divided into 3 parts as follows:

(a) Generate invoice

They select the dispatch note number to generate the invoice.

(b) Print invoice

They print the invoice in order to send the product to the customer.

(c) Update invoice

They update invoice in order to confirm that all products and invoice are already received by the customer.

Figure 4.7 and Figure 4.11 represent the entities and processes in detail. In this process, they solve the problem of the current system in the returned products issue. The system can check whether the customers bought these products from the company or not. This process will be done before the officer enters the new credit note. They divide into 4 parts as follows:

(a) Validation goods return

The system will check if the customer returned the product before entering the new credit note.

(b) Credit note entry

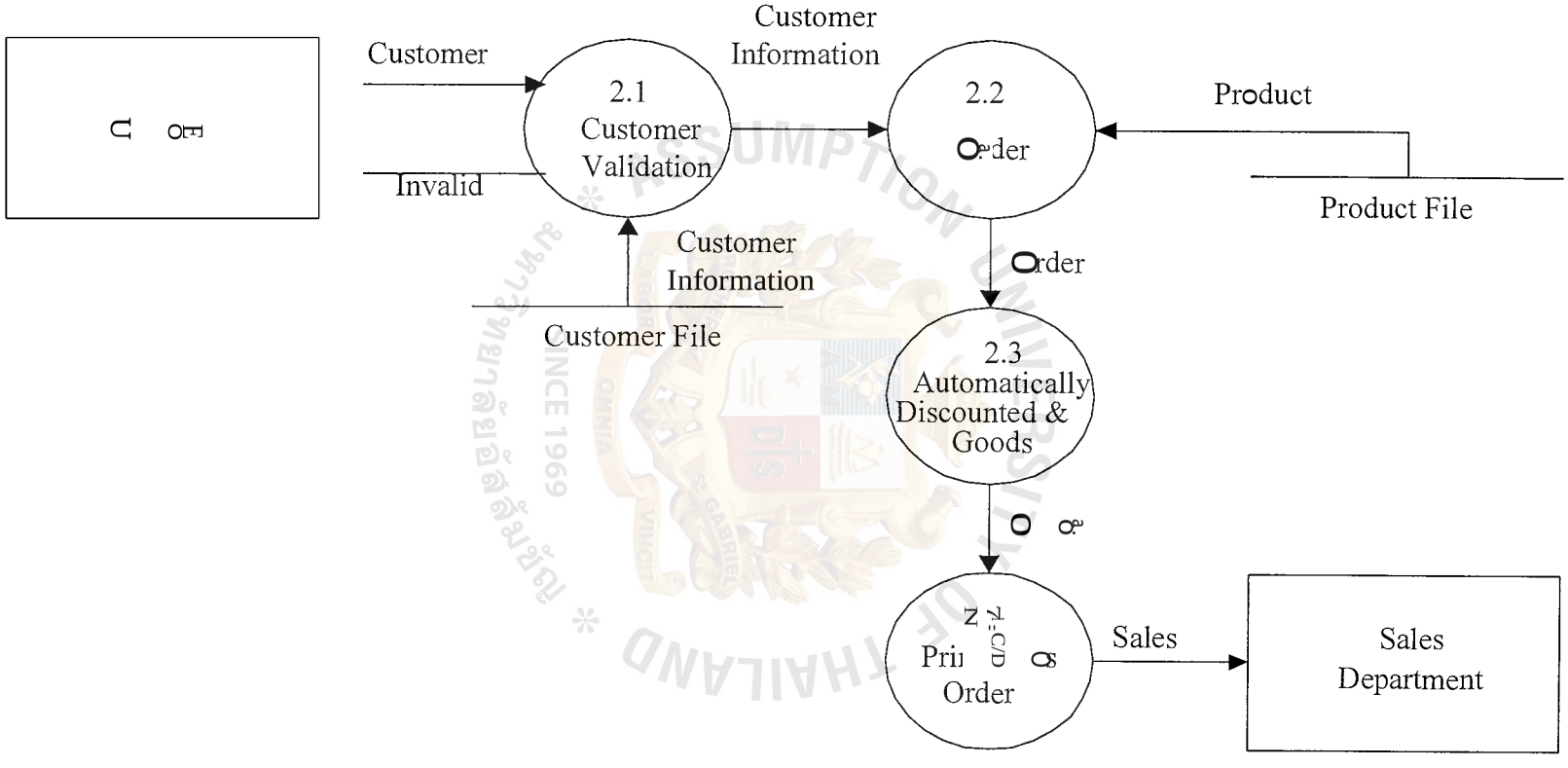
The Sales Administration staff enters the new credit note in detail.

(c) Print credit note

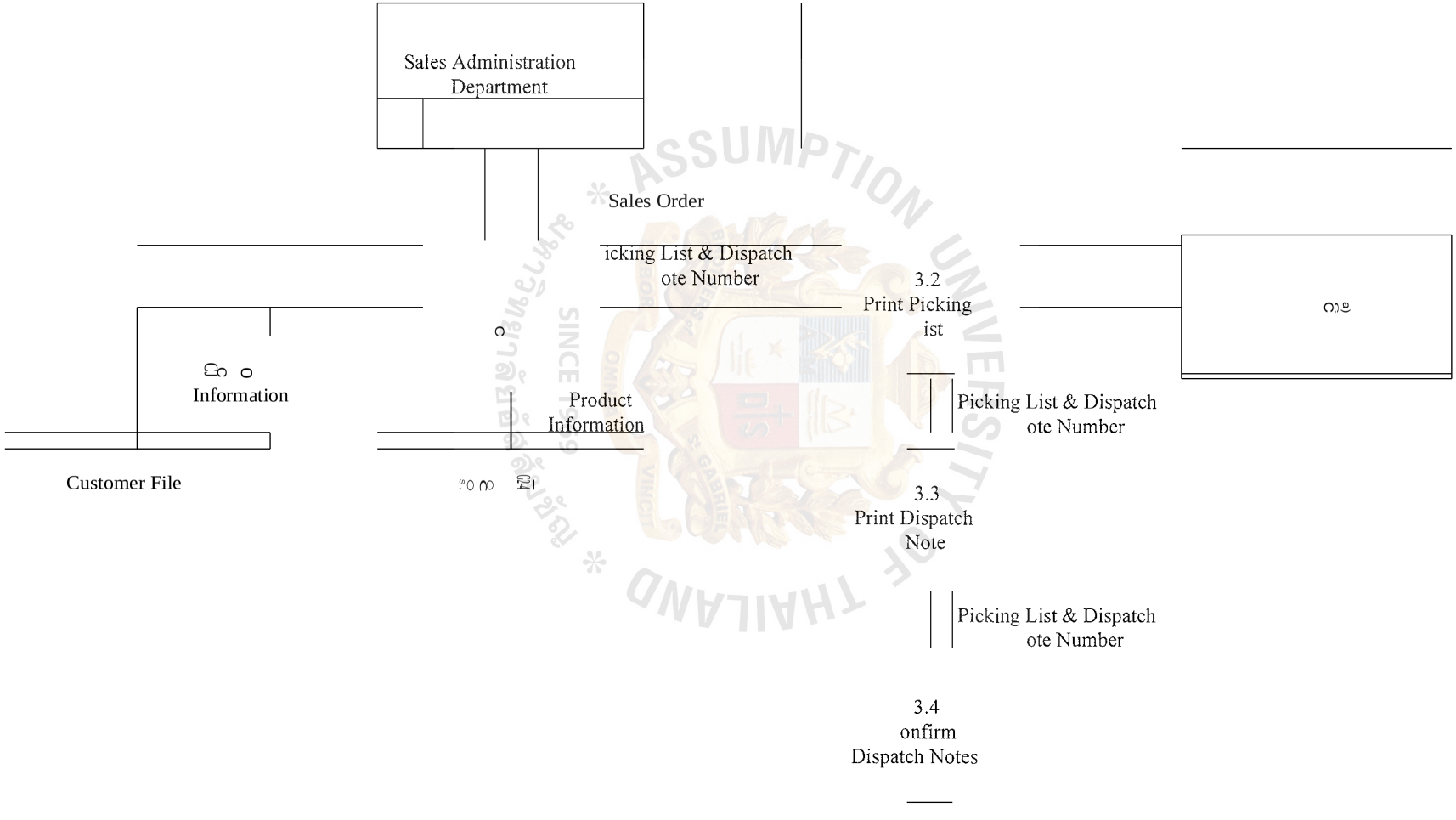
They print the credit note and goods returned report to send all returned products back to the Warehouse.

(d) Update credit note

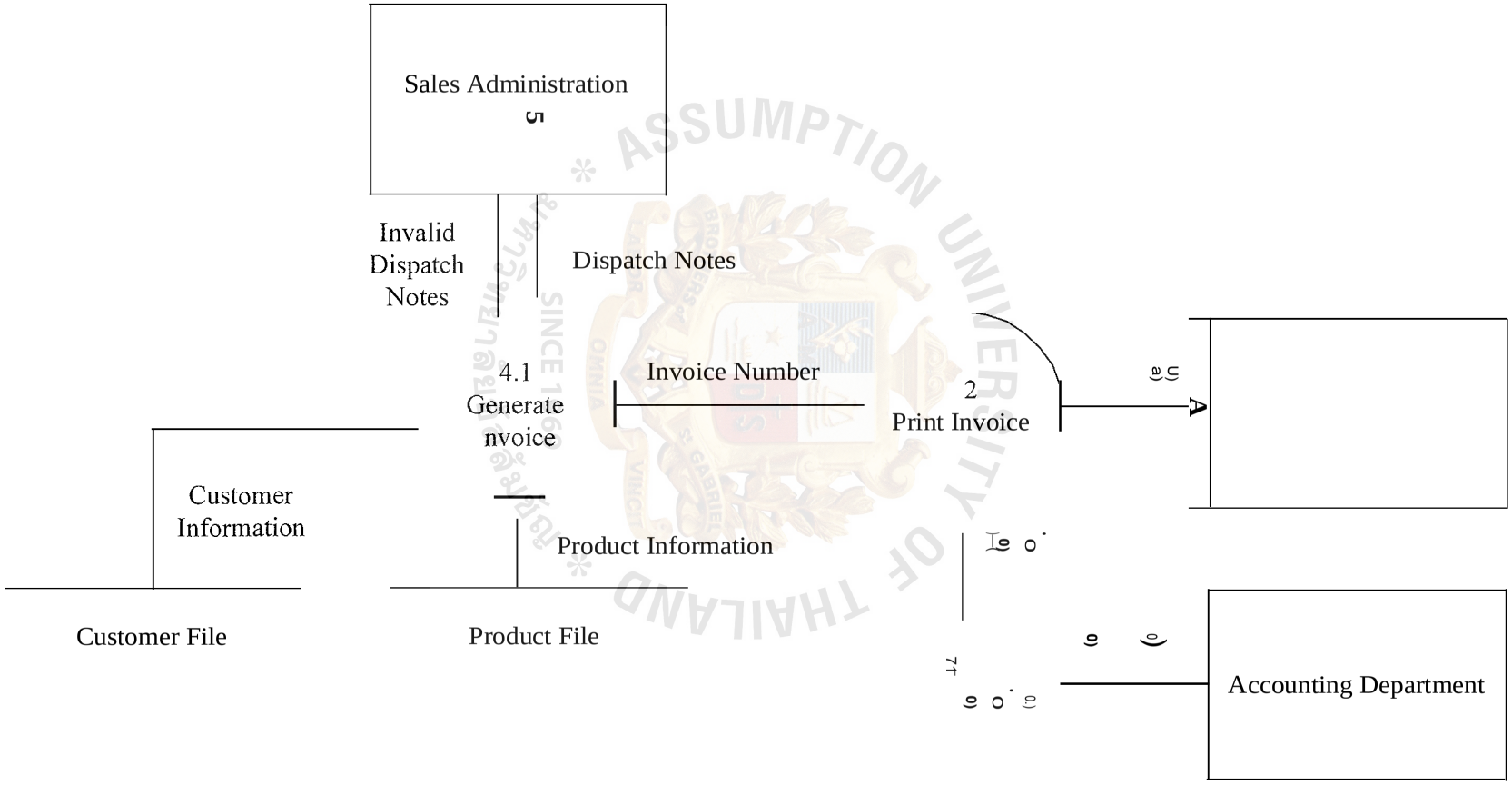
They have to update the credit note to confirm that the customer has received all credit notes.



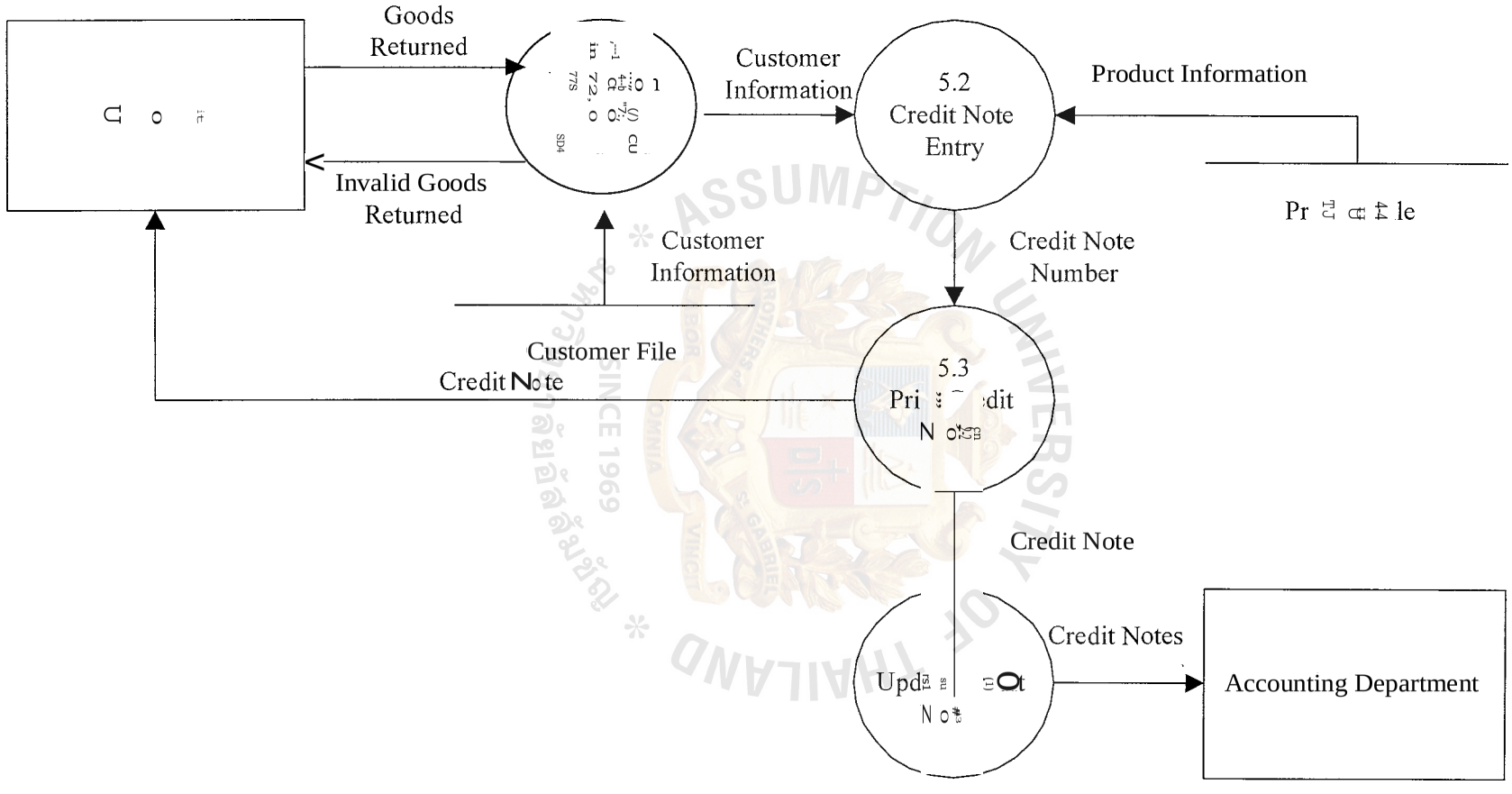
Logical Data Flow Diagram of the Proposed System for Sales Order (Level 1).



Logical Data Flow Diagram of the Proposed System for the Picking List and Dispatch Notes (Level 1).



Logical Data Flow Diagram of the Proposed System for Invoices (Level 1).



Logical Data Flow Diagram of the Proposed System for Credit Notes (Level 1).

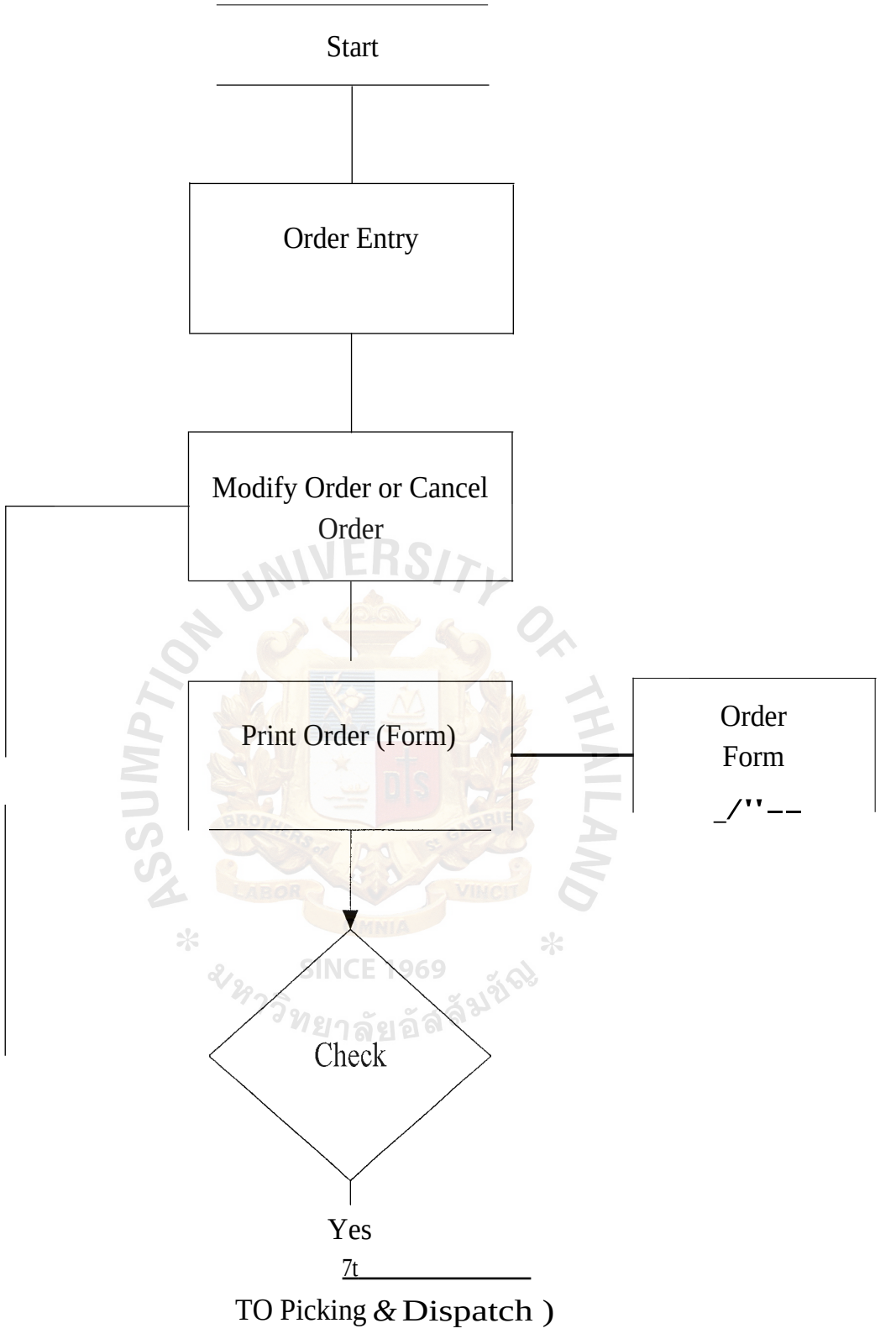


Figure 4.8. The Flow Chart of Sales Order.

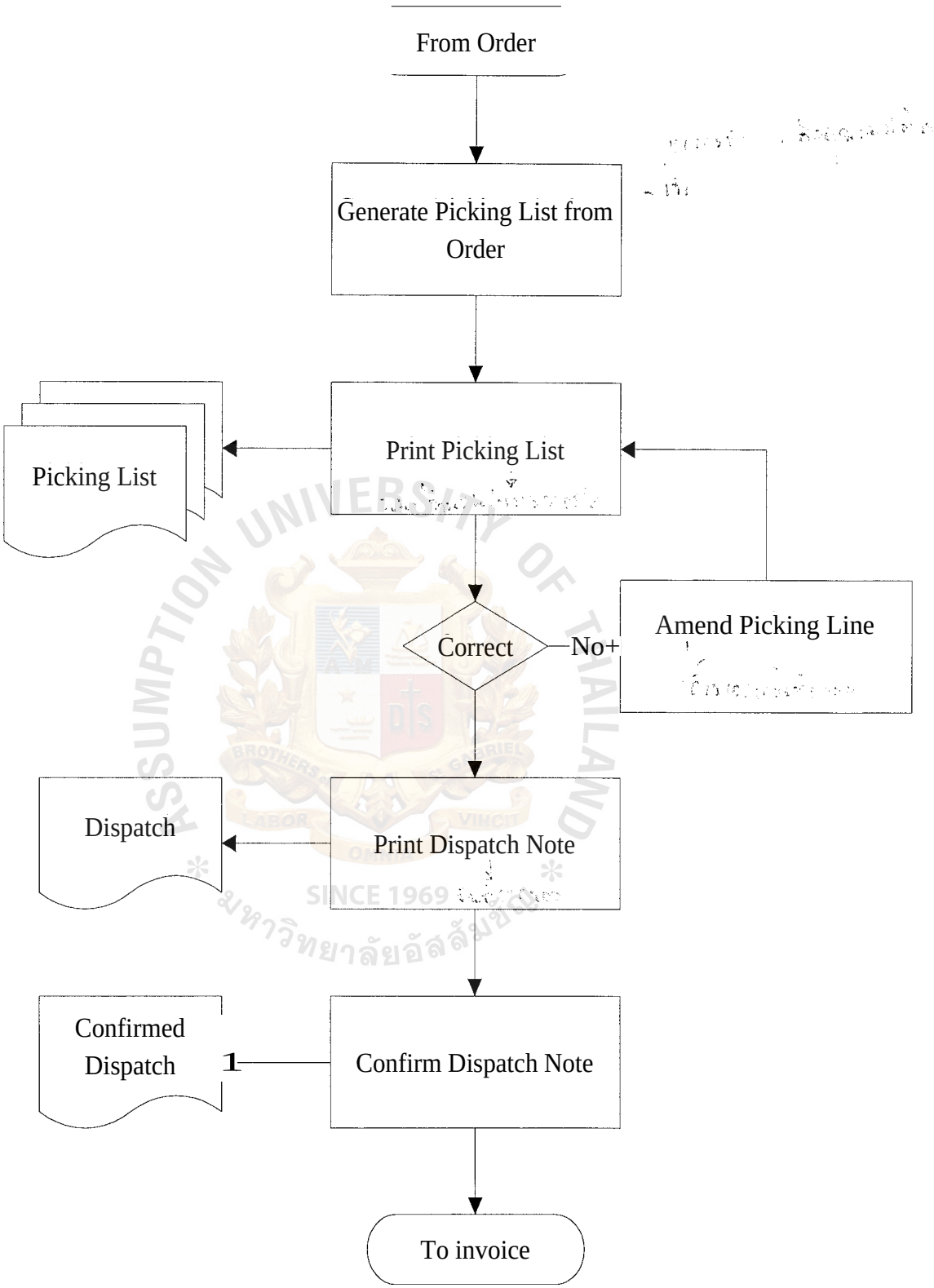


Figure 4.9. The Flow Chart of the Picking List and Dispatch Note.

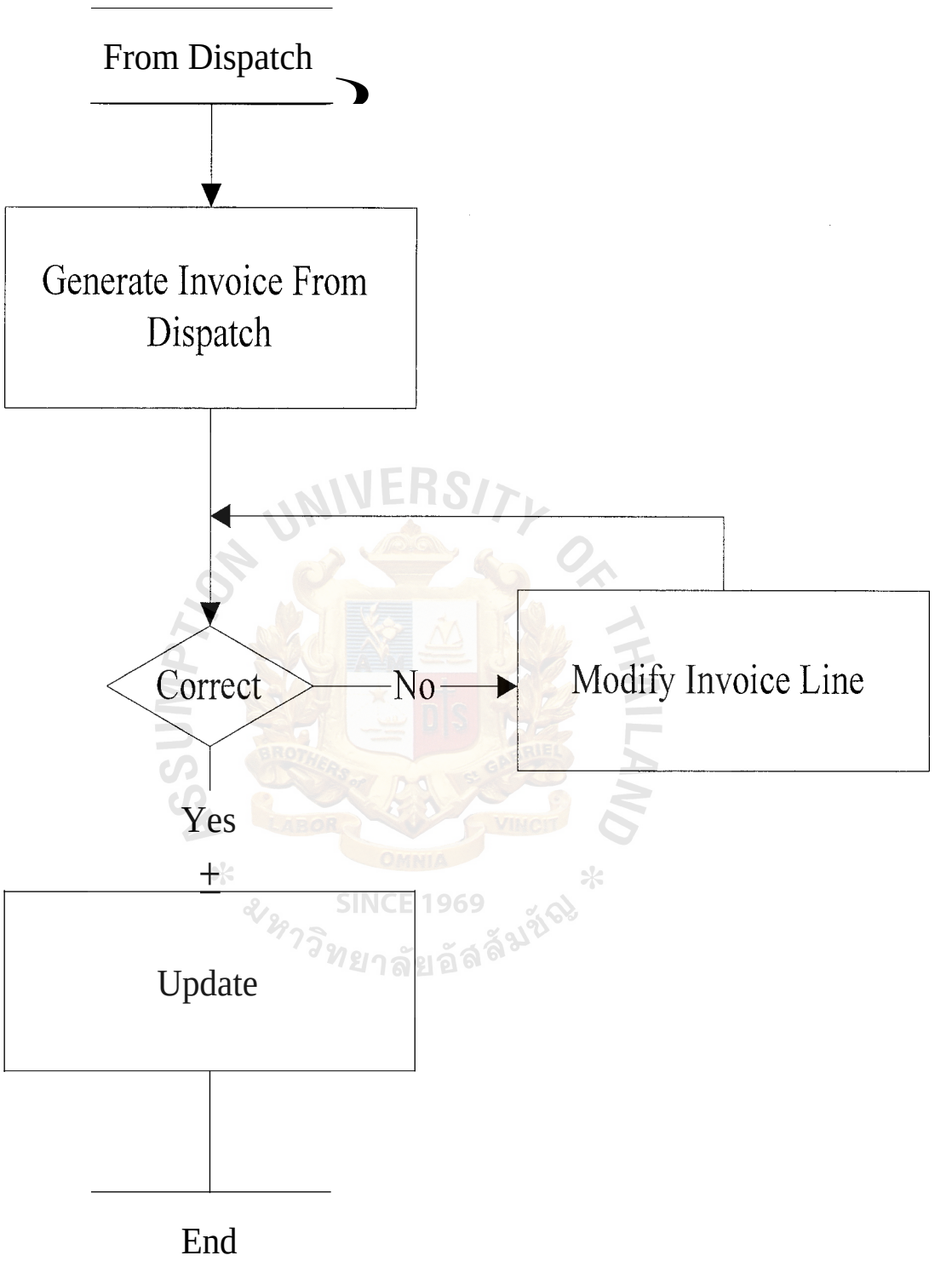


Figure 4.10. The Flow Chart of the Invoice.

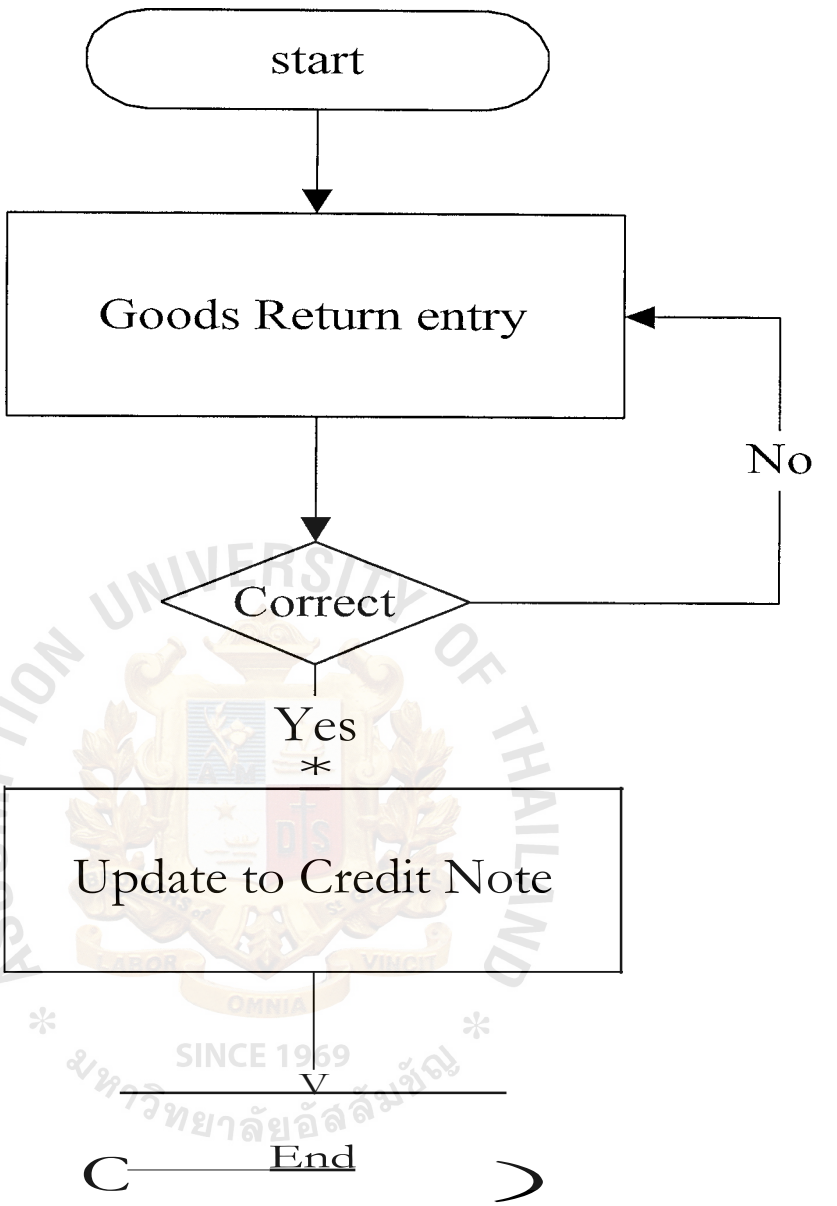


Figure 4.11. The Flow Chart of the Credit Note.

4.3 The Proposed New Database Design

In Figure 4.12, the team developer selects ORACLE DBMS to manage all data. See Appendix A.

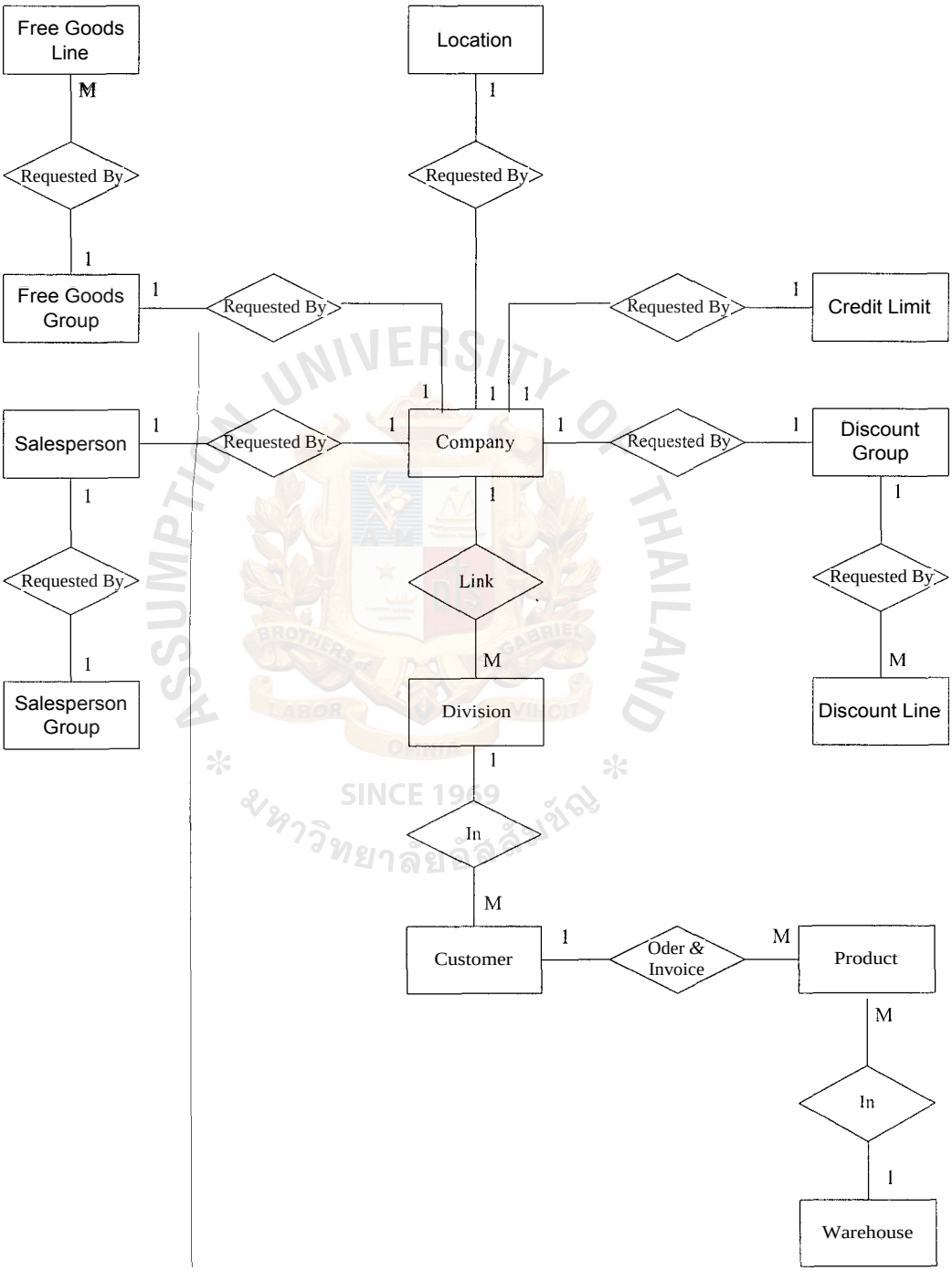


Figure4.12. Entity Relationship Diagram of the Proposed System.

4.4 The Proposed Network Configuration

The proposed network configuration type is the Ethernet Network. Ethernet connection is a coaxial cable and a twisted-pair wire. All workstations and printers are shareable, the users can use every workstation and printer. The speed of the MODEM is 128 K bit. The company uses 1 server and link between two sites, the head office and the factory by using the MODEM as a connector. The company uses 12 workstations and 4 printers linked in to the network by HUB as shown in Figure 4.13.

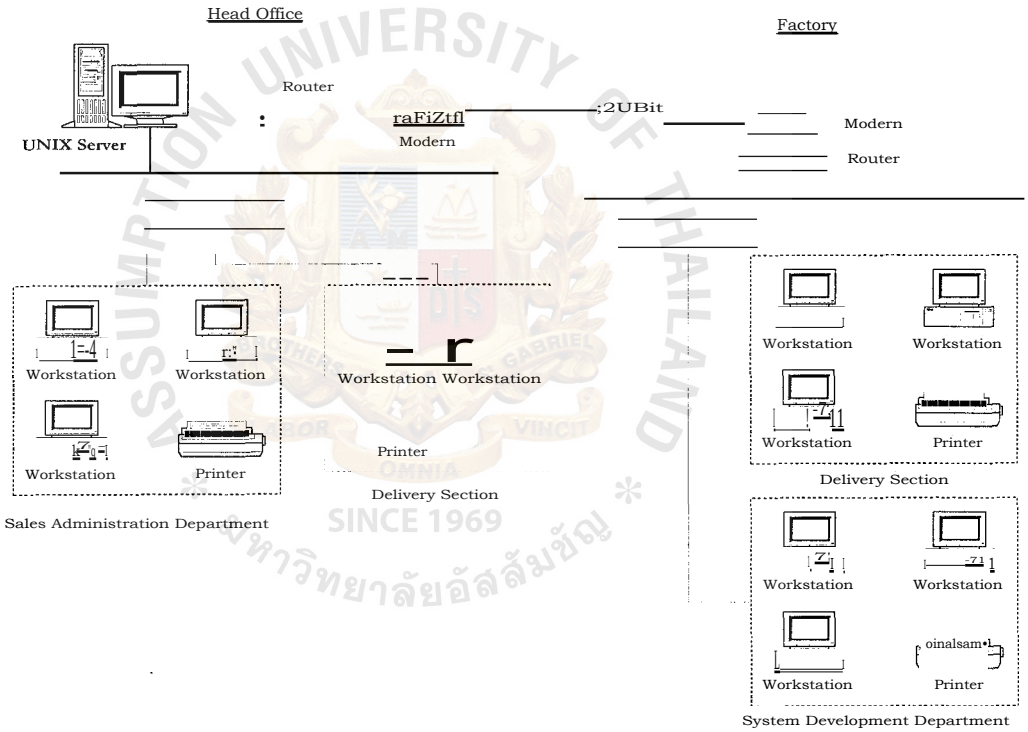


Figure 4.13. Network Configuration of the Proposed System.

4.5 Hardware and Software Requirements

(a) Hardware Requirements

Table 4.1. Hardware Requirements.

Hardware Model	Specification	Quantity	Price/Unit
1. Compaq Alpha Server 800	- Alpha 21164 500 MHZ processors - Up to 4 GB memory - Incredible 5.3 GB/sec memory bandwidth - Two 256-bit wide (512 total) data paths employing new cross-bar switching technology - Dual 64-bit PCI buses for 532 MB/sec I/O throughput - Support of Tru64 UNIX, OpenVMS, Linux, and Window NT - Includes Internet-energized software and server management software	1	314,000
2. Router	- Support Ethernet full duplex function	2	10,000
3. HUB ALH-116s	- 16 Ports stackable Ethernet hub with one AUI and BNC network backbone connection port. - Simple installation, no configuration required. - Transfer rate: 10miIlion bits/second	2	20,000
4. Modem	- Lease Telecommunication Authority of Thailand	2	15,000
5. Personal Computer	- Asustek MEL-M with celeron 400 - 128 KB L2 cache - ATX form factor with intel 440LX - 2 Universal Serial Bus (USB) port - 64 MB SDRAM - 1.44 MB 3.5" Floppy Drive (TEAC) - 4.3 GB Ultra DMA/66 (SEAGATE) - 14" Color monitor (PHILIPS 104e) - ATX Tower case with Power 230 W. - PS/2 Keyboard 107 key support WIN'98 - PS/2 Mouse	12	21,900

Table 4.1. Hardware Requirements. (Continued)

Hardware Model	Specification	Quantity	Price/Unit
6. UPS Syndome SZ-802	- 800 VA - 15-30 minutes battery reserve	1	8,400
7. Dot Matrix Printer — EPSON LQ2180i	- 24 pin - 440 cps speed - 64 kb memory	4	25,000

(b) Software Requirement

(1) Operating System UNIX

(2) System Development Software Visual Basic Version 6.0

(3) Relational Database Management System (RDBMS) : Oracle V.8.15

4.6 Cost/Benefit Analysis

(a) System Development Cost/Benefit Estimate for the Proposed System for the first three years.

(1) Development Costs

(a) Hardware 675,200 Bahts

(b) Software

(1) Visual Basic V 6.0 80,000 Bahts

(2) UNIX operation system 120,000 Bahts

Total Development Costs 875,200 Bahts

(2) Operating Costs

Table 4.2. The Cost-Benefit Analysis for the Proposed System.

Cost	**First Year**	**Second Year**	**Third Year**
Hardware/Software Maintenance and Upgrade	65,000	68,000	70,000
Training	20,000	15,000	8,000
Total Operation Cost	85,000	83,000	78,000
Benefit	**First Year**	**Second Year**	**Third Year**
Reduced Inventory Cost	50,000	52,000	53,000
Reduce Material and Personnel	25,000	30,000	35,000
Total Benefit	75,000	82,000	88,000
Accumulated Gain or (Loss)	(10,000)	(1,000)	10,000

(b) System Development Cost/Benefit Estimate for Proposed System for first three years.

Table 4.3. The Cost-Benefit Analysis for Current System.

Cost	**First Year**	**Second Year**	**Third Year**
Hardware/Software Maintenance and Upgrade	42,000	47,000	55,000
Training	20,000	25,000	30,000
Total Operation Cost	62,000	72,000	85,000
Benefit	**First Year**	**Second Year**	**Third Year**
Reduced Inventory Cost	-	-	-
Reduce Material and Personnel	20,000	15,000	12,000
Total Benefit	20,000	15,000	12,000
Accumulated Gain or (Loss)	(42,000)	(57,000)	(73,000)

From Table 4.2 and 4.3, we can compare that the cost-benefit analysis of the proposed system is better than the current system because the company can decrease personnel, and material cost in operation.

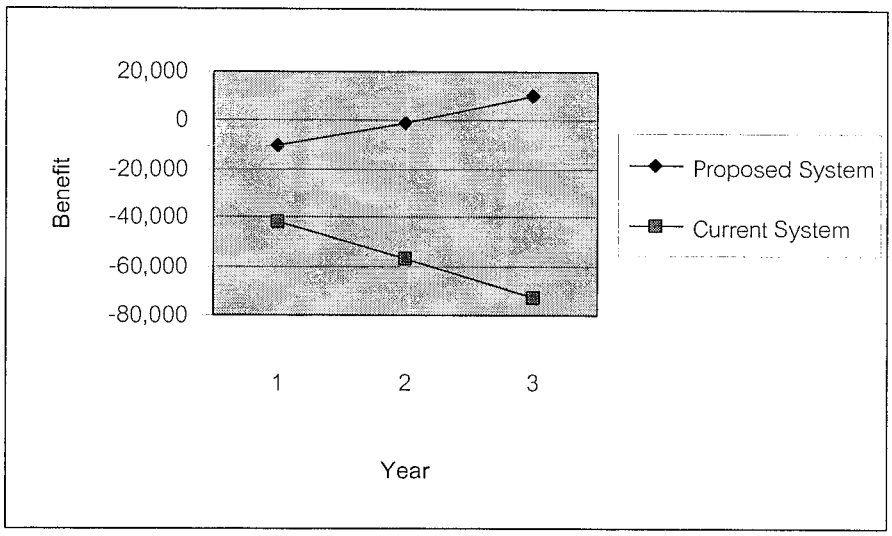


Figure 4.14. The Comparison between Proposed and Current System.

4.7 Security and Control

The data in the system is important. A satisfactory level of sharability must be supported and unauthorized access must be prohibited. The following security and control methods are proposed for this system:

(a) To assure authentication and proper access, a password is provided into the program for the users to have an access to certain sensitive areas in the data.

(b) All input forms must be checked and verified by an authorized person before data entry.

(c) To prevent loss of data during a power failure, the UPS (uninterrupted Power Supply) is recommended.

(d) The hardware and printer should not be left unattended when they are printing any information.

(e) Whenever the computer is turned down, check the correctness of time since the reports have the current date printed on them.

(f) To prevent an error accident that may destroy the files during processing, backup is using to recover any destroyed information or an error on files.

4.8 Project Testing and Implementation

(a) Testing is the process of executing all or some parts of the system in order to discover any errors. Testing of specific programs, subsystems and the total system is essential for quality assurance of software. It is done to display up any existing problems with programs and their interface before the system is actually used. Typically, testing is carried out by means of a bottom-up fashion, which is described as follows:

(1) Program Testing

The programmer follows each step in the program specification to check whether the routine works can be carried out as is written. The valid and invalid tested data are created and then input into the system. Then the program is run in order to test all possible situations that might occur in the future.

(2) Link Testing

This step is done to see if the programs, which are interdependent, can actually work together as planned.

(3) System Testing

When link tests are concluded satisfactorily, the system as a complete entity must be tested. The objective of the entire system testing is to ensure that the users are able to input the data properly

and the overall system flow can work properly. In other word, the test is carried out to ensure that the entire system functions as a whole.

(b) Implementation is a process of assuring that the information system is operational and then involves well-trained users in its operation. The actual implementation will follow the project schedule as a guideline, however, additional factors that arise in the normal course of the project evolution should be considered. The team must establish plans that phase in deliverables in a reasonable manner. In large system project, the primary role of the analyst is overseeing implementation by correctly estimating the time needed, and then supervising the installation of equipment for the traditional system, training of users and converting files and the database to the new system. There are two steps involved in implementing the proposed system as follows:

(1) User training

This is an important part of implementation, since the users must be able to run the whole system without the intervention of the analyst. The analyst has to consider who needs to be trained, who will train them, objectives of training, methods of instruction to be used, sites, material and time.

(2) Data conversion

The analyst has several strategies for converting the data of previous system to the new system.

4.9 Project Plan

The project plan is represented in Gantt Chart as follows:

Project Plan.

5. 4. 3. 2. 1. 3. 2. 1.

	August												November			
System Analysis																
Gather Information of an Existing System																
Identify Working Process of an Existing system																
Develop Data Flow Diagram of an Existing System																
Detail Analysis and System Design																
Gather Information of user requirement																
Develop Data Flow Diagram of the Proposed System																
Develop Entity Relationship Diagram																
Data Dictionary																
Develop Programming, Screen Layout and Report layout																

V. CONCUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The purpose of Sales Order Processing development system is to solve the current system by analyzing, designing, testing and implementing the system to support all company users. Since the existing system is the combination of computer and manual system, which causes many problems, the computerized system is then developed in order to meet user's requirement.

From the existing system, the user needs the new computerized system to provide timely, correct and reliable system. During analysis phase, it is obvious that the information derived from the proposed system could support the top management in decision making and operational staff in work procedures in order to gain the competitive advantage.

The proposed system can also reduce the workload of manpower with computerized system. The operation can meet user's requirement because the new system is faster, more accurate, complete, up-to-date and serve for Y2K. So, the standardized data are results of investigating, analyzing and classifying the functional activities of the company in terms of their data needs. Standardized data can reduce the duplicating effort in data recording and inspire the greatest consciousness in maintaining the database.

Finally, the system developer team found out that there are many additional benefits in developing this project as follows:

(a) Provide effective works in sales and accounting.

(b) Reduce losses from wrong giving promotion, pricing and discount calculation.

(c) The new application software is more user friendly.

(d) Faster issuing all business document and report.

5.2 Recommendations

There are some recommendation to improve the efficiency of work and the accuracy of information that:

(a) The company should plan to develop another module such as Inventory Control, Account Receivable, and etc. in order to integrate all business application together to increase the efficiency of work procedure.

(b) The system developer team should develop Standard Operating Procedure to provide the end users. They will work at the right procedure that causes to reduce in supporting time of the system developer team and they can help themselves before calling the system developer team.

(c) The company should use Electronic Data Interchange (EDI) to link The Sales Order Processing Module in order to decreasing the error of fax received and cost.

APPENDIX A

DATA DICTIONARIES

Table A.1. Company.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Company Code
Description	30	Text	Name Of Company
Addressl	30	Text	Addressl Of Company
Address2	30	Text	Address2 Of Company
Address3	30	Text	Address3 Of Company
Address4	30	Text	Address4 Of Company
Tax_Reference	30	Text	Tax Reference

Table A.2. Customer Group.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Customer_Group	6	Text	Group Of Customer
Description	30	Text	Description Of Customer Group

Table A.3. Currency Code.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Company Code
# Currency_Code	6	Text	Currency Code
Description	30	Text	Description
Money Name_Single	8	Text	Money Name Single
Money Name_Plural	8	Text	Money Name Plural
Money_Name Decimal_Single	8	Text	Money Name Decimal Single
Money Name_Decimal Plural	8	Text	Money Name Decimal Plural
Currency_Print Flag	1	Text	Currency Print Flag
Sys_Currency_Short_Desc	15	Text	Sys Currency Short Description
Sys Currency Mask	20	Text	Sys Currency Mask
Country_Code	6	Text	Country Code

Table A.4. Credit Limit Code.

Attributes	Field Length	Field Type	Field Description
#Company Code	10	Text	Company Code
#Credit_Limit Code	6	Text	Credit Limit Code
Description	30	Text	Description Of Credit Limit

Table A.S. Country Code.

Attributes	Field Length	Field Type	Field Description
#Company_Code	Text	10	Company Code
#Country_Code	Text	6	Country Code
Description	Text	30	Descriptione Of Country

Table A.6. Locations.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Location_Code	6	Text	Code Of Location
Description	30	Text	Description Of Location

Table A.7. Salespersons.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Company Code
#Salesperson Code	6	Text	Code Of Salesperson
Description	30	Text	Name Of Salesperson
Sales_Commission_Code	6	Text	Sales Commission Group
Phone	21	Text	Number Of Telephone
Addressl	30	Text	Address 1
Address2	30	Text	Address 2
Address3	30	Text	Address 3
Address4	30	Text	Address 4

Table A.8. Sales Commission Codes.

Attributes	Field Length	Field Type	Field Description
#Company Code	10	Text	Code Of Company
#Sales_Commission_ Code	6	Text	Sales Commission Group
Description	30	Text	Item Description
Commission Rate	8	Number	Commission Rate

Table A.9. Sales Commission Lines.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Sales_Commission_ Code	6	Text	Sales Commission Group
#Salesperson_Code	6	Text	Salesperson Code
Commission Rate	8	Number	Commission Rate
Percent On Order	8	Number	Percent On Order
Percent_On_Invoice	8	Number	Percent On Invoice
Percent On_Cash	8	Number	Percent On Cash
Percent Other	8	Number	Percent Other

Table A.10. Tax Codes.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Tax_Code	6	Text	Code Of Tax
Description	30	Text	Item Description

Table A.11. Division.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division

Table A.11. Division. (Continued)

Attributes	Field Length	Field Type	Field Description
Division_Name	30	Text	Division Name
Current_Period	2	Text	Current Period
Current_ Year	4	Text	Current Year
Def Tax Code	6	Text	Default Tax Code
Discount_Flag	1	Text	Settlement Discount Exclusive / Inclusive Of Tax
Post_Future Flag	1	Text	Allow Posting To Future Periods
Post_Past_Flag	1	Text	Allow Posting To Past Periods
Freight_Taxable	1	Text	Freight Taxable
Miscell_Aneous_Taxable	1	Text	Miscell Aneous Taxable
Use Taxable_Value	1	Ye/No	Calc Sales Tax On Taxable Value
Go Live	1	Yes/No	Is This Module Live
Line Discount Inv Flag	6	Text	Line Discount Inventory Flag
Line Discount Cust Flag	6	Text	Line Discount Customer Flag
Line Discount_Break On	6	Text	Line Discount Break On Flag
Line_Discount_Break_On	6	Text	Line Discount Break On Flag
Line_Discount_Calc_Flag	6	Text	Line Discount Calculate Flag
Line Discount Override	1	Yes/No	Override Line Discount
Order_Discount_Break_On	6	Text	Order Discount Break On Flag
Order Discount_Calc_Flag	6	Text	Order Discount Calculate Flag
Order Discount Override	1	Yes/No	Override Order Discount
Sales_Price_History	1	Yes/No	Sales Price History In Use
Sales_Commission In Use	1	Yes/No	Sales Commission In Use
Sales_Comm_Net_Ldisc	1	Yes/No	Sales Commission Net Of Line Discount
Sales Comm Net Odisc	1	Yes/No	Sales Commission Net Of Order Discount
Line_Discount In_Use	1	Yes/No	Is Line Discounting In Use
Order_Discount_In_Use	1	Yes/No	Is Order Discounting In Use
Exclude Vat Flag	1	Yes/No	Exclude Vat

St.

Table A.12. Credit Limit Controls.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Credit_Limit Code	6	Text	Code Of Credit Limit
Description	30	Text	Item Description
Warning_Limit	8	Number	Credit Warning Limit
Abort Limit	8	Number	Credit Abort Limit
Manual Auto Halt	1	Text	Manual/Auto Status
Credit_Status_Code	6	Text	Credit Status Code
Order_Entry_Warning	1	Yes/No	Flag
Order Entry Balance	1	Yes/No	Flag
Order_Entry_Picking	1	Yes/No	Flag
Order_Entry_Warning	1	Yes/No	Flag
Order_Entry_Os_Order	1	Yes/No	Flag
Picking_Warning	1	Yes/No	Flag
Picking_Balance	1	Yes/No	Flag
Picking	1	Yes/No	Flag
Picking_Warning	1	Yes/No	Flag
Picking Os Order	1	Yes/No	Flag
Despatch Warning	1	Yes/No	Flag
Despatch Balance	1	Yes/No	Flag
Despatch_Picking	1	Yes/No	Flag
Despatch	1	Yes/No	Flag
Despatch_Os Order	1	Yes/No	Flag
Invoice_Warning	1	Yes/No	Flag
Invoice Balance	1	Yes/No	Flag
Invoice Picking	1	Yes/No	Flag
Invoice_Despatch	1	Yes/No	Flag
Invoice_Os_Order	1	Yes/No	Flag
Days Overdue	2	Number	Number Of Days Overdue
Min Trans Value	8	Number	Minimum Transaction Value
Hold_Transactions	1	Yes/No	Hold All Transactions Flag
Order_Entry_Abort	1	Yes/No	Credit Action Flag
Picking_Abort	1	Yes/No	Credit Action Flag
Despatch_Abort	1	Yes/No	Credit Action Flag
Invoice Abort	1	Yes/No	Credit Action Flag
Order Debits	1	Yes/No	Credit Action Flag
Picking_Debits	1	Yes/No	Credit Action Flag

Table A.12. Credit Limit Controls. (Continued)

Attributes	Field Length	Field Type	Field Description
Despatch_Debits	1	Yes/No	Credit Action Flag
Invoice_Debits	1	Yes/No	Credit Action Flag
Order_Entry_Pdc	1	Yes/No	Flag
Picking_Pdc	1	Yes/No	Flag
Despatch Pdc	1	Yes/No	Flag
Invoice Pdc	1	Yes/No	Flag

Table A.13. Currency Rates.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
Currency_Rate	8	Number	Currency Rate
#Currency Code	6	Text	Code Of Currency
Description	30	Text	Item Description

Table A.14. Credit Terms.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Credit_Terms Code	6	Text	Code Of Credit Term
Description	30	Text	Item Description
Payment Code	6	Text	Payment Code
Date_Payment_Type	6	Text	Date Payment Type
Cutoff Day	7	Number	Cutoff Day
Day_Periods	7	Number	Day Periods
Percent_Due	8	Number	Percent Due
Day In Period Due	7	Number	Day In Period Due
Day Of Month_Due	7	Number	Day Of Month Due

Table A.15. Tax Rates.

Attributes	Field Length	Field Type	Field Description
#Company Code	10	Text	Code Of Company
#Tax_ Code	6	Text	Code Of Tax
Tax_Rate	8	Number	Tax Rate
Tax_Description	30	Text	Item Description
Activation Status	1	Text	Stratus Code

Table A.16. SOP Transaction Type.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Transaction Type	2	Text	Transaction Type
Description	30	Text	Item Description
Manual_Number	1	Yes/No	Manual Number Transactions
Transaction Number	4	Text	Transaction Number
Dorc Indicator	2	Number	Debit Or Credit Indicator

Table A.17. Customer Discount Groups.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Customer Discount Group	6	Text	Customer Discount Group
Description	30	Text	Item Description

Table A.18. Sales Discount Lines.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division

Table A.19. Sales Discount Lines. (Continued)

Attributes	Field Length	Field Type	Field Description
#Discount Key Customer	8	Text	Discount Key For Customer
#Discount Key_ Part	15	Text	Discount Key Part
Warehouse	2	Text	Warehouse
Break_Discount	8	Number	Break Discount 1
Discount_Change_Date	7	Date/Time	Date Of Discount Change
Break_Discount_l	8	Number	Break Discount 2
Currency_Code	6	Text	Code Of Currency
Qty_Value_Break	8	Number	Quantity /Value Price Break

Table A.20. Promotion Discounts.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
Rst_Level	2	Text	Level
#Rst_Key_Part	15	Text	Part Key
#Rst_Key_Customer	8	Text	Customer Key
Rst_Start_Date	7	Date/Time	Start Date
Rst End Date	7	Date/Time	End Date

Table A.21. Promotion Discount Lines.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
Rst_Level	2	Text	Level
#Rst_Key_Part	15	Text	Part Key
#Rst_Key_Customer	8	Text	Customer Key
Qty Value Break	8	Number	Qty Value Break
Break_Discount	8	Number	Break Discount
Break_Discount 1	8	Number	Break Discount

Table A.22. Special Discounts.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
Rst Level	2	Text	Level
#Rst_Key_Part	15	Text	Part Key
#Rst_Key_Customer	8	Text	Customer Key
Rst Start Date	7	Date/Time	Start Date
Rst End Date	7	Date/Time	End Date

Table A.23. Special Discount Limes.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
Rst Level	2	Text	Level
#Rst_Key_Part	15	Text	Part Key
#Rst_Key_Customer	8	Text	Customer Key
Qty_ Value_ Break	8	Number	Qty Value Break
Break_Discount	8	Number	Break Discount
Rst_Start_Date	7	Date/Time	Start Date
Rst End Date	7	Date/Time	End Date

Table A.24. Free Part.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Part_Code	15	Text	Part Code
Rst_Level	2	Text	Level
#Rst_Key_Customer	8	Text	Customer Key
Rst_Start Date	7	Date/Time	Start Date
Rst End_Date	7	Date/Time	End Date
Main Free Part	15	Text	Free Part Code

Table A.25. Free Part Lines.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Part_Code	15	Text	Part Code
Rst Level	2	Text	Level
#Rst Key_Customer	8	Text	Customer Key
Invoice Quantity	8	Number	Invoice Quantity
Rst Free_Part	15	Text	Free Part Code
RstFreeQuantity	8	Number	Free Quantity
Credit Note Flag	1	Yes/No	Credit Note Flag
Rst Start Date	7	Date/Time	Start Date
Rst End_Date	7	Date/Time	End Date
Main_Free_Part	15	Text	Free Part Code

Table A.26. Group Component.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Rst_Group_Code	6	Text	Free/Discount Group
#Part_Code	15	Text	Part Code
Sequence	2	Text	Sequence Number

Table A.27. Group Details.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Rst_Group_Code	6	Text	Free/Discount Group
Rst Level	2	Text	Level
#Rst Key Customer	8	Text	Customer Key
Rst Start Date	7	Date/Time	Start Date
Rst_End_Date	7	Date/Time	End Date
Main_Free_Part	15	Text	Free Part Code

Table A.28. Group Free.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Rst_Group_Code	6	Text	Free/Discount Group
Rst_Level	2	Text	Level
#Rst Key_Customer	8	Text	Customer Key
Invoice_ Quantity	8	Number	Invoice Quantity
Rst_Free_Part	15	Text	Free Part Code
Rst_Free_Quantity	8	Number	Free Quantity

Table A.29. Group Headers.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Rst_Group_Code	6	Text	Free/Discount Group
Rst Group_Description	30	Text	Group Description
Rst_Start_Date	7	Date/Time	Start Date
Rst_End_Date	7	Date/Time	End Date
Rst Limit	2	Number	Limit

Table A.30. Group Lines.

Attributes	Field Length	Field Type	Field Description
#Company_Code	10	Text	Code Of Company
#Division	2	Text	Division
#Rst_Group_Code	6	Text	Free/Discount Group
Qty Value_Break	8	Number	Quantity/Value Price Break
Line_Discount	8	Number	Line Discount
Rst_Level	2	Text	Level
#Rst Key_Customer	8	Text	Customer Key

Table A.31. Customers.

Attributes	Field Length	Field Type	Description
#Compay Code	10	Text	Company Code
#Division	2	Text	Division
#Customer Number	8	Text	Customer Number
Customer_Name	30	Text	Customer Name
Address_1	30	Text	Address Line 1
Address _2	30	Text	Address Line 2
Address_3	30	Text	Address Line 3
Address _4	30	Text	Address Line 4
Phone	20	Text	Phone Number
Fax_Number	21	Text	Fax Number
Tax Reference	8	Text	Tax Reference
Status Flag	1	Text	Status Flag
System_Date	7	Text	System Date
Username	12	Text	Username
Line_DiscountGroup	6	Text	Line Discount Group
Credit Limit Code	6	Text	Credit Limit Code
Credit Term Code	6	Text	Credit Term Code
Currency_Code	6	Text	Currency Code
Salesperson_Code	8	Text	Salesperson Code
Location	6	Text	Location
Customer Group	6	Text	Customer Group
Country Code	6	Text	Country Code

Table A.32. Product Master.

Attributes	Field Length	Field Type	Description
#Company_Code	10	Text	Company Code
#Product Code	15	Text	Product Code
Unit Of Measurement	6	Text	Unit Of Measurement

Table A.33. Warehouse.

Attributes	Field Length	Field Type	Description
#Company_Code	10	Text	Company Code
Warehouse	2	Text	Warehouse
Description	30	Text	Description

Table A.34. Dispatch Notes.

Attributes	Field Length	Field Type	Field Description
Company Code	10	Text	Company Code
Division	2	Text	Division
Dispatch_Number	4	Text	Dispatch Number
Date Created	7	Text	Date Created
Customer Number	8	Text	Customer Number

Table A.35. Dispatch Lines.

Attributes	Field Length	Field Type	Field Description
Company Code	10	Text	Company Code
Division	2	Text	Division
Dispatch_Number	8	Text	Dispatch Number
Dispatch_Sequence	4	Text	Dispatch Sequence
Dispatch Line	2	Text	Dispatch Line
Date Created	7	Text	Date Created
Pick List Number	8	Text	Pick List Number
Order Number	8	Text	Order Number
Order Date	7	Text	Order Date
Required_Date	7	Text	Required Date

Table A.35 Dispatch Lines. (Continued)

Attributes	Field Length	Field Type	Field Description
Customer Number	8	Text	Customer Number
Location	8	Text	Location
Salesperson_Code	8	Text	Salesperson Code
Customer Group	8	Text	Customer Group
Unit_Of Measure	4	Text	Unit Of Measure
Part_Code	15	Text	Part Code
Warehouse	2	Text	Warehouse
Period	2	Text	Period
Year	4	Text	Year
Dispatch_Qty	8	Text	Dispatch Quantity
Print Flag	1	Text	Print Flag

Table A.36. Credit Notes.

Attributes	Field Length	Field Type	Field Description
Company_Code	10	Text	Company Code
Division	2	Text	Division
Credit_Number	8	Text	Credit Number
Credit_Line_Number	4	Text	Credit Line Number
Credit Date	7	Text	Credit Date
Part Code	15	Text	Part Code
Warehouse	2	Text	Warehouse
Sales Price	8	Text	Sales Price
Unit Of Measurement	4	Text	Unit Of Measurement
Line Tax	8	Text	Line Tax

Table A.36. Credit Notes. (Continued)

Attributes	Field Length	Field Type	Field Description
Line Discount	8	Text	Line Discount
Customer Tax Code	5	Text	Customer Tax Code
Salesperson_Code	8	Text	Salesperson Code
Sales Commission Code	8	Text	Sales Commission Code
Location	8	Text	Location
Customer_Group	8	Text	Customer Group
Customer Number	8	Text	Customer Number
Status Flag	1	Text	Status Flag
Credit Quantity	8	Text	Credit Quantity
Invoice Line Reference	8	Text	Invoice Line Reference
Invoice Number	8	Text	Invoice Number
Invoice_Line_Number	8	Text	Invoice Line Number
Commission_Update Flag	1	Text	Commission Update Flag
Line Discount Percent	8	Text	Line Discount Percent
Username	12	Text	Username
System Date	7	Text	System Date
Sop Credit_Total_Currency	8	Text	Sop Credit Total Currency

Table A.37. Credit Notes Lines.

Attributes	Field Length	Field Type	Field Description
Company_Code	10	Text	Company Code
Division	2	Text	Division
Credit_Note_Number	8	Text	Credit Note Number
Invoice Line Number	4	Text	Invoice Line Number

Table A.37. Credit Notes Lines. (Continued)

Attributes	Field Length	Field Type	Field Description
Total_Tax	8	Text	Total Tax
Update	1	Text	Update
Credit_Note_Print_Flag	1	Text	Credit Note Print Flag
Total_Note_Quantity	8	Text	Total Note Quantity
Invoice_Discount Percent	8	Text	Invoice Discount Percent
Salesperson_Code	8	Text	Salesperson Code
Sales Commission Code	8	Text	Sales Commission Code
Location	8	Text	Location
Customer Group	8	Text	Customer Group
Credit_Note_Run Number	8	Text	Credit Note Run Number
Sopinvoice Year	4	Text	Sop Invoice Year
Sop Invoice_Period	2	Text	Sop Invoice Period
Username	12	Text	Username
System Date	7	Text	System Date
Sop Credit_Total_Currency	8	Text	Credit Total Currency
Sop_Credit_Total Base	8	Text	Credit Total Base
Currency Code	6	Text	Currency Code
Currency_Rate	8	Text	Currency Rate

Table A.38. Sales Order Headers.

Attributes	Field Length	Field Type	Field Description
Company_Code	10	Text	Company Code
Division	2	Text	Division
Order Number	8	Text	Order Number

Table A.38. Sales Order Headers. (Continued)

Attributes	Field Length	Field Type	Field Description
Customer_Number	50	Text	Customer Number
Order Date	7	Text	Order Date
Required_Date	7	Text	Required Date
Salesperson_Code	8	Text	Salesperson Code
Sales_Commission_Code	6	Text	Sales Commission Code
Location	8	Text	Location
Line Tax	8	Text	Line Tax
Line Discount	8	Text	Line Discount
Line Taxable Value	8	Text	Line Taxable Value
Total Tax	8	Text	Total Tax
Total Order Quantity	50	Text	Total Order Quantity
Order_Print_Flag	1	Text	Order Print Flag
Customer_Tax Code	5	Text	Customer Tax Code
Username	12	Text	Username
System_Date	7	Text	System Date
Sop Order Total_Currency	8	Text	Order Total Currency
Sop Order_Total Base	8	Text	Order Total Base
Currency_Code	8	Text	Currency Code
Total Line Value	8	Text	Total Line Value

Table A.39. Sales Order Lines.

Attributes	Field Length	Field Type	Field Description
Company_Code	10	Text	Company Code
Division	2	Text	Division
Invoice Number	8	Text	Invoice Number

Table A.39. Sales Order Lines. (Continued)

Attributes	Field Length	Field Type	Field Description
Invoice Line Number	4	Text	Invoice Line Number
Order Number	8	Text	Order Number
Order Line_Type	1	Text	Order Line Type
Part Code	15	Text	Part Code
Warehouse	2	Text	Warehouse
Unit Of Measurement	4	Text	Unit Of Measurement
Line Tax	8	Text	Line Tax
Line Discount	8	Text	Line Discount
Customer Tax Code	5	Text	Customer Tax Code
Salesperson_Code	8	Text	Salesperson Code
Sales Commission Code	8	Text	Sales Commission Code
Location	8	Text	Location
Customer_Group	8	Text	Customer Group
Customer Number	8	Text	Customer Number
Status_Flag	1	Text	Status Flag
Qty Invoice	8	Text	Quantity Invoice
Invoice Quantity	8	Text	Invoice Quantity
Commission_Update_Flag	1	Text	Commission Update Flag
Line_Discount_Percent	8	Text	Line Discount Percent
Username	12	Text	Username
System_Date	7	Text	System Date
Sop_Invoice_Total_Currency	8	Text	Invoice Total Currency
Sop_Invoice_Total_Base	8	Text	Invoice Total Base
Line Discount 2	8	Text	Line Discount2
Line_Discount_Percenti	50	Text	Line Discount Percentl
Line_Discount_Percent 2	8	Text	Line Discount Percent2

Table A.39. Sales Order Lines. (Continued)

Attributes	Field Length	Field Type	Field Description
Rst Free Line	6	Text	Rst Free Line
Rst Os_Quntity	8	Text	Rst Os Quntity
RstPartRatiol	8	Text	Rst Part Ratio 1
Rst Part_Ratio_2	8	Text	Rst Part Ratio2
Rst_Group_Ratio_1	8	Text	Rst Group Ratiol
Rst_Group_Ratio_2	8	Text	Rst Group Ratio2
Rst_Part_Sale_Quantity	8	Text	Rst Part Sale Quantity
Rst Part_Free_Quantity	8	Text	Rst Part Free Quantity
Outstanding_Invoice	8	Text	Outstanding Invoice

Table A.40. Sales Order Invoices.

Attributes	Field Length	Field Type	Field Description
Company_Code	10	Text	Company Code
Division	2	Text	Division
Order Number	8	Text	Order Number
Invoice Date	7	Text	Invoice Date
Customer Number	8	Text	Customer Number
Line Tax	8	Text	Line Tax
Line Discount	8	Text	Line Discount
Line_Taxable_Value	8	Text	Line Taxable Value
Total_Tax	8	Text	Total Tax
Salesperson_Code	8	Text	Salesperson Code
Sales Commission Code	8	Text	Commission Code
Location	8	Text	Location
Customer_Group	8	Text	Customer Group

Table A.40. Sales Order Invoices. (Continued)

Attributes	Field Length	Field Type	Field Description
Status_Flag	1	Text	Status Flag
Invoice_Discount_Percent	8	Text	Invoice Discount Percent
Invoice Discount	8	Text	Invoice Discount
Invoice Discount_Group	8	Text	Invoice Discount Group
Total_Invoice_Quantity	8	Text	Total Invoice Quantity
Invoice Print Flag	1	Text	Invoice Print Flag
Update_Flag	1	Text	Update Flag
Sop_Invoice_Year	4	Text	Invoice Year
Sop_Invoice_Period	2	Text	Invoice Period
Customer_Tax_ Code	5	Text	Customer Tax Code
Username	12	Text	Username
System Date	7	Text	System Date
Currency Code	6	Text	Currency Code
Currency_Rate	8	Text	Currency Rate
Sop_Invoice_Total_Currency	8	Text	Invoice Total Currency
Sop_Invoice_Total_Base	8	Text	Invoice Total Base
Rst_Group_Discount	8	Text	Rst Group Discount
Rst Free Line	6	Text	Rst Free Line

APPENDIX B

SYSTEM MANUAL FOR SALES ORDER PROCESSING

Steps of Using the Sales Order Processing Module

1. Step to Set up Code

This contains details of the maintenance of all codes required for the operation of the Sales Order Processing module. It is important that the use and meaning of the various codes is identified and that valid code records are created, before loading the master tables.

Step 1. Sign on to log into Sales Order Processing module

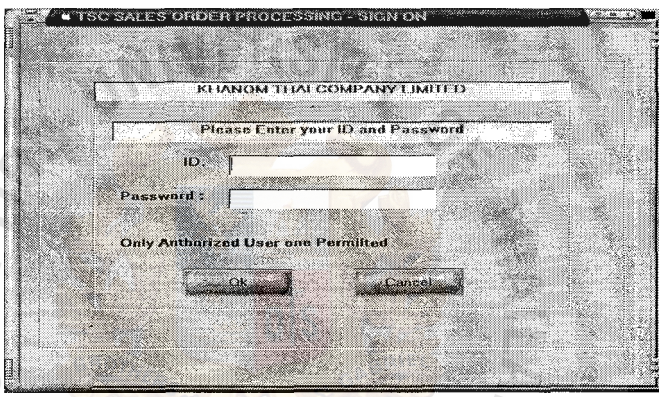


Figure B.1. Sign-on Screen.

Step 2. Double click on SET UP menu

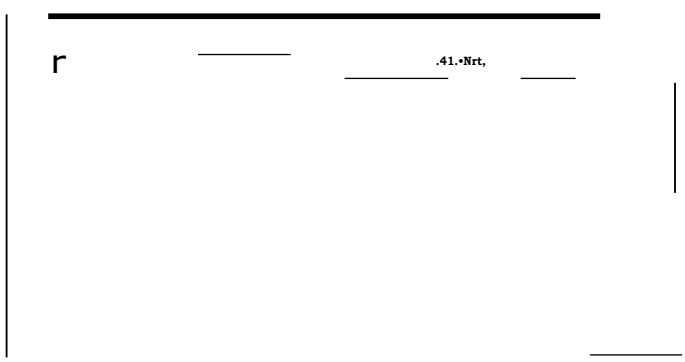


Figure B.2. Sales Order Processing Menu.

Step 3. Double click on menu which the user needs to set up.

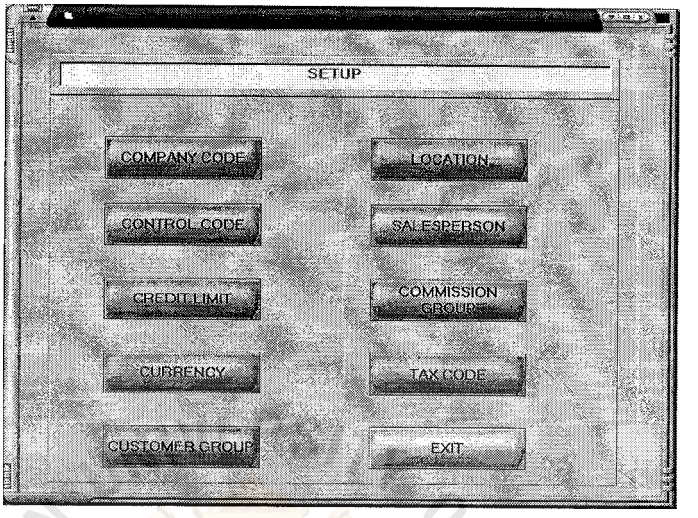


Figure B.3. Set Up Menu.

Step 4. Set up Company Code

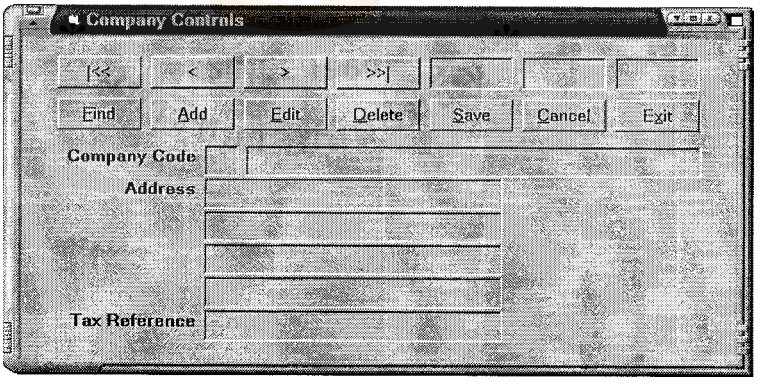


Figure B.4. Company Control Screen.

Screen Detail

(a) Company Code

The company code is used to control the company.

(b) Description

The company description has to be set up.

(c) Address

The company address has to be set up.

(d) Tax Reference

The company tax identification number has to be set up.

Step 5. Set Up Country Code

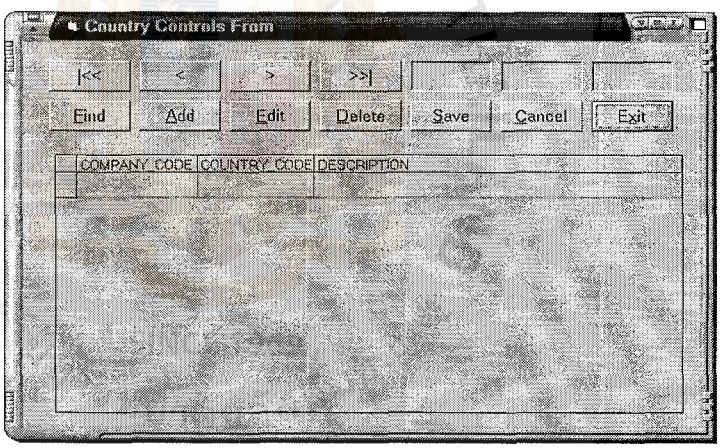


Figure B.5. Country Control Screen.

Screen Detail

(a) Company Code

The company code is used to control the company.

(b) Country Code

The country code is to be used when maintaining a customer record.

(c) Description

The country description has to be set up.

Step 6. Set Up Credit Limit code

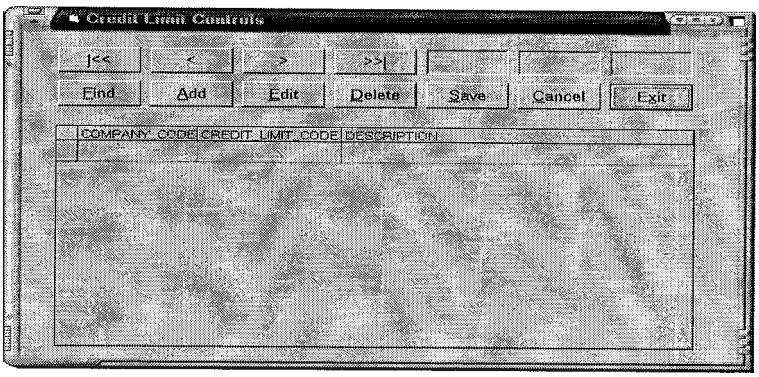


Figure B.6. Credit Limit Control Screen.

Step 7. Currency Code

These codes are needed when currency reporting is required. Where currency is in use, each customer must have a designated currency code and every transaction entered into the Sales Order Processing system will also have a currency code.

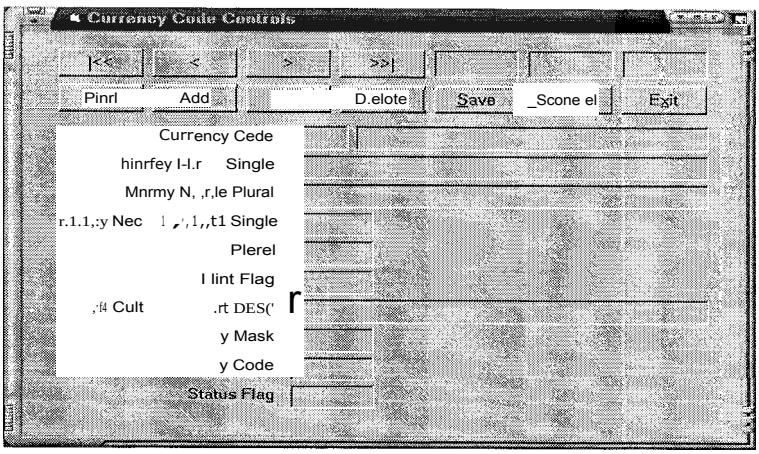


Figure B.7. Currency Code Control.

Screen Details

(a) Currency Code

(b) The currency code that is used to identify the currency that a transaction or balance is held in. Currency codes are also used to identify the current conversion rates from one currency to another.

(c) Currency Description

(d) A description to explain the code. It will be displayed for validation purposes, and where appropriate, on reports and inquiries.

(e) Alternative Currency Code

(f) The alternative currency code is used to record standard code. Any currency code here has a direct relationship with the currency code against which it is stored.

(g) Decimal Places

(h) The number of decimal places that the currency values are to be entered, stored and displayed in. The total size of all monetary values is set to 14 for the system. Within this, the number of significant and trailing decimals can be set for each currency by the number of decimal places.

(i) Currency Mask

(j) The money mask that will be applied to all values which are displayed or printed in the currency. A default mask is created based on the number of decimal places.

(k) Money Singular

(l) This field is accessed during printing of payments and should contain the name used for the currency in the singular. (for example, DOLLAR, POUND.)

(m) Money Plural

(n) This field is accessed during the printing of payments and should contain the name used for the currency in the plural. (For example, DOLLARS, POUNDS.)

(o) Decimal Singular

(p) This field is accessed during printing of payments and should contain the name used to refer to a single decimal unit of the money. (For example, CENT, PENNY.)

(q) Decimal Plural

This field is accessed during printing of payments and should contain the name used to refer to the plural of the decimal unit of the money. (For example, CENTS, PENCE.)

Step 8. Set Up Customer Group

The customer group code is used to identify the nature of the customer, or the group to which a specific customer belongs. It is held on the customer master record. The code is transferred to the Sales Order Processing system and used predominantly for sales and order analysis.

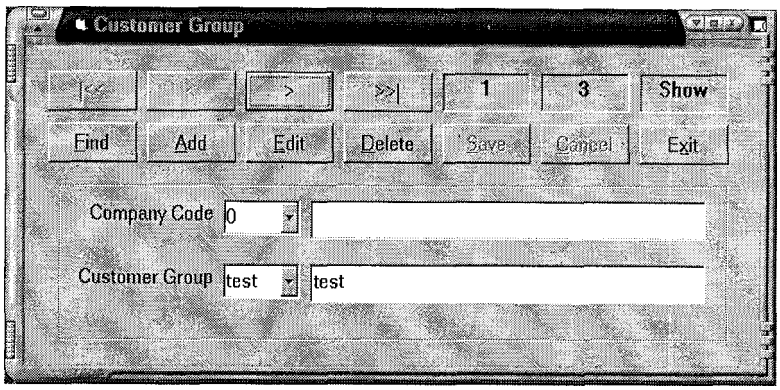


Figure B.8. Customer Group Screen.

Screen Details

(a) Customer Group

The code that is used to identify a customer group. This code is used to group together customers for sales analysis purposes.

(b) Code Description

A description to explain this code. This description will be displayed for validation purposes, and where appropriate, on reports and inquiries.

Step 9. Set Up Locations

These codes are used to identify the location of a customer. This code is held on the customer master record. The location code is transferred to the Sales Order Processing transactions. It is available for use in the picking of products for dispatch, sorting shipments and sales analysis purposes.

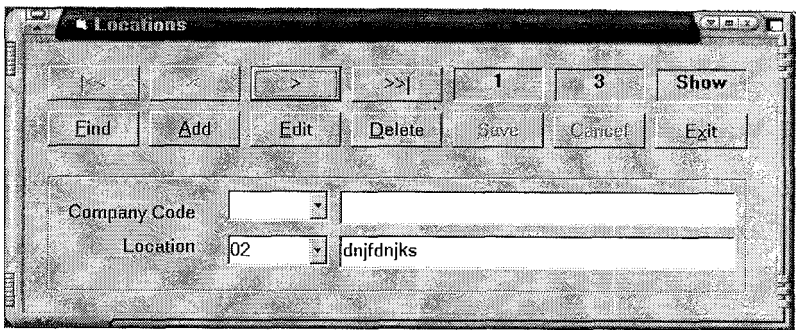


Figure B.9. Location Screen.

Screen Details

(1) Location code

The location code indicates the area that the customer delivery or customer address belongs to.

(2) Code Description

A description to explain this code. This description will be displayed for validation purposes, and where appropriate, on reports and inquiries.

Step 10. Set Up Salesperson

These codes are used to record the salesperson who is responsible for the sales order, invoice, and etc. Each customer master has a specified salesperson code, which is transferred to the sales order/invoice at the time it is entered into system. The salesperson code is not used directly for the determination of commission. This information is held against the sales commission group code.

Screen Details

(1) Sales person code

The code by which the salesperson is identified.

(2) Salesperson Name

The name of this salesperson will be displayed for validation purposes, and where appropriate, on reports and inquiries.

(3) Country and Address

The country code of the salesperson will be all part of all names and addresses associated with this salesperson. The country code also defines the address to be entered when maintaining a salesperson record.

(4) Sales Commission Group

The sales commission group to which this salesperson belongs.

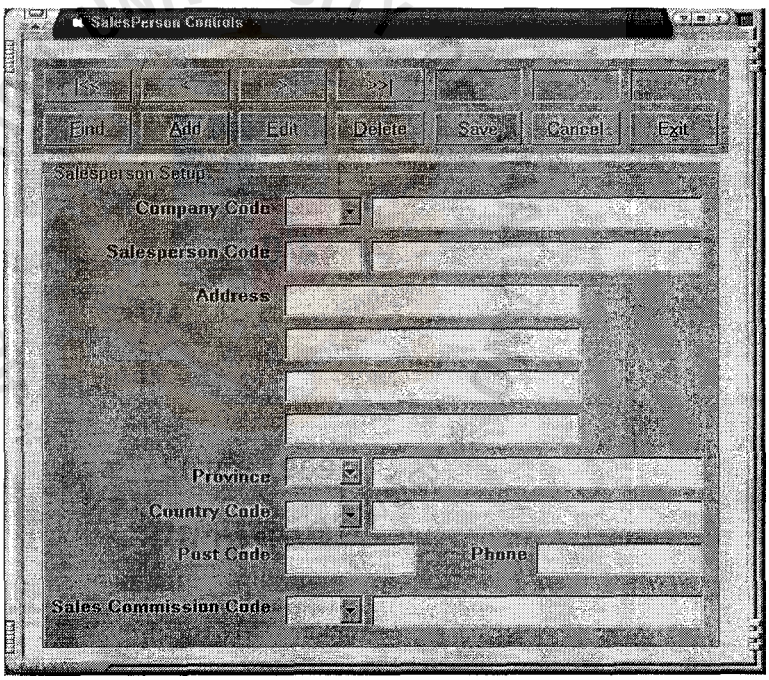


Figure B.10. Salesperson Control Screen.

Step 11. Set up Commission Group

The sales commission group code is used for the determination of sales commission and their payment requirements. Each code can contain one or more salespersons and the commission rate with the associated payment timing for each.

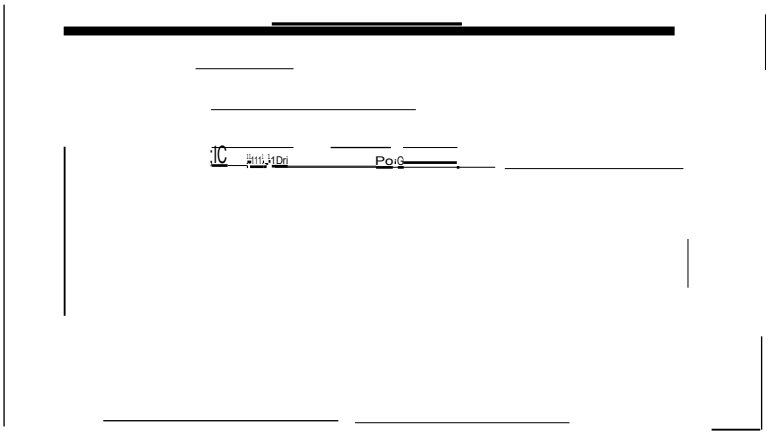


Figure B.11. Sales Order Commission Line Screen.

Screen Details

(1) Commission Group

This code identifies the sales commission group code

(2) Code Description

The description to explain this code. This description will be displayed for validation purposes, and where appropriate, on report and inquiries.

(3) Salesperson Code

The code of the salesperson, who is to receive commission in this commission group. The salesperson code must already exist. The salesperson's name is displayed.

(4) Commission Rate

The rate of sales commission which is applicable to the salesperson. The value on which this rate is applied is controlled by flags held on the divisional control record. This can be set to include or exclude discount in calculation.

(5) Percentage Breakdown

The percentage of the commission which the salesperson should receive at various stages. It is transferred to the sales commission tables on update from the Sales Order Processing system.

The stages at which a commission percentage may be assigned include:

- Order
- Invoice
- Cash Receipt

Step 12. Set Up Tax Code

Sales tax within the Sales Order Processing system can be customer based. It is dependent on the control set up in the Sales Order Processing control option. A default tax code is held on the Sales Order Processing control record for the customer.

Screen Details

(1) Tax Code

The unique code which identifies the tax code.

(2) Code Description

A description to explain this code. This description will be displayed for validation purposes, and where appropriate, on reports and inquiries.

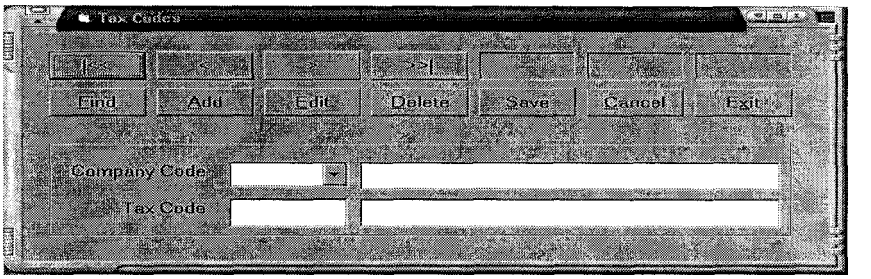


Figure B.12. Tax Code Screen.

(2) Step of the Controls Set Up

Step 1. Go back to the Sales Order Processing Menu and Double click CONTROL button. See Figure B.1.

Step 2. Double click on the menu which the user needs to set up.

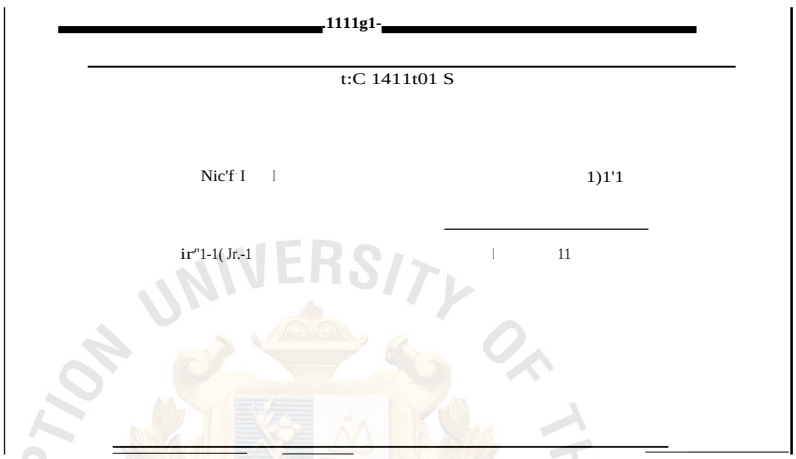


Figure B.13. Control Menu Screen.

Step 3. Set Up Division

The function and operation of the Sales Order Processing system is based on a division and is controlled by parameters set up in a divisional control table. It is essential that the data entered in this option is correct at all times.

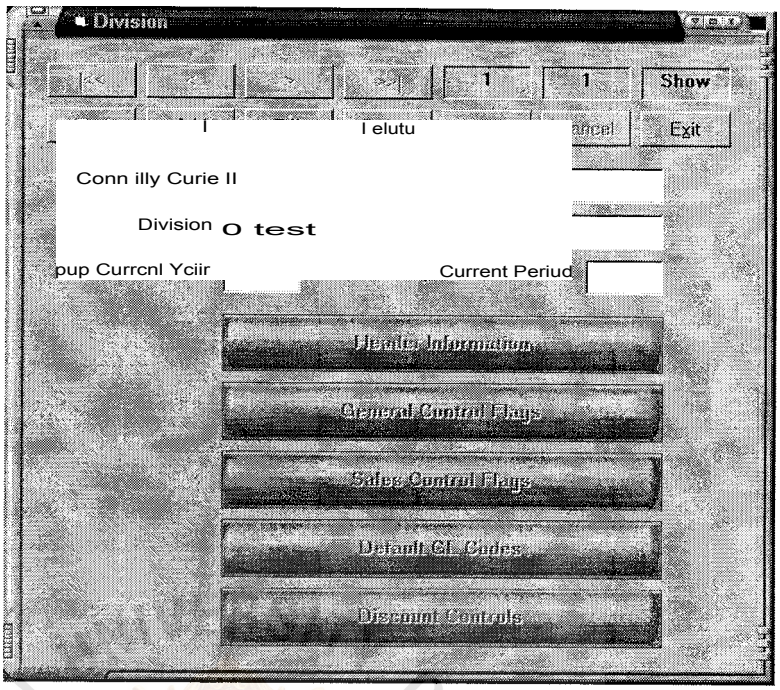


Figure B.14. Division Screen A.

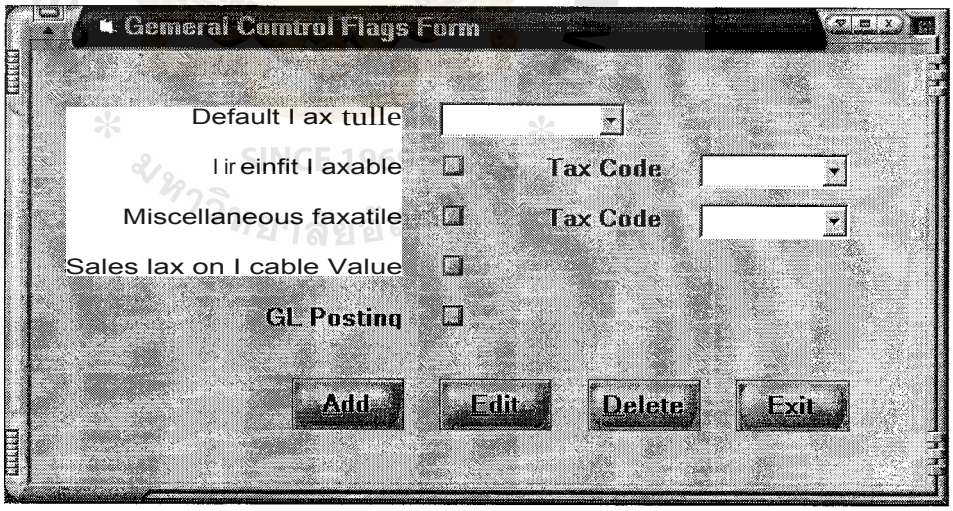


Figure B.15. Division Screen B.

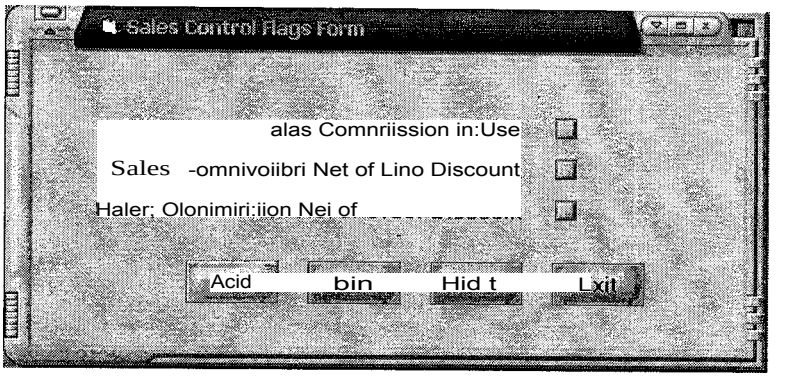


Figure B.16. Division Screen C.

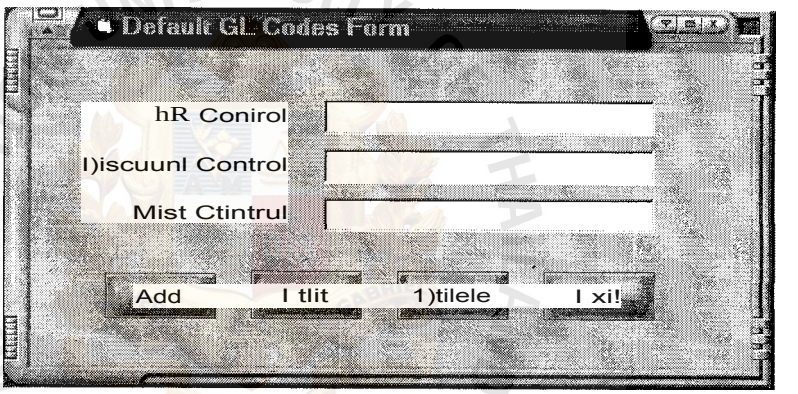


Figure B.17. Division Screen D.

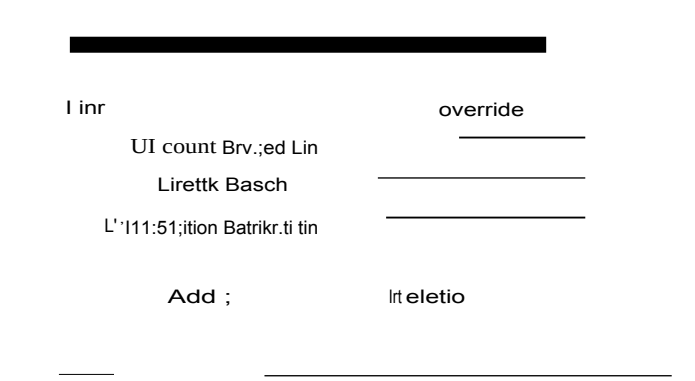


Figure B.18. Division Screen E.

Screen Details

(a) Division

(b) The division for which control details are to be maintained. It determines the control information relating to transactions, including the document number, period and year control.

(c) Current Year

(d) The current year is used to determine period for all transaction. It represents the company's fiscal year.

(e) Current Period

(0 The current fiscal period, it is used in conjunction with the current year to determine the specific accounting period in which any transaction occurs.

(g) Selection Option

(1) Header Information

This option permits the user to amend the division name and the current period and year provided the division has not been activated.

(2) General Control Flags

This section contains general parameters or flags which cause the system to operate in a specified way or make certain options available.

(a) Language code

The language code that is to be used for the division. The description of the language code is displayed for validation

purposes. Language codes are used to determine the language in which any reports generated within this division are to be printed.

(b) Default Tax Code

The tax code is to be used as the default customer tax code for the division. The description of the code is displayed for validation purposes.

(3) Discount Controls

This section contains parameters which determine the nature of line and order discount functions.

(a) Line Discount In Use

This flag indicates whether or not line discounting is in use.

(b) Override

If set to Y, this allows line discount to be modified during entry and/or maintenance of a sales order line.

(c) Discount Based On

These two fields determine the nature of the key that is used to access the discount table. Part of the key is based on information related to the customer that the user can set up by customer code or customer group.

(d) Breaks Based On

Once the key to the discount table has been established, the discount breaks are determined by this field

QTY = The quantity of part ordered or invoiced

VALUE = The value of the sales order/ invoice line.

(e) Calculate Break On

Each break value has an associated discount percentage or value. The parameter is determined by this field. The valid values are:

PERCEN = Discount is given as a percentage.

AMOUNT = Discount is given as an amount.

Step 4. Set Up Transaction Types

Every transaction in the Sales Order Processing system has a transaction type record which controls the allocation of document numbers. The document numbers for a specific transaction type can be generated automatically by the system, in which case the transaction type record also holds the next available number.

The transaction types are automatically created by the system as follows:

CN Credit Note

DP Dispatch Note

IN Invoice

PL Picking List

SO Sales Order

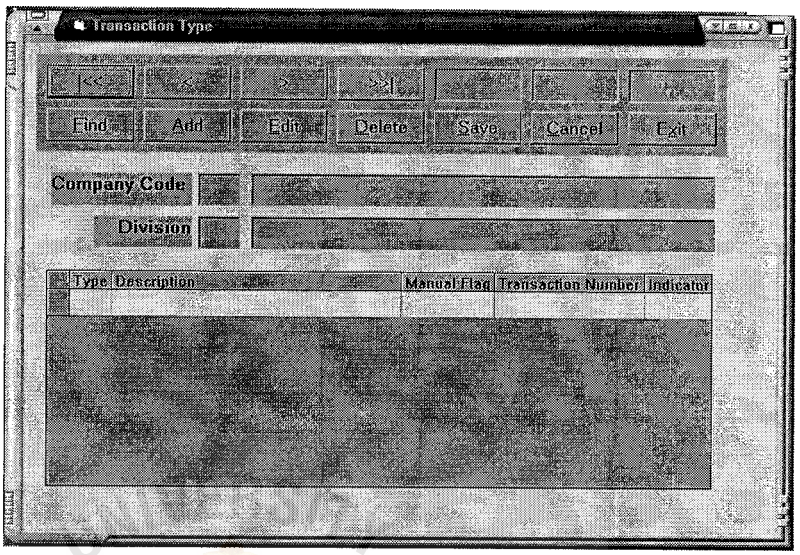


Figure B.19. Transaction Type Screen.

Screen Details

(a) Company Code

(b) Division

The division in which transaction types are to be maintained.

The description of the division is displayed for validation purposes.

(c) Transaction Type

The transaction types is to be maintained.

(d) Manual Document Number

This includes whether or not a manual document number is to be used.

Y Requests a document number from user

N Uses an automatically generated number

(e) Transaction Number

The next available number to be used for the next transaction. This number is extracted, one is added to it and issued for each transaction that requires an automatically generated number.

Step 5. Set Up Currency Rate

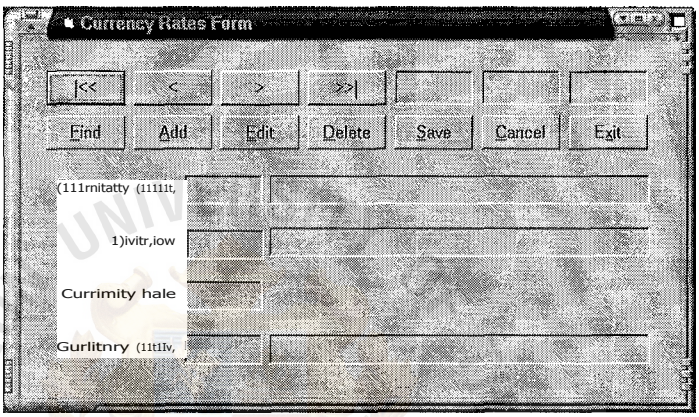


Figure B.20. Currency Rate Screen.

Step 6. Set Up Tax Rates

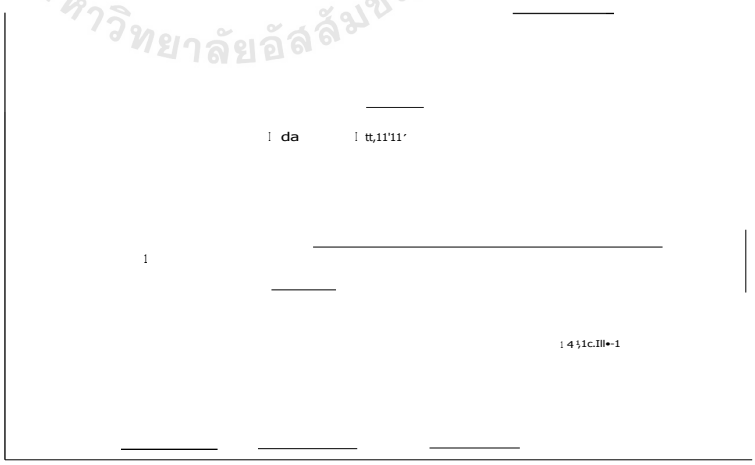


Figure B.21. Tax Rate Screen.

Step 7. Set up Credit Limit Control

Credit limit control codes determine the application of credit limit checking in the Sales Order Processing. Every customer account must have a credit limit controls code even if no credit limit checking is required.

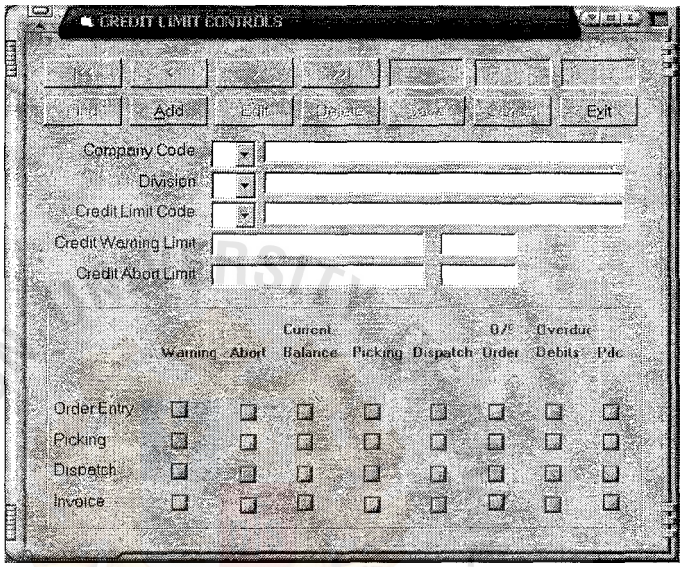


Figure B.22. Credit Limit Control Screen.

Screen Details

(a) Company Code

(b) Division

The division for which a credit limit control is required. The description of the division is displayed for validation purposes.

(c) Credit Limit Code

The unique reference given to the credit limit code. It is used as an identifier and is held on the customer master record.

(d) Credit Limit Code Description

The description which identifies this code. It is used primarily for reports and inquiries.

(e) Credit Warning Limit

The value at which the total outstanding credit, calculated according to the parameters held on this record, will activate a warning message to the user.

(f) Credit Abort Limit

The value at which the total outstanding credit, calculated according to the parameters held on this record, will cause the transaction to be aborted entirely, or placed on credit hold, or a warning message given.

(g) Warning

Determines whether a check is carried out at the warning limit for any stage. A "Y" indicates that the check will be carried out. An "N" indicates that check will be ignored. If the warning limit is exceeded, a warning message is displayed.

(h) Abort

Determines the action to be taken if the customer exceeds the abort limit set on the control record or on the customer master record. Valid values are:

W(arning)	Give a warning message.
R(eject)	Reject the transaction. This will cause the creation of the transaction to be prevented.
H(old)	Place the transaction on hold with a credit status code which can be set automatically or manually entered.

N(one) Take no action. This will cause no credit checking to take place.

(i) Current Balance

(j) Picking

Includes all update invoices.

(k) Dispatch

Includes all sales orders which have been picked and are awaiting dispatch.

(1) Outstanding Order

Includes all outstanding sales order.

(m) Overdue Debit

W(arning) Give a warning message.

R(eject) Reject the transaction. This will cause the creation of the transaction to be prevented.

H(old) Place the transaction on hold with a credit status code which can be set automatically or manually entered.

N(one) Take no action. This will cause no credit checking to take place.

Step 8. Set Up Credit Term

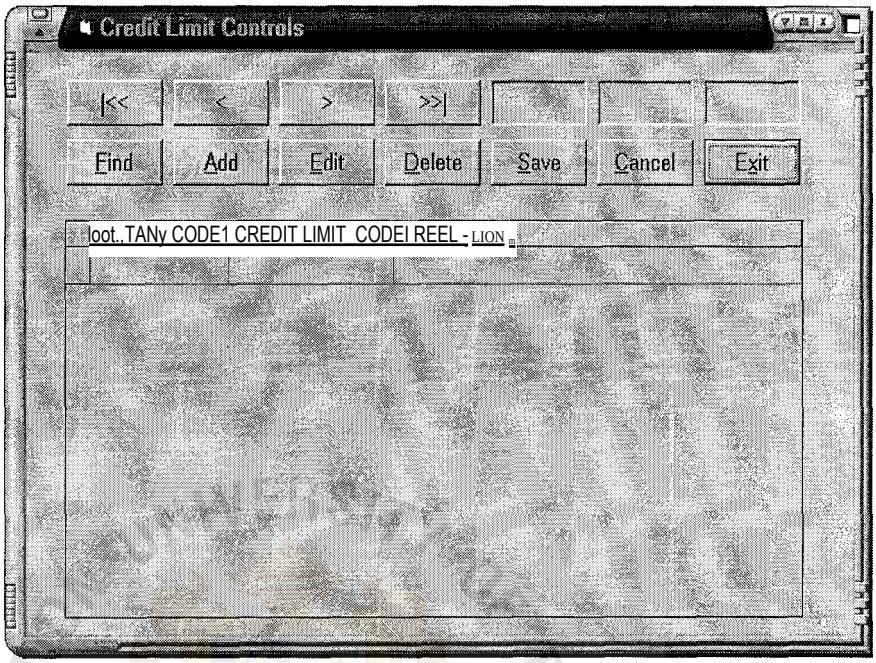


Figure B.23. Credit Term Screen.

Step 9. Period End/Year End

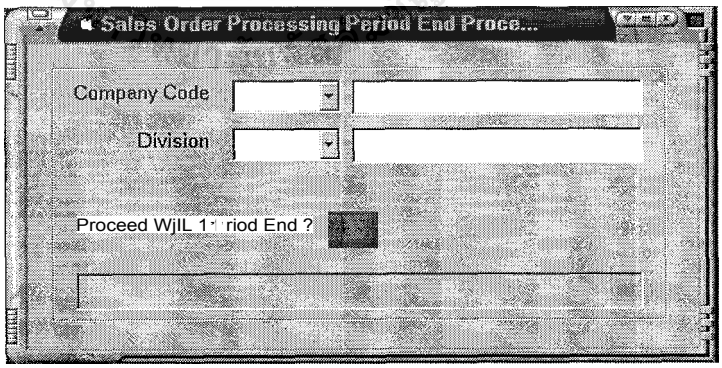


Figure B.24. Period End Screen.

(3) Step to Set Up Master File

Step 1. Double click on the MASTER menu. See Figure B.1.

Step 2. Double click on the menu which the user needs to set up

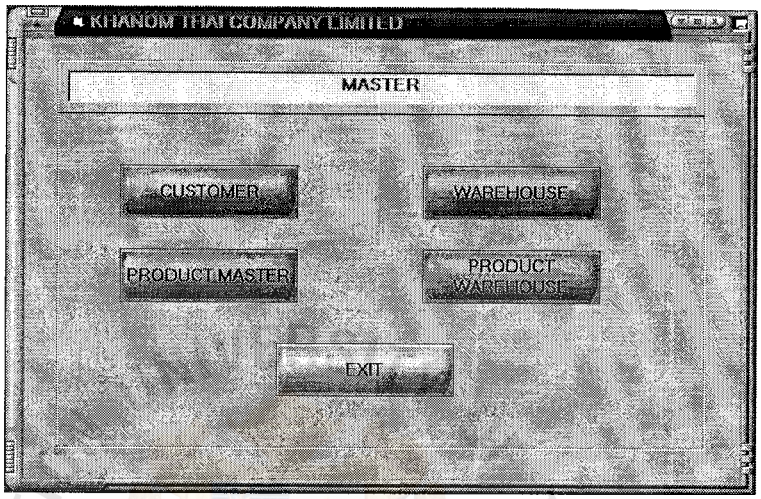


Figure B.25. Master Menu Screen.

Step 3. Set Up Customer Master File

This contains the maintenance facilities for the master tables. Customer file maintenance includes maintenance of all codes and information pertinent to a customer.

Screen Details

(a) Company Code

(b) Division

Every customer account must have a designated division. This determines the control information relating to this customer account, including document numbers and period controls.

(c) Customer Number

This customer account code, together with the division code, provides a unique reference to this customer throughout the Sales Order Processing module. The customer number may be any length up to 8 characters long, but the customers are not filled by the system.

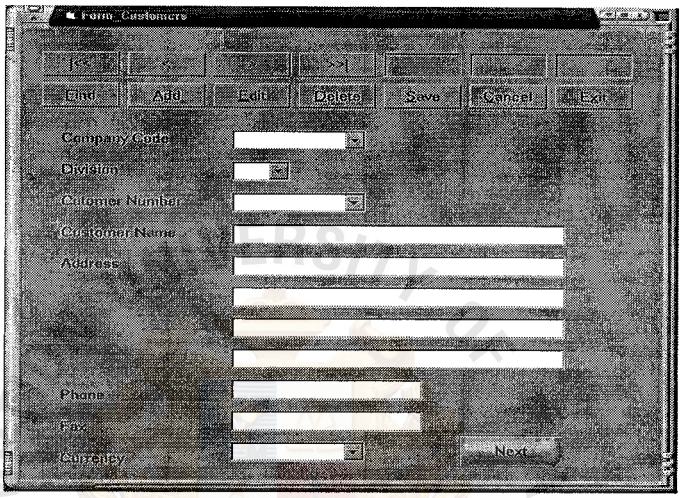


Figure B.26. Customer Master Screen.

(d) Customer Name

The customer name will be shown each time a division and customer code are entered, to verify that the correct customer has been accessed. The customer name will also appear on various system report.

(e) Address

The customer address has to be key into the system in order to print the invoice address and send it to the customer. The address also includes the telephone number and FAX number.

(f) Currency Code

The currency code for this customer is used as a default against the customer. A transaction can be entered in any currency, providing that the currency details exist in the system.

(g) Salesperson Code

The salesperson code is to be used for the customer in order to calculate the commission payment of every transaction.

(h) Location

The location code is to be used for this customer in order to select the transaction to delivery.

(i) Customer Group

The customer group code is to be used for this customer in order to select a group of customers to analysis report .

(j) Credit Limit Code

This code determines the manner in which the customer's balance is to be calculated for credit checking and the action to be taken if warning and abort limits are exceeded.

(k) Credit Term Code

This code identifies the credit terms and discounts that are applicable to this customer.

Step 4. Set Up Product Master File

This function allows the facility to maintain product master records and the details held on them.

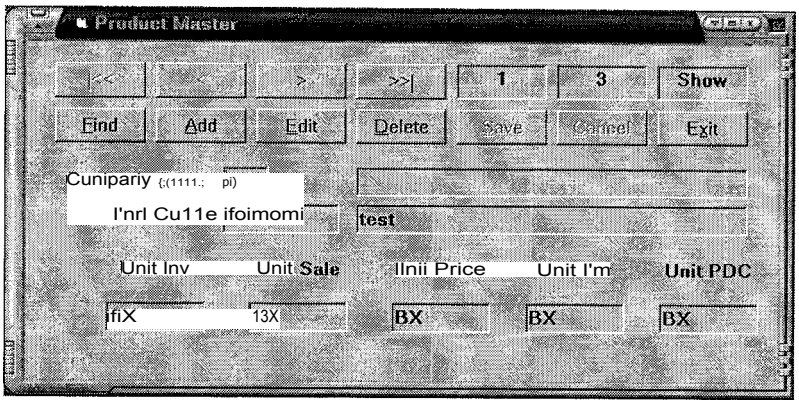


Figure B.27. Product Master Screen.

Screen Details

(a) Company Code

(b) Part Code

The unique part code for the inventory item. An individual inventory item is accessed throughout the system by this identification.

(c) Part Description

The description for this part.

(d) Unit Of Measures

The unit of measure in which the inventory quantities for this existing inventory is available.

Step 5. Set Up The Product Warehouse

This function allows the facility to maintain product master warehouse master records and the details held on them. Within each function, the information is further divided into a subgroup which contains a similar group.

Screen Details

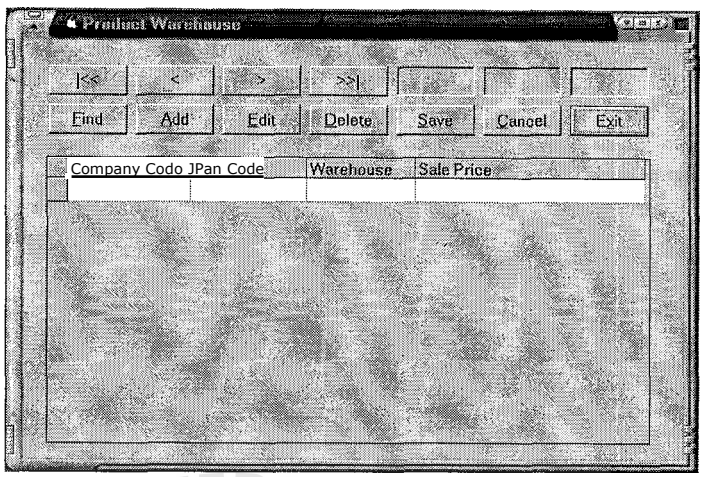


Figure B.28. Product Warehouse Screen.

(a) Company Code

(b) Warehouse

The warehouse code is used to identify a warehouse within the system.

(c) Description

The description for the warehouse is used for report and inquiry.

(d) Part Code

(e) Sales Price

The standard sales price of this part. This price should be entered per unit of measure.

(4) Step Of the Promotion Set Up

Step 1. Double click on the MASTER menu. See Figure B.1.

Step 2. Double click on the menu which the user needs to set up

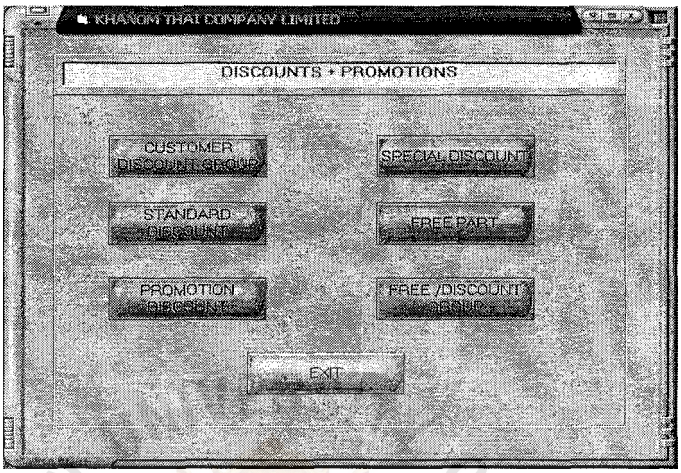


Figure B.29. Discount and Promotion Menu Screen.

Step 3. Set Up All Company Promotions

The company promotion has five types as follows:

(a) Standard Discount

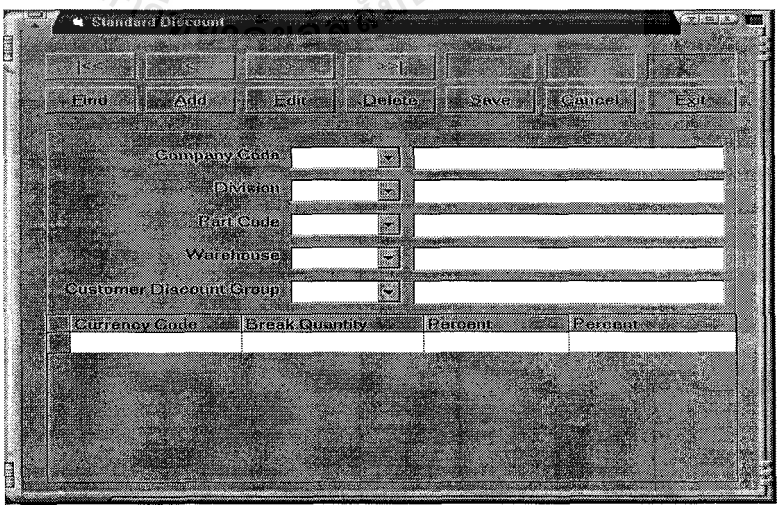


Figure B.30. Standard Discount Screen.

(b) Promotion Discount

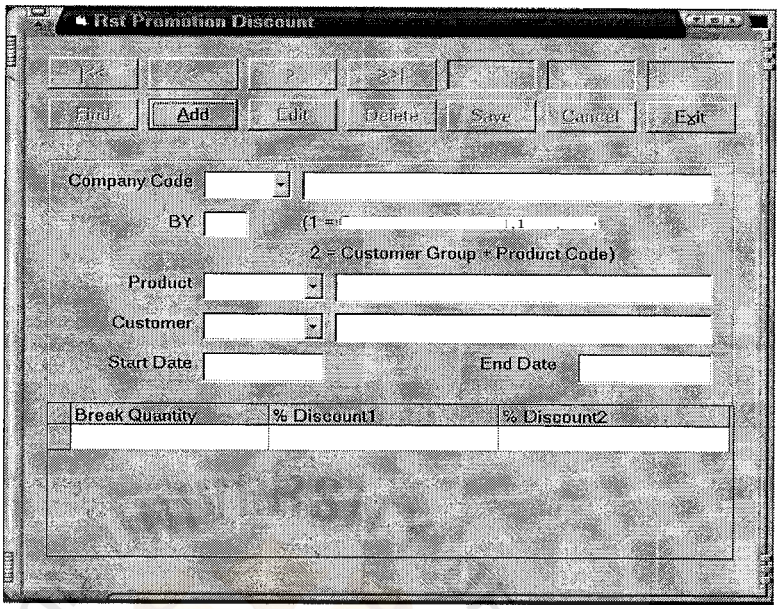


Figure B.31. Promotion Discount Screen.

(c) Special Discount

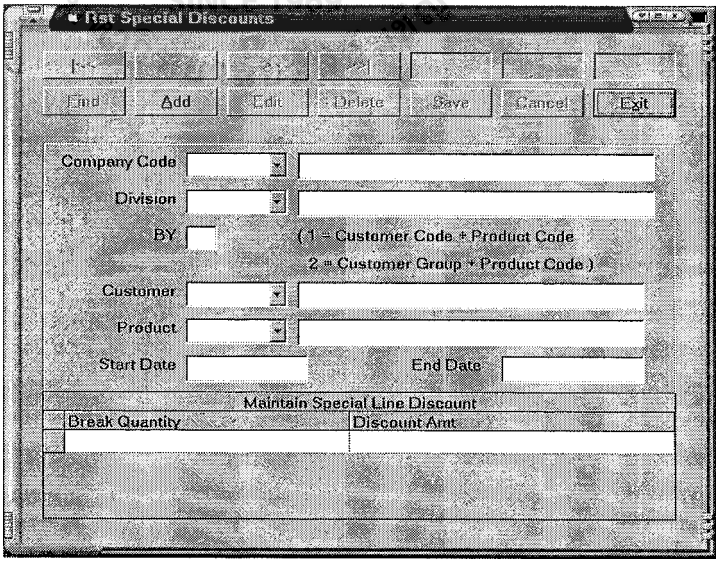


Figure B.32. Special Discount Screen.

(d) Free Part

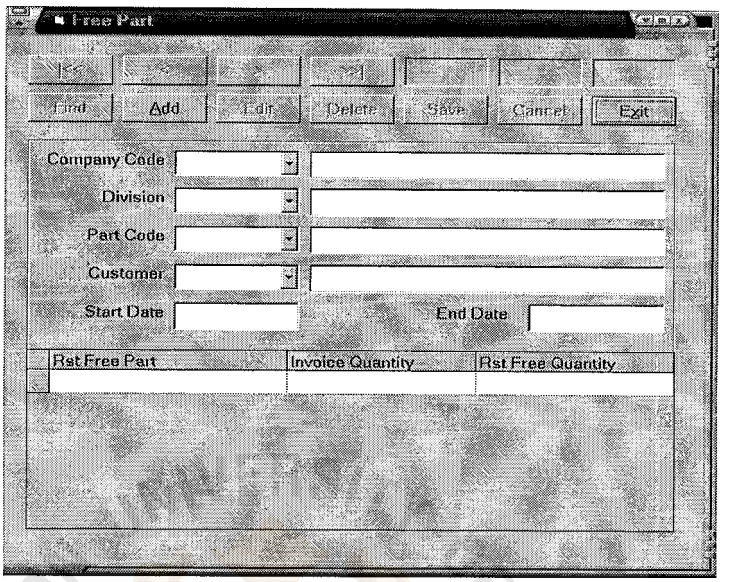


Figure B.33. Free Part Screen A.

(e) Free Group

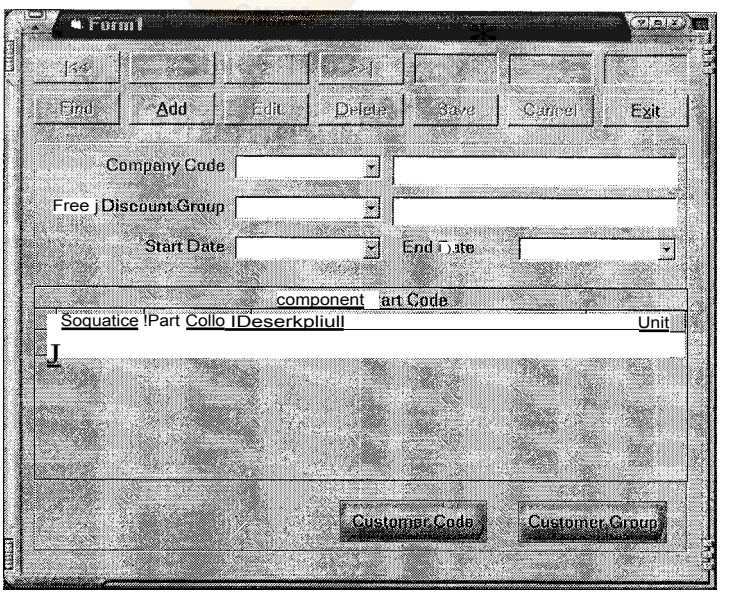


Figure B.34. Free Part Screen B.

4.,

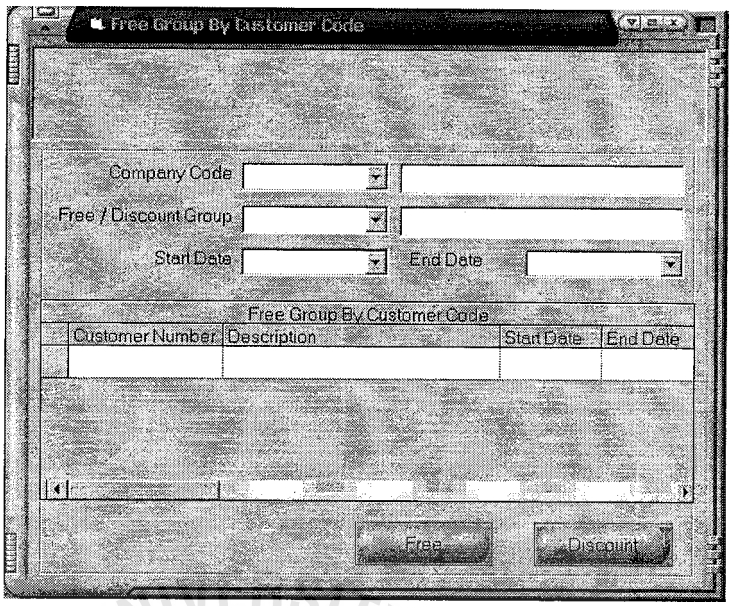


Figure B.35. Free Group Screen A.

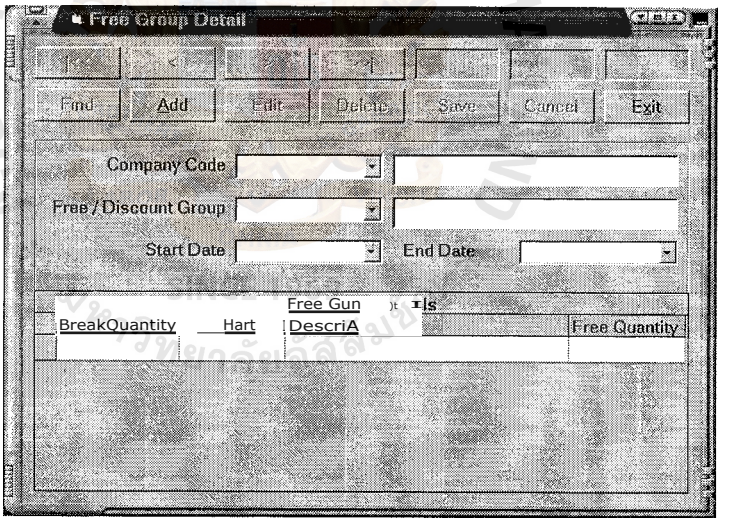


Figure B.36. Free Group Screen B.

Screen Details

(a) Company Code

(b) Division

The division that customer discount groups are to be maintained in. The description of the division is displayed for validation purposes.

(c) Customer Group

The unique identifier of this customer discount group.

(d) Description

A description of the code. This description will be displayed for validation purposes and where appropriate, on report and inquiries.

(e) Part Code

This item is only requested within the divisional controls records and is set to code.

(f) Break Quantity/Value

The quantity or value up to which the discount is to be applied.

(g) Percentage/Amount

The current discount rate or value that is to be applied to this break.

(h) Start Date and End Date

The transaction will automatically be implemented on the date entered.

(5) Step of Using the Process

Step 1. Double click on the PROCESS menu. See Figure B.1.

Step 2. Double click on the menu which the user needs to set up.

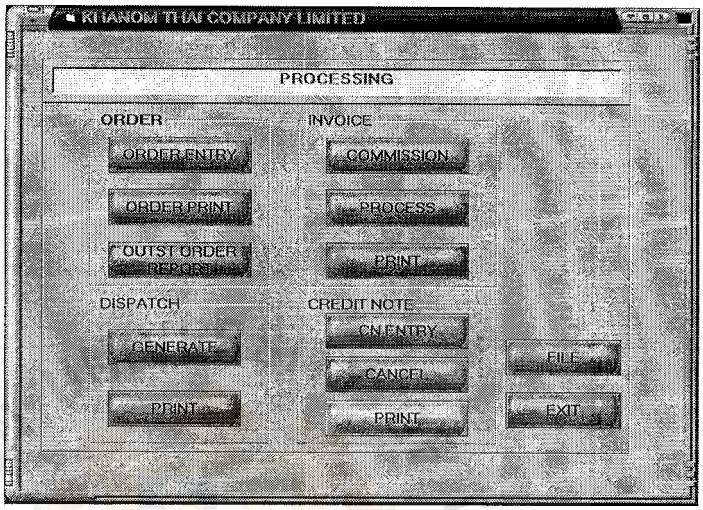


Figure B.37. Processing Menu Screen.

Step 3. Order Entry and Maintenance

A sales order represents the initial entry into the system of a customer for and non-stock inventory. The sales order which is created as a result of the order entry process is used as basis for picking and dispatch and finally invoicing the required products. The order entry and maintenance option provide a number of facilities.

(a) Adding of a New Order

This allows a new order to be entered and a sales order printed. There is no limit to the number of lines which can be entered for an order, although the screen display is currently restricted to 9999.

(b) Edit of an Existing Order

Order details can be edited at any time subject to the restrictions set up in the control tables.

(c) Delete Sales Order

This aborts the order. At this stage, no order number has been allocated and no details of the order will remain if this option is accepted.

(d) Find Sales Order

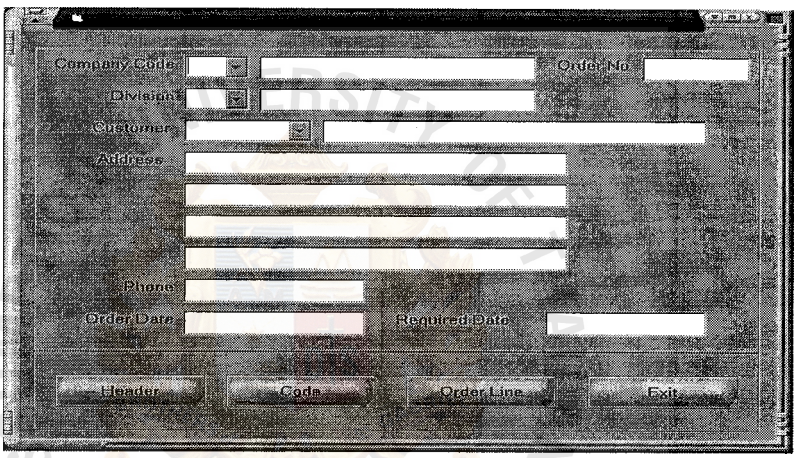


Figure B.38. Order Entry Screen.

Step 4. The users can elect the CODE Button to edit code. It is up to the user.

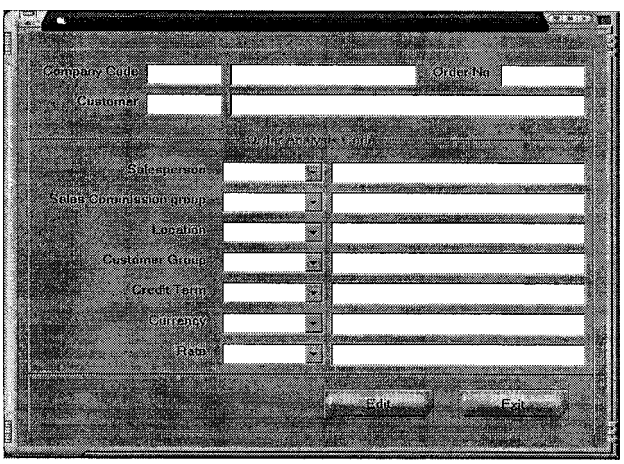


Figure B.39. Order Analysis Code Screen.

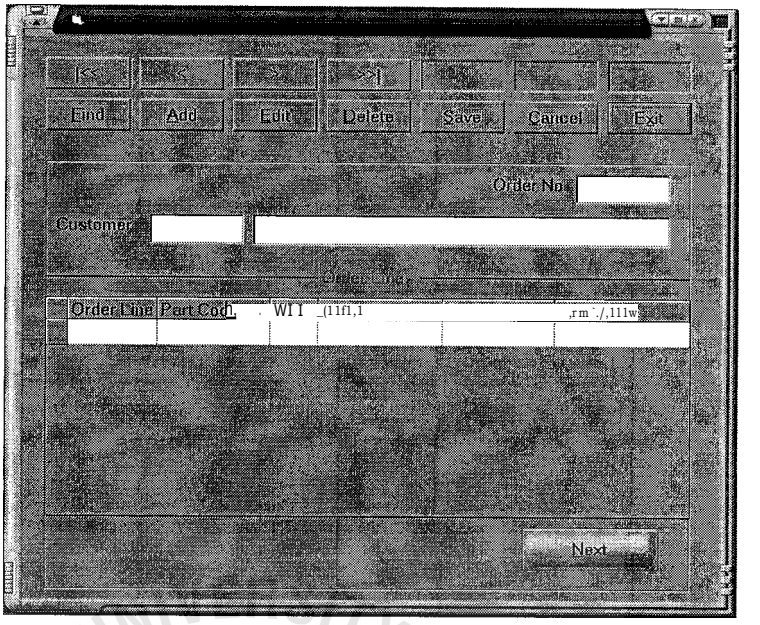


Figure B.40. Order Line Screen.

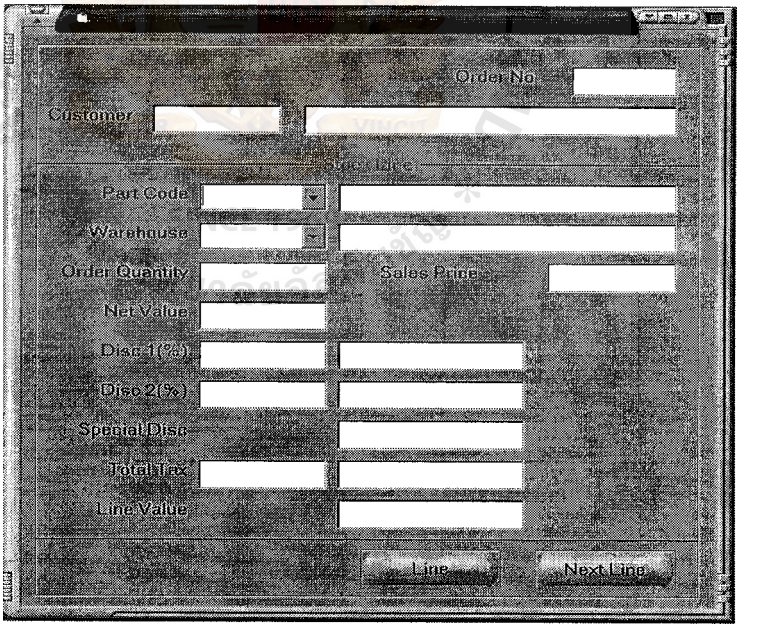


Figure B.41. Order Stock Line Screen.

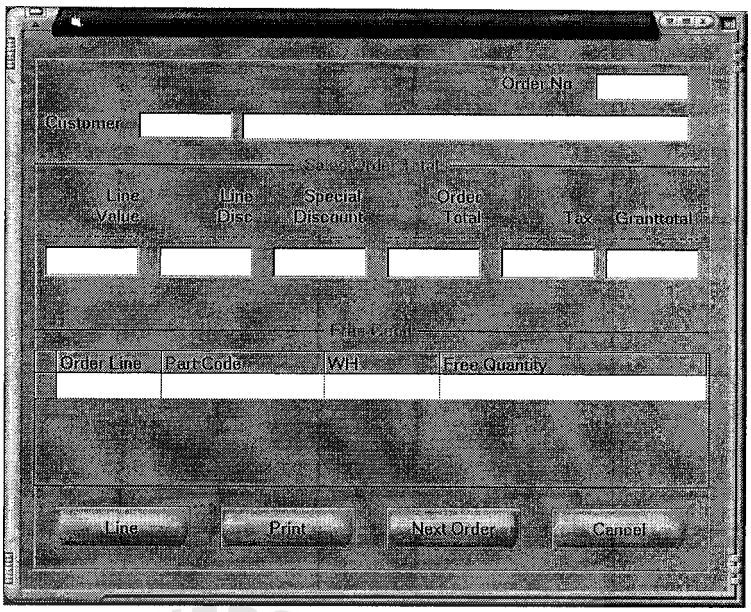


Figure B.42. Order Free Goods Screen.

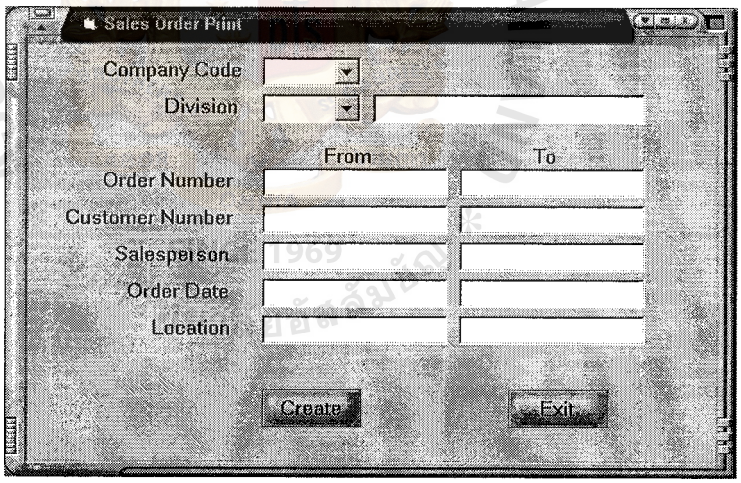


Figure B.43. Sales Order Print Screen.

Screen Details

The screen sets up the initial information relating to the whole order. This includes the division and customer details including order dates, customer number, and etc.

(a) Company Code

The company code is to be entered. The company code will represent the company name.

(b) Division

The division for which the order is to be entered. The divisional control record contains many of the control parameters that are used subsequently in the order entry process. The control record will also determine whether the order number is manually entered or automatically generated. This is passed to the stage of dispatched and invoiced.

(c) Customer Number

The customer account for which the order is to be entered. Upon entry of a valid customer, the default address details of customer account are also displayed.

(d) Order Date

The order date is the date when the transaction originated. It is printed on all inquires and reports and is also used by the sales analysis system. The date will default to today's date.

(e) Transaction Number

A transaction Number is either automatically allocated or manually entered, depending on the setting maintained on the

transaction types tables, when the option is taken to continue entering order lines.

(f) Salesperson Code

The salesperson code is stored against the sales order for reporting and analysis. The salesperson code is also used to determine the default sales commission group, however this can be independently changed.

(g) Sales Commission Group

The sales commission group is stored against the sales order and is used as the basis for determining the allocation of sales commission for the sale. The default is taken from the salesperson code record.

(h) Location Code

The location code is stored against the sales order for later analysis if required. It is also available as one of the selection and sorting parameters in the pick selection and dispatching routines, where for example, the dispatch of items for a series of order lines can be organized into a location code sequence.

(i) Customer Group

The customer group is an additional code which is extracted from the customer master record and held on the sales order for further reporting and analysis as required.

(j) Credit Term Code

The credit term code is used to determine when payment of a sales invoice against this sales order is due and whether any cash discount is applicable.

(k) Stock Line

A stock line for a product that exists in the product master table. The warehouse may be enter for this line type. Description, units of measure, and other details are extracted automatically from the valid record.

(1) Part Code

The code used to identify the part to be ordered. The parts ordered on a stock line type must exit in the product master. The COMBO BOX can be used to scan existing part codes and descriptions.

(m) Warehouse Code

The warehouse code identifies the warehouse in the system that the order is to be placed in.

(n) Order Quantity

The quantity of this product to be ordered, only integer quantities are allowed.

(o) Unit of Measurement

The default sales order unit of measure is extracted from the product master and displayed. This can be changed if required using the maintenance options on the completion of the line. The order quantity should be entered in this unit of measure.

(p) Sales Price

The sales price of the product is displayed per sales unit of measure. The sales price has been determined by the system using the product price the from product master. A single price is held on the

product master which applies to all customers, if none of the above is applicable, or if there is a single price for the product and further differentiation between customers is carried out using discounts.

(q) Net Value

The net value of the line is calculated and displayed.

(r) Line Discount

Depending on further control parameters, the price may be subject to a discount which is applied on a line by line basis. This is referred to as a line discount.

Line discount is calculated and displayed if appropriate. The ability to modify the line discount percentage or amount is dependent on the parameters set on the divisional controls record.

(s) Sales Tax

The calculation of sales tax is carried out automatically, according to the control parameters set up on the divisional control, and the customer record. The tax calculated is displayed. Should modification of the tax be required, this may be performed using the TAX option from the end of the line menu.

(t) Line Value

The line value, less any discount entered plus tax, is calculated and displayed.

(u) Required Dates

Allows required dates to be set against the line. This facility allows a delivery schedule to be set up for the order line.

(v) Order Total

Upon completing the entry of order lines for the sales order, the order totals screen is displayed. This screen displays the total value of all the lines entered, less any line discounts which have been entered. The total value including sales tax, and less any discounts, is calculated and displayed at the bottom of the screen.

(w) Sales Order Printed

This option allows users to print the sales order created in a format which can be used as a sales order acknowledgement document. A range of order numbers and a range of order dates within a division can be specified. The report can be created immediately.

Step 5. Picking and Dispatch Notes

This Function covers the process of picking and dispatching the inventory items for sales orders. The order lines are to be fulfilled and shipped, determining where the relevant inventory is located and the issuing of dispatch documentation which is also used as a picking instruction. The order entry and maintenance option provides a number of facilities.

(a) Addition of a New Pick and Dispatch

This option allows the user to create a dispatch number from sales orders. This is equivalent to carrying out a pick selection and dispatch. The operation of credit checking at the dispatch selection stage is controlled by the parameter set up on the credit limit code.

(b) Edit Pick and Dispatch Notes

This option allows the user to change the quantities that have automatically been set up as the dispatch quantities by the system. This facility does not tell the system what has actually been

dispatched but is a last opportunity for the dispatch instructions to be reviewed before the actual physical dispatch is carried out.

(c) Delete Pick and Dispatch

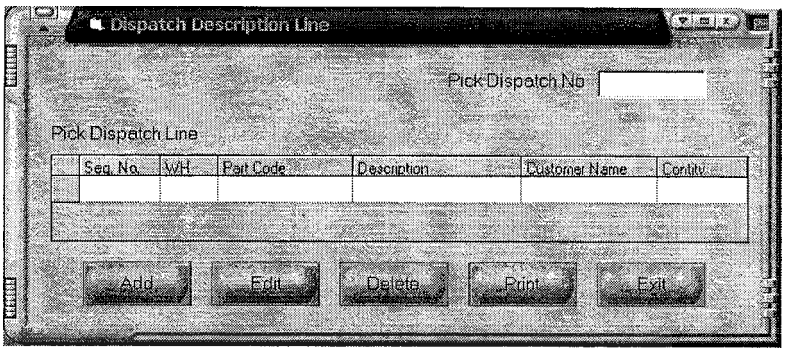


Figure B.44. Dispatch Note Creation Screen.

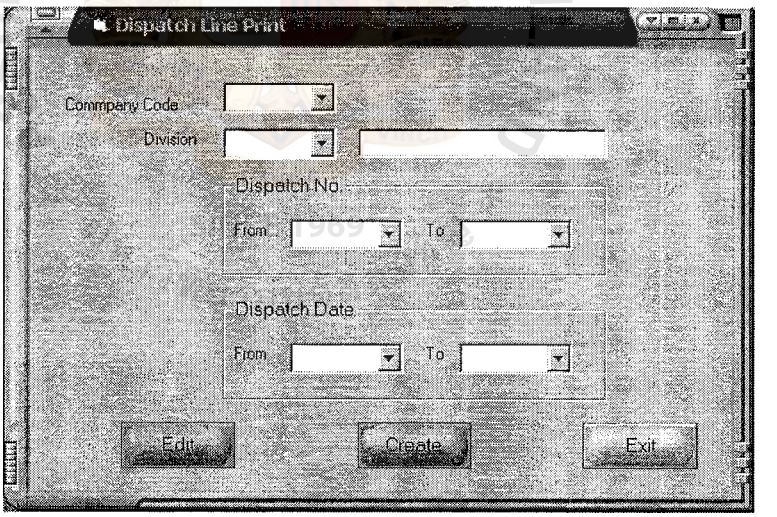


Figure B.45. Dispatch Line Screen.

Screen Details

(a) Company

(b) Division

The division that the dispatch note to be amended was created in. The description of the division is displayed for validation purposes.

(c) Dispatch Number

The dispatch number will be run by setting the parameter manually or automatically.

(d) Order Number

The users have to enter the order number to generate pick and dispatch note.

(e) Warehouse

The warehouse from which the part is to be dispatched.

(f) Part Code

The part code of the item to be dispatched. The description of the part is displayed for validation purposes.

(g) Print Pick and Dispatch Note

This option produces a report of the goods that are to be picked and dispatched.

Step 7. Invoicing

This facility allows invoices to be created from pick and dispatch notes. They may be entered, maintained, and printed and update into the Account Receivable system.

(a) Create Invoices from Pick and Dispatch

This option allows the user to specify a range of dispatch note numbers that are to be invoiced. This option automatically invoices those dispatches specified for all the dispatch lines. It creates one invoice for all the dispatch lines for the same customer code.

(b) Edit Invoice of an Existing Invoice

(c) Cancel Invoice

The user can cancel invoices. The invoice lines can be removed by reducing the invoice quantity on the line to zero.

(d) Invoice Print

This option prints the invoices created by the invoicing procedures. This option is designed to print the invoices on the company's preprinted stationery.

(e) Invoice Update

This option uses the invoice number to update to the Accounts Receivable module.

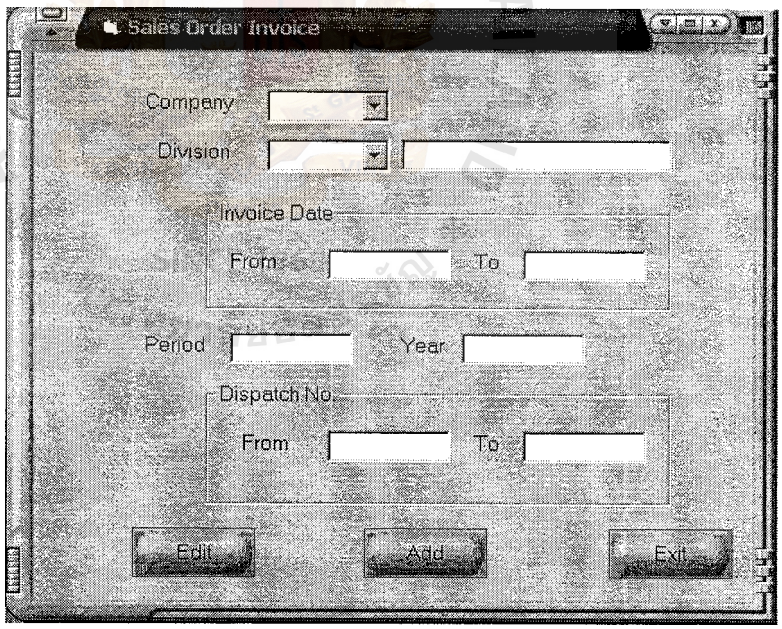


Figure B.46. Invoice Creation Screen.

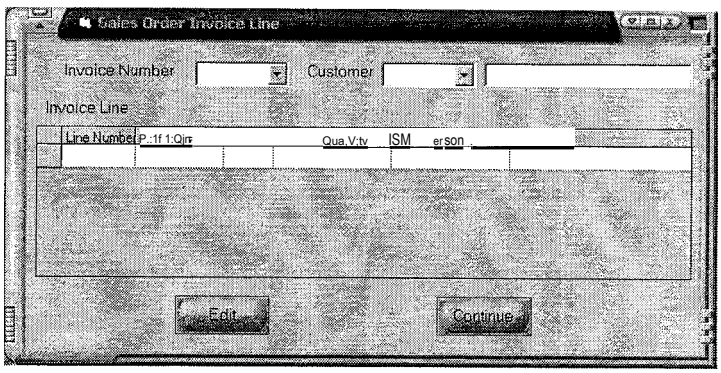


Figure B.47. Invoice Line Screen.

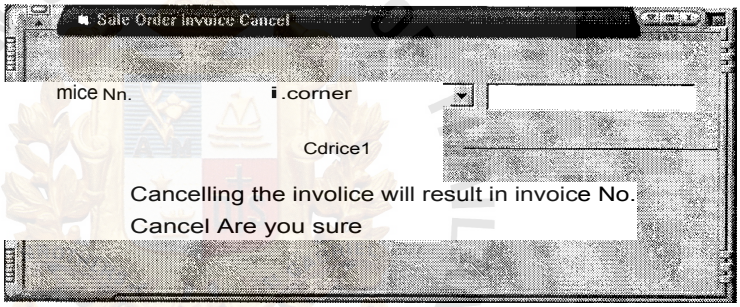


Figure B.48. Invoice Cancel Screen A.

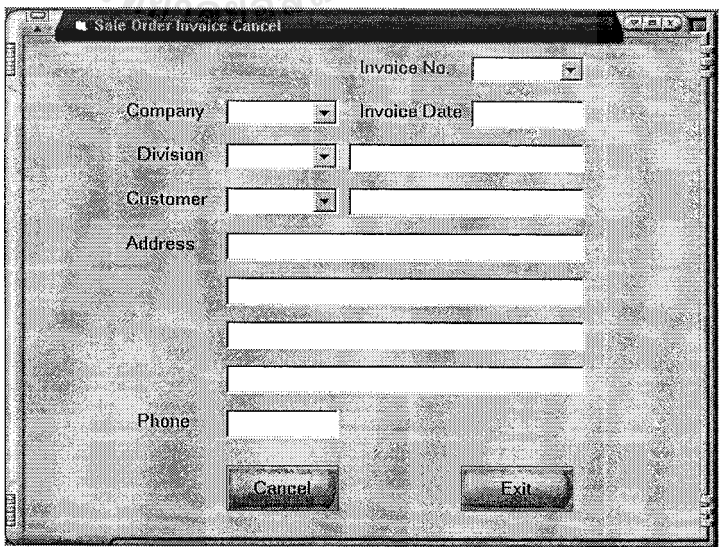


Figure B.49. Invoice Cancel Screen B.

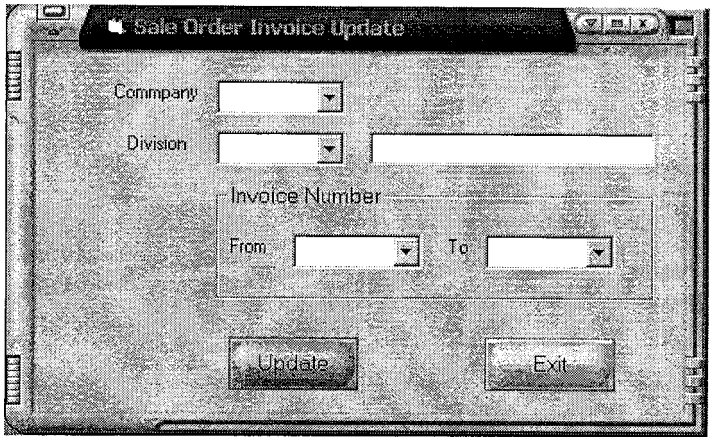


Figure B.50. Invoice Update Screen.

Screen Details

(a) Company

(b) Division

The division that the invoice is to be raised for. The divisional control record contains many of the control parameters that are used subsequently in the invoice entry process.

(c) Currency

The currency is extracted from the divisional control record and displayed.

(d) Customer Number

The customer account for whom the invoice is entered. Upon entry of a valid customer, the default address details of a customer account are also displayed.

(e) Invoice Date

The invoice date is the date that the invoice originated. It is printed on all inquiries and reports.

(f) Invoice Number

The invoice number will perform manually or automatically depending on the parameter set up.

(g) Sales Invoice Lines

This stage covers the selection of each of the dispatch notes lines, including the verification of the invoice amount, price and sales tax. All invoice lines must either be modified or deleted before the total invoice screen can be accessed.

(h) Invoice Totals

The final phase of invoice entry involves calculation of any invoice discounts and sales tax.

(i) Invoice Quantity

In the quantity of the product to be invoiced, only integer quantities are allowed. The system will request the quantity to be invoiced against the dispatch line selected for invoicing.

(j) Line Discount

The discount has already been recorded on the sales order line and the recalculation discount flags are not set, the line discount will be extracted and displayed. The ability to modify the line discount percentage or amount is dependent on the parameters set on the divisional control record. If discounts are based on values rather than percentage, or the discount value is changed, a percentage will be calculated and displayed.

(k) Sales Tax

The calculation of sales tax is carried out automatically, according to the control parameters set up on the divisional control and customer record.

Step 8. Credit Notes

This facility allows credit notes to be entered, maintained, cancelled, printed and updated into the Accounts Receivable system.

(a) Addition of a new credit note

This allows a credit note to be entered from the beginning of the three stages described below. There is no limit to the number of lines, which can be entered for a credit note, although the screen display is currently restricted to 9999.

(1) Entry of headers details

This covers the identification of the customer who is requesting the credit note, the recording of the default invoice address, and the determination of customer set up and currency. At the conclusion of this stage, a Credit Note number is allocated either manually or automatically.

(2) Credit Notes Lines

This stage covers the entry of products and the quantities to be credited. An invoice number and invoice line number is requested at this stage.

(3) Credit Notes Total

The final phase of Credit Notes entry involves calculation of any credit note discounts and the final display of credit note totals.

(b) Edit of Credit Notes

This allows the user to go back and modify all credit totals detailed above. Credit Notes can be modified at any time before update. The modification process allows new lines to be added or existing lines to be modified.

(c) Credit Notes Printed

This option allows the user to print the credit notes in a preprinted stationary format ready for dispatching to the customer. A division, a range of credit note number and a range of credit note dates may be selected.

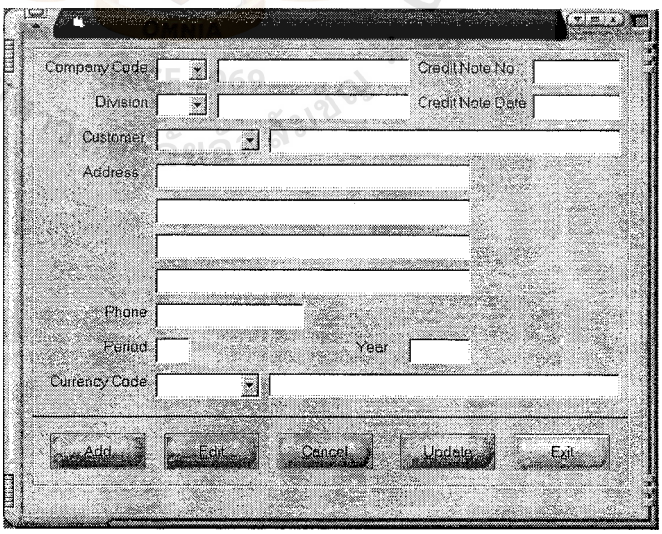


Figure B.51. Credit Note Creation Screen.

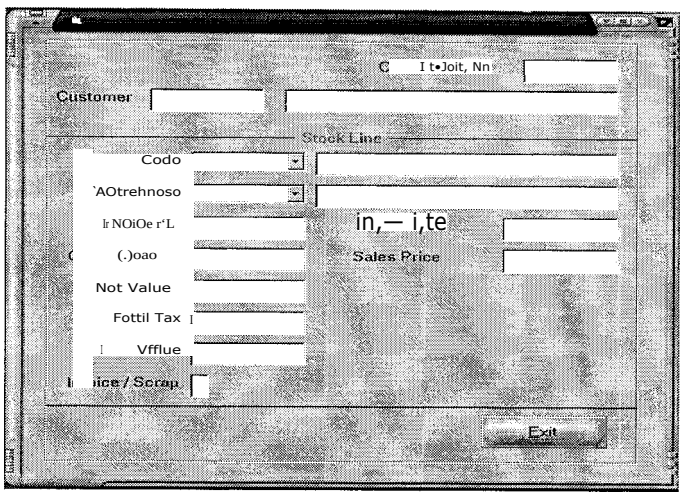


Figure B.52. Invoice Stock Line Screen.

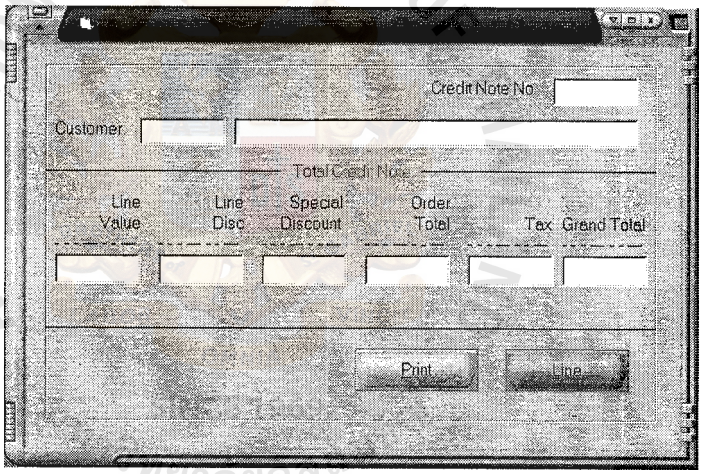


Figure B.53. Credit Note Total Screen.

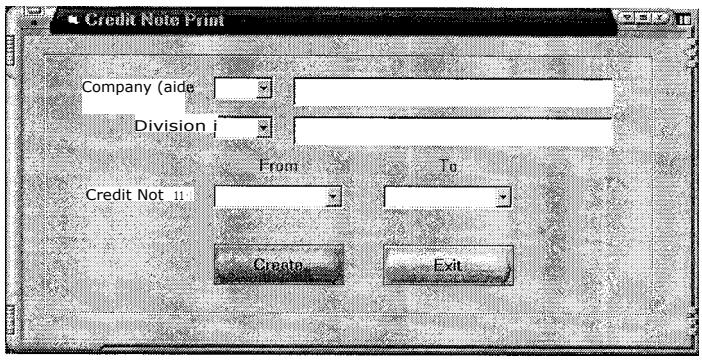


Figure B.54. Credit Note Print Screen.

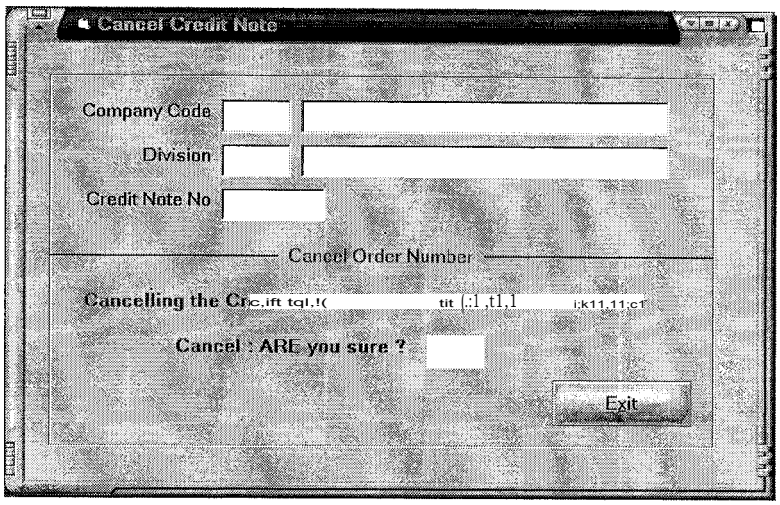


Figure B.55. Credit Note Cancel Screen.

Screen Details

(a) Company Code

(b) Division

The division for which the credit note is to be entered. The divisional control record contains many of the control parameters that are used subsequently in the credit note entry process.

(c) Currency

The currency is extracted from the divisional control record and displayed.

(d) Customer Number

The customer account for whom the credit note is to be entered. Upon the entry of a valid customer, the default address details of the customer account are also displayed.

(e) Credit Note Date

The date of the credit note. This date will be used for information purposes only and is not used to determine which period it is posted to.

(f) Part Code

This code is used to identify the part to be credited. The parts credited on a stock line type must exist in the product master. The COMBO BOX can be used to scan existing part codes and descriptions.

(g) Warehouse

The warehouse identifies which warehouse in the system the invoice is to be placed in. Following the entry of a valid warehouse, the unit of measure is displayed.

(h) Invoice Number

The invoice number which this line is to be credited against. The invoice number and line must exist for the same warehouse/part combination as the credit note. The COMBO BOX will display valid a invoice number.

(i) Credit Quantity

The quantity of this product is to be credited. The quantity is the quantity, which will be printed on the credit note documentation and is used to calculate the line value of the credit note. It is not necessary the quantity of the product which has been returned.

(j) Unit of measure

The sales invoice unit of measure is extracted from the product master record and is the unit of measure in which the sales

order/invoice is likely to have been made. This can be changed if required using the options given at the end of the line. The credit quantity should be entered in this unit of measure.

(k) Sales Price

The sales price for credit notes line may be changed. This allows the amount to be credited to differ from standard price or the price extract from invoice lines. The price is always entered in the pricing units of measure which are displayed.

(1) Sales Tax

The calculation of sales tax is carried out automatically, according to the control parameter set up on the divisional control and the customer record. The tax calculated is displayed. The user can modify tax.

(m) Line Value

The total line value is calculated and displayed. It is displayed in both the transaction currencies.

(n) Totals

The total credit note line value plus the credit note line total value is calculated and displayed at the screen line. The sales tax total plus the credit note line tax totals value is calculated and displayed at the screen line.

(o) Credit Note Update

This procedure updates the credit note to Accounts Receivable module.

APPENDIX C

BUSINESS DOCUMENTS AND REPORTS

Sales Order

Customer code	XXXXXXXX	Order Number	Salesman
Customer Name	XXXXXXXXXXXXXX	XXXXXX	XXXXX
Address	XXXXXXXXXXXXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXX	Order Date DD/MM/YY	VAT XXX

LN. Part Code Description Qty Unit WH Unit Price Disc Amount

XX XXXXXXXX XXXXXXX XX XX XX XXX XX XXXXX

Total Amount	XXXXXXX
Value Added Tax	XXXXXX
Grand Total	XXXXXXX

Page : XX

Figure C.1. Sales Order Report.

Page : XX

Khanom Thai Co., Ltd.
Picking List
Division : XX
Pick No. : XXXXX

WH Part Code	Description	Quantity Picked
.....		
.....		
	Total Quantity	XXXXXX

Figure C.2. Picking List.

Page : XX

Khanom Thai Co., Ltd.
Picking List
Division : XX

Dispatch No. : XXXXX

Order No.	Part Code	Description	Quantity Picked
XXXXXX	Customer Name : XXXXXXXXXXXXX		
	XXXXX	XXXXXXXXXX	XXXXX
		Total Quantity	XXXXXX

Figure C.3. Dispatch Notes Report.

1.171411 1.1143.11 .1 9qrin

Khanom Thai Co., Ltd.

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i4iFTrivi: 2360330, 6350241 AM : 2367113, 6350199

1144314:7117t311st 5174536-8, 5170164-5, 5171459 TilifrIT : 5171460

invoice

Customer's Name		Salesman	Date
Address	Delivery Address	Varehnose	Value Added Tax Rate
		Reference	

LN.	Product Code	Description	Quanti ty	Unit	Unit Price (Excludes VAT)	Discount %	Discount %	Amount

Total Amount	
Discount	
Total Amount After Discount	
Value Added Tax	
VMS all 1% (TOTAL)	

2. vnannouinunralnlvrumnAlunfil walustiorantuncinuirninparitirnwo

nni.A•ItioluLlualovvjialilfl-miquOuLlu

Received By.....

Delivered By

..... Collected By

T1in

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Figure C.4. Invoice.

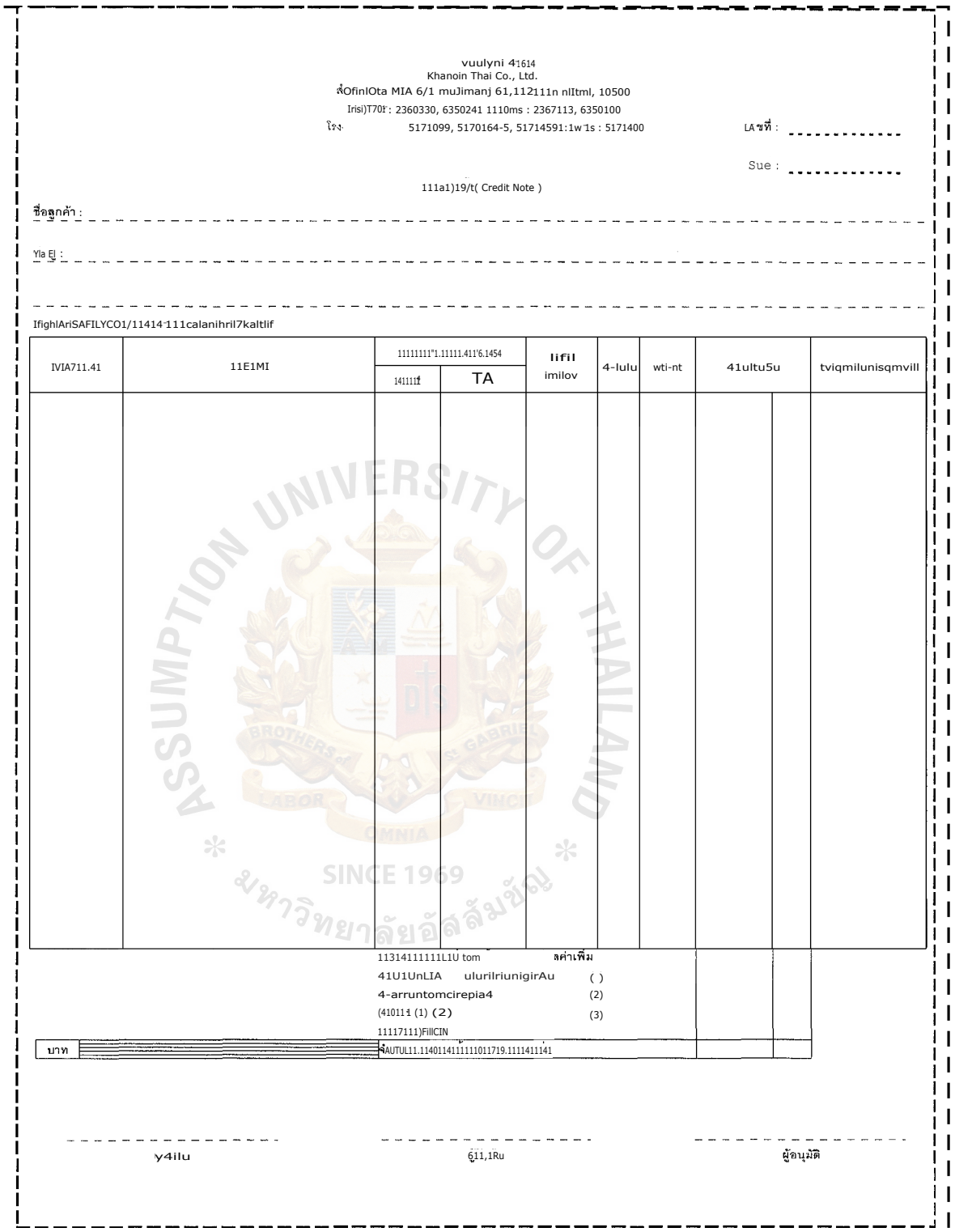

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Figure C.5. Credit Notes.

Page : XX

Khanom Thai Co., Ltd.
Customer Detail Report
Division : XX

Customer No.	Name	Salesman	Customer Group	Address
xxxxxx	xxxxxx	xxxx	xxxxxxxx	xxxxxxxxxx

Figure C.6. Customer Report.

Page : XX

Khanom Thai Co., Ltd.
Outstanding Order Report
Division : XX

Required Date W1-1	Part Code	Description	Quantity	Unit

Order Number : XXXXXXX
Customer Number : XXXXXXXXXXX

DD/MM/YY XX XXXXXX XXXXXXXXX XXXX X XXX

Total Quantity XXXXXX

Figure C.7. Order Outstanding Report.

Page : XX

Khanom Thai Co., Ltd.
Monthly Sales Report by Product
Division : XX

Part Code	Description	Unit	Quantity	Amount	CUMM	YTD QTY
XXXXX	XXXXXXXXXX	XXX	XXXXX	XXXXX	XXXXXXXX	

			XXXXX	XXXXX	XXXXXXXX	

Figure C.8. Monthly Sales Report by Product.

Page : XX

Khanom Thai Co., Ltd.
Monthly Sales Free Goods Report
Division : XX

Part Code	Description	Unit Sales Quantity	Free Quantity	Total Quantity	% Free
XXXXX	XXXXXXXXXX	XXX	XXXXX	XXXXX	XXXXX XXX

Figure C.9. Monthly Sales Free Goods Report.

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