COMPUTERIZATION

OF
SALES & SERVICES DEPARTMENT

OF
TELEPHONE INDUSTRIES OF PAKISTAN
HARIPUR

BY

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Project Brief

Project Title: Sales &Services information system.

Organization: Telephone Industries of Pakistan

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Software used: ORACLE Developer/2000 Tools.

Environment used: Window 98,Window NT.

System used: Pentium II.

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FINAL APPROVAL

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And it is our judgment that this thesis is of sufficient standard to warrant its acceptance by the QUAID-I-AZAM UNIVERSITY for the

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in

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DEDICATED TO:

OUR PARENTS

&

ALL!

ABSTRACT

The Sales & Service Information system for Telephone Industries of Pakistan Haripur has been developed using Oracle 8.0/Developer2000. The main aim of this study is to facilitate data manipulation for Sales information system.

Although it is extremely difficult to handle large amount of data manually and achieve valuable results, however computerization such sort of problem are solved and more reliable results can be obtained.

It gives so many facilities for handling data such as data insertion, deletion modification. You can also retrieve records, which are required. It must be remember those different reports and statements should be obtained every time for decision making. According to the user necessary requirement the Software package, sales & services Information System had been developed.

ACKNOWLEDGMENT

First and foremost, we would like to extend our sincere and humble gratitude to Almighty ALLAH, Whose guidance, help and blessings have always been source of encouragement for us. We express our deep gratitude to our Supervisor Mr. JAVED HUSSAIN, without his valuable suggestions, positive criticism and proper guidance, it would have been almost impossible for us to accomplish this task successfully.We extend our thanks to Mr. Azhar (Executive Officer) & Mr. Aijaz of Sales Department of TIP for the co-operation and guidance during the system analysis & design.

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Mr. IJAZ AHMED

&

Mr. MUHAMMAD HANIF

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PREFACE

This report presents the detailed study, design and implementation phase of the Project carried out for the Telephone Industries of Pakistan.
This development has gone through a series of sequential steps to shape to its final from which are explained by the chapter tncluded in this report.

CHAPTER # 1. This Chapter describes the introduction of the Organization.

CHAPTER # 2. This Chapter describes the information about the existing system.

CHAPTER # 3. This Chapter gives the information about the proposed system; it also gives the merits of the new system.

CHAPTER # 4. This Chapter gives the review of Database Design.

CHAPTER # 5. This Chapter is concerned with the designing of proposed system in which input tables, forms, coding and reports are discussed and designed.

CHAPTER # 6. This chapter describes the system testing and implementation .

CHAPTER # 7. In this chapter system evaluation is discussed.

CHAPTER # 8. This chapter provide the full guide to the user.

APPENDICES: Appendix "A" contain the manual form of the existing system.
Appendix "B" contains the input form model for data insertion.
Appendix "C" input reports & flow charts.

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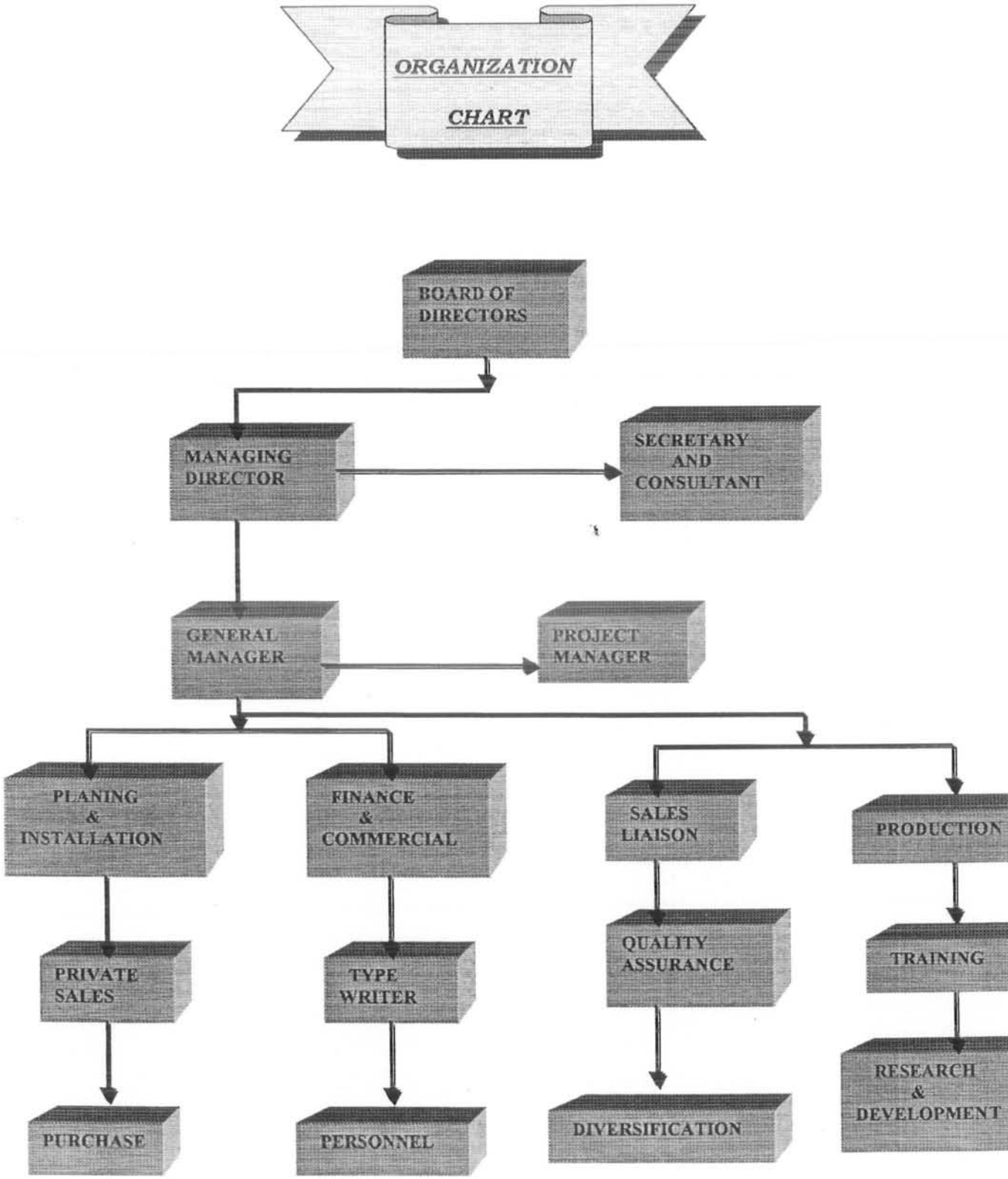
CHAPTER # 1

INTRODUCATION TO ORGANIZATION


ORGANIZATION
CHART
BOARD OF DIRECTORS
MANAGING DIRECTOR
SECRETARY AND CONSULTANT
GENERAL MANAGER
PROJECT MANAGER
PLANING & INSTALLATION
FINANCE & COMMERCIAL
SALES LIAISON
PRODUCTION
PRIVATE SALES
TYPE WRITER
QUALITY ASSURANCE
TRAINING
PURCHASE
PERSONNEL
DIVERSIFICATION
RESEARCH & DEVELOPMENT

Telephone Industries of Pakistan

Introduction To Organization

1. Brief History:

Telephone industries of Pakistan were established in 1952 to meet the requirement of Telecommunication switching equipment of the country. It is a large organization in Asia built on area of about 63000sq.metres.it is situated at Haripur a beautiful green and picturesque township of Hazara in N.W.F.P, 70 km north-east of Islamabad .The two shareholders of the company are PTCL and M/s. SIEMENS A.G. Germany. The total capital of the company is RS 1,000 millions.

The main function of the company is to plan, produce, install, test and commission the telephone exchanges and supply telephone instruments. Besides telecommunication equipment TIP is also producing a variety of other products like container shells, single phase energy meters, fire alarm equipment

TIP began its production in1954 with an annual capacity of 7000 telephone sets and 7000 lines units of f-1 type stronger of exchanges. It continued changes of technology to build electromechanical type of exchanges. The production capacity was increased in different phases according to the requirement of country

2. Production capacity:

The production capacity of the factory during past years was enhanced from time to time in different phases to meet the total requirement of the country. Up to the year 1990 on Electro-mechanical exchanges installed in the country were manufactured and supplied by TIP. These exchanges were produced in TIP up to the maximum possible depth of production.

The production of digital electronic exchanges (EWSD) was taken up from the year 1990 with the installed capacity of 100,000 lines units, which has been increased during the years according to the requirement of PTCL. The present of the factory is ranging from 250,000 line units to 300,000 line units per annum depending upon the configuration of the exchanges.

The factory capacity per annum of different products is as follows:

Tip products and capacity

Serial #	Products	Capacity/year
1.	EWSD Telephone Exchanges	250,000 to 300,000 L.U.
2.	Telephone Sets Various Types	450,000 sets
3.	Container Shells	200
4.	Divisional Cabinets	1,000
5.	Energy Meters	200,000
6.	Printed Circuit Boards	5,000 sq. meter
7.	Hybrid Circuits	400,000

3.) Surplus Capacity & Other Potentials of TIP:

TIP is not receiving enough orders of telecommunication equipment from PTCL to engage full capacity of the factory. According to production program for the year 1999-2000, 200,000 line units Digital Public Exchanges and 450,000 telephone instruments are included in the budget .
From the figures it is evident that the full capacity of the factory is not being utilized. Therefore TIP has surplus the capacity to meet additional PTCL demand or has the potential to export its telecommunication products.

With the phasing out of Electro-mechanical telecommunication equipment and introduction of digital exchanges a huge capacity for Electro-mechanical products has been rendered surplus which can not be utilized for digital exchanges.

Number of diversified products have been introduced in TIP like Single Phase Energy Meter, Container Shell, Fire Alarm System but still sufficient spare capacity in the following field is available.

I-Tool Making:

TIP has well equipped Tool making workshop which has highly sophisticated machinery including Shaping, Milling, Precision Grinding and Computerized Numerical Controlled (CNC) Wire Cutting and Erosion machines. Also highly skilled toolmakers and machinists are available to manufacture precision jigs, fixtures, gauges, and precision punching tools and high quality plastic and pressure casting moulds.

Surplus capacity is available in Sheet Metal Cutting and Punching workshop where Precision Eccentric Presses of capacity ranging 5 to 100 tons are available including Computerized Numerical Controlled (CNC) Punching & Nibbling Press. In addition to above TIP has the facility of Turning, Milling, Drilling, Aluminum and Tin casting, Plastic moulding where sufficient surplus capacity is available. The facility of Electro-plating like Copper, Nickel, Silver, Chromatizing and Painting is also available.

With the introduction of digital exchanges TIP has established Printed Circuit Board (PCB) plant of latest technology to manufacture single and double-sided circuits. The plant has the capacity of 5,000 square meters per annum, where also enough spare capacity is available. TIP has latest production plant to manufacture Thick-film Open Circuit Hybrid including the facility of Screen-Printing and Laser Trimming.

II- Precision Measuring & Testing Facilities:

TIP has a fully equipped Precision Measuring and testing equipment to test and maintain sophisticated gauges and production tools. Also Material Testing Laboratory is available to test almost all type of ferrous, non-ferrous and chemicals.

TIP has also established Incoming Goods Inspection facilities for all types of electronic components including Memory ICS, microprocessors and VLSI (Very Large Scale Integrated Circuits).

III- Assembling & Testing Equipment:

TIP has latest equipment for assembly and testing of electronic products which includes Project Controlled Assembly Tables (Through Hole Technology) and Automatic Surface Mounting equipment (SMT) and Computerized Testing equipment.

IV-Training Facilities:

TIP has been training its highly skilled required staff in its own Apprentices Training School established in 1954, imparting training in different trades like Designing, Draughting, Tool Making and other Electro-mechanical fields. With the change of technology TIP is now training apprentices in the field of Electronics, Telecommunication and Computer Technologies. Highly qualified training staff is available for imparting training to the apprentices.

V-Research & Development:

Pay Card TIP has its own full equipped and well organized Research & Development Department consisting of a Mechanical & Electrical wing at Haripur and an Electronic and Software Wing at Islamabad. This department not only helps TIP to modify and improve the current products and adopt new technologies but also utilizes the existing resources to develop new items to meet the factory and market demands. This department has successfully designed and developed a number of telecommunication and other products like Containerized Telephone Exchanges, Energy meters, Fire alarms & Security system, Inter-com, Smart card based payphones, Steno-phones and many other sophisticated electronic equipment. These products conform to various international standards and TIP has been supplying these products to different customers including PTCL and WAPDA for a number of years without any major complaint.

The Software Center at Islamabad is being re-organized to develop and utilize software for our own products as well as for other customers.

Indiginization and introduction of further items.

TIP is endeavoring to broaden further its production spectrum by working on the following products:

- Telephones.
- Caller Line Identification Telephones.
- Switch Mode Rectifiers.
- Private Automatic Branch Exchanges.

Inspite of introduction of new products, TIP is in a position to market its spare capacity in the following fields

i. Double Sided Printed Circuit Boards.
ii. Thick Film Hybrid Circuits.
iii. Low Current Coils and Transformers.
iv. Tool Making.
v. Stamping/Turning/Milling and Drilling.
vi. Plastic Molding and Pressure Castings.
vii. Electroplating.

VI-Government Assistance:

The products manufactured by TIP meet the international standards, specifications and have the possibilities of its market in Central Asian, Middle Eastern and other developing countries, in case its prices are competitive in the world market. Due to high custom tariff on raw materials and components and cumbersome import procedures make the local products non-competitive for export market, therefore import duty on raw materials, components and machinery used for local production needs to be brought to zero.

With the reduction in tariff rates and improvement procedures it will make the local products more competitive in the world market. This will also, to great extent, discourage the high rate of smuggling of the low quality products in the country because local products will become more competitive. This will also help reviving the local industry and provide more job opportunities.

The Government should also help to provide soft term loans for investment to export oriented industries.

4. Welfare Amenities:

TIP tales excellent Health Care of its employee and workers by providing modern hospitals run by specialist. Not only workers are eligible to benefit medical facility but their families are also covered in health care scheme.

Employee's children are imparted high standard education in three schools suited with residential colony boundaries, which are governed by colony board. Telecommunication, Staff College and National Radio and Telecommunication Corporation share services of these schools. One of the schools for boys is English medium, which is now up graded to intermediate level to assist in subjects like Pre-Engineering and Pre-Medical. The girl's high school comprises of English medium as well as Urdu medium sections. Beyond education services rendering, Canteens are provided for employees where food is served on subsidized rates. Such relief plays great role towards the mental and financial satisfaction of workers.

CHAPTER # 2

EXISTING SYSTEM

INTRODUCTION:

Sales and services department of any organization has very importance for the organization. It plays a vital role in organization survival, especially in such complex and competitive environment. This department provides the basic need of the organization, that is money. An organization can live and improve its functionality if it has sufficient amount of assets, because for any commercial organization, money is like blood. Thus we can simply conclude that sales department is the heart of an organization.

In the light of above para one can easily visualize the importance of sales department and one should pay, as much attention to a thing as it is important. The main purpose of Telephone Industries of Pakistan is to produce and improve telecommunication equipment so sales and services is one of its major departments which is helpful to meet all those goals which were seted at the time of its establishment.

Some of the work in existing sales department system is computerized, but it is not completely helpful and a lot of portion of existing system are manual which causes many tiring and unpredictable problems. Below here the working of current sales system is overviewed in six steps:

STEP (I):

Receiving orders form PTCL commonly and some other organization rarely.

STEP (II):

Preparation of advise note in SDL (A branch of sales department), against each order.

STEP (III):

Valuation of advise note in CSD (Another branch of sales department), against each advise note. This is called reparation of invoices.

STEP (IV):

Submission of invoices to PTCL for approval and payment.

STEP (V):

Receiving checks/drafts from PTCL.

STEP (VI):

Submission of checks to bank.

Now all these six steps are briefly explained below one by one:

1.) Receiving Orders:

First of all whenever PTCL needs any equipment or exchange, it gives tender notice in the national newspapers in response to this tender all relating companies including Telephone Industries of Pakistan send their quotation, if Telephone Industries wins the tender then highups of TIP (eg. MD , GM , MANAGERS etc.) make meetings with PTCL on different issues including rates of equipment and finalize the deal. When both ends agreed then further steps are taken by PTCL, it makes the list of all the equipment it need including quantity. Then send this list to executive of SDL (A branch of sales department).

2.) Preparation Of Advise Note:

When this list reaches to SDL branch of sales department, they prepare their own list of items/equipment, this list is called advise note. In this list they only mention the items/equipment, it's quantity and keep record of orders with details like order number, file number/reference number, type, date etc. They also check whether the required equipment is prepared in factory or not. Those items, which are prepared in factory, are called "local" items, and the others are called "foreign" items. In case of local items they also check whether required quantity of item is present in store or not. If it is present in required quantity then it is O.K. and if it is not, they send a list of such items showing quantity to production section to prepare these items. On the other hand when any item is not prepared in factory locally then it is responsibility of organization to purchase it and provide it to customer these items are further divided into two categories local and foreign. Local items are those items which are purchased from local market and foreign items are those which are imported from foreign (From SEIMENS) these foreign items are purchased in German Marks, but their value is converted into Pak. Rupees and PTCL and other clients only pays in rupees. One another thing should be noted that payment of each item which are purchased whether locally or from foreign must be paid fully by PTCL or other customer in advance. After preparation of advise note SDL sends this list with all details to executive of CSD branch of the department for pricing of listed equipment.

3.) *Valuation Of Advise note:*

When this list of items (advise note) reaches to CSD they estimate the total bill and make the pricing of the equipment. They also include some extra charges on these items e.g. sales tax, fare charge, packing cost, insurance charges and any other additional (exceptional) charges. In case of an exchange order there are some additional charges are also included such as documentation, installation, engineering and commissioning. These charges are termed as services charges. Sales tax, insurance, transportation, packing, etc. are charged percentagely on total cost of equipment/exchange whereas installation, documentation, engineering & commissioning are charged according to the number of ports or lines i.e. these charges depend upon the number of lines of exchange therefore they are only concerned with exchange orders. When this process of preparing invoices with the help of advise note is completed is then send to PTCL for approval and payment.

4.) *Submission Of Invoices To PTCL:*

Invoices with complete information of items including prices, extra charges and total amount are submitted to PTCL. Now PTCL overview and check the invoice and if it accept the invoice it send back it to Telephone Industries of Pakistan with approval plus 50% payment for local items and 100% payment for foreign items, all such payments are made in Pak.Rupees. There may be possibility that PTCL may not approve the invoice, they may have some objections on extra charges or even on the price of equipment, in such condition they send back the invoice with their objections. When this situation arises the decision making staff of TIP calls a meeting and then again revise their charges and after passing through all the three previous levels submit it to PTCL with new revised charges. This process may continue unless PTCL approve it.

5.) *Receiving Of Checks:*

When invoices are approved by PTCL and Telephone Industries Of Pakistan gets some amount from PTCL then its duty is to fulfill the requirements of customer's order sales department sends the list to stores, purchase and manufacturing departments. Items which are present in store are shipped to their destination while others are send with the time as they are available in

store. Up till now Telephone Industries Of Pakistan receives only 50% amount of total cost, when they complete the order then PTCL pay 20% more amount to Telephone Industries Of Pakistan and rest of 30% amount is blocked unless PAC (Provisional Acceptance Certificate) is to Telephone Industries Of Pakistan from the staff of exchange belonging the order. This method is adopt by PTCL since 1997 because before 1997 if there arise such condition that exchange/item cannot work properly after installation and PTCL had to pay more amount to repair the equipment. Now they have adopted the method of PAC, that payment should not pay fully unless exchange/equipment does not start working properly. When Telephone Industries Of Pakistan receives PAC (which may take long period), Telephone Industries Of Pakistan send this PAC along with invoice to PTCL which in reply send back the invoice with remaining 30% payment and thus the process is completed.

6.) Submission Of Checks:

Another responsibility of sales department is to submit the amount/payment to bank. Sales departments submit the checks/drafts to bank time by time as it receive from PTCL so as to maintain and clear the record relating to a specific order

SEVICES:

In case of order of exchange Telephone Industries Of Pakistan also provide services of engineering, installation of the equipment. Also if there occur any fault in any exchange Telephone Industries Of Pakistan provide repairing facilities, this process is handled by another department known as repairing department but the charges of engineering and installation etc. are charged by sales department and the details relating to charges are kept by sales department of Telephone Industries Of Pakistan.

Drawbacks Of The Existing System:

During the system study of existing sales system many problems were encountered in the present system which are described as:

Existing System

i.) All the calculations in the present system are carried out manually which is a source of errors. The results compiled by the individuals have errors which when detected take a lot of time for correction and chance of errors increases with the increase of data

ii.) The large number of files and huge registers have to be maintain for the purpose of handling data and related information which result in the worth less extras efforts as well as the wastage of large amount of stationary.

iii.) At the present very limited reports are generated by current computerized system which does not fulfill the requirements of the system.

iv.) Searching of information about the particular order takes a lot of time. Since the files are organized by the order name, access through any other field may not be possible when required.

v.) Storage media is another important factor. All the information is stored on papers, files and registers that can be lost or damaged. So the present system is not adequate, therefore, the access, updating, deletion and insertion of a record will certainly take a lot of time.

vi.) Since information and data are stored on various files and registers there are chances of duplication.

vii.) Furthermore, the present manual system is slow, cumbersome and laborious. A lot of staff is required for maintaining the record properly which cost more to Telephone Industries Of Pakistan.

In view of the above problems faced by Telephone Industries Of Pakistan it has felt that a new computerized system should be developed which could efficiently meet the needs of the organization. Therefore, a system has been analyzed, designed and implemented.

CHAPTER # 3

PROPOSED SYSTEM

INTRODUCTION:

At the start of previous chapter the importance of sales department is discussed to some extent and at the end of that chapter the drawbacks and problems of the existing system are also discussed. Keeping in mind the role of this department and its current performance one can easily imagine the problems which higher authorities are facing for decision-making steps. So after detail study of current system and its drawbacks the next most important and the main task of the project starts i.e. designing of new system that can completely fulfill all the requirements of the system.

The existing manual system of Telephone Industries Of Pakistan is inefficient, laborious and may cause bundle of mistakes. Many kind of different forms are used for the same purpose depending upon the availability of forms which is quite puzzling. The new proposed system meets all the requirements of the management related to monthly reports of different types.
Order received by Telephone Industries Of Pakistan are generally of two types :

I) Order of items/equipment.
II) Order of the complete exchange.

So it is proposed to keep the record of both types separately. All the relating information and data will be stored independently. Details relating of different cities and regions will be stored in a separate table so that one can easily check the city code of any city and with the help of this code he can get the information relating to the city.

In present system a clerk does not know any information about the position of store, so in proposed system it is decided to provide such information to user so that he know about store position. Proposed system also shows the different states of an order that whether it is completed or not. Also it is kept in mind that one must also know that how much amount is received against each order and how much amount is submitted in the bank against each order. New proposed system will also give the information about items, which are purchased, from market against each order.

Reports of different kinds can be made with respect to different conditions e.g. number of orders received monthly or yearly both of items and exchanges, total number of items with available quantity at any time, total number of extra charges charged currently their rates and way of calculation, detail of different cities and their codes. Details of each order, order number wise and date wise with total amount, which shows the total business during a specific time. Detail of amount received against each order during certain period showing the

complete details and total money submitted in bank during month/year with detail of order number, check number and dates.

Objectives Of The Proposed System:

Among the objectives of the proposed system, there is essential elements and steps involved is that the right information will go to the right person at the right time in the right format at the lowest cost. Here are some of the objectives, which the proposed system will meet.

- It should meet all requirements of the management of the organization and should be cost beneficial.
- It should provide timely and accurate reports to the management.
- It should be efficient then the existing system in less time and effort.
- With the passage of time some of the records in the file become absolute and have to be deleted or changed. There may be some records which have to be inserted so the maintenance of files should be easy.
- The flow of information could be smooth and their should be no probability of duplicate and irrelevant data.
- The proposed system should be flexible and should cope with the future needs of the organization.
- It should provide monthly quarterly and annual reports.
- It should be more efficient then the existing manual system involving less time and efforts.

Selection Of Software:

The software tool selected for the proposed system is ORACLE 8.0 DEVELOPER 2000, this software has been selected due to the following reasons:

i. ORACLE 8.0 and DEVELOPER 2000 is a tool that is designed for commercial purpose applications.

ii. It has good facilities regarding database handling.

iii. It has the ability to handle large amount of input, output and can produce reports of various formats depending upon the requirements of the problem.

Here are some major parts of the selected software tools given below:

1. ORACLE SQL AND PL/SQL Programming Language:

SQL stands for structure query language similarly PL stands for procedural language. SQL is more efficient and flexible language to design and examine data. SQL is too much powerful language. PL/SQL also relates with variables and its types, data type, procedures and functions, control structures and loops.

2. ORACLE FORMS:

Form designing is major product in developer 2000. ORACLE FORMS enables one to quickly develop form based applications for presenting and manipulating data in variety of ways. The designing is made in different styles ORACLE FORM designing helps user as under:

- Insertion, deletion, updating and data query.
- DEVELOPER 2000 control forms across several windows and data base transactions.
- Sending data directly to reports format.
- Different manners are used to access the data facilities.

3. *ORACLE REPORTS:*

Report designing is that tool displaying, developing and printing reports. Report is designed for application developers

which are related with SQL and PL/SQL. Reports designing are used to create reports different properties are as under:

- It supports for color, fonts and graphics.
- It supports printing capabilities.
- It supports context-sensitive online help system.
- It supports data model and layout editors in which one can create structure and various formats of the reports.
- It supports integrated preview for viewing report design.

Selection of hardware:

For the development of the system the minimum requirements of the hardware and operating system are as under:

1. Processor	**450 M.Hz.**
2. Mother Board	**Pentium (II),Intel**
3. RAM	**64 M.B.**
4. Hard Disk	**8.4 G.B.**
5. Monitor	**14'' Color SVGA PHILIPS**
6. Operating System	**Windows NT.**

CHAPTER # 4

REVIEW OF DATABASE

Basic Terms Used in Database Design:

Basic knowledge of Computer's terminology is very essential for understanding the concepts of computerized database. Description about some important computer terminology used in the project while designing Sales & Services database for SDL Department is as below:

Difference Between Data and Information:

➢ *Data:*

Element or unit of knowledge that may be regarded as raw facts, not necessarily meaningful. Most often data consists of numbers, such as the given values of input for the problem to be solved. Data must be discrete, consists of numeric, character, alphanumeric and some special symbols.

➢ *Information:*

Information is meaningful data that is relevant, accurate and update and can be used to take actions or making decisions. Raw data are transformed into information by data processing. Data processing not only includes numerical calculations but also other general operations.

Data Processing

Data processing consists of gathering the raw data as input, evaluating and placing it in some order (Ascending or Descending), sorting of data in logical sequence i.e. placing it in some proper perspective so that useful information is produced. All data processing whether done by hand or computer system consists of three basic activities.

- **Capturing the Input Data.**
- **Manipulating the Data.**
- **Managing Output Results.**

File Structure

To learn about computer files, we need to understand basic terms used to describe file hierarchy. The terms we shall cover are by Byte, Data Item, Record, file and Database

➢ *Byte:*

A Byte is an arbitrary set of eight bits that represent a character. It is the smallest addressable unit of information in computers.

➢ *Data Item (Element):*

It is also called data field value. The smallest unit of data that cannot be decomposed further. For example "Date" consists of day, month and year. They hang together for all practical purposes. In other words one or more bytes are combined into a data item to describe the attribute of an object.

A data item is some times referred as a field. Field is actually a physical space on disk whereas a data item is the data stored in the field.

➢ *Record:*

Data items related to some object are combined into a record.
An exchange (object) has record with its exchange_code, item name
Order date, file no, location, type, city code, customer, status etc.

➢ *File:*

A collection of related records make up a file. The size of a file is limited to the size of memory or the storage medium. For example one data file is a collection of all records related to Ado's personal history and other is a collection of all records related to the performance evaluation of Ado's.

➢ *Database:*

The highest level in the hierarchy of file structure we have discussed so far is of Database. It is a set of interrelated files for real time processing. It contains necessary data for problem solving and can be used by several users accessing data concurrently.

WHAT IS A DATABASE?

Database is a computer term for a collection of information concerning certain topic or any organizational application. Database let you organize this related information into a logical fashion for easy access and retrieval.

Manual Filing system and Computer Based DBMS:

Most of us are familiar with the manual filing systems. These filing systems consist of paper files and file cabinets used to store these files. This view of manual database makes the point that paper is key to manual database system.

In a real manual database system you probably have in out baskets and some type of formal filing method.

You access a file manually by opening a file cabinet, taking out a file folder and finding correct piece of paper. Paper forms are used for input, perhaps with

a typewriter. You access information by manually sorting the papers or copying desired information from

many papers into another piece of paper or even a computer spreadsheet. A calculator or a Computer spread sheet may be used for further analyzing and reporting the data.

A computer database is nothing more than an automated version of the filling and retrieval of a manual paper filling system. Computer database can store data in a variety of forms that range from simple lines of text such as name and address to stored in a precise and known format that enables data base management (DBMS) To turn the data into useful information through many types of out put, such as queries and reports.

A relational database management system (RDBMS) stores data in many related data files/tables, which lets the user ask complex question from one or more related tables and receives the answers to these question in the form of information such as forms and reports.

Management Information System (MIS)

MIS is person machine system and highly integrated grouping of information processing function designed to provide management with a comprehensive picture of specific operation. It is actually a Combination of information system. To do the job should operate in real time handling inquiries as quickly as received.

Management Information must also be available early enough to effect a decision. Operationally, MIS should provide for file definition, file maintenance and updating, transaction and inquiry processing and one or more database. With in MIS, a single transaction can simultaneously updated all related data files in the system. In so doing data redundancy (duplication) and time it takes to duplicate data as in case of traditional filling system are kept to a minimum, thus insuring the data are kept current at times.

Review Of Database

A key element of MIS is the database, a non-redundant collection of integrated/interrelated data items that can be proposed through application programs and available to many users. All records must be related to some way. Sharing common data means that many programs can use the same file or records. Information is accessed through a database management system (RDBMS). It is a part of software that can handle virtually every activity involving the physical database.

Advantages of a database system:

There are several advantages of a database system:

- Processing Time and the number of programs written as substantially reduced.
- All application shard centralized files.
- Storage space duplication is eliminated.
- Data are stored once in the database and are easily accessible when needed.

Database Management System (RDBMS):

The software that determines how data must be structured to produce the user's view, manage, stores, and retrieved data and enforces procedures. It is application software that controls the database, including overall organization, storage, retrieval, security and data integrity. A DBMS can also format reports for printed output, and import & export data from other software application programs using standard file formats. We can say Oracle, FoxPro, dBase, and Microsoft access etc are all Database Management system.

Database Design:

Before the database concepts became operational, users had programs that handled their own data independent of other users. It was a conventional file environment with no data integration or sharing of common data across application. In a database environment common data are available and used by several users. Instead of each program or user managing its own data, authorized users share data across application with the data software managing the data as an entity. A program now request data through the database management system (DBMS), which determines data sharing.

Objective Of Database:

The general theme behind a database is to handle information as an integrated whole. As discussed above, a database is a collection of interrelated data stored with minimum redundancy to serve many to serve many users quickly and efficiently. The general Objective is to make information access easy, quick, inexpensive, and flexible for the users, several specific objectives are considered.

1) Controlled redundancy:

Redundant data occupies space and therefore is wasteful if versions of the same data are different phases of updating the system often gives conflicting information. A unique aspect of database design is storing data only once, which controls redundancy and improve system performance.

2) Easy of learning and use

A major feature of user-friendly database package is how easy is to learn and use.

3) Data independence:

An important database objective is changing hardware and storage procedures or adding new data without having to rewrite application programs. The database should be, tunable, to improve performance without rewriting programs.

4) More information at low cost:

Using storing and modifying data at low cost are important. Although hardware prices are falling software and programming costs are on rise. This means that programming and software enhancement should be kept simple and to update.

5) Accuracy and Integrity:

The accuracy of database ensures that quality and content remain constant. Integrity controls data inaccuracies where they occur.

6) Recovery from Failure:

With multi user access to a database, the system must recover quickly after it is down with no loss of transaction. This objective also helps maintain data accuracy and integrity.

7) Privacy and Security:

For data remain private security measures must be taken to prevent unauthorized access. Database security means that data are protected from various forms of destruction, users must be positively identified and their actions monitored.

8) Performance:

This Objective emphasizes response time to inquiries suitable to the use of the data. How satisfactory the response time is depends on the user database dialog. For example, inquiries regarding airlines seat availability should be handled in few seconds.

CHAPTER # 5

DESIGNING OF PROPOSED SYSTEM

Designing Of Proposed System

The proposed system is designed under the certain objectives are discussed below:

1. **Table or file designing.**
2. **Form designing.**
3. **Coding.**
4. **...Output reports designing.**

Now each are discussed in detail:

1.) TABLE DESIGNING:

There are thirteen different types of data base tables which are designed for the proposed developed software system.

The data base table structure are given as under:

i.) **Table Name :** CITY
Primary Key : CITY_CODE

STRUCTURE:

Field Name	Type	Width	Status	Description
CITY_CODE	VARCHAR2	10	Not Null	Unique key
REG	VARCHAR2	15	---	Region
C_NAME	VARCHAR2	20	---	City Name
PROV	VARCHAR2	15	---	Province

ii.) **Table Name :** ITEM
Primary Key : ITEM_CODE

STRUCTURE

Field Name	Type	Width	Status	Description
ITEM_CODE	VARCHAR2	20	Not Null	Unique key
DESCP	VARCHAR2	30	---	Description
CATG	VARCHAR2	10	---	Category
D_MARK	NUMBER	9,2	---	German Mark
RS	NUMBER	12,2	---	Rupees
QTY	NUMBER	7	---	Quantity

iii.) **Table Name :** EXCHG (EXTRA CHARGES)
Primary Key : CHG_CODE (CHARGE CODE)

STRUCTURE

Field Name	Type	Width	Status	Description
CHG_CODE	NUMBER	3	Not Null	Unique key
DESCP	VARCHAR2	15	---	Description
RATE	NUMBER	10,2	---	Rate

iv.) **Table Name :** I_ORDER (ITEM ORDER)
Primary Key : ORD_NO (ORDER NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
ORD_NO	VARCHAR2	20	Not Null	Unique key
ORD_DATE	DATE	11	---	Order date
FILE_NO	VARCHAR2	10	---	File number
LOC	VARCHAR2	15	---	Location
TYPE	VARCHAR2	10	---	Type
CITY_ODE	VARCHAR2	10	Foreign key	City code
CUST	VARCHAR2	15	---	Customer
STATUS	VARCHAR2	15	---	Status
P_DATE	DATE	11	---	Status date

v.) **Table Name :** I_ORD_DET (ITEM ORDER DETAIL)
Primary Key : SNO (SERIAL NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
SNO	NUMBER	5	Not Null	Unique key
ORD_NO	VARCHAR2	20	Foreign key	Order number
ITEM_CODE	VARCHAR2	20	Foreign key	Item code
QTY	NUMBER	7	---	Quantity
VALU	NUMBER	14,2	---	Value of item
S_TAX	NUMBER	11,2	---	Sales tax
PAC	NUMBER	10,2	---	Packing
TRNSP	NUMBER	10,2	---	Transport
INS	NUMBER	10,2	---	Insurance
OTHER	NUMBER	10,2	---	Other charges
TOTAL	NUMBER	16,2	---	Total amount

vi.) **Table Name :** EXG_ORD (EXCHANGE ORDER)
Primary Key : EXG_ORD_NO (EXCHANGE ORDER NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
EXG_ORD_NO	VARCHAR2	20	Not Null	Unique key
EXG_ORD_DATE	DATE	11	---	Order date
FILE_NO	VARCHAR2	10	---	File number
LOC	VARCHAR2	15	---	Location
TYPE	VARCHAR2	10	---	Type
CITY_CODE	VARCHAR2	10	Foreign key	City code
CUS	VARCHAR2	15	---	Customer
STATUS	VARCHAR2	15	---	Status
P_DATE	VARCHAR2	11	---	Status date

vii.) **Table Name :** EXG_ORD_DET
(EXCHANGE ORDER DETAIL)
Primary Key : EXG_ORD_NO
(EXCHANGE ORDER NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
SNO	NUMBER	5	Not Null	Unique key
EXG_ORD_NO	VARCHAR2	20	Foreign key	Order number
LINE	NUMBER	5	---	Number of lines
TRNK	NUMBER	5	---	Number of trunks
PORT	NUMBER	5	---	Number of ports
LAND_VAL	NUMBER	10,2	---	Landed value
DD	NUMBER	10,2	---	Direct delivery
MNF	NUMBER	10,2	---	Manufacturing
PACK	NUMBER	10,2	---	Packing
INSU	NUMBER	10,2	---	Insurance
TRN	NUMBER	10,2	---	Transport
S_TAX	NUMBER	10,2	---	Sales tax
OTHER	NUMBER	10,2	---	Other charges
TOTAL	NUMBER	14,2	---	Total amount

viii.) **Table Name :** SERVICE
Primary Key : SNO (SERIAL NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
SNO	NUMBER	5	Not Null	Unique key
EXG_ORD_NO	VARCHAR2	20	Foreign key	Order number
INST	NUMBER	10,2	---	Installation
COMM	NUMBER	10,2	---	Commissioning
DOC	NUMBER	10,2	---	Documentation
ENG	NUMBER	10,2	---	Engineering
TOTAL	NUMBER	12,2	---	Total amount

ix.) **Table Name :** ITEM_AMT_REC
(ITEM AMOUNT RECEIVE)
Primary Key : CK_NO (CHECK NUMBER)

Designing Of Proposed System

STRUCTURE

Field Name	Type	Width	Status	Description
TRNS	NUMBER	5	---	Transaction
ORD_NO	VARCHAR2	20	Foreign key	Order number
TOTAL	NUMBER	18,2	---	Total amount
PRE	NUMBER	18,2	---	Previous amount
CUR	NUMBER	18,2	---	Current amount
REM	NUMBER	18,2	---	Remaining amount
CK_NO	VARCHAR2	15	Not Null	Check number
REC_DATE	DATE	11	---	Receiving date

x.) **Table Name :** URCHASE
Primary Key : ORD_NO (ORDER NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
ORD_NO	VARCHAR2	20	Not Null	Unique key
ITEM_CODE	VARCHAR2	20	---	Item code
DESCP	VARCHAR2	25	---	Description
CATG	VARCHAR2	15	---	Category
D_MARK	NUMBER	10,2	---	German Mark
RS	NUMBER	12,2	---	Rupees
P_DATE	DATE	11	---	Purchase date

xi.) **Table Name :** ITEM_BANK
Primary Key : SNO (SERIAL NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
SNO	NUMBER	5	Not Null	Serial number (Unique key)
ORD_NO	VARCHAR2	20	Foreign key	Order number
CK_NO	VARCHAR2	15	Foreign key	Check number
CK_DATE	DATE	11	---	Check date
AMT	NUMBER	18,2	---	Amount
SUB_DATE	DATE	11	---	Submission date

xii.) **Table Name :** EXG_AMT_REC
(EXCHANGE AMOUNT RECEIVE)
Primary Key : CK_NO (CHECK NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
TRANS	NUMBER	5	---	Transaction
ORDER_NO	VARCHAR2	20	Foreign key	Order number
TOTAL	NUMBER	18,2	---	Total amount
PREV	NUMBER	18,2	---	Previous balance
CUR	NUMBER	18,2	---	Current amount
REM	NUMBER	18,2	---	Remaining amount
CK-NO	VARCHAR2	15	Not Null	Check number
REC_DATE	DATE	11	---	Receiving date

xiii.) **Table Name :** EXG_BANK (EXCHANGE BANK)
Primary Key : SNO (SERIAL NUMBER)

STRUCTURE

Field Name	Type	Width	Status	Description
SNO	NUMBER	5	Not Null	Serial number (Unique key)
ORD_NO	VARCHAR2	20	Foreign key	Order number
CK_NO	VARCHAR2	15	Foreign key	Check number
CK_DATE	DATE	11	---	Check date
AMT	NUMBER	18,2	---	Amount
SUB_DATE	DATE	11	---	Submission date

2.) *INPUT FORM DESIGNING:*

When you want to enter the data into the table for particular section, then input forms are designed to collect the source data which is very interesting game. Forms provide a user-friendly interface. Form is link to base table and then data is entered. Data can be displayed, edited and retrieved, using same form, after each record entry.

In proposed system the forms, which are used, are given below, design sample of each form is attached in appendix "B".

CITY INFORMATION FORM:

This is a very important form for sales department. This form includes all information like city code, region, name etc. about cities of Pakistan, which is needed during the formation of order.

ITEM DATA ENTRY FORM:

This form gives the information about all the items which TIP is providing. It includes item code, description, category whether it is manufactured in factory or not, its unit price and current quantity in store. All these information are used during the formation of invoices and advise note.

EXTRA CHARGES DATA ENTRY FORM:

This form provide the information of those charges which are commonly charged against any order e.g. sales tax, fare, insurance, packing, engineering etc.

ITEM ORDER DATA ENTRY FORM:

This form is directly related with the orders of items. When an order of any item or items received by TIP then all the basic information relating to order are stored in this form like order number, file number, location of file in office of that order etc. It also shows the condition of order whether it is prepared, submitted or completed.

ITEM ORDER DETAIL ENTRY FORM:

This form saves the details of the order. Detail of order means that how much items are required, quantity of each item required, individual price of each item and total extra charges on that item. This form is very important and helpful in calculating the total amount of an order.

EXCHANGE ORDER DATA ENTRY FORM:

This form is directly related with the orders of exchanges. When an order of any exchange received by TIP then all the basic information relating to order are stored in this form like order number, file number, location of file

in office of that order etc. It also shows the condition of order whether it is prepared, submitted or completed.

EXCHANGE ORDER DETAIL ENTRY FORM:

This form saves the details of the order. Detail of order means that what type of exchange (digital, non digital etc.) is required, number of lines, ports, trunks etc. total price of the exchange and total extra charges on that exchange. This form is very important and helpful in calculating the total amount of an order.

SERVICES DATA ENTRY FORM:

This form provides the information about the services given by TIP to its customers especially in case of exchange orders. TIP provides services like installation of any exchange, engineering facilities for exchanges and some other related services. The charges of all these services are kept in service data entry form. It is also helpful in calculating total amount of an exchange order.

ITEM/EXCHANGE AMOUNT RECEIVE DATA ENTRY FORM:

When an order is approved by PTCL then it send 50% of amount of total amount while remaining amount is given time by time the record of all such information that how much amount is received, how much is remaining against each order is stored in this form.

ITEM/EXCHANGE BANK RECORD DATA ENTRY FORM:

When TIP receives some checks against any order then it is duty of sales department to submit these checks in bank. But it is also necessary to keep the record of these checks, which are submitted in bank. This form keeps all the relating information of bank position.

PURCHASE DATA ENTRY FORM:

Some times there may be some things in any order which are not prepared by TIP in such case TIP purchase these things from open market or import it from SEIMENS a German company. The information of such items,

which are purchased against any order, are stored with the help of this form.

3.) CODING:

Coding is a process in which Procedural Language is used. Programming is very essential and important process. For this developed and proposed system, programming is used, using PL/SQL as a programming language.

Master Detail Relationship:

Master detail Relationship exists between blocks in case of more than one block in a form. A master detail relationship is created between blocks of a form when there exist multiple records in the detail blocks corresponding to each reference in the master block or there is a primary and foreign key relationship between fields.

Triggers:

Triggers are a set of processing commands. All triggers are written in PL/SQL, which is a Procedural LANGUAGE integrated within ORACLE database.

Triggers are associated with event point in a SQL & Form Processing. An event is an action, which occur when a form is executed. Trigger can be defined at field, block or form level.

Code Designing:

This is used as an abbreviation for the representation of the actual data code occupies very little space but the actual data occupy very large space. It is also easy to handle the code, so code is very useful for representation of actual data. The code may be numeric alphabetic or alphanumeric. When information is accessed the code are decoded in the program, so only decoded information is displayed on screen or on printer.

4.) OUTPUT REPORT DESIGNING:

To implement the system successfully, it is necessary that its output should be able to reflect all aspects and useful features of the system. The following are factors, on the basis of these the outputs are designed:

i.) Purpose Of The Output
ii.) Provide Exact and Accurate Information.
iii.) Easy To Understand

Different types of the reports can be generated in case of management personal information system. These reports may be updated. The proposed developed system also provides the facilities to retrieve information on output devices such as screen and printer.

Report Generation:

Developer 2000 provides a tool ORACLE REPORTS 2.5 for the generation of reports. It is a versatile report generation program. It consists of the programs which are used to derive information from a data base and generate a report that present information in the desired fashion. Following reports are generated from the proposed system:

i.) **Report of extra charges.**
ii.) **Report about amount received against each exchange/item order.**
iii.) **Report about bank record against each exchange/item order, date wise.**
iv.) **Report about bank record against each exchange/item order, order wise.**
v.) **Report about exchange/item order detail against each order, order wise.**
vi.) **Report about exchange/item orders, customer and date wise.**
vii.) **Report about exchange/item orders, status wise.**
viii.) **Report about items available in TIP.**
ix.) **Report about total exchange/item orders.**
x.) **Report about purchase, date wise.**
xi.) **Report about total items purchased.**

CHAPTER # 6

TESTING & IMPLEMENTATION

TESTING:

The proposed designed system is tested so that all drawbacks could be removed. The very important parts of this phase are testing and conversion. Different methods are used to test the system. When the present system is replaced by a new system, this method is called conversion or implementation. To test and implement the system plan is prepared to schedule and manage different activities that must be completed for computerization of sales and services information system. The plan serves as a basis for the initial scheduling and assignment of resources. This plan should be updated through the testing and implementation phase in order to reflect the current status. The tested and implemented plan will include the some important factors, which are given below:

SELECTION:

i.) Personnel Selection:

This phase is very important and difficult, because it is difficult job to select the highly qualified persons for the system testing and implementation. There should be competent person who were selected for the system testing and implementation.

ii.) Training Program For Selected Persons:

There should be a training program for those persons who are selected for the installation of computers.

iii.) Equipment Installation Program:

The computers, which are recommended for SALES INFORMATION SYSTEM, require special physical operating environment. There should be precautions for the control of the temperature and presence of dust. All of these environmental controls while sounding difficult to provide have been installed efficiently in many of computer centers in Pakistan. When

proper guidance and advising service are provided it decreases the 5% of computer hardware cost.

SYSTEM TESTING:

This is a process in which errors are detected. When a system will process the input data then testing is used. However the data is created with the express of determining whether the system will process it correctly or not. There are three types of testing which shows that the developed system is operating correctly:

i.) **Unit Testing.**
ii.) **Integrated Testing.**
iii.) **System Testing.**

1.. Unit Testing:

By this type of testing different modules of the software are tested separately to locate errors. This shows the errors coding and logic that are contained with in the particular module. For example, when a form was completed the dummy data was entered check whether it work correctly or not.

2.. Integrated Testing:

All the module of the system was performed to ensure that all interface of the forms and the module has been defined correctly. As the ORACLE 8.0 reports and queries are developed separately from the application themselves. So it is very much clear that reports are invoked by different menu options. There is also ensuring that the different types of modules are interacting with each other correctly.

3.. System Testing:

The data, which is handle in the file, is called data file system. The data system testing is performed to ensure that it is operating according to the

desired specification and requirement of the organization. All the reports, queries that were generated by this system, were checked according to the requirements.

SYSTEM CONVERSION:

In the system design it is very important and essential activity of the conversion of the old manual system to a new computerized system. Conversion plan specifies which must take place to convert from the old system to the new computerized system to provide an established processed files and the quick system to the new one. In the good system conversion plan will assure every thing that the transaction will be smooth and efficient.

1.. Direct Conversion:

In this type of conversion the complete new system is introduced without reference to any previous similar system which may exist. This conversion approach is normally adopted only when the new system is totally different from existing system.

2.. Parallel Conversion :

This is a conversion in which current data is processed by both old and new system in order to cross check the result when the organization is fully satisfied that the new system is providing the desired results. The old system is then replaced by the new system, which provide the desired results. This conversion method is safest one, because it guarantee that if problems arise in using the new system, such as errors in the processing or inability to handle certain types of new transactions, the organization can still back to the old system without any loss of time and revenue of services.

3.. Pilot Conversion:

This is a conversion in which the subsystem of the new system is compared to the old system. If the new system is working successfully then all the other units can be converted very quickly using the old system.

SELECTED METHOD OF CONVESION:

We have discussed different methods of conversion. After all conclusions Parallel Conversion is suitable for sales information system. As the Direct Conversion method is not suit able because in case of failure the whole process will have to be repeated.

In case of the Pilot Conversion as the proposed system is not so big to fulfill the requirements of this type of conversion. So Pilot Conversion is not recommended. As the conversion which is recommended that is Parallel Conversion, in this method the old system will be available as backup and the results produced by the new system can be compared to the old system. So this type of conversion is suitable for the proposed system.

CHAPTER # 7

SYSTEM EVALUATION

INTRODUCTION:

The system is evaluated after determining the merits and demerits of the proposed system. In this chapter there will be detailed study of developed system from the implementation point of view. Here are some precautions, merits and demerits are discussed.

PRECAUTIONS:

There should be ORACLE backup so that you can avoid problems causing from system breakdown. Developing this you can use ORACLE'S export utilities for this purpose.

MERITS:

The proposed software system is evaluated by user interface which gives interacting platform who control the application for the measurable objectives. Here are some important merits discussed :

i. ***Efficiency:***

The software system, which is developed, is more efficient and fulfill the requirement of the management sales information system of Telephone Industries of Pakistan.

ii. ***Accuracy:***

The software system is evaluated and found more accurate. Data validation checks are imposed for the storage of correct data. In case user enters incorrect data, then he will be given an error message.

iii. ***Less Time Consumer:***

The proposed system reduces the time for the generation of query, reports and on-line information. The time is reduced by indexing the

fields on which search is performed to find particular data.

iv. ***User Friendly Environment:***

The developed system provides friendly environment for user. There is a menu driven by user, user can retrieve any information according to his choice. Appropriate help is provided at every possible stage. There is menu for data entry insertion, deletion, updating and querying operations. These operations are provided on single screen. When data is entered into a table, user can move between the fields. User does not feel tired.

v. ***Consistency:***

More efforts are made to keep the data homogeneous. This has been accomplished by reducing data redundancy.

vi. ***Modularity:***

The proposed system is divided into many modules. These modules are independent to each other. It is possible that different users can use different modules at the same time. These modules are integrated together to fulfill the user requirements. With the help of module, future extension of the developed system is accessed.

vii. ***Physical Independence Of Software:***

System is physically independent of software which means data is physically stored from the management of the data as presented to the user. If there is physical storage of data changes then there is no need to modify the changes.

viii. ***Device Independence:***

This system can be run on the other machines with different operating system. You have to make only minor changes in parameter settings those would be required for this task.

ix. ***Security :***

This system provides great security for data which is stored. Only prescribed user is permitted to work on it to perform different operations. Permitted user can only log on to the system.

DEMERITS:

There are also some demerits, which are mentioned below:

The operating system may be crash if proper system maintenance and management is not followed. Due to this reason it may be destruction for the files. The data may be loss by this result.

CHAPTER # 8

USER GUIDE

INTRODUCTION:

The software develop system is user friendly, which provide helps and displays appropriate message for the user conversions. The proposed system is related with the Sales Information System. For this software system the machine which is used is Pentium 450 MHz. Compatible.

How You Can Log On:

In this system window NT is used as an operating system. The tool which is used ORACLE 8.0 and DEVELOPER 2000. The ORACLE is installed. The ORACLE installation is first step in this tool. As ORACLE 8.0 is a database engine and DEVELOPER 2000 is its development tool, which consist FORMS 5 and REPROT 2.5. When ORACLE 8.0 and DEVELOPER 2000 is installed the database administrator immediately create a user and its password.

After this, the user must start database. He should go by menu on Personnel Oracle 8.0 for windows NT and then different submenu will be there you must only click on start database. After some time a message will appears.

ORACLE instant started.
Database Mounted.
OK.

You must click OK.

How You Can Logging Out:

When Oracle 8.0 and Developer 2000 complete their functions. If you want to logging out from the system then you must keep in mind.

1.) First of all close all windows which are open, step wise e.g. form design, report design.

2.) After this you must stop the data base you should go in personal ORACLE 8.0 for window NT menu and then again go to the submenu stop data base then click. The following message will appear

ORACLE INSTANCE CLOSED.
DATABASE DISMOUNTED.
O.K.

Then you must press O.K. after this you must go on start menu and again go on submenu shut down and click. There will be different messages:

ARE YOU SURE YOU WANT TO

1. **Shut down the computer?**
2. **Restart the computer?**
3. **Restart the computer in MS-DOS mode?**

4. **YES NO HELP**

If you want to shut down the computer then click that options and again click you will get message:

IT'S NOW SAFE TO TURN OFF YOUR COMPUTER.

Similarly what else option you want, can be selected . if the user want data base table and also want to operate the data base tables then he should log on to main menu. The user should click on "personal oracle 8.0 for window NT " then he must click on "developer 2000" and then on.

DATA ENTRY FORMS:

To use data entry forms, click on "database" icon of main menu then there will be displayed an form with TIP monogram having two buttons on it click the run button a new form will be open having two buttons now click button of forms, the next window which will open will have several buttons of different data entry form, you must click on any of those button which you want to use.

DATA EDIT:

In this menu different options will operate e.g. CUT, COPY, PASTE, CLEAR, DELETE, SELECT ALL, FIND, REPLACE etc. You can select any options, which you want

DATA QUERY;

In data query menu you can perform different types of queries which can be selected to perform specific query.

DATA REPORT:

In this menu you can handle different types of reports. Any report can be generated by selecting the appropriate report option whenever it is required to generate report then click this menu.

EXIT WINDOW:

This menu is used to exit from the developed software system. If you want to exit from the developed software system then click this option.

HOW YOU CAN HANDLE THE FORM:

Different forms layout have been designed to enter and retrieve data from the database. Some important points you must keep in mind:

1.) EDITING FIELD:

This is a fundamental unit in the form designing and form layout. You can use this unit to store and retrieve information from the database.

2.) STATUS LINE:

There is a status line at the bottom of the screen in which the status is displayed. It shows how many records retrieved. It also provides you the instruction for data insertion and counting records.

3.) MESSAGE LINE:

In the developed system there is a message line which displays at the bottom of the input forms. Additional help and message are displayed this line also.

HOW YOU MANIPULATE THE RECORD:

There are four options to manipulate the records: (I) Insertion (II) Deletion (III) Modification (IV) Retrieval

I.) The Record Insertion:

In the developed system if the user insert the new records then he must go through the following process:

i.) It is necessary that the table is open in which the data is desired to insert.

ii.) If the desired form is appear then you must click on <RECORD > key in the form menu.

iii.) Then go on <INSERT> option and click a blank form will appear on the screen.

iv.) After this you must click the<SAVE> button to save the record.

v.) Then cursor will go automatically on the first field again and you can insert another record and again save and carry on this process till you want. If you do not insert another record you should click on <EXIT> and in this way you will be on main menu.

2.) The Record Deletion Process:

If you want to remove the record then you should adopted the following rules:

i.) The table in which the records are to be deleted must open.

ii.) To delete the record the form must e displayed.

iii.) After complete this checking now you click on <QUERY> button.

iv.) You can select the record, which is desired to delete by selecting, <PREVIOUS> or <NEXT> option until the desired record appears.

v.) Click on desired record and then click on <REMOVE> then the desired record is removed.

3.) Modification Of The Record:

Modification of the record may be possible if the following steps are follow:

i.) That form must be displayed in which the records are to be modified.

ii.) After this click on <QUERY> button when you will press the <QUERY> button the first record will be displayed. If you want to retrieve the other record then click on <NEXT RECORD> button until the record you want, appear. Now you must enter the new data in displayed editing field and those values, which you want to modify.

iii.) To save the changes in the database click the save button.

iv.) You can repeat the above process if you want to modify the more records.

v.) Now if you want to go to main menu then click <EXIT>.

4.) HOW TO RETRIEVED THE RECORD:

i.) It is necessary that form must already be displayed in which the records are to be retrieve.

ii.) Then you must click on <QUERY> button.

iii.) After doing this you will see that first record will be displayed. Now click the <NEXT> button until your desired record is retrieved from the displayed form.

iv.) If you want to come back on main menu then you must click on <EXIT>.

APPENDIX "A"

TELEPHONE INDUSTRIES OF PAKISTAN LTD.

HARIPUR (HAZARA) (Invoice)

To: The Director Accounts(P/F) PTCL Headquarters, Islamabad. Lines EWSD Exchange	Invoice No. /TIP-97 Advice Note/PAC No. DB/DSP-262/TIP-97/PAC/ /99	Date: Date:
Customers Order No.DB/DSP-262/ADP/TIP-97/33/98	Dated: 20/01/1998	**Our Reference** EWSD/170

S.No.	Item No.	Qty.	Unit	Description	Unit Price	Amount
				Landed value & Manufacturing Charges		
				Direct Supply		
				Packing		
				Transportation, Insurance & Octroi		
				Sub. Total		
				Sales Tax @ 12.5%		
				Total		
				Less: 100% Advance(Foreign Portion)		
				Net after 100% (Foreign Portion)		
				Less: 50% Advance(Local Portion)		
				Net Receivable		

(Rupees

for Telephone Industries of Pakistan Ltd.

Telephone Industries of Pakistan (Pvt) Ltd.

Summary of Quotation for PTCL Annual Program 1998-99

TIP-98/2

S.NO	EXCHANGE NAME	TYPE	NO. OF LU's	NO. OF TR's	NO.OF PORTS	LANDED VALUE RS for Payment	DIRECT DELIVERY	MANUFACTURING CHARGES	SUB TOTAL	PACKING @ 1.50%	Ins,Tran. 1.00%	TOTAL SWITCHING
	CTR = 7											
1	Bhamba *	Rlu exp	300		300	1,920,469.36	-	660,000.00	2,580,469.36	38,963.27	24,642.18	2,642,074.81
2	Chak 108 7R *	Rlu exp	200		200	526,361.51	-	440,000.00	966,361.51	13,967.62	9,311.75	989,640.88
3	Chunian	Rlu exp	400		400	1,603,897.01	-	880,000.00	2,483,897.01	36,938.92	24,625.95	2,545,461.88
4	Faizabad	Rlu exp	400		400	1,522,233.61	-	880,000.00	2,402,233.61	35,759.79	23,839.86	2,461,833.25
5	Farooqabad	Rlu exp	910		910	2,582,976.27	-	2,002,000.00	4,584,976.27	68,475.40	45,650.27	4,699,101.94
6	Gogera *	Sde exp	256		256	624,541.54	-	563,200.00	1,187,741.54	17,190.79	11,460.53	1,216,392.86
7	Jandiala sherkhan *	Sde exp	300		300	884,641.01	-	660,000.00	1,544,641.01	22,260.78	14,840.52	1,581,742.31
8	Jumber kalan *	Sde exp	194		194	471,649.14	-	426,800.00	898,449.14	12,959.91	8,639.94	920,048.99
9	Kot Radhakishan *	Rlu exp	668		668	1,508,092.00	-	1,469,600.00	2,977,692.00	43,077.84	28,718.56	3,049,488.40
10	Nankana sahib	Rlu exp	656		656	2,168,359.79	-	1,443,200.00	3,611,559.79	55,874.16	35,916.10	3,703,350.05
11	Rao Kharowala *	Rlu exp	206		206	539,823.96	-	453,200.00	993,023.96	14,350.09	9,566.73	1,016,940.78
	TOTAL CTR		4,490	-	4,490	14,353,045.19	-	9,878,000.00	24,231,045.19	355,818.57	237,212.38	24,824,076.14
	FTR											
1	Anwar abad *	Rlu exp	300		300	999,781.82	-	660,000.00	1,659,781.82	23,838.48	15,892.32	1,699,512.63
2	Behal	Rlu new	300		300	1,865,156.80	514,158.00	660,000.00	3,039,314.80	45,253.31	30,168.87	3,114,736.98
3	Baghtanwala *	Rlu exp	416		416	992,597.13	-	915,200.00	1,907,797.13	27,556.02	18,370.68	1,953,723.84
4	Bhera *	Rlu exp	608		608	1,343,576.81	-	1,337,600.00	2,681,176.81	38,770.54	25,847.03	2,745,794.39
5	Buchiana *	Rlu exp	504		504	1,193,021.19	-	1,108,800.00	2,301,821.19	33,289.39	22,192.93	2,357,303.51
6	Chak 289 RB *	Sde exp	608		608	1,340,983.69	-	1,337,600.00	2,678,583.69	38,735.00	25,823.34	2,743,142.03
7	Chakrala *	Sde exp	200		200	363,367.59	-	440,000.00	803,367.59	11,648.25	7,765.50	822,781.34
8	Digkot	Rlu exp	560		560	2,079,806.55		1,232,000.00	3,311,806.55	48,417.27	32,278.18	3,392,502.01
9	Faisal abad Airport (1212 lu del)	Rlu exp	1,824		1,824	5,125,641.07	170,000.00	4,012,800.00	9,308,441.07	138,965.44	92,643.63	9,540,050.13
10	F.A G.M Abad	Rlu exp	1,824		1,824	5,093,682.44	-	4,012,800.00	9,106,482.44	135,970.84	90,647.23	9,333,100.50
11	F.A G.M Abad	Msu exp	1,184	120	1,304	4,629,783.31	674,000.00	2,868,800.00	8,172,583.31	120,771.51	80,514.44	8,373,869.16
12	F.A Jhang Rd	Rlu new	912		912	3,111,552.32	514,158.00	2,006,400.00	5,632,110.32	84,076.49	56,050.99	5,772,237.81
13	Jhang	Msu exp	1,508	0	1,508	5,115,008.26	674,000.00	3,317,600.00	9,106,608.26	135,036.66	90,024.11	9,331,669.35
14	Jhawarian (del) *	Rlu new	910		910	3,309,081.34	514,158.00	2,002,000.00	5,825,239.34	84,414.18	56,276.12	5,965,929.63
15	Kalabagh	Rlu new	912		912	3,051,286.39	514,158.00	2,006,400.00	5,571,844.39	83,250.51	55,500.34	5,710,595.23
16	Kamar mashani	Rlu new	512		512	2,386,599.64	514,158.00	1,126,400.00	4,027,157.64	60,126.02	40,084.02	4,127,367.68
17	Kufri *	Rlu exp	304		304	698,379.40	-	668,800.00	1,367,179.40	19,779.66	13,186.44	1,400,145.50
18	Kundian	Rlu new	912		912	2,936,310.67	514,158.00	2,006,400.00	5,456,868.67	81,571.69	54,381.13	5,592,821.49
19	Makkuana	Rlu exp	512		512	1,995,729.36	-	1,126,400.00	3,122,129.36	46,451.81	30,967.88	3,199,549.05

INVOICES RELATING TO TIP-97 PURCHASE ORDER

INVOICE NO.		NAME OF SITE	TIP REQUIREMENT						AFTER VERIFICATION					
			TOTAL AMOUNT OF INVOICE		70% ADJUSTMENT OF ADVANCE		NET PAYABLE		TOTAL AMOUNT OF INVOICE		70% ADJUSTMENT OF ADVANCE		NET PAYABLE	
Eqp.	Serv		EQUIPMENT	SERVICES	EQUIPMENT	SERVICES	EQUIPMENT	SERVICES	EQUIPMENT	SERVICES	EQUIPMENT	SERVICES	EQUIPMENT	SERVICES
10569	0081	Larkana	3,449,933	3,050,000	2,414,953	2,135,000	1,034,980	915,000	3,374,935	3,050,000	2,362,455	2,135,000	1,012,481	915,000
10586	0066	Mandra	807,688	885,000	565,382	619,500	242,306	265,500	790,129	885,000	553,090	619,500	237,039	265,500
10626	0110	Mir Ali	1,928,478	1,858,500	1,349,935	1,300,950	578,543	557,550	1,886,554	1,858,500	1,320,588	1,300,950	565,966	557,550
11368	0176	Rehana	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11351	0161	Bagnotar	2,727,171	900,000	1,909,020	630,000	818,151	270,000	2,727,171	900,000	1,909,020	630,000	818,151	270,000
11540	0200	Mang	2,727,171	900,000	1,909,020	630,000	818,151	270,000	2,727,171	900,000	1,909,020	630,000	818,151	270,000
10640	0100	Pir Saado	3,512,750	1,800,000	2,458,926	1,260,000	1,053,825	540,000	3,436,385	1,800,000	2,405,470	1,260,000	1,030,916	540,000
10617	0122	Khadi Killi	3,512,750	1,800,000	2,458,925	1,260,000	1,053,825	540,000	3,436,385	1,800,000	2,405,470	1,260,000	1,030,916	540,000
11818	0221	Kaklian	2,727,171	900,000	1,909,020	630,000	818,151	270,000	2,667,885	900,000	1,867,520	630,000	800,366	270,000
11376	0189	Shagain Bala	2,538,243	606,000	1,776,770	424,200	761,473	181,800	2,538,243	606,000	1,776,770	424,200	761,473	181,800
11890	0212	Jareed	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11357	0167	Ghandhian	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11354	0164	Dilbori	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
10627	0109	Munda	4,937,425	3,038,500	3,456,198	2,126,950	1,481,228	911,550	4,937,425	3,038,500	3,456,198	2,126,950	1,481,228	911,550
11385	0171	Gondal	1,782,607	2,065,000	1,247,825	1,445,500	534,782	619,500	1,782,607	2,065,000	1,247,825	1,445,500	534,782	619,500
11349	0172	Khai (Kacha Pacca)	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000
11362	0174	Landi Jalandar	2,538,243	606,000	1,776,770	424,200	761,473	181,800	2,538,243	606,000	1,776,770	424,200	761,473	181,800
11373	0177	Khanas Pur Aubia	2,727,171	900,000	1,909,020	630,000	818,151	270,000	2,727,171	900,000	1,909,020	630,000	818,151	270,000
11365	0183	Paroa	2,767,315	900,000	1,937,121	630,000	830,195	270,000	2,767,315	900,000	1,937,121	630,000	830,195	270,000
11375	0185	Surgul	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11366	0190	Marahati Banda	3,512,750	1,800,000	2,458,925	1,260,000	1,053,825	540,000	3,512,750	1,800,000	2,458,925	1,260,000	1,053,825	540,000
11369	0193	Mughalki	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11542	0201	Mera Payyan (Kohat)	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000	2,933,817	1,200,000	2,053,672	840,000	880,145	360,000
11822	0217	Sadda	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000
11536	0193	Kiri Khesore	2,538,243	606,000	1,776,770	424,200	761,473	181,800	2,538,243	606,000	1,776,770	424,200	761,473	181,800
11379	0195	Maira Umer Zai	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000	4,263,742	2,730,000	2,984,619	1,911,000	1,279,123	819,000
11380	0197	Krri Shaikhan	2,727,171	900,000	1,909,020	630,000	818,151	270,000	2,727,171	900,000	1,909,020	630,000	818,151	270,000
11372	0184	Wanda Shahab	2,538,243	606,000	1,776,770	424,200	761,473	181,800	2,538,243	606,000	1,776,770	424,200	761,473	181,800
11825	0238	Badiana	3,464,229	1,475,000	2,424,960	1,032,500	1,039,269	442,500	3,464,229	1,475,000	2,424,960	1,032,500	1,039,269	442,500

Telephone Industries of Pakistan (Pvt) Ltd.

Summary of Quotation for PTCL Annual Program 1998-99

TIP-98/2

S.NO	EXCHANGE NAME	TYPE	NO. OF LU's	NO. OF TR's	NO.OF PORTS	Installation Ch./port 200.00	Commissioning 400, 480	Documantation/port 50.00	Enginnering/port 150.00	TOTAL Services
	LTR (S)									
1	Burki	Rlu exp	1,320		1,320	264,000.00	528,000.00	66,000.00	198,000.00	1,056,000.00
2	Haire badian *	Rlu exp	408		408	81,600.00	163,200.00	20,400.00	61,200.00	326,400.00
	TOTAL LTR(S)		**1,728**	**-**	**1,728**	**345,600.00**	**691,200.00**	**86,400.00**	**259,200.00**	**1,382,400.00**
	MTR									
1	Fatehpur	Rlu exp	512		512	102,400.00	204,800.00	25,600.00	76,800.00	409,600.00
2	Jamal Din Wali *	Rlu exp	356		356	71,200.00	142,400.00	17,800.00	53,400.00	284,800.00
3	Jatoi	Rlu exp	400		400	80,000.00	160,000.00	20,000.00	60,000.00	320,000.00
4	Notak Mehmeed *	Sde exp	512		512	102,400.00	179,200.00	25,600.00	76,800.00	384,000.00
5	Zahir Pir *	Rlu exp	618		618	123,600.00	247,200.00	30,900.00	92,700.00	494,400.00
6	Chak No.173-P	Rlu New	410		410	82,000.00	164,000.00	20,500.00	61,500.00	328,000.00
	TOTAL MTR		**2,808**	**-**	**2,808**	**561,600.00**	**1,097,600.00**	**140,400.00**	**421,200.00**	**2,220,800.00**
	NTR-1									
1	Abbottabad(N.Sher)	Rlu exp	912		912	182,400.00	364,800.00	45,600.00	136,800.00	729,600.00
2	Bakot (Abbottabad) *	SDE exp	304		304	60,800.00	106,400.00	15,200.00	45,600.00	228,000.00
3	Batkhela *	SDE exp	1,000	240	1,240	248,000.00	434,000.00	62,000.00	186,000.00	930,000.00
4	Daggar(Buneer)	MSU exp	608		608	121,600.00	273,600.00	30,400.00	91,200.00	516,800.00
5	Dargai (Malakand A	Rlu exp	608		608	121,600.00	243,200.00	30,400.00	91,200.00	486,400.00
6	Duresh Khela(Swat) *	Rlu exp	584		584	116,800.00	233,600.00	29,200.00	87,600.00	467,200.00
7	Ghallani *	Rlu exp	400		400	80,000.00	160,000.00	20,000.00	60,000.00	320,000.00
8	Gul Abad(Dir)	Rlu exp	910		910	182,000.00	364,000.00	45,500.00	136,500.00	728,000.00
9	Harichand *	SDE exp	512		512	102,400.00	179,200.00	25,600.00	76,800.00	384,000.00
10	Jamrud	Rlu exp	512		512	102,400.00	204,800.00	25,600.00	76,800.00	409,600.00
11	Kalam(Swat) *	SDE exp	312		312	62,400.00	109,200.00	15,600.00	46,800.00	234,000.00
12	Khalabati(Haripur)	Rlu exp	512		512	102,400.00	204,800.00	25,600.00	76,800.00	409,600.00
13	Khal(Dir)	Rlu exp	928		928	185,600.00	371,200.00	46,400.00	139,200.00	742,400.00
14	Khanpur(Haripur)	Rlu exp	512		512	102,400.00	204,800.00	25,600.00	76,800.00	409,600.00

Note: -sites marked with * are DLUA sites.

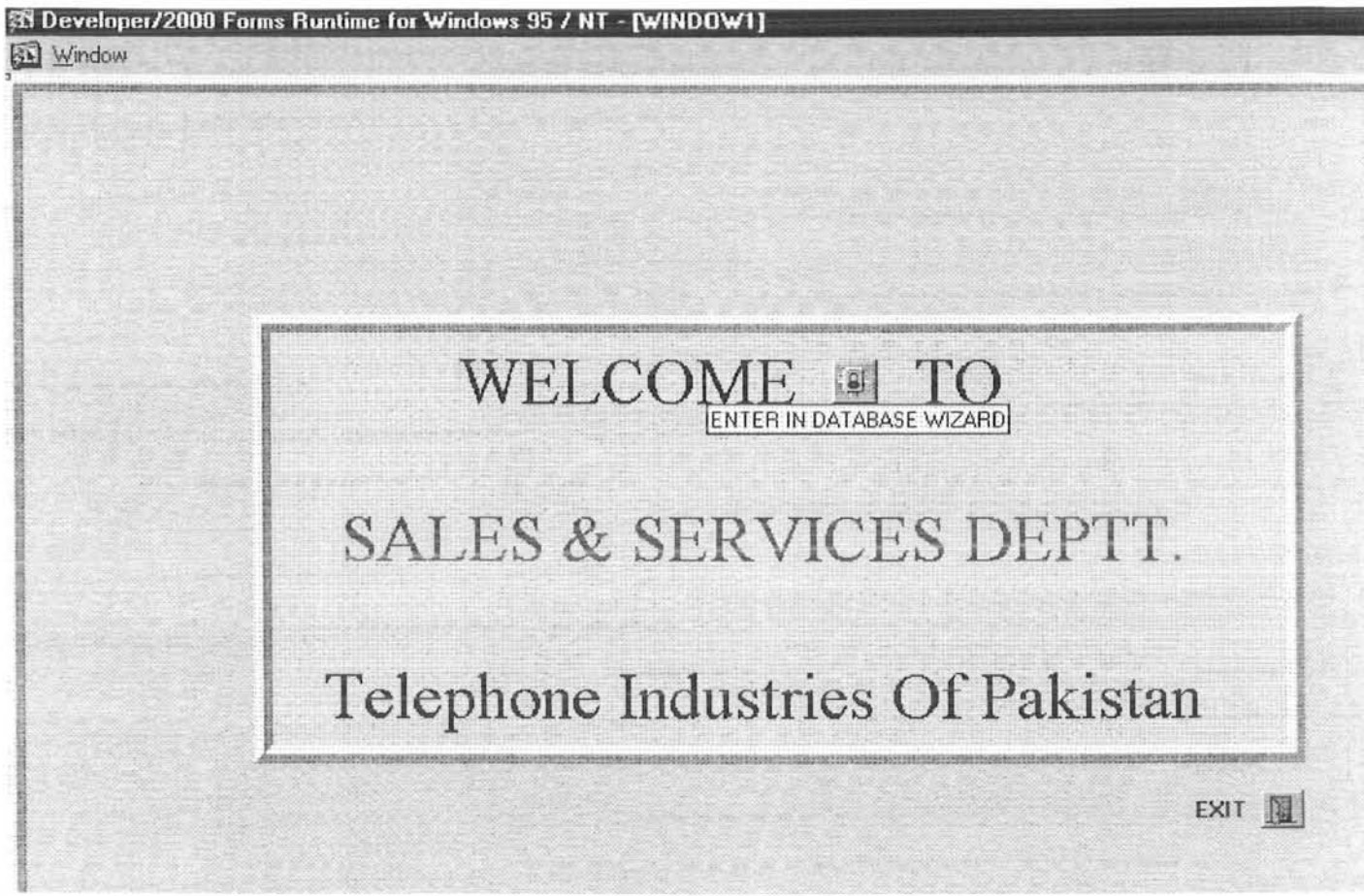
Telephone Industries of Pakistan (Pvt) Ltd.

Quotation for Interface equipment for Voice Communication.

CODE No.	DESCRIPTION	UNIT PRICE DMS	Peshawer city 11 CX	TOTAL VALUE	Rawalpindi TXB	TOTAL VALUE	Gujranwala TX	TOTAL VALUE	Multan TXB	
	No. of E1/2MB stream		6		11		6		19	
LINE TRUNK GROUP G										
S30805-C2664-X100	R : LTGG	595.70	1	595.70	1	595.70	1	595.70	1	595.70
S30805-D2664-X101	FP	167.10	1	167.10	1	167.10	1	167.10	1	167.10
S30804-B2687-X	F : LTGG(A)	996.59	1	996.59	2	1,993.18	1	996.59	3	2,989.77
S30810-Q607-X101	M : TEM : LE			-		-		-		-
S30810-Q670-X1	M : ETEAE			-		-		-		-
S30810-Q869-X3	M : ATE : TM			-		-		-		-
S30810-Q876-X1	M : DIU30D	277.59	6	1,665.54	11	3,053.49	6	1,665.54	19	5,274.21
S30810-Q1110-X1	M : SILCB	471.64		-		-		-		-
S30810-Q1105-X3	M : CRP8	520.04		-		-		-		-
S30810-Q1107-X1	M : DIU : LDIB	257.52		-		-		-		-
S30810-Q1141-X301	M : PMUC	1,388.40		-		-		-		-
S30810-Q1141-X401	M : PMUD	2,195.00	2	4,390.00	3	6,585.00	2	4,390.00	5	10,975.00
S30810-Q1184-X1	M : GSL	367.66	2	735.32	3	1,102.98	2	735.32	5	1,838.30
S30810-Q1185-X101	M : CGSM	295.95	2	591.90	3	887.85	2	591.90	5	1,479.75
S30050-Q5862-E	M : DCCDE	239.85	2	479.70	3	719.55	2	479.70	5	1,199.25
S30810-Q1290-X58	M : TOGC	399.10		-				-		
S30810-Q1291-X41	M : TOGD	386.45	2	772.90	3	1,159.35	2	772.90	5	1,932.25
S30 Q1105-X18	M : MDTOG	864.50		-		-		-		-
SWITCHING NETWORK										
S30805-C2598-X100	R: SN	788.07		-		-		-		-
S30805-D2598-X101	FP	148.00		-		-		-		-
S30804-B2508-X	F: SN	2,486.18		-		-		-		-
S30804-B2675-X	F: DCC B)	304.43		-		-		-		-
S30050-Q5619-S	M : DCCCS	318.43		-		-		-		-
L30328-H2508-X113	SOM: TSG: DE5			-		-		-		-
S30810-Q750-X2	M: SGC	205.45		-		-		-		-
S30810-Q751-X	M: LIM	280.95		-		-		-		-
L30328-H2508-X106	SOM: SN/TSG			-		-		-		-
S30810-Q [illegible]	M : TSM	210.89	2	421.78	2	421.78	2	421.78	4	843.56

07-09-99

APPENDIX "B"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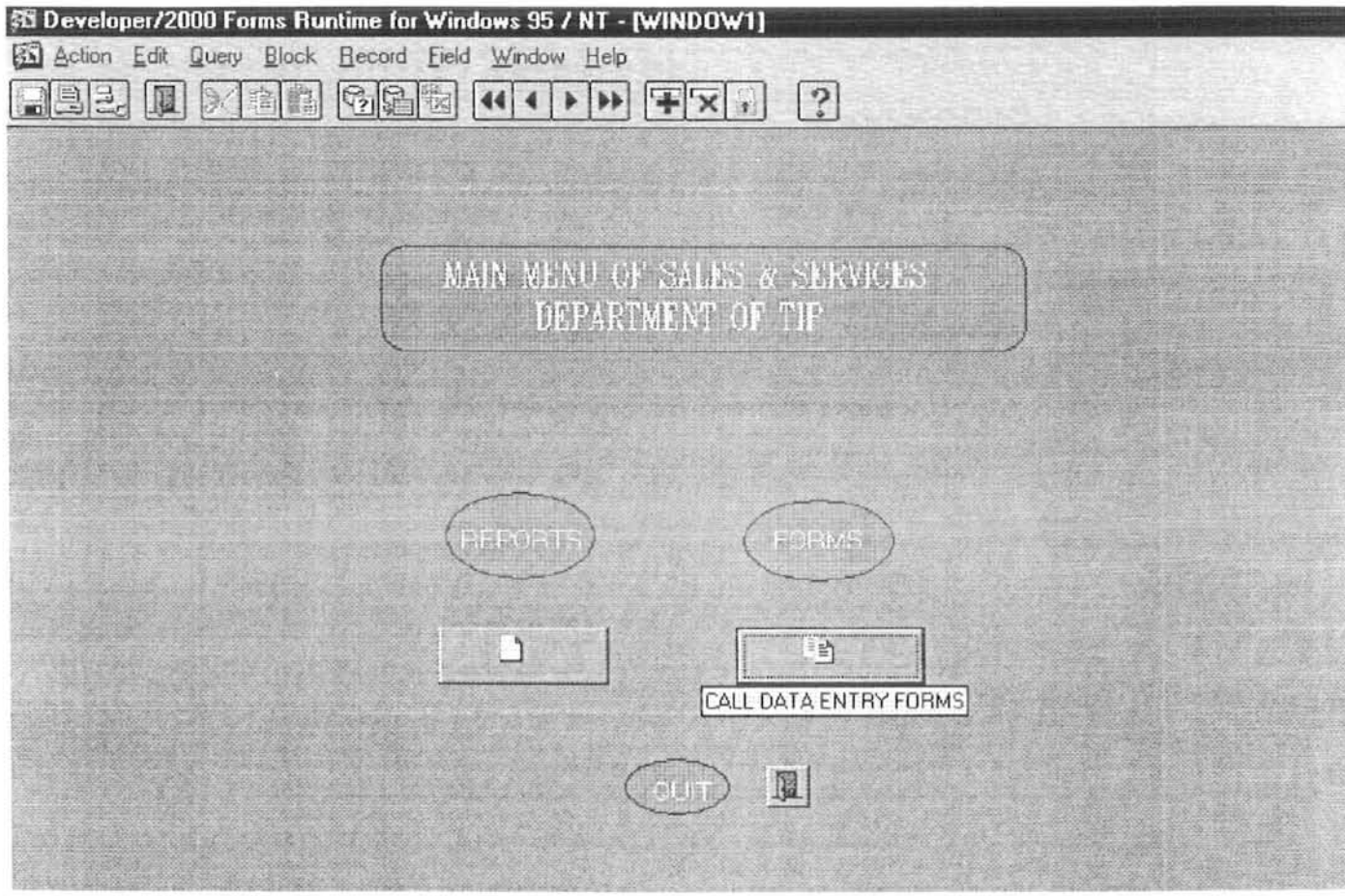
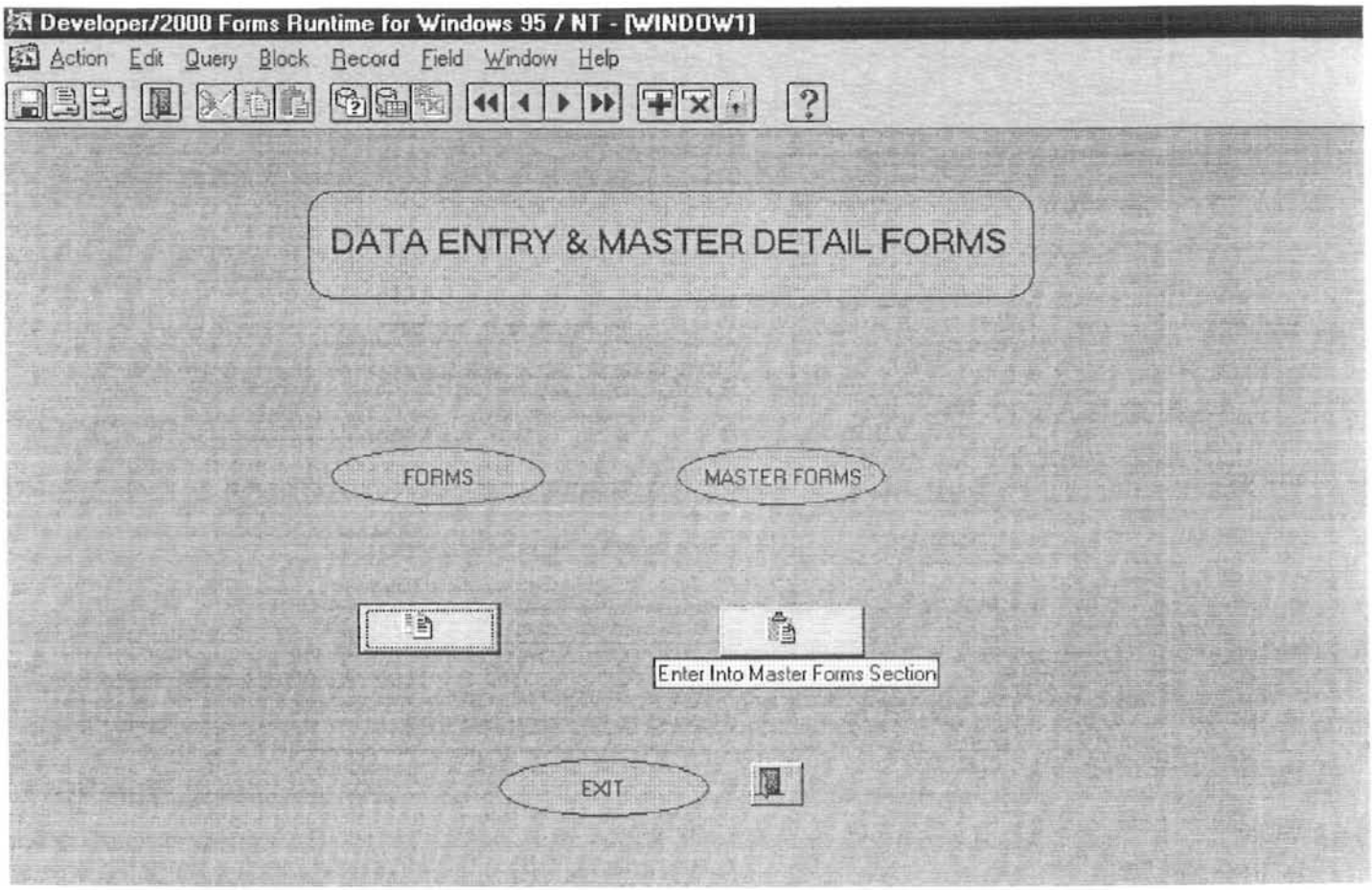
Window
WELCOME TO
ENTER IN DATABASE WIZARD
SALES & SERVICES DEPTT.
Telephone Industries Of Pakistan
EXIT


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
MAIN MENU OF SALES & SERVICES
DEPARTMENT OF TIF
REPORTS
FORMS
CALL DATA ENTRY FORMS
QUIT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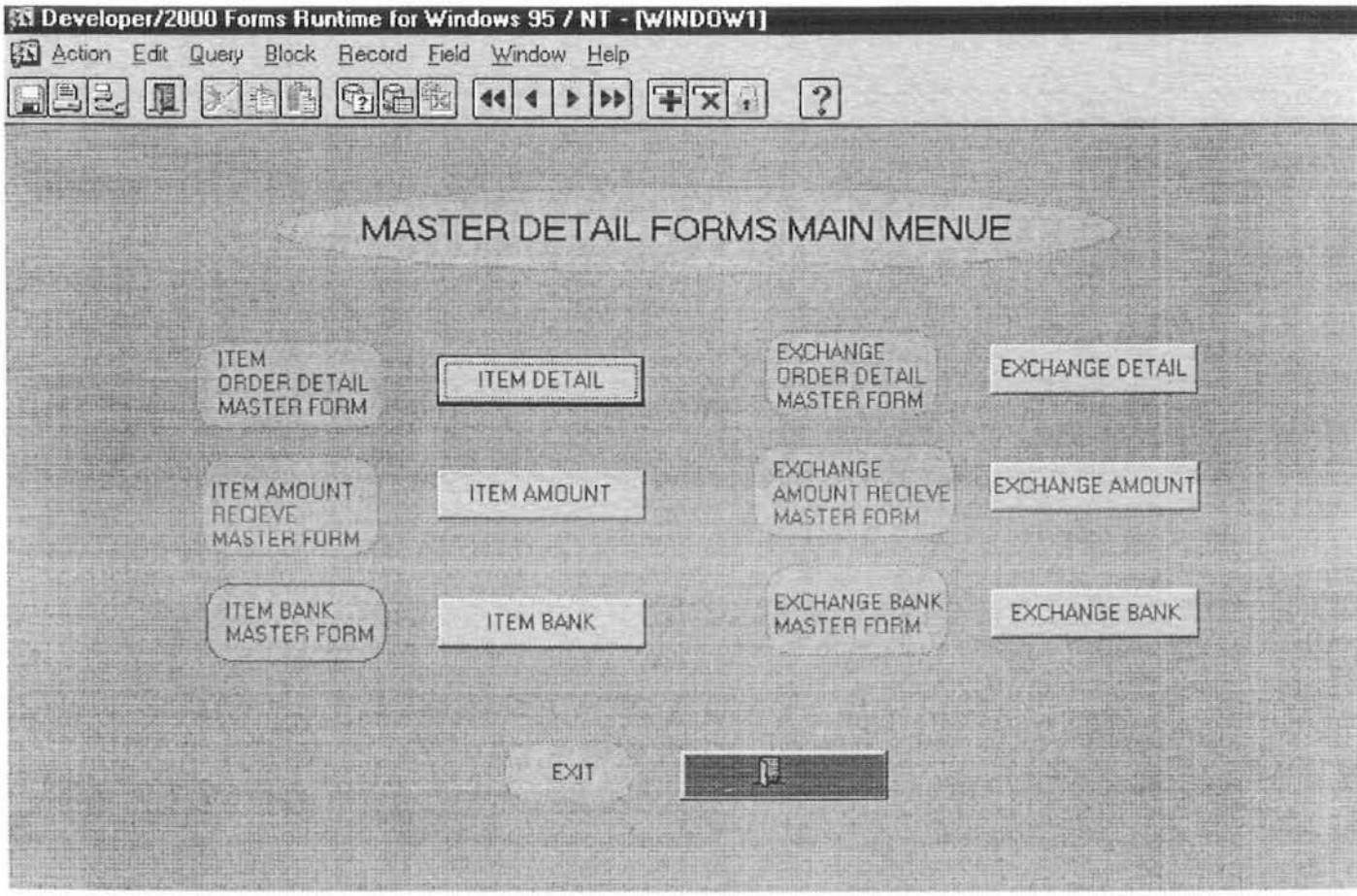
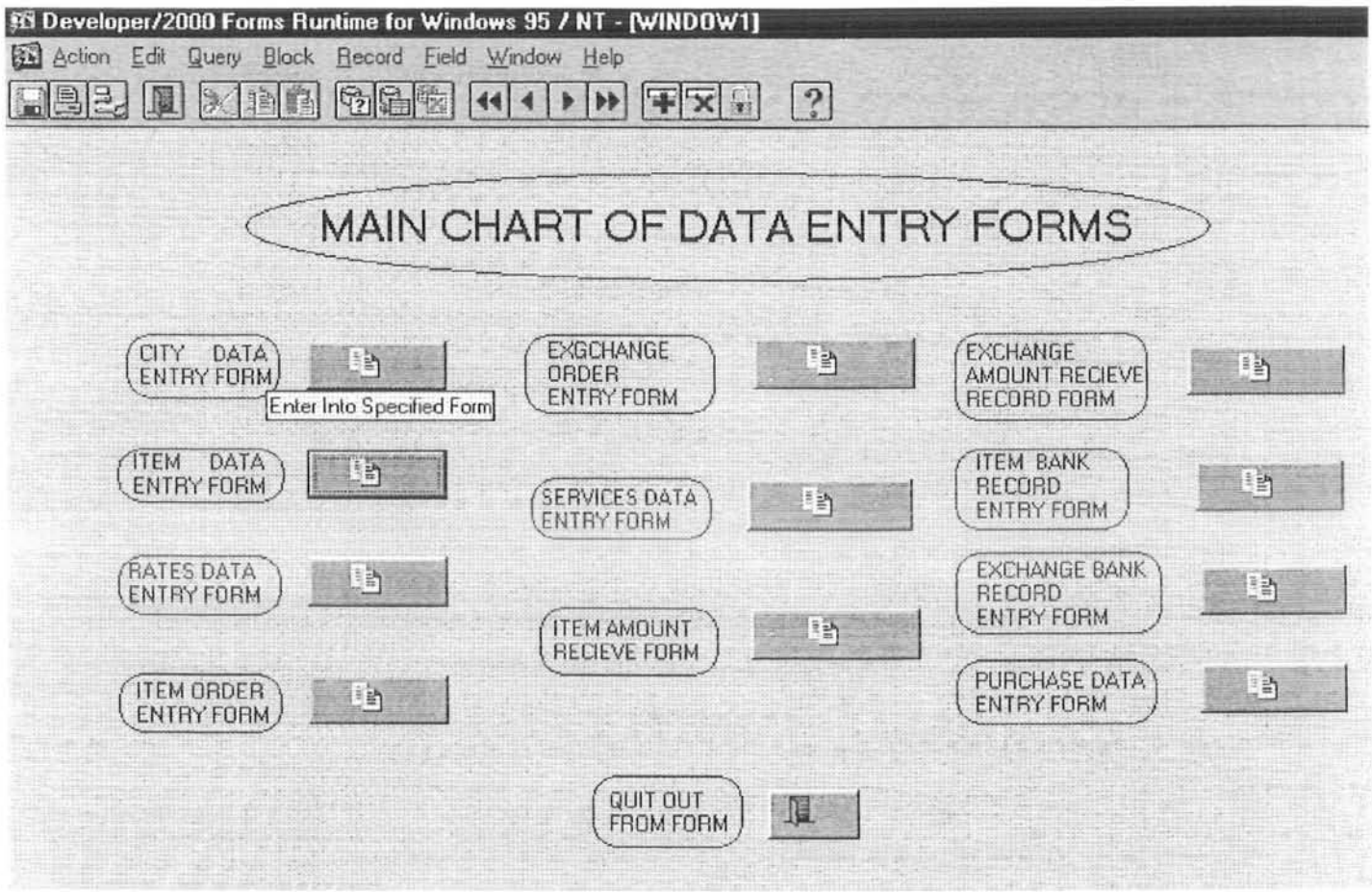
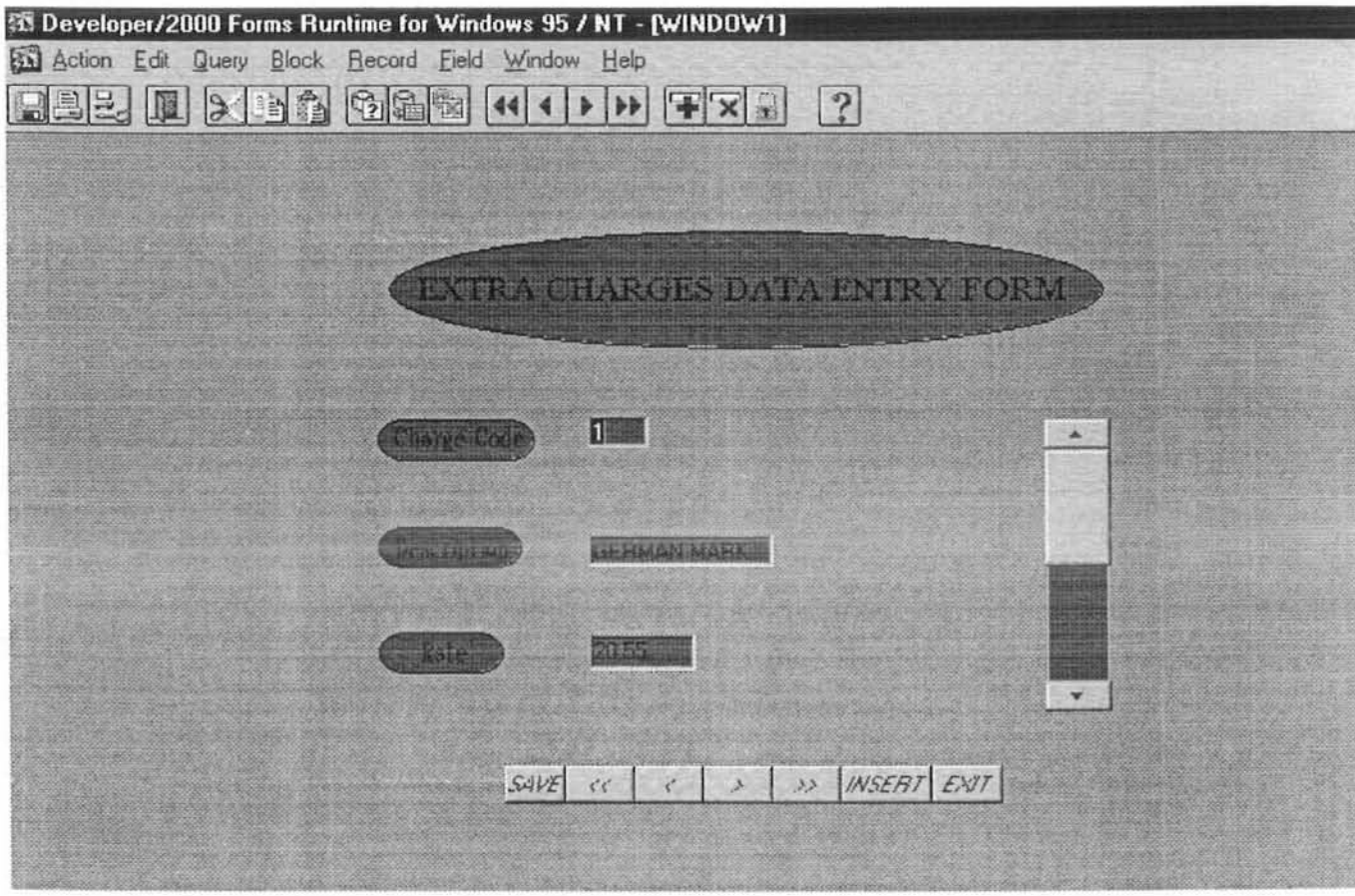
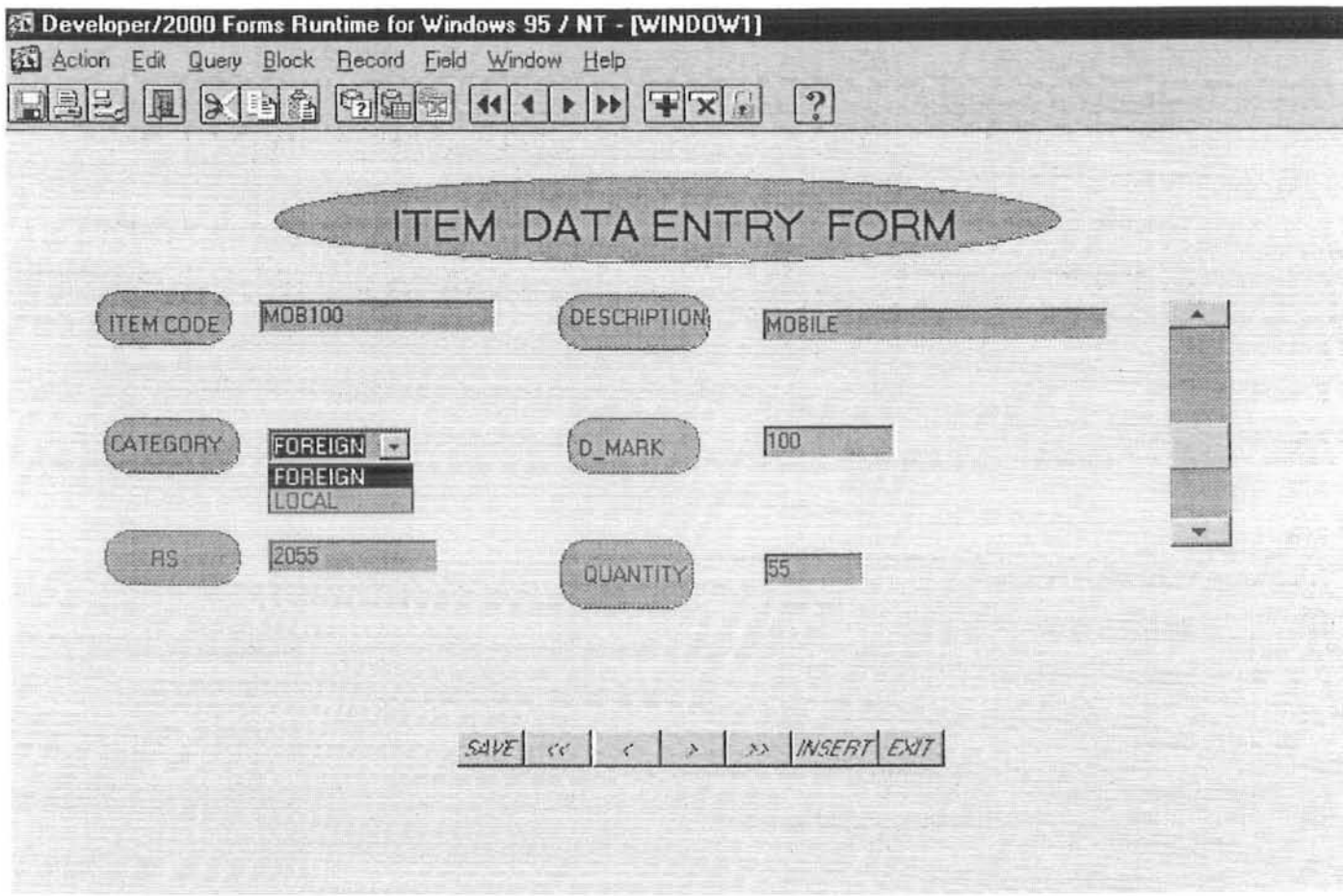
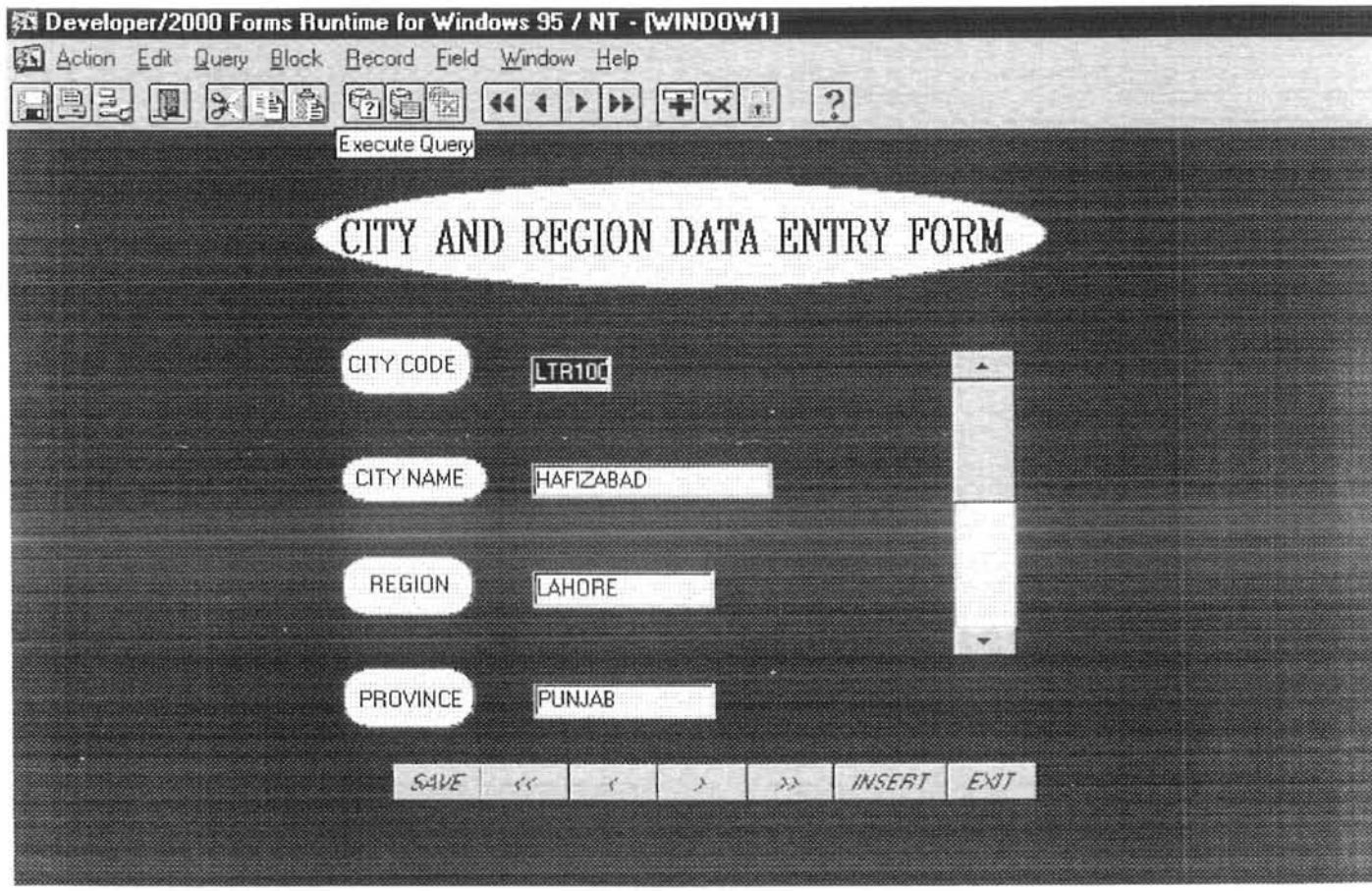
Action Edit Query Block Record Field Window Help
DATA ENTRY & MASTER DETAIL FORMS
FORMS
MASTER FORMS
Enter Into Master Forms Section
EXIT

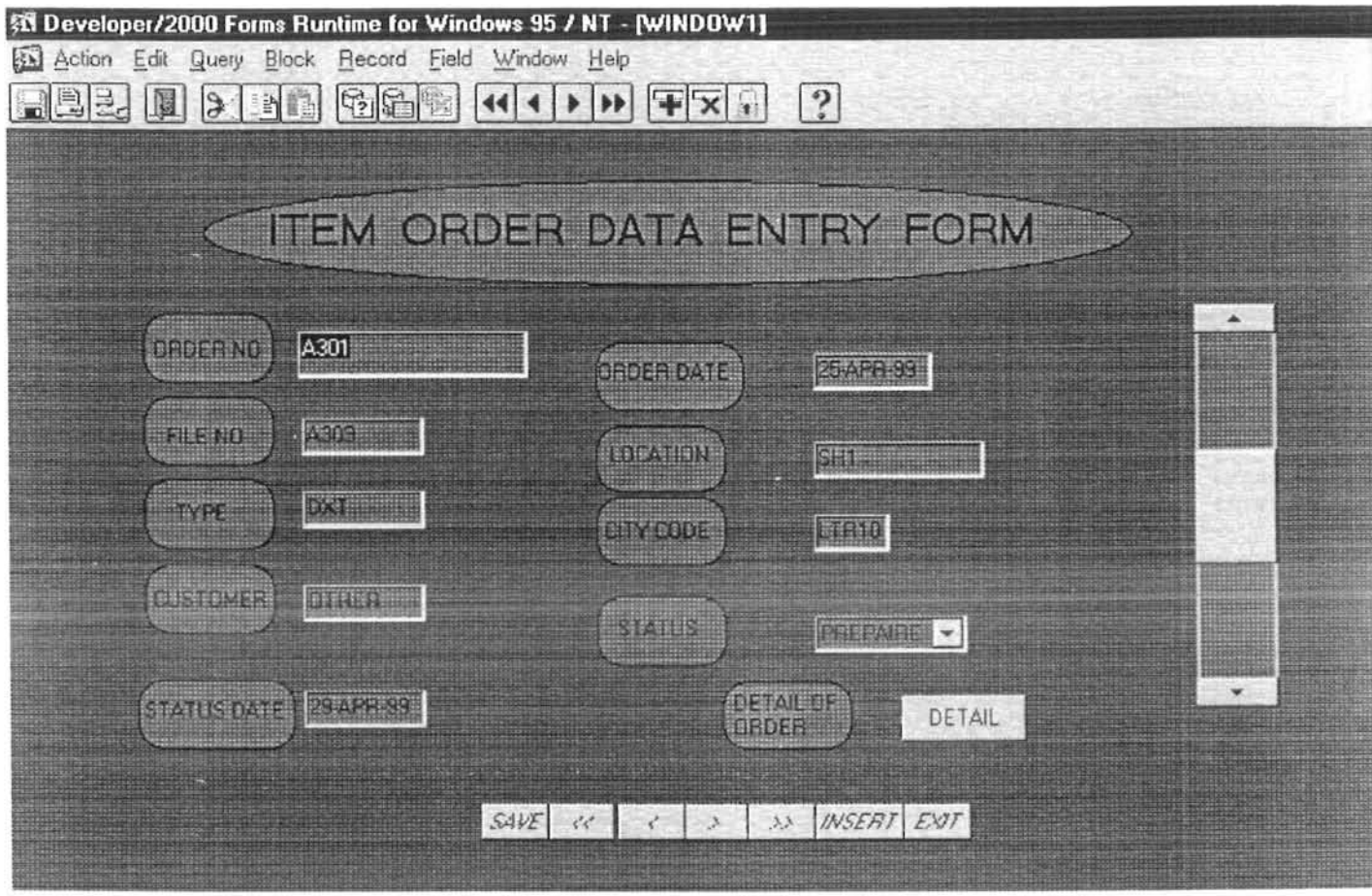

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
MASTER DETAIL FORMS MAIN MENUE
ITEM ORDER DETAIL MASTER FORM
ITEM DETAIL
EXCHANGE ORDER DETAIL MASTER FORM
EXCHANGE DETAIL
ITEM AMOUNT RECIEVE MASTER FORM
ITEM AMOUNT
EXCHANGE AMOUNT RECIEVE MASTER FORM
EXCHANGE AMOUNT
ITEM BANK MASTER FORM
ITEM BANK
EXCHANGE BANK MASTER FORM
EXCHANGE BANK
EXIT

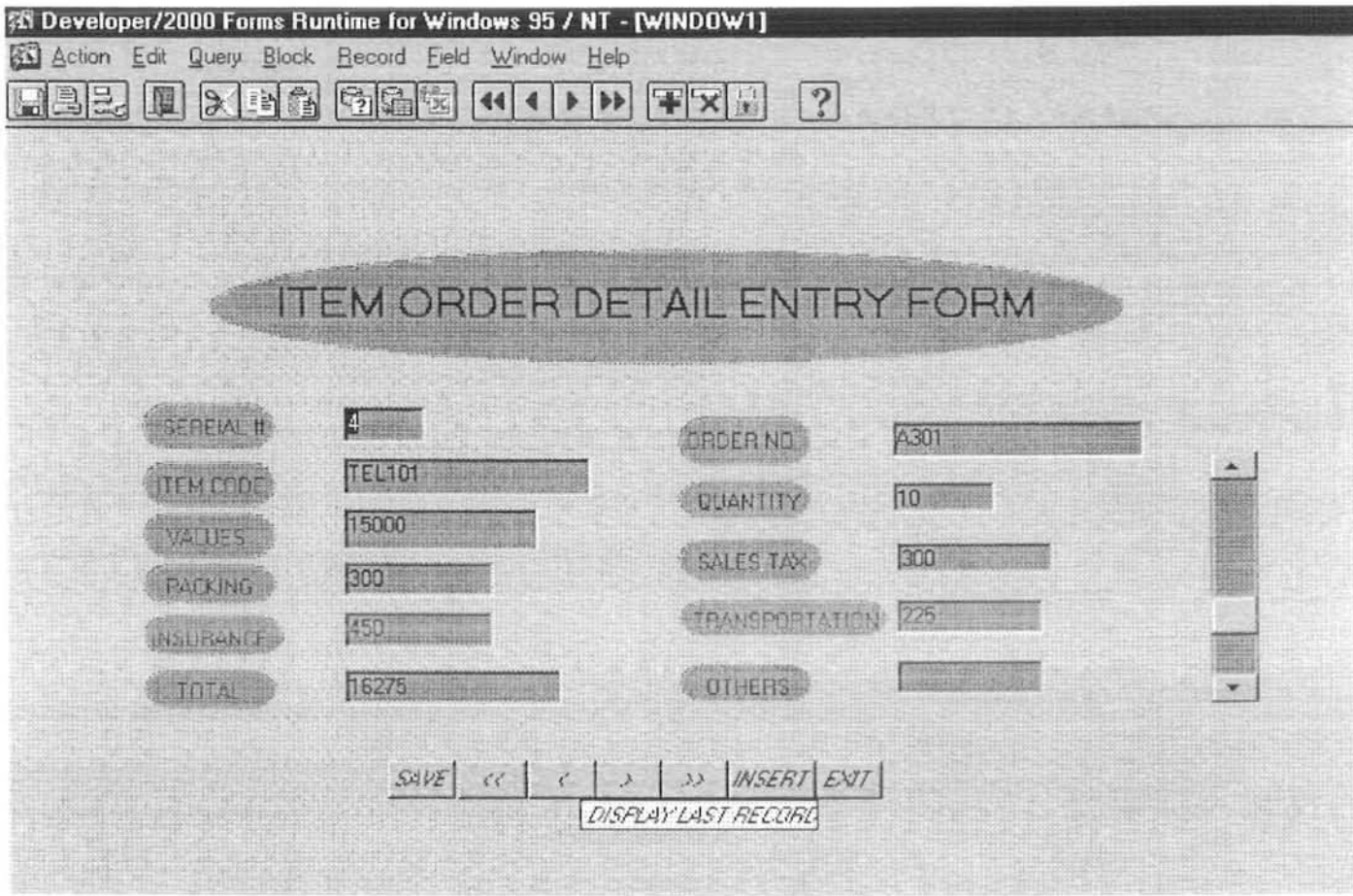

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
MAIN CHART OF DATA ENTRY FORMS
CITY DATA ENTRY FORM
Enter Into Specified Form
EXGCHANGE ORDER ENTRY FORM
EXCHANGE AMOUNT RECIEVE RECORD FORM
ITEM DATA ENTRY FORM
SERVICES DATA ENTRY FORM
ITEM BANK RECORD ENTRY FORM
RATES DATA ENTRY FORM
EXCHANGE BANK RECORD ENTRY FORM
ITEM AMOUNT RECIEVE FORM
ITEM ORDER ENTRY FORM
PURCHASE DATA ENTRY FORM
QUIT OUT FROM FORM

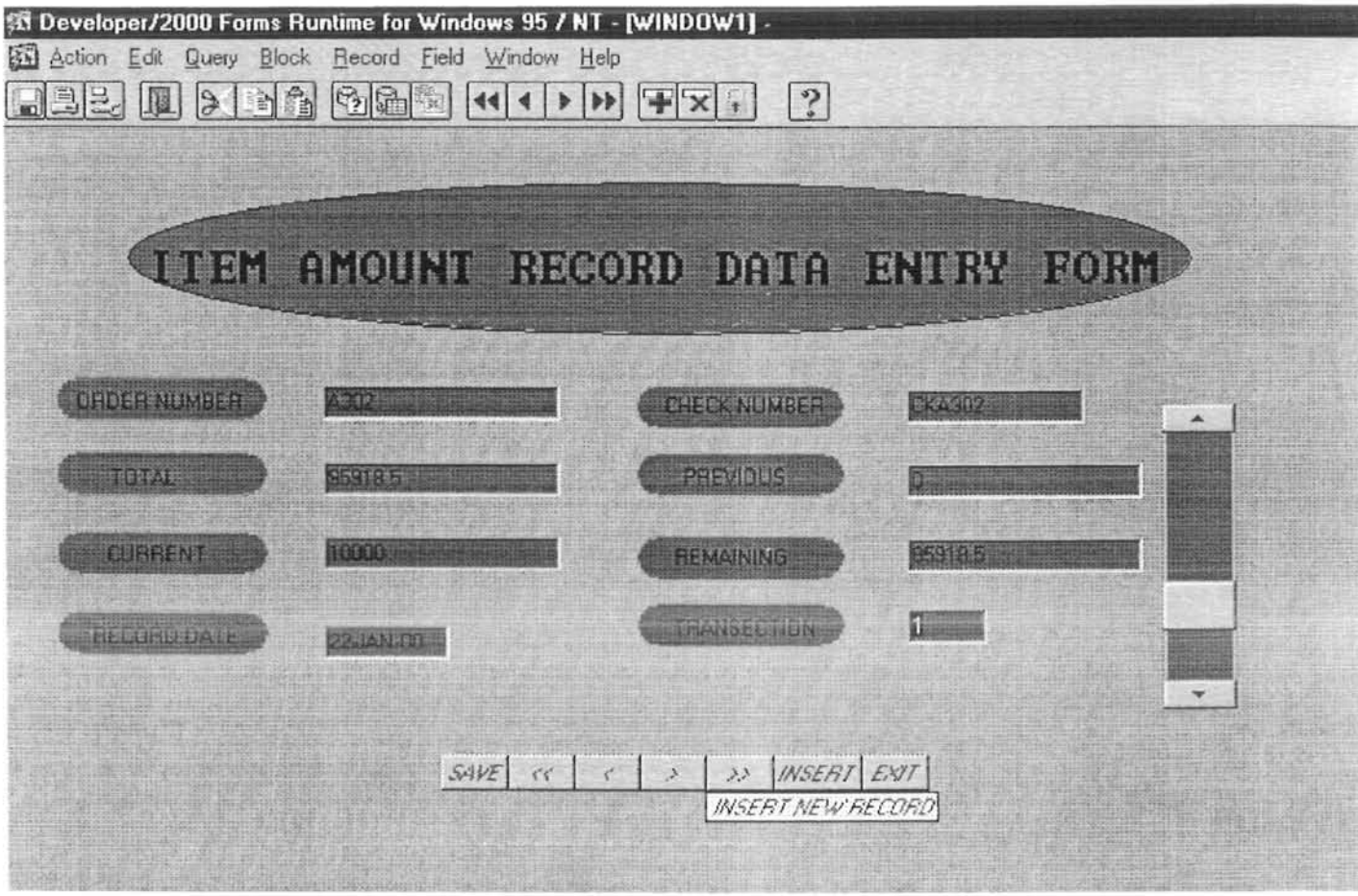

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXTRA CHARGES DATA ENTRY FORM
Charge Code
1
Rate
2055
SAVE
INSERT
EXIT

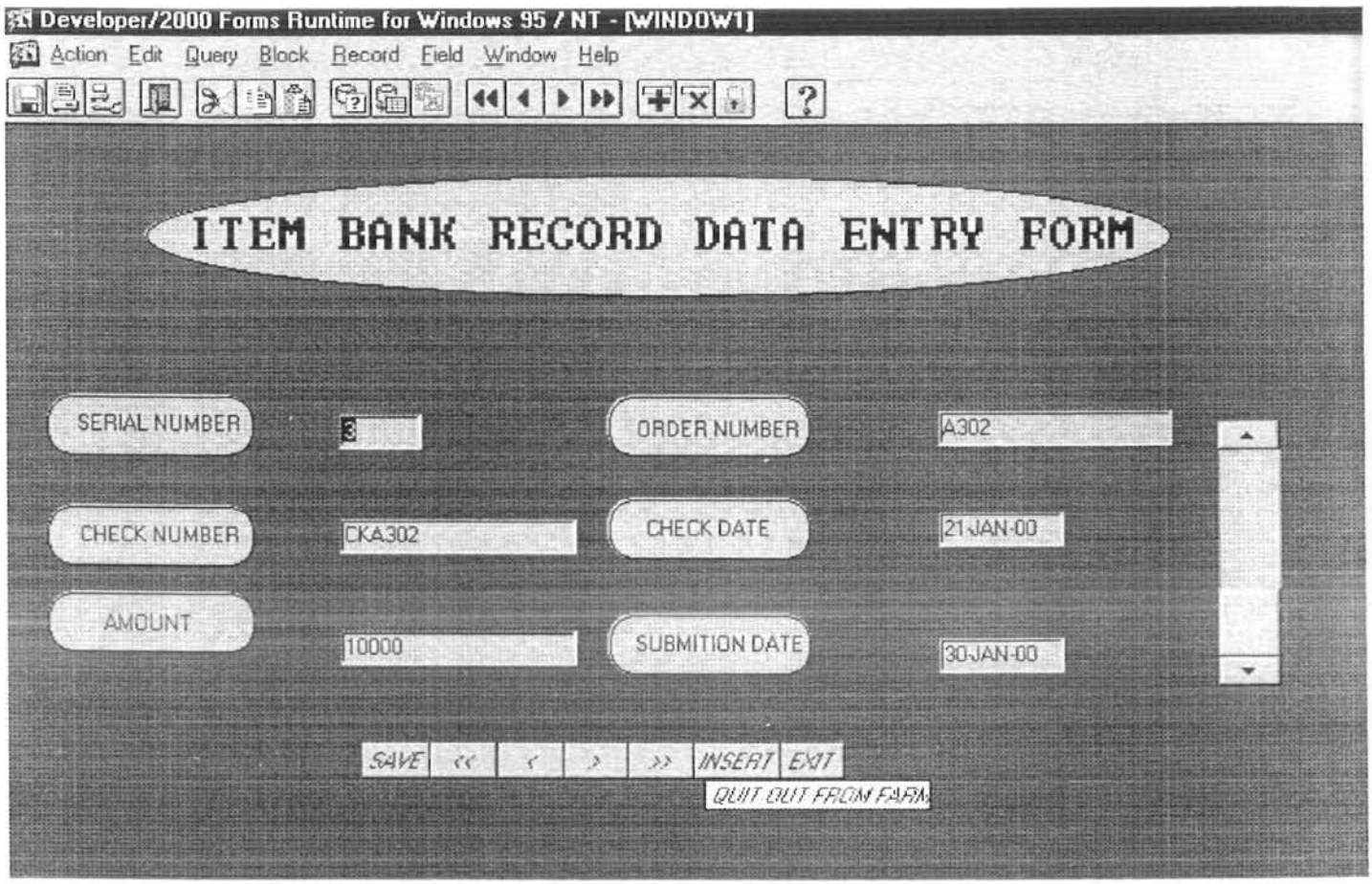

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM DATA ENTRY FORM
ITEM CODE
MOB100
DESCRIPTION
MOBILE
CATEGORY
FOREIGN
FOREIGN
LOCAL
D_MARK
100
RS
2055
QUANTITY
55
SAVE
<<
<
>
>>
INSERT
EXIT

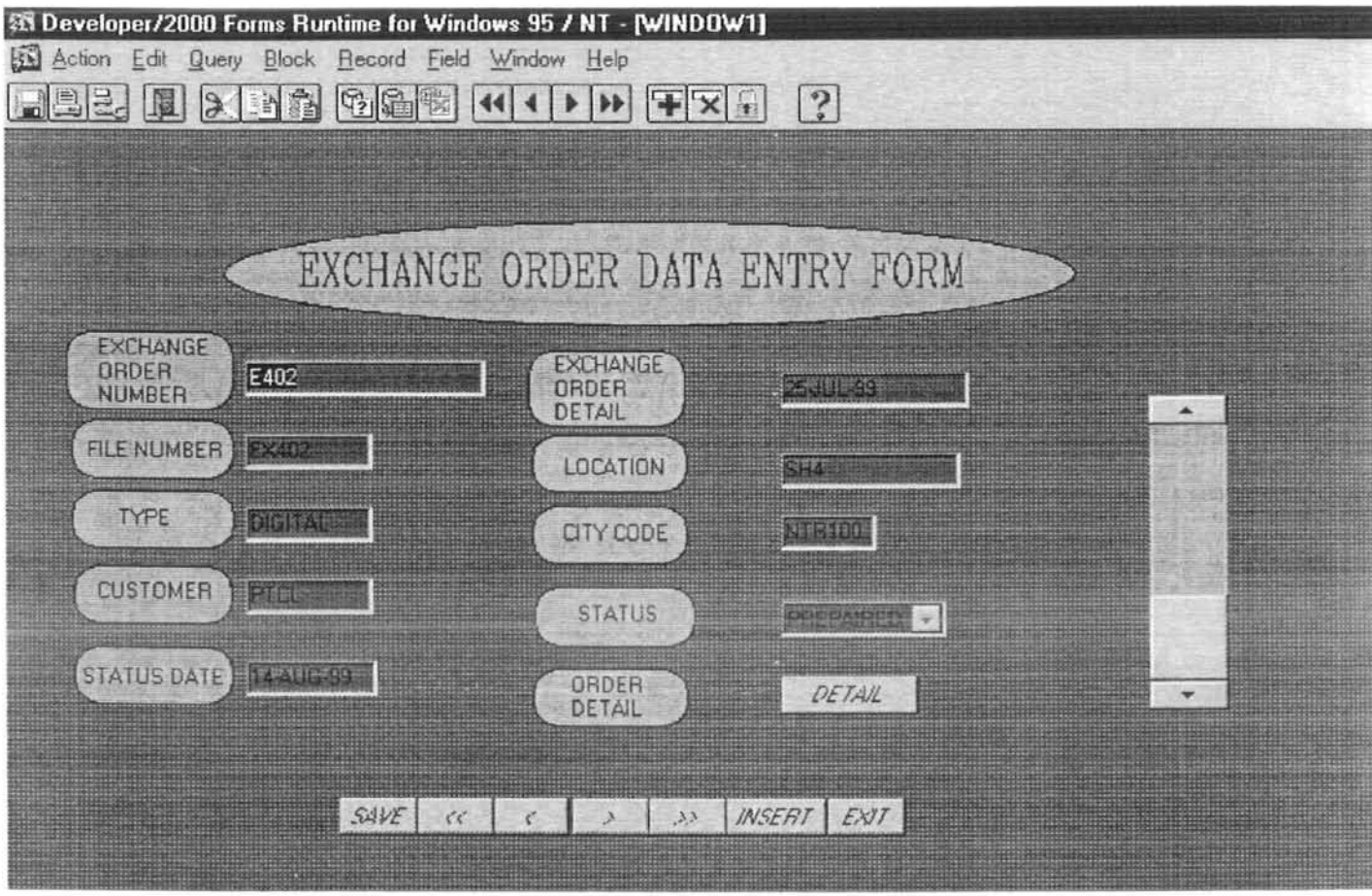

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Execute Query
CITY AND REGION DATA ENTRY FORM
CITY CODE
LTR100
CITY NAME
HAFIZABAD
REGION
LAHORE
PROVINCE
PUNJAB
SAVE
<<
<
>
>>
INSERT
EXIT

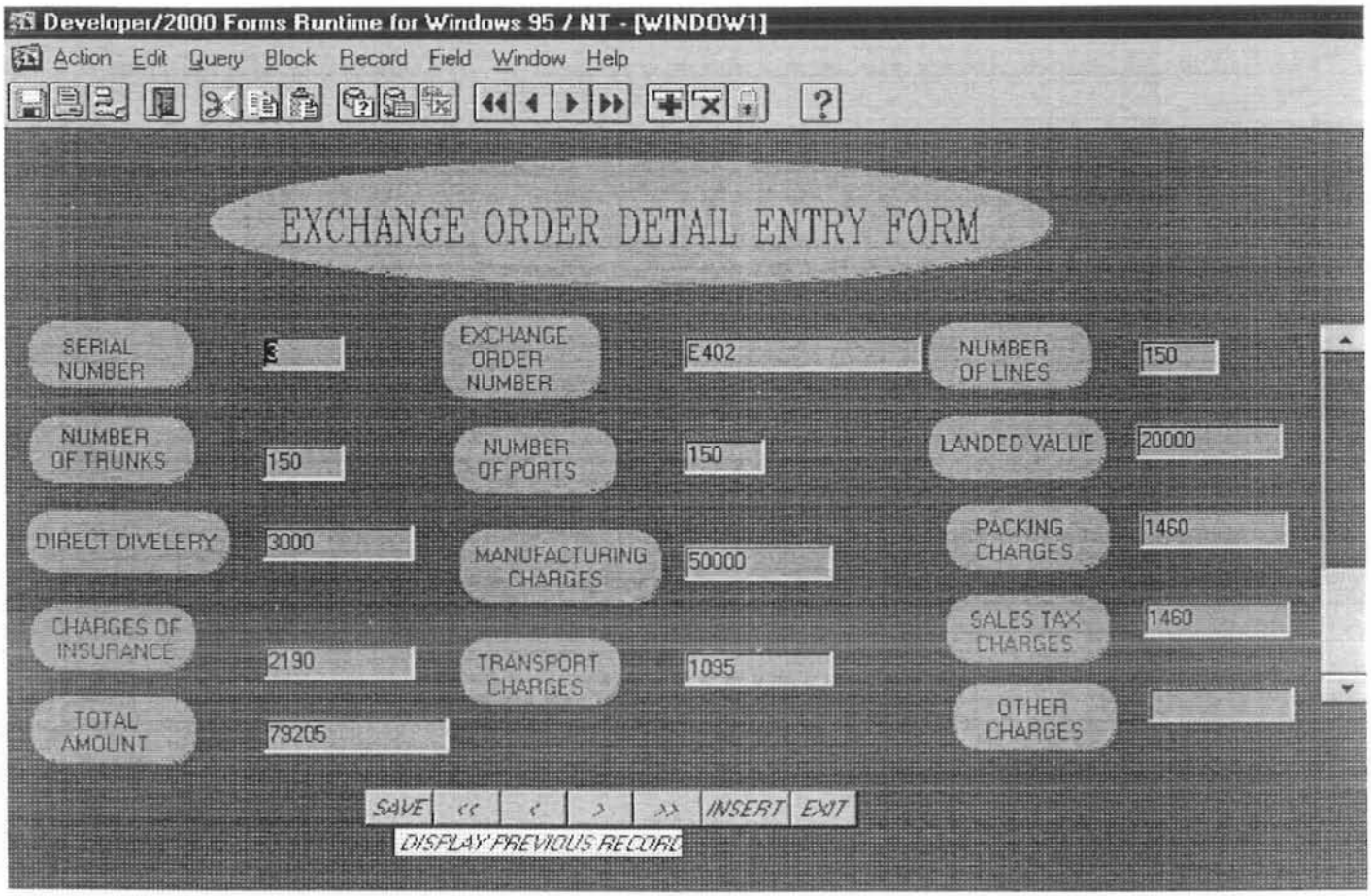

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM ORDER DATA ENTRY FORM
ORDER NO
A301
FILE NO
A309
TYPE
DXT
CUSTOMER
OTHER
STATUS DATE
29-APR-99
ORDER DATE
25-APR-99
LOCATION
SH1
CITY CODE
LTA10
STATUS
PREPAIRE
DETAIL OF ORDER
DETAIL
SAVE
<<
<
>
>>
INSERT
EXIT

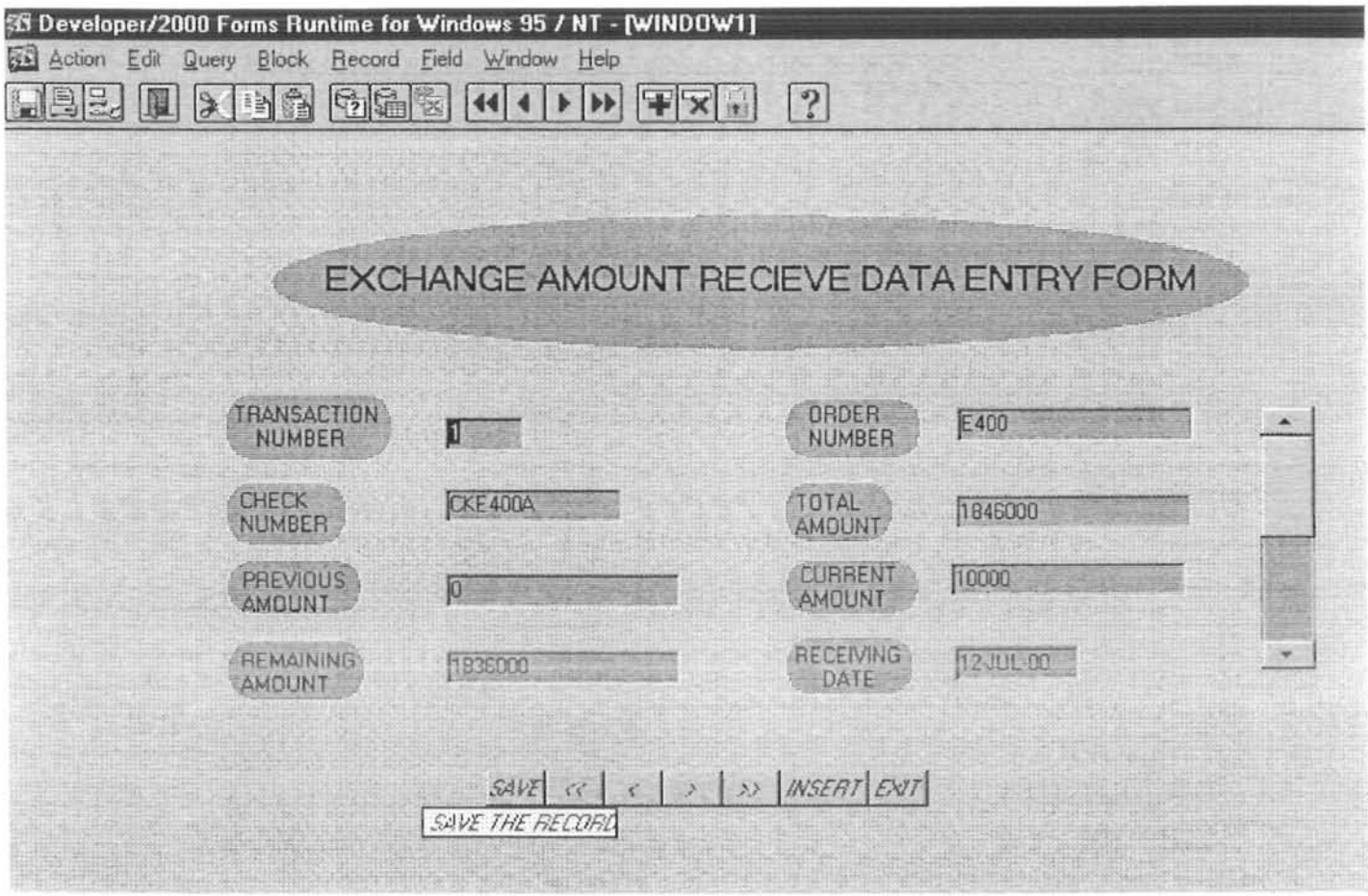

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM ORDER DETAIL ENTRY FORM
SERIAL #
4
ITEM CODE
TEL101
VALUES
15000
PACKING
300
INSURANCE
450
TOTAL
16275
ORDER NO
A301
QUANTITY
10
SALES TAX
300
TRANSPORTATION
225
OTHERS
SAVE
<<
<
>
>>
INSERT
EXIT
DISPLAY LAST RECORD

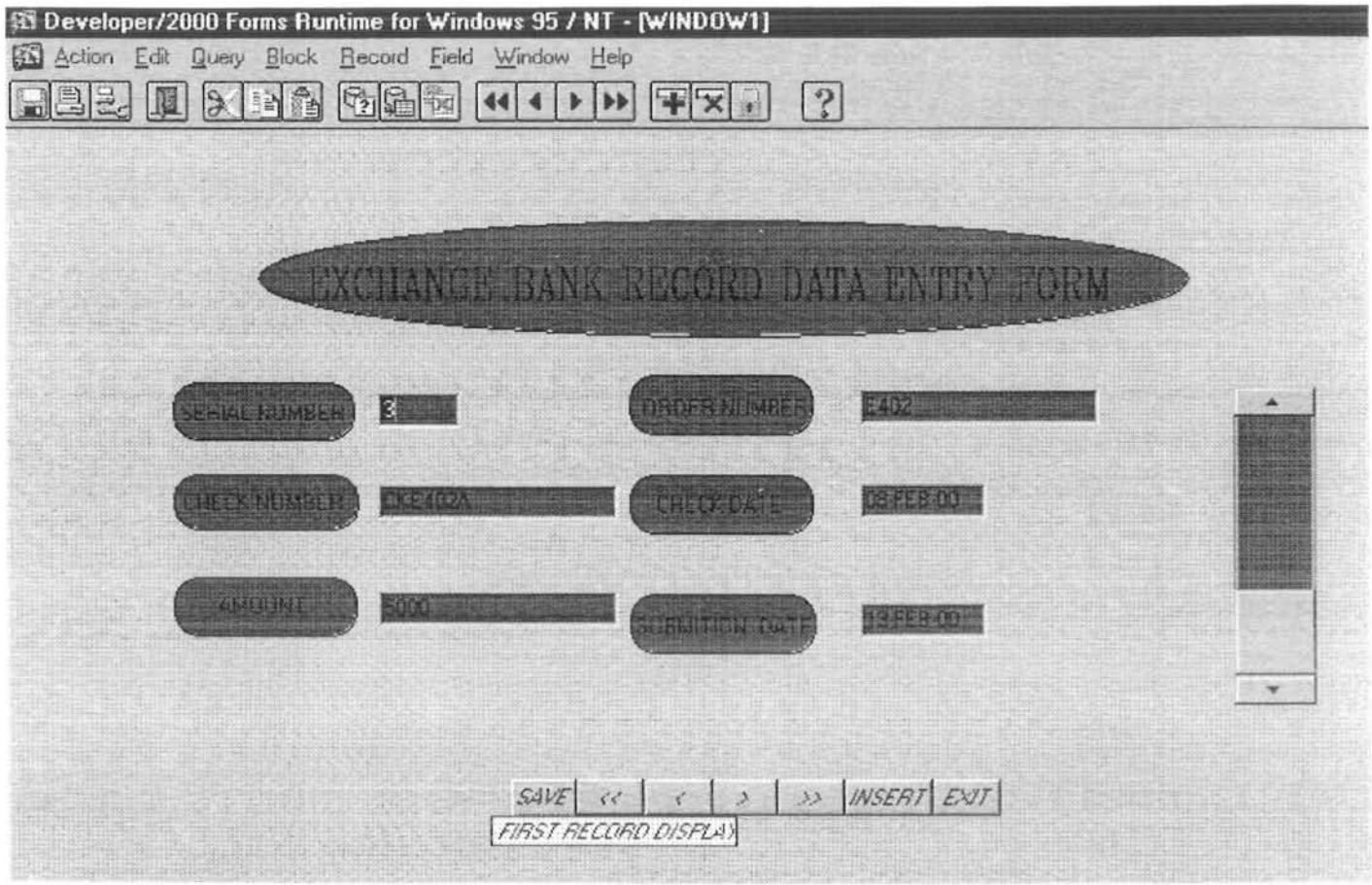

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM AMOUNT RECORD DATA ENTRY FORM
ORDER NUMBER
A202
CHECK NUMBER
CK4302
TOTAL
85918.5
PREVIOUS
0
CURRENT
10000
REMAINING
85918.5
RECORD DATE
22-JAN-00
TRANSECTION
1
SAVE
<<
<
>
>>
INSERT
EXIT
INSERT NEW RECORD

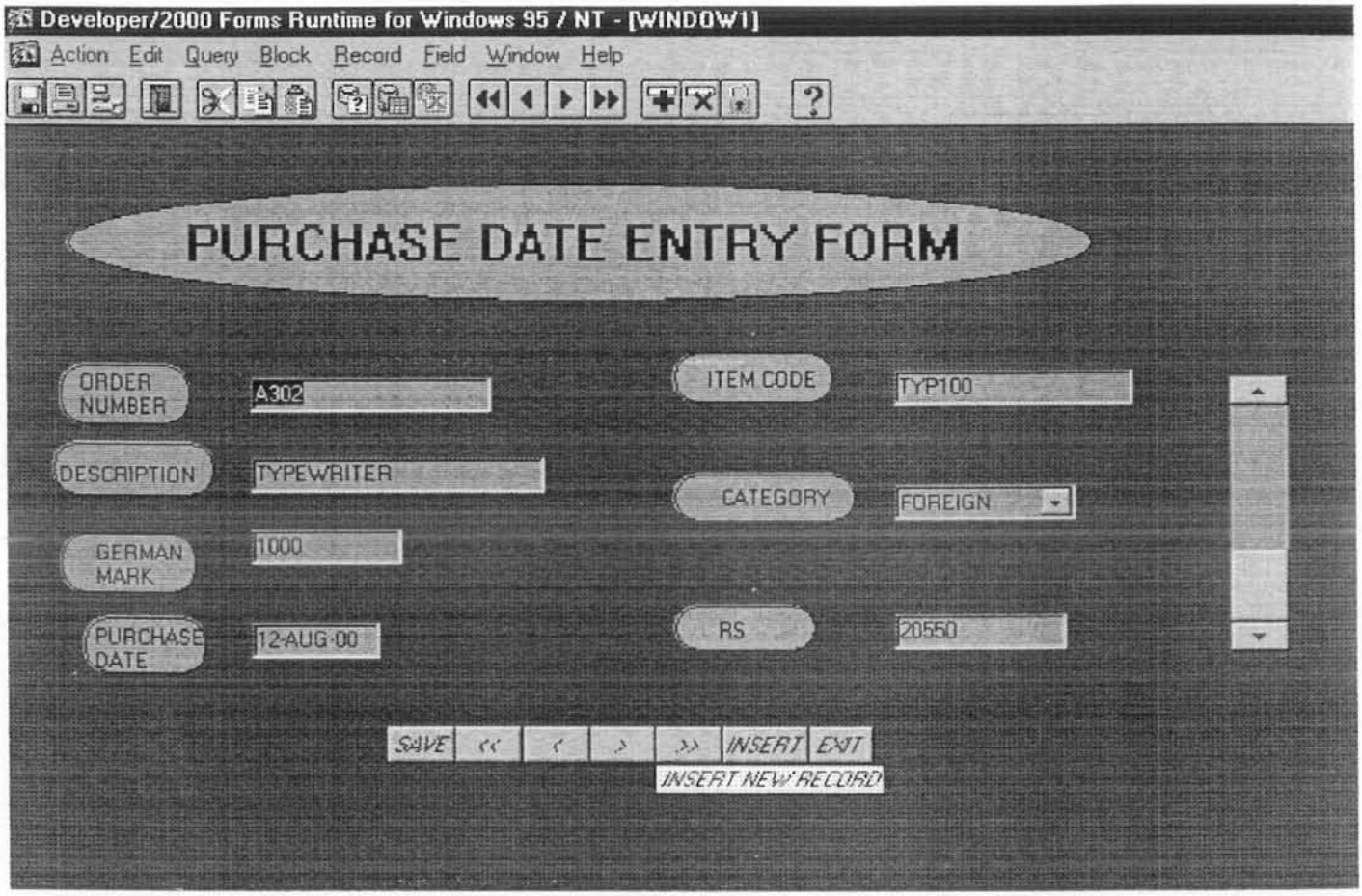

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM BANK RECORD DATA ENTRY FORM
SERIAL NUMBER
3
ORDER NUMBER
A302
CHECK NUMBER
CKA302
CHECK DATE
21-JAN-00
AMOUNT
10000
SUBMITION DATE
30-JAN-00
SAVE
<<
<
>
>>
INSERT
EXIT
QUIT OUT FROM FORM

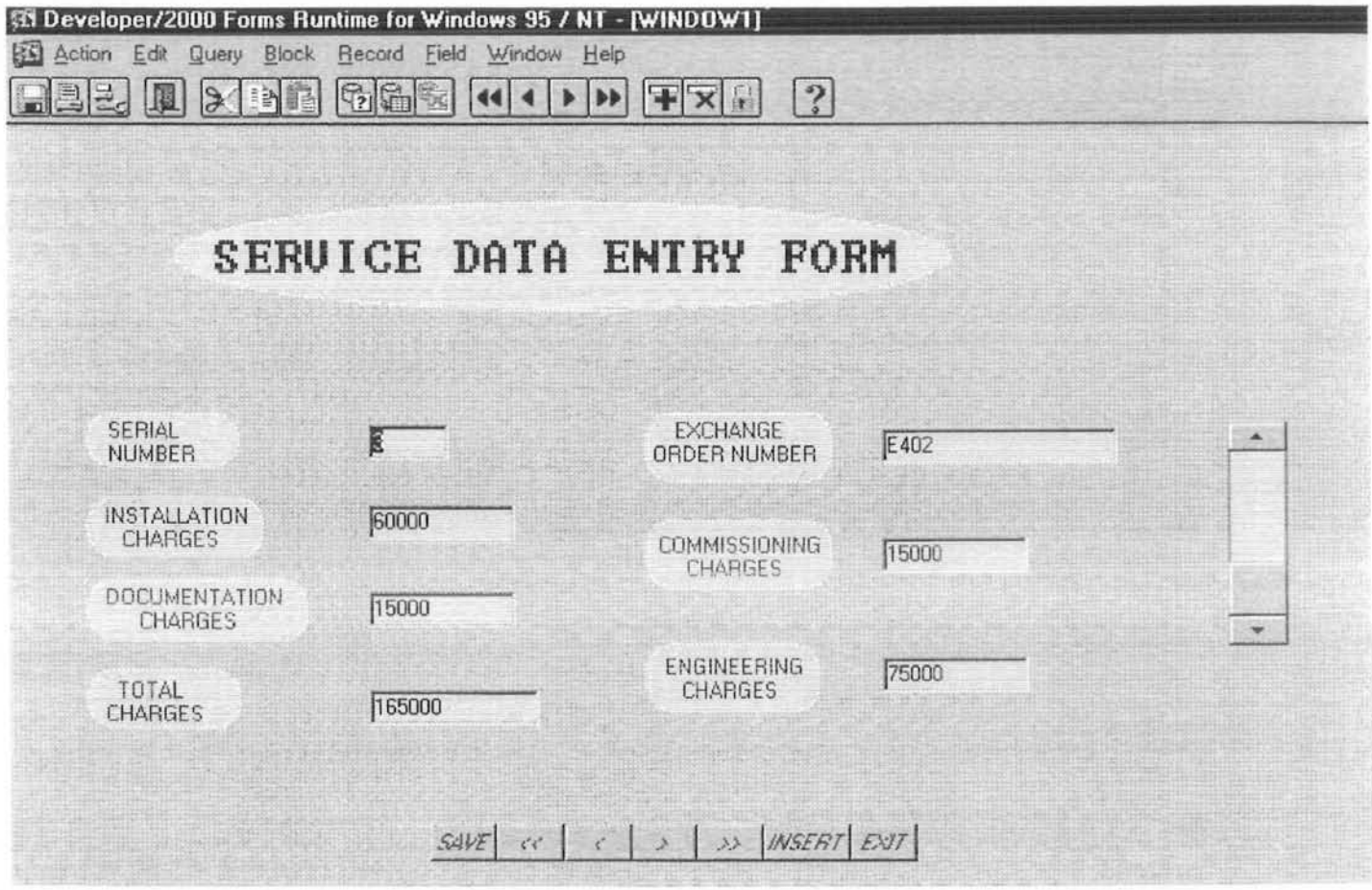

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE ORDER DATA ENTRY FORM
EXCHANGE ORDER NUMBER
E402
FILE NUMBER
EX402
TYPE
DIGITAL
CUSTOMER
PTCL
STATUS DATE
14-AUG-99
EXCHANGE ORDER DETAIL
25JUL-99
LOCATION
SH4
CITY CODE
NTB100
STATUS
ORDERED
ORDER DETAIL
DETAIL
SAVE
<<
<
>
>>
INSERT
EXIT

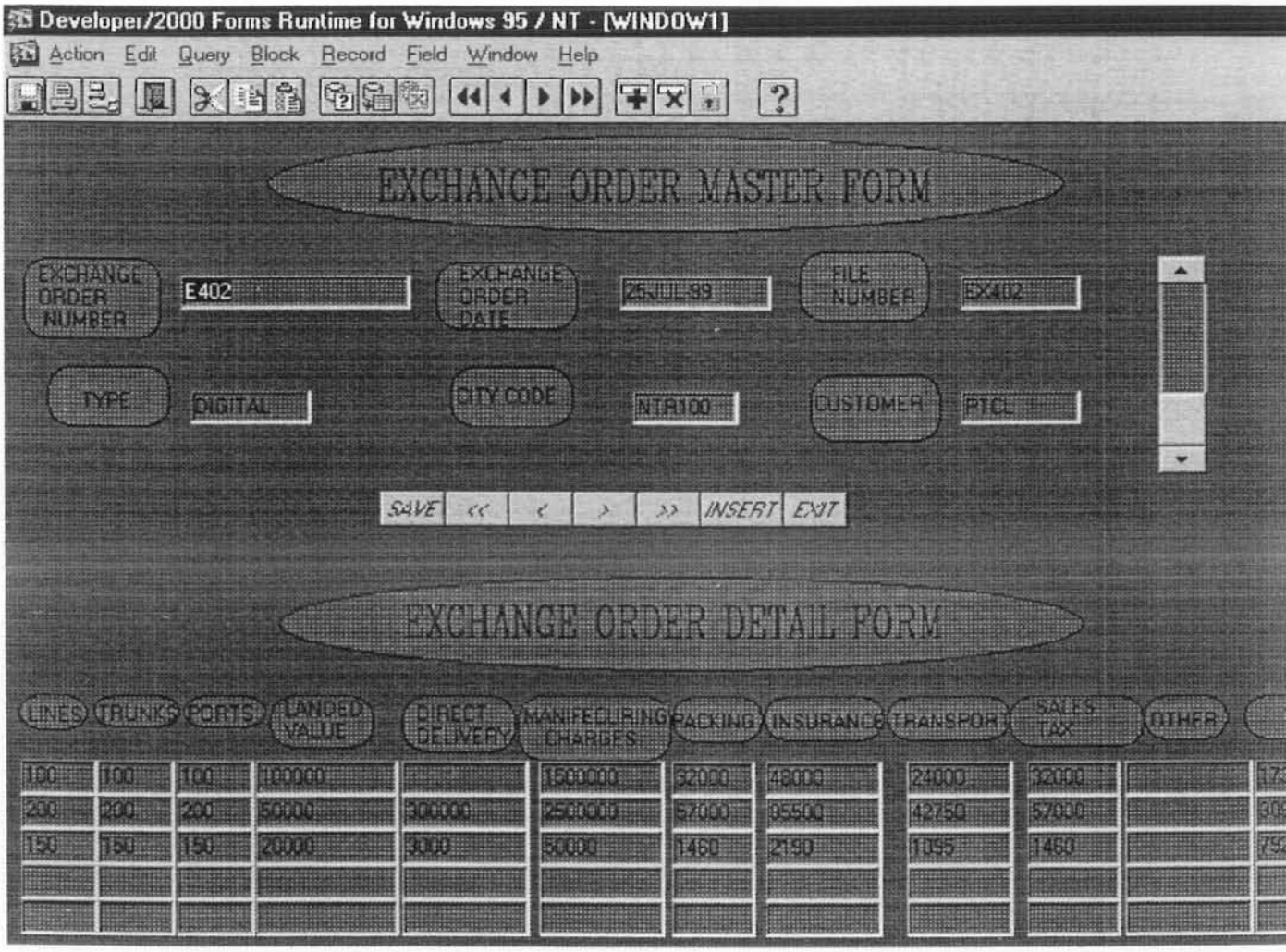

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE ORDER DETAIL ENTRY FORM
SERIAL NUMBER
EXCHANGE ORDER NUMBER
E402
NUMBER OF LINES
150
NUMBER OF TRUNKS
150
NUMBER OF PORTS
150
LANDED VALUE
20000
DIRECT DIVELERY
3000
MANUFACTURING CHARGES
50000
PACKING CHARGES
1460
CHARGES OF INSURANCE
2190
TRANSPORT CHARGES
1035
SALES TAX CHARGES
1460
TOTAL AMOUNT
79205
OTHER CHARGES
SAVE
<<
<
>
>>
INSERT
EXIT
DISPLAY PREVIOUS RECORD

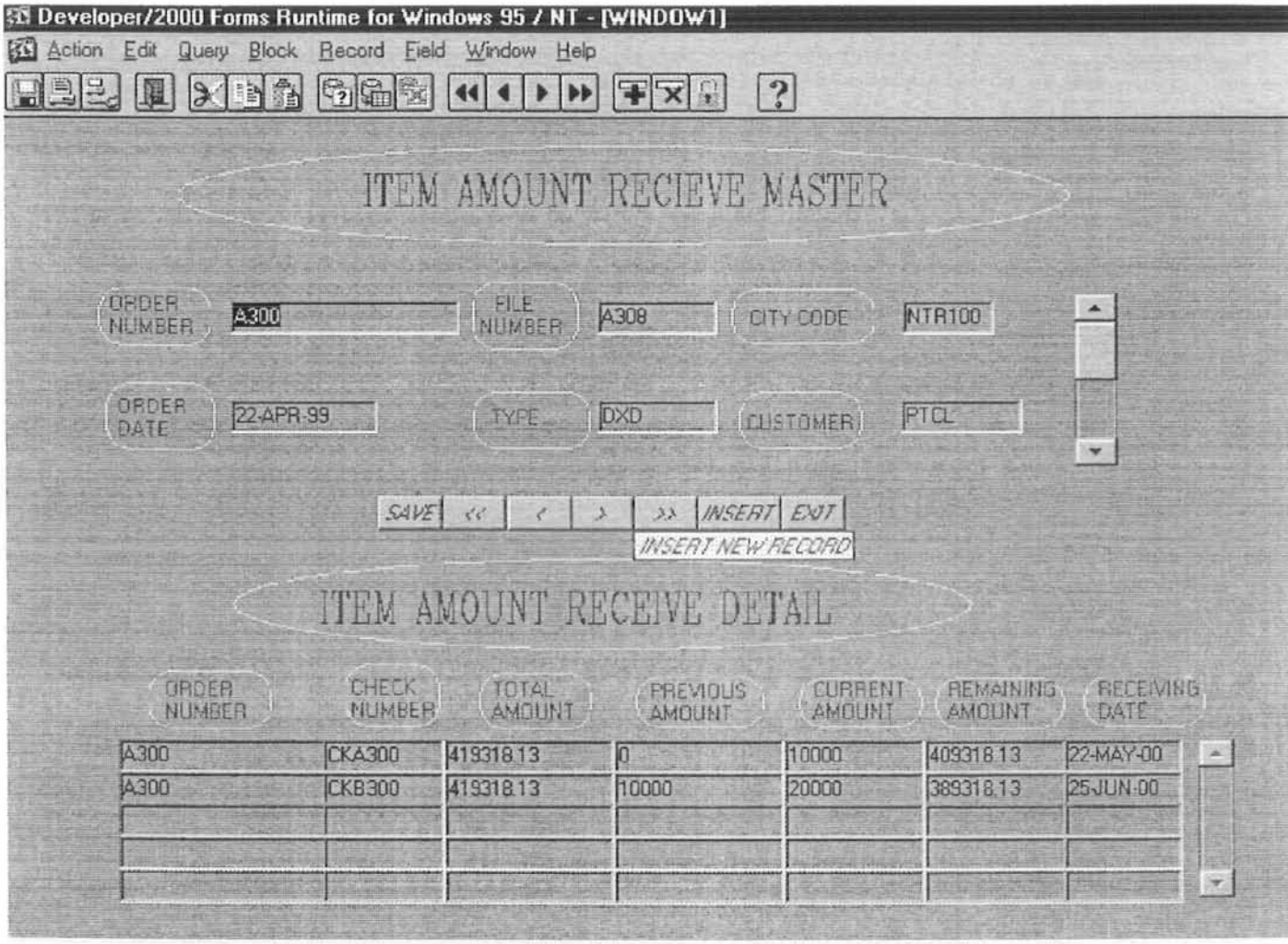

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE AMOUNT RECIEVE DATA ENTRY FORM
TRANSACTION NUMBER
1
ORDER NUMBER
E400
CHECK NUMBER
CKE400A
TOTAL AMOUNT
1846000
PREVIOUS AMOUNT
0
CURRENT AMOUNT
10000
REMAINING AMOUNT
1836000
RECEIVING DATE
12-JUL-00
SAVE
<<
<
>
>>
INSERT
EXIT
SAVE THE RECORD

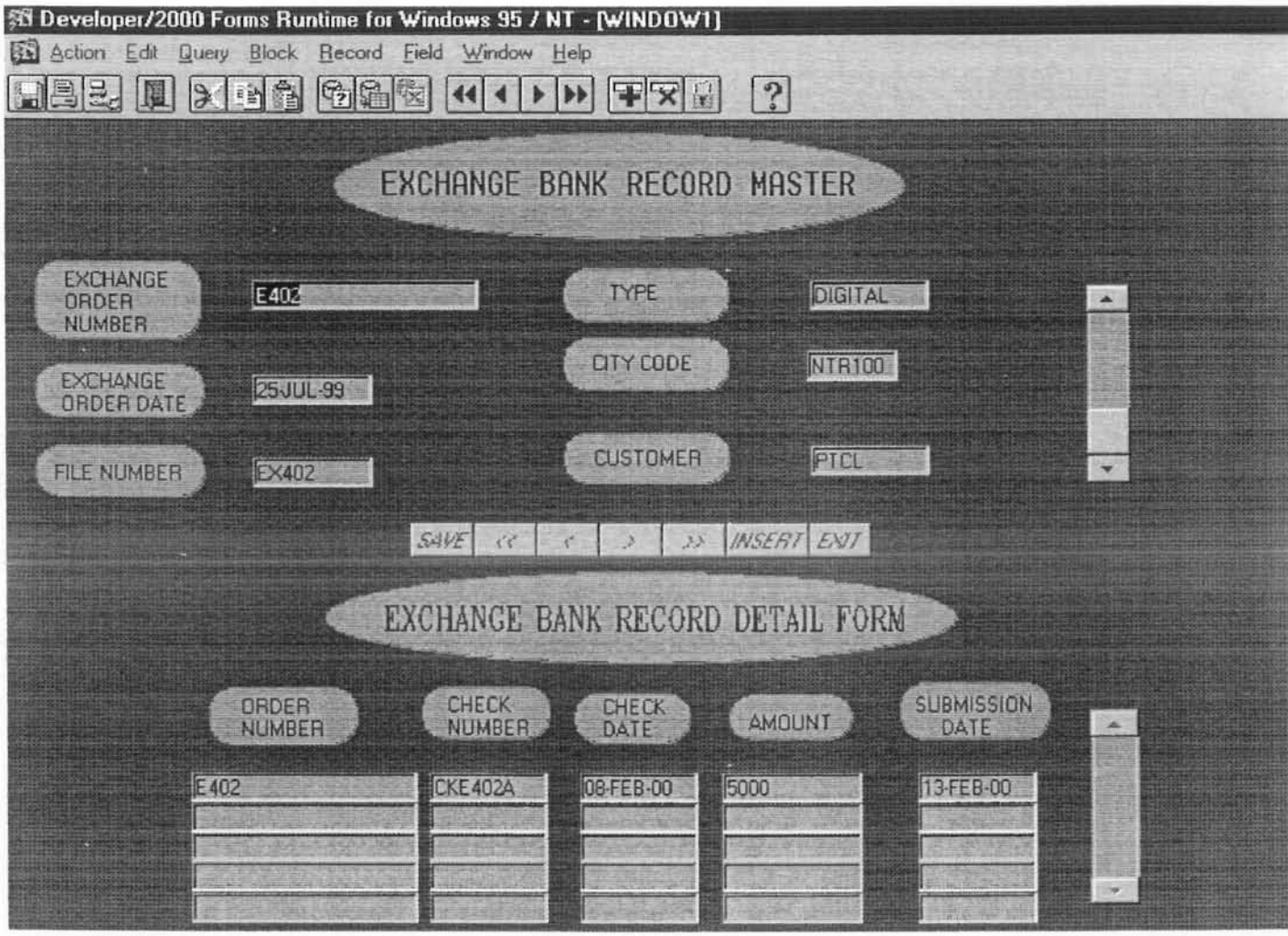

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE BANK RECORD DATA ENTRY FORM
SERIAL NUMBER
3
ORDER NUMBER
E402
CHECK NUMBER
CHECK DATE
08-FEB-00
AMOUNT
5000
SUBMITTION DATE
13-FEB-00
SAVE
<<
<
>
>>
INSERT
EXIT
FIRST RECORD DISPLAY

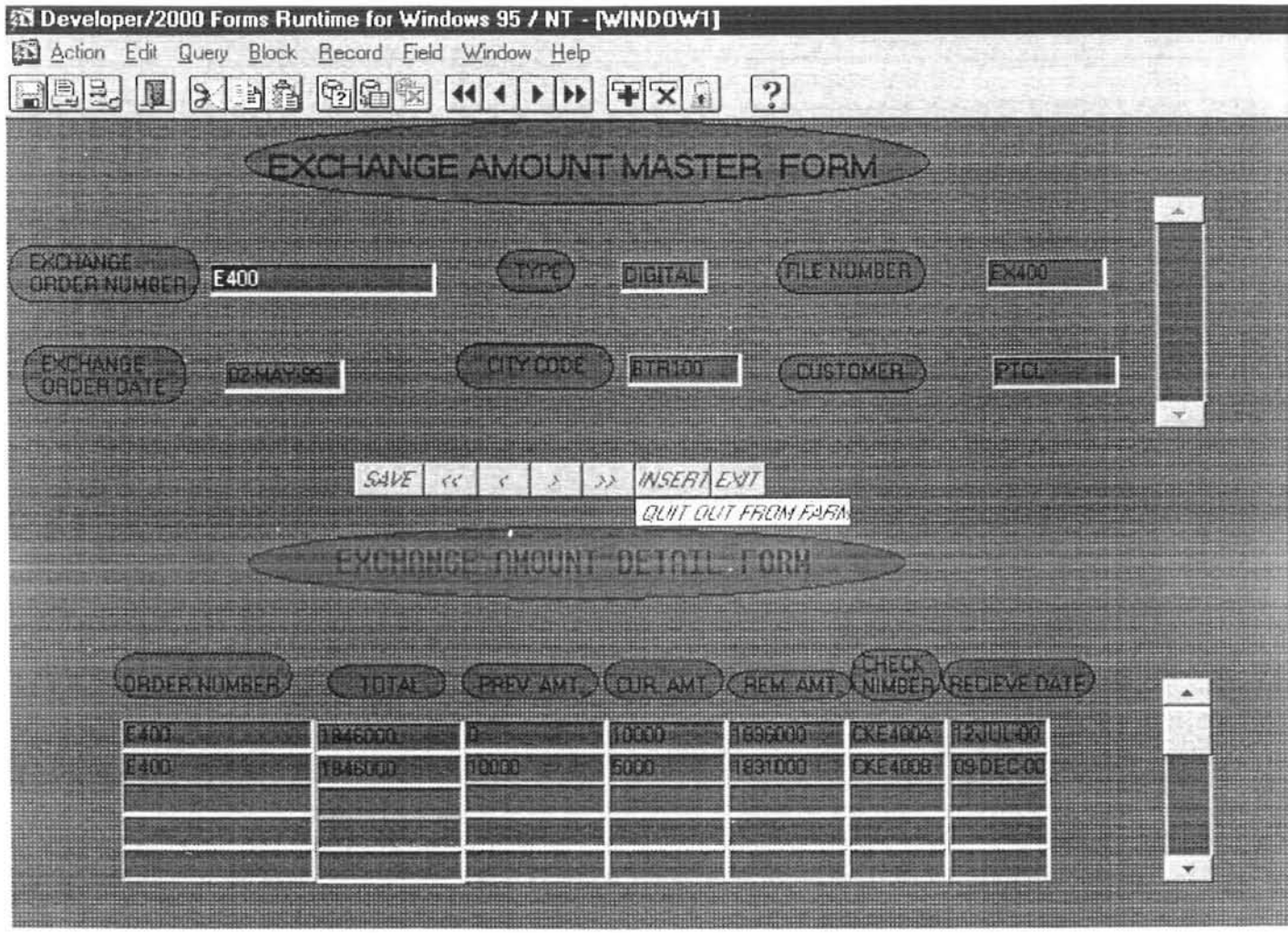

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
PURCHASE DATE ENTRY FORM
ORDER NUMBER
A302
ITEM CODE
TYP100
DESCRIPTION
TYPEWRITER
CATEGORY
FOREIGN
GERMAN MARK
1000
PURCHASE DATE
12-AUG-00
RS
20550
SAVE
<<
<
>
>>
INSERT
EXIT
INSERT NEW RECORD

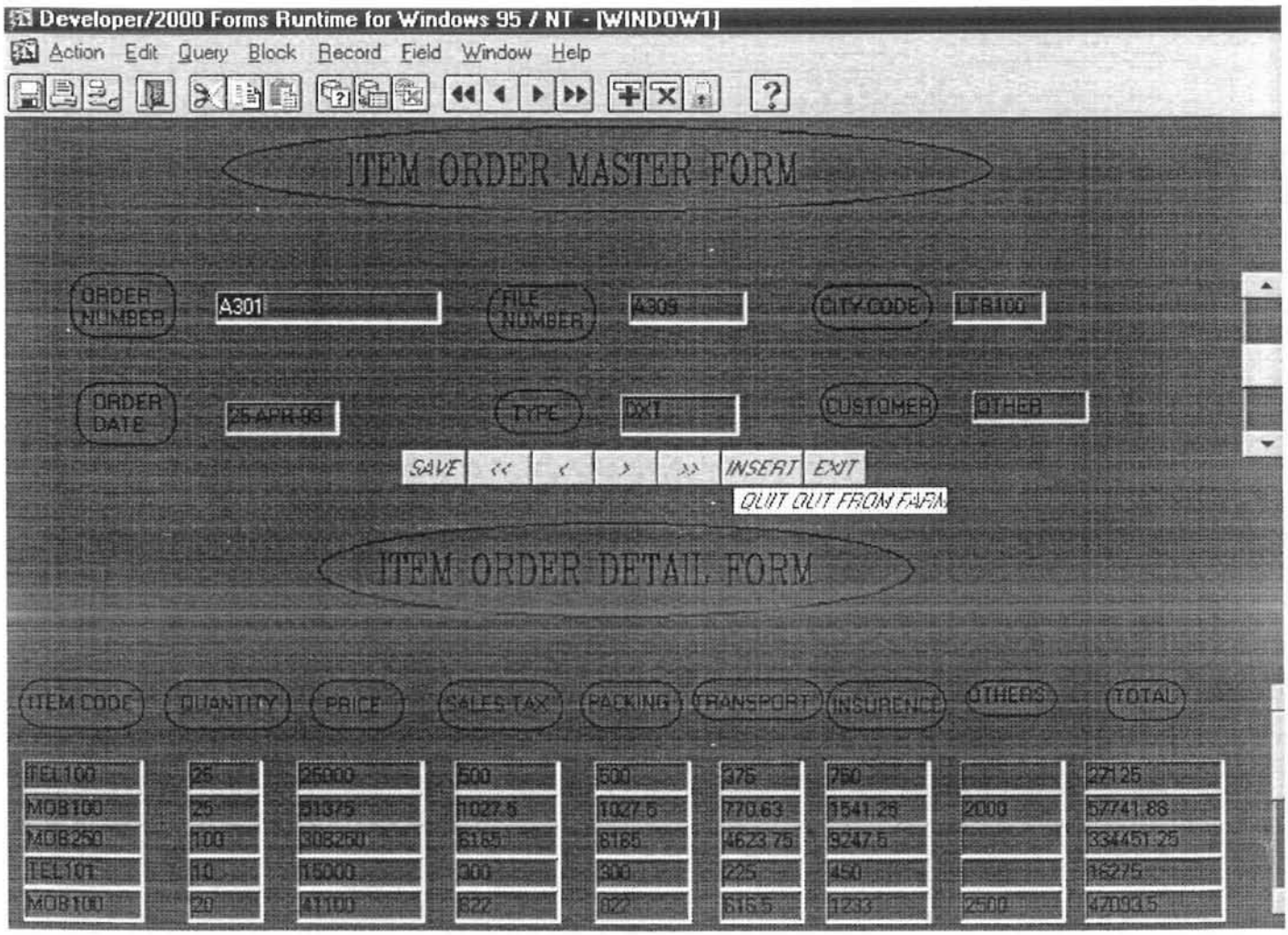

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
SERVICE DATA ENTRY FORM
SERIAL NUMBER
INSTALLATION CHARGES
60000
DOCUMENTATION CHARGES
15000
TOTAL CHARGES
165000
EXCHANGE ORDER NUMBER
E402
COMMISSIONING CHARGES
15000
ENGINEERING CHARGES
75000
SAVE
<<
<
>
>>
INSERT
EXIT

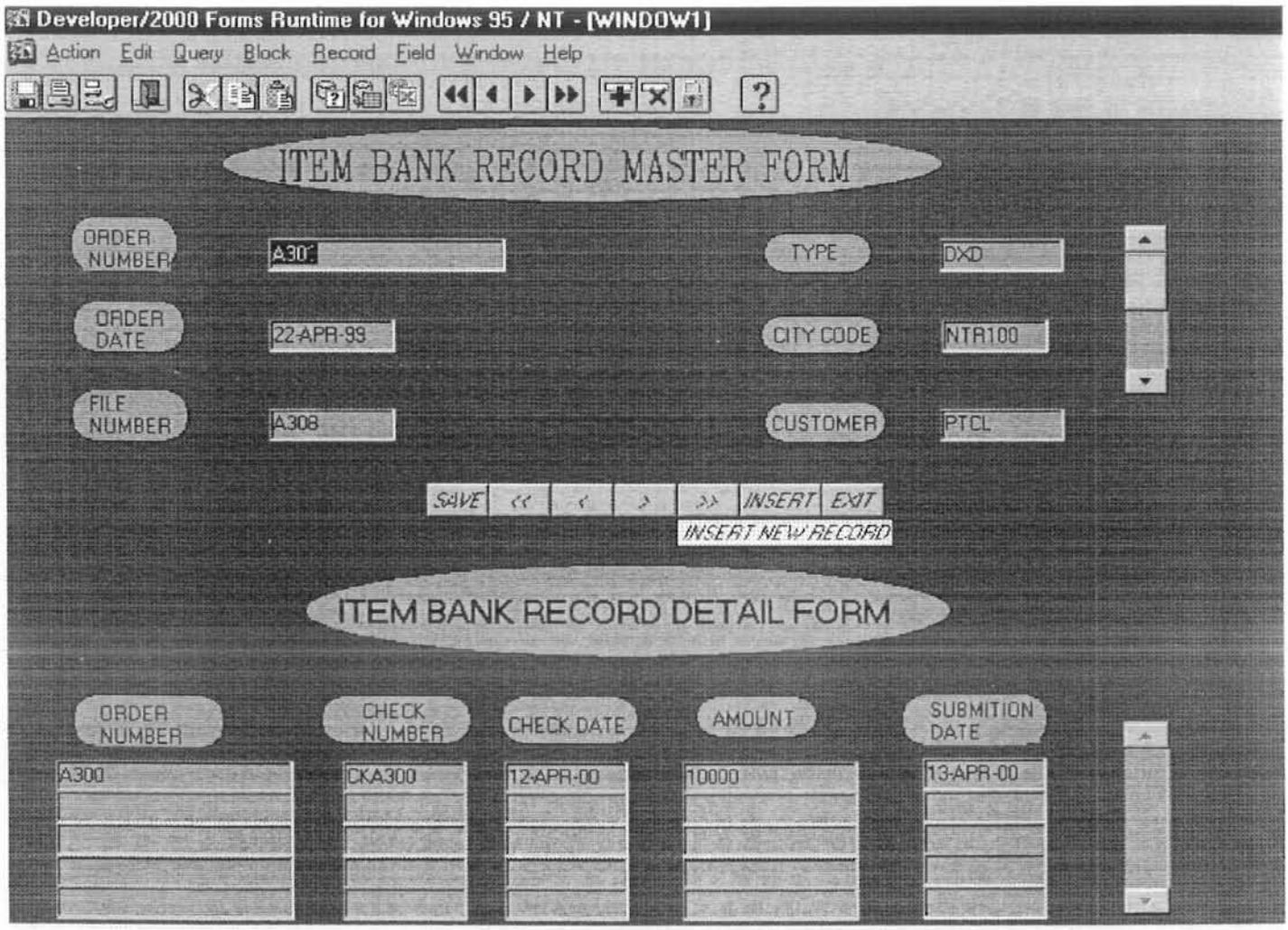

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE ORDER MASTER FORM
EXCHANGE ORDER NUMBER
E402
EXCHANGE ORDER DATE
25JUL99
FILE NUMBER
EX402
TYPE
DIGITAL
CITY CODE
NTA100
CUSTOMER
PTCL
SAVE
<<
<
>
>>
INSERT
EXIT
EXCHANGE ORDER DETAIL PORM
LINES
TRUNKS
PORTS
LANDED VALUE
DIRECT DELIVERY
MANIFECURING CHARGES
PACKING
INSURANCE
TRANSPOR
SALES TAX
OTHER
100 100 100 100000 1600000 32000 48000 24000 32000
200 200 200 50000 300000 2500000 57000 85500 42750 57000
150 150 150 20000 3000 50000 1460 2190 1095 1460

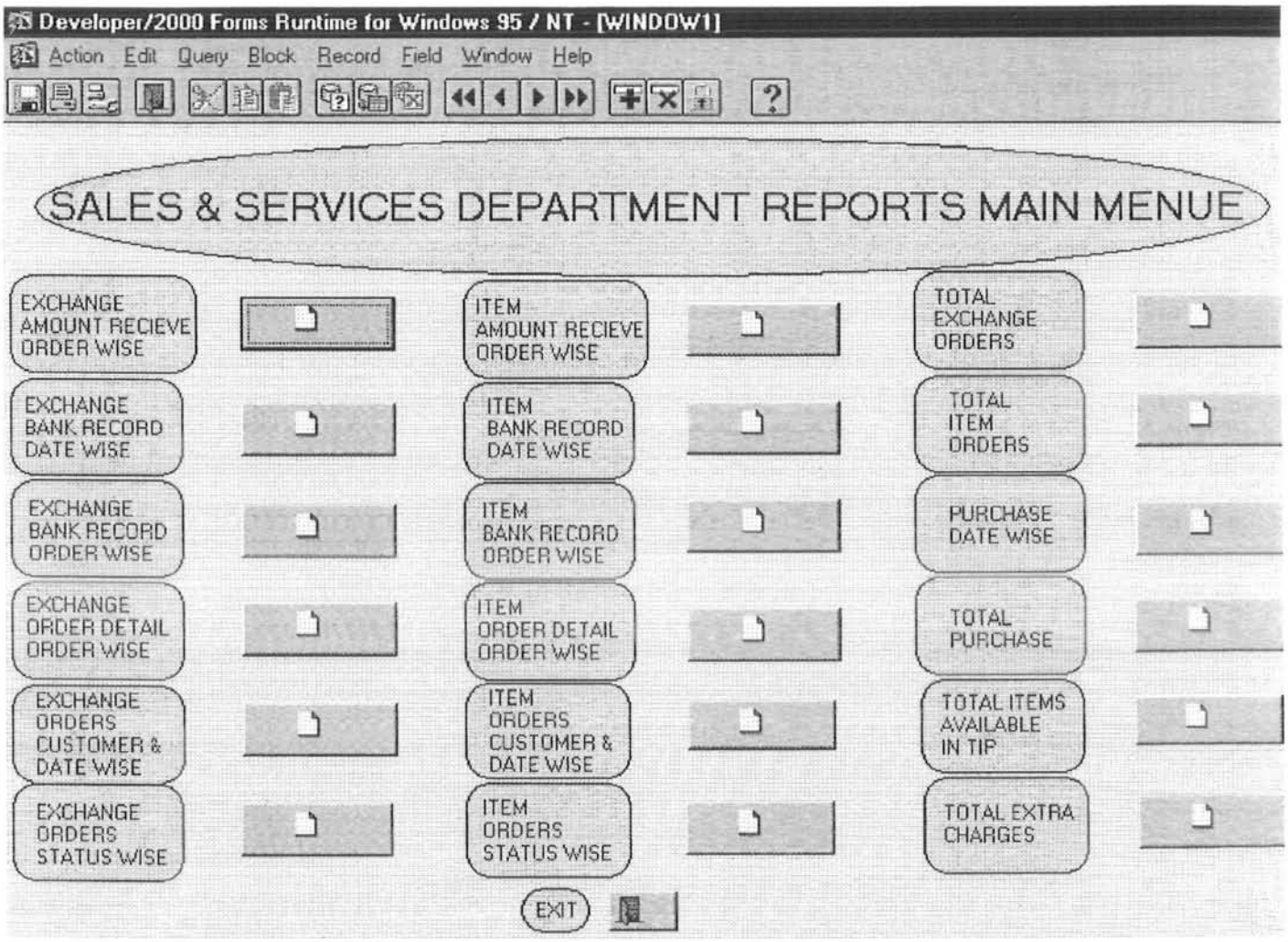

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM AMOUNT RECIEVE MASTER
ORDER NUMBER
A300
FILE NUMBER
A308
CITY CODE
NTR100
ORDER DATE
22-APR-99
TYPE
DXD
CUSTOMER
PTCL
SAVE
<<
<
>
>>
INSERT
EXIT
INSERT NEW RECORD
ITEM AMOUNT RECEIVE DETAIL
ORDER NUMBER
CHECK NUMBER
TOTAL AMOUNT
PREVIOUS AMOUNT
CURRENT AMOUNT
REMAINING AMOUNT
RECEIVING DATE
A300 CKA300 419318.13 0 10000 409318.13 22-MAY-00
A300 CKB300 419318.13 10000 20000 389318.13 25-JUN-00


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE BANK RECORD MASTER
EXCHANGE ORDER NUMBER
E402
TYPE
DIGITAL
CITY CODE
NTR100
EXCHANGE ORDER DATE
25-JUL-99
FILE NUMBER
EX402
CUSTOMER
PTCL
SAVE
INSERT
EXIT
EXCHANGE BANK RECORD DETAIL FORM
ORDER NUMBER
CHECK NUMBER
CHECK DATE
AMOUNT
SUBMISSION DATE
E402
CKE402A
08-FEB-00
5000
13-FEB-00


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
EXCHANGE AMOUNT MASTER FORM
EXCHANGE ORDER NUMBER
E400
TYPE
DIGITAL
FILE NUMBER
EX400
EXCHANGE ORDER DATE
02-MAY-99
CITY CODE
BTR100
CUSTOMER
PTCL
SAVE
<<
<
>
>>
INSERT
EXIT
QUIT OUT FROM FORM
EXCHANGE AMOUNT DETAIL FORM
ORDER NUMBER
TOTAL
PREV AMT
CUR AMT
REM AMT
CHECK NUMBER
RECIEVE DATE
E400 1846000 0 10000 1836000 CKE4004 12JUL-00
E400 1846000 10000 5000 1831000 CKE4008 09-DEC-00


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM ORDER MASTER FORM
ORDER NUMBER
A301
FILE NUMBER
A309
CITY CODE
LTB100
ORDER DATE
25-APR-99
TYPE
DXT
CUSTOMER
OTHER
SAVE
<<
<
>
>>
INSERT
EXIT
QUIT OUT FROM FARM
ITEM ORDER DETAIL FORM
ITEM CODE
QUANTITY
PRICE
SALES TAX
PACKING
TRANSPORT
INSURENCE
OTHERS
TOTAL
TEL100 25 25000 500 500 375 750 2712.5
MOB100 25 51375 1027.5 1027.5 770.63 1541.25 2000 57741.88
MOB250 100 308250 6165 6165 4623.75 9247.5 334451.25
TEL101 10 15000 300 300 225 450 16275
MOB100 20 41100 822 822 616.5 1233 2500 47094.5


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
ITEM BANK RECORD MASTER FORM
ORDER NUMBER
A30
TYPE
DXD
ORDER DATE
22-APR-99
CITY CODE
NTR100
FILE NUMBER
A308
CUSTOMER
PTCL
SAVE
INSERT
EXIT
INSERT NEW RECORD
ITEM BANK RECORD DETAIL FORM
ORDER NUMBER
CHECK NUMBER
CHECK DATE
AMOUNT
SUBMITION DATE
A300
CKA300
12-APR-00
10000
13-APR-00


Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
SALES & SERVICES DEPARTMENT REPORTS MAIN MENUE
EXCHANGE AMOUNT RECIEVE ORDER WISE
EXCHANGE BANK RECORD DATE WISE
EXCHANGE BANK RECORD ORDER WISE
EXCHANGE ORDER DETAIL ORDER WISE
EXCHANGE ORDERS CUSTOMER & DATE WISE
EXCHANGE ORDERS STATUS WISE
ITEM AMOUNT RECIEVE ORDER WISE
ITEM BANK RECORD DATE WISE
ITEM BANK RECORD ORDER WISE
ITEM ORDER DETAIL ORDER WISE
ITEM ORDERS CUSTOMER & DATE WISE
ITEM ORDERS STATUS WISE
TOTAL EXCHANGE ORDERS
TOTAL ITEM ORDERS
PURCHASE DATE WISE
TOTAL PURCHASE
TOTAL ITEMS AVAILABLE IN TIP
TOTAL EXTRA CHARGES
EXIT

APPENDIX "C"
(REPORTS)

EXCHANGE AMOUNT RECEIVE ORDER WISE

Report run on: August 21, 1999 3:14 PM

Order No	Ck No	Total	Prev	Current Amount	Rem	Rec Date
E400	CKE400A	1846000	0	10000	1836000	12-JUL-00
E400	CKE400B	1846000	10000	5000	1831000	09-DEC-00
Total: 2			**10000**			

EXCHANGE BANK RECORD REPORT ORDER WISE

Report run on: August 21, 1999 3:33 PM

Order Number	Check Number	Check Date	Amount	Submission Date
E401	CKE401A	09-JUN-00	12000	12-JUN-00
Total:			**12000**	
1				

EXCHANGE ORDERS STATUS WISE

Report run on: August 21, 1999 3:50 PM

Exg. OrderNumber	Exg. Order Date	File No	Location -	Type	City Code	Customer	Status Date
E400	02-MAY-99	EX400	SH4	DIGITAL	BTR100	PTCL	14-AUG-99
E401	04-AUG-98	EX401	SH4	NON-DIGIT	STR100	PTCL	14-AUG-99
E402	25-JUL-99	EX402	SH4	DIGITAL	NTR100	PTCL	14-AUG-99

3

REPORT OF TOTAL ITEM ORDERS RECIEVED

Report run on: August 21, 1999 4:09 PM

Order Number	Order Date	File No	Location	Type	City Code	Customer	Status	StatusDate
A300	22-APR-99	A308	SH1	DXD	NTR100	PTCL	PREPAIRED	28-APR-99
A301	25-APR-99	A309	SH1	DXT	LTR100	OTHER	PREPAIRED	29-APR-99
A302	30-APR-99	A310	SH1	DDD	RTR100	PTCL	PREPAIRED	05-MAY-99

3

REPORT OF ITEMS PURCHASED ORDER WISE

Report run on: August 21, 1999 4:12 PM

Order No.	Item Code	Descrip.	Price In German Mark	Price In Rupees	Catagory	Purchase Date
A300	COM100	COMPUTER	300	6165	FOREIGN	25-AUG-00
Total:			**300**	**6165**		
Minimum:			**300**	**6165**		
Maximum:			**300**	**6165**		
Count:	**1**					

REPORT OF ITEM BANK RECORD DATE WISE *Report run on: August 21, 1999 3:56 PM*

Order Number	Check Number	Check Date	Amount	Submissiom Date
A300	CKA300	12-APR-00	10000	13-APR-00
A301	CKA301	22-MAY-00	2000	28-MAY-00
A302	CKA302	21-JAN-00	10000	30-JAN-00
Total:			**22000**	
3				

ORDERS OF ITEMS CUSTOMER & DATE WISE *Report run on: August 21, 1999 4:04 PM*

Order Number	Order Date	File No.	Location	Type	City Code	Customer	Status	StatusDate
A300	22-APR-99	A308	SH1	DXD	NTR100	PTCL	PREPAIRED	28-APR-99
A302	30-APR-99	A310	SH1	DDD	RTR100	PTCL	PREPAIRED	05-MAY-99

2

DETAIL REPORT

Report run on: August 21, 1999 4:02 PM

Item Code	Description	Catagory	Price In German Mark	Price In Rupees	Quantity In Store
TEL100	TELEPHONE	LOCAL	0	1000	125
TEL101	DIGITAL PHONE	LOCAL	0	1500	160
MOB100	MOBILE	FOREIGN	100	2055	55
MOB250	AUTOMOBILE	FOREIGN	150	3082.5	150
im:			**0**	**1000**	**55**
um:			**150**	**3082.5**	**160**

4

REPORRT OF ITEM BANK RECORD ORDER WISE

Report run on: August 21, 1999 3:57 PM

Order Number	Check Number	Check Date	Amount	Submission Date
A300	CKA300	12-APR-00	10000	13-APR-00
Total:			**10000**	
Count:	**1**			

PURCHASE DETAIL REPORT DATE WISE

Report run on: August 21, 1999 4:11 PM

Order Number	Item Code	Descrip.	Price In German Mark	Price In Rupees	Catagory	Purchase Date
A300	COM100	COMPUTER	300	6165	FOREIGN	25-AUG-00
A301	COM101	COMPUTER BOX	0	30000	LOCAL	22-AUG-00
A302	TYP100	TYPEWRITER	1000	20550	FOREIGN	12-AUG-00
Total: 3			**1300**	**56715**		

TOTAL EXCHANGE ORDERS DATE WISE

Report run on: August 21, 1999 4:08 PM

Exg. Order Number	Exg. Order Date	File No	Location	Type	City Code	Customer	Status	Status Date
400	02-MAY-99	EX400	SH4	DIGITAL	BTR100	PTCL	PREPAIRED	14-AUG-99
401	04-AUG-98	EX401	SH4	NON-DIGIT/	STR100	PTCL	PREPAIRED	14-AUG-99
402	25-JUL-99	EX402	SH4	DIGITAL	NTR100	PTCL	PREPAIRED	14-AUG-99

REPORT OF ITEM ORDERS WHICH ARE PREPAIR *Report run on: August 21, 1999 4:06 PM*

Order Number	Order Date	File No.	Location	Type	City Code	Customer	Status1	StatusDate
A300	22-APR-99	A308	SH1	DXD	NTR100	PTCL	PREPAIRED	28-APR-99
A301	25-APR-99	A309	SH1	DXT	LTR100	OTHER	PREPAIRED	29-APR-99
A302	30-APR-99	A310	SH1	DDD	RTR100	PTCL	PREPAIRED	05-MAY-99

3

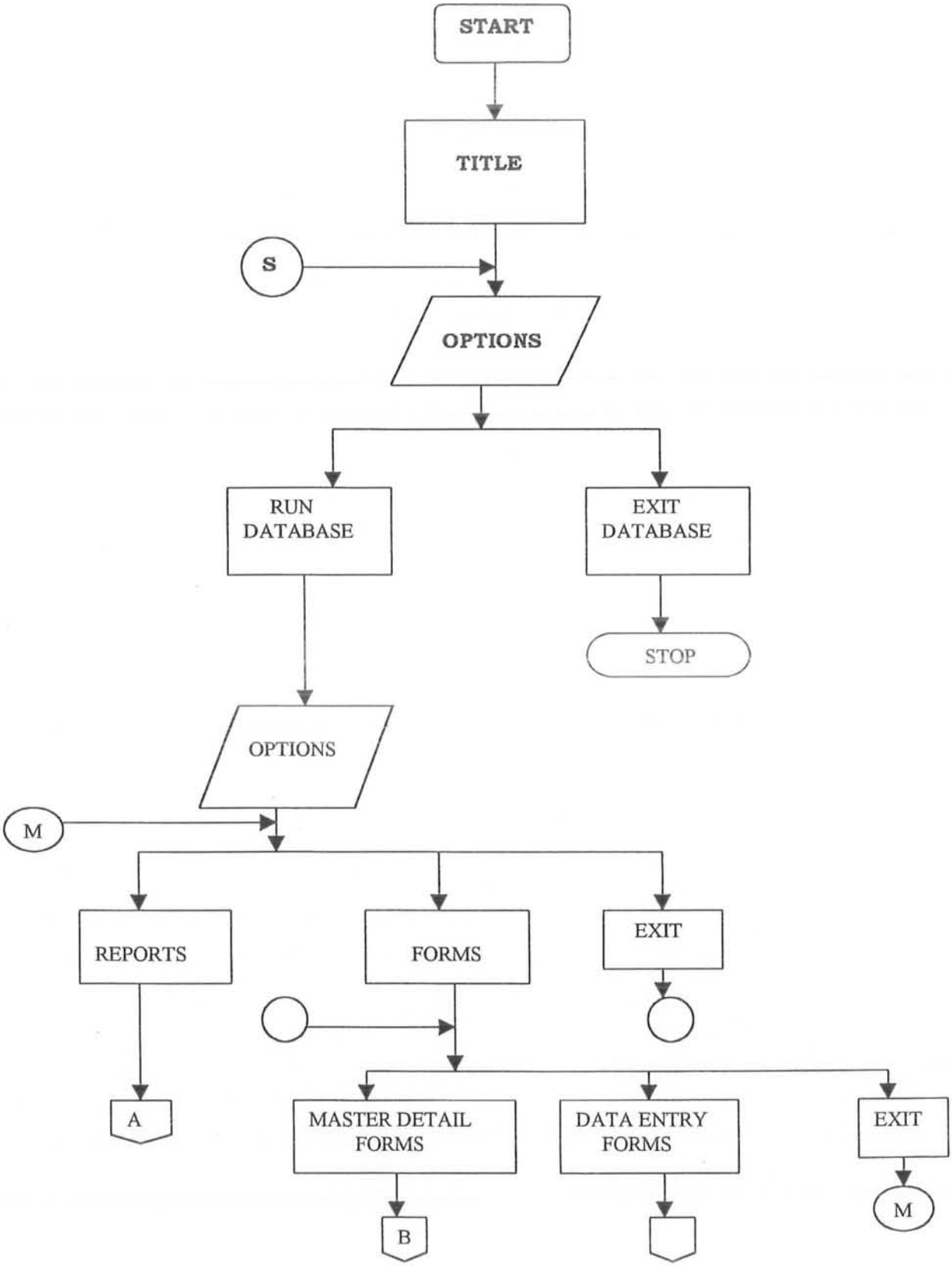
REPORT OF AMOUNT RECIEVED ORDER WISE

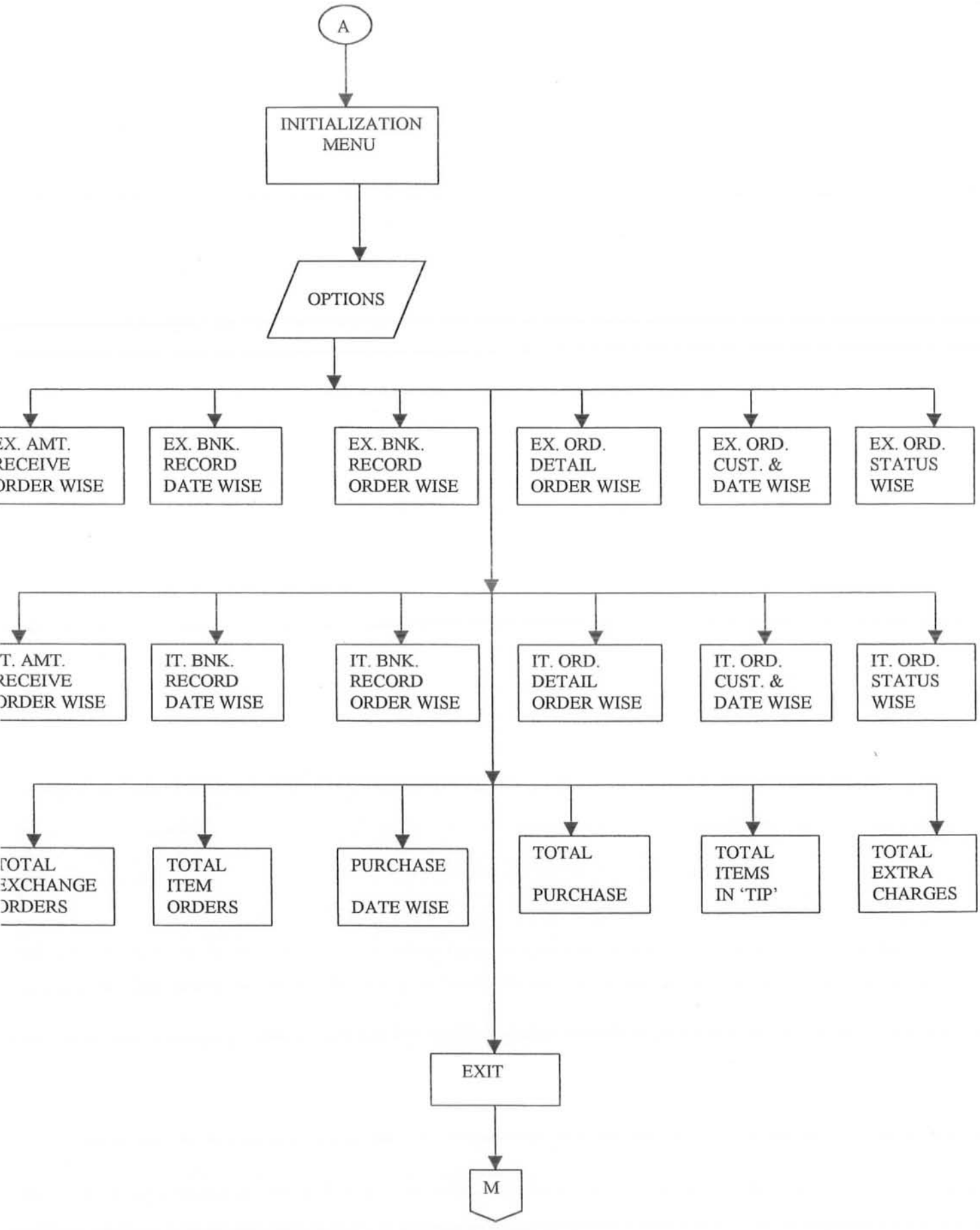
Report run on: August 21, 1999 3:54 PM

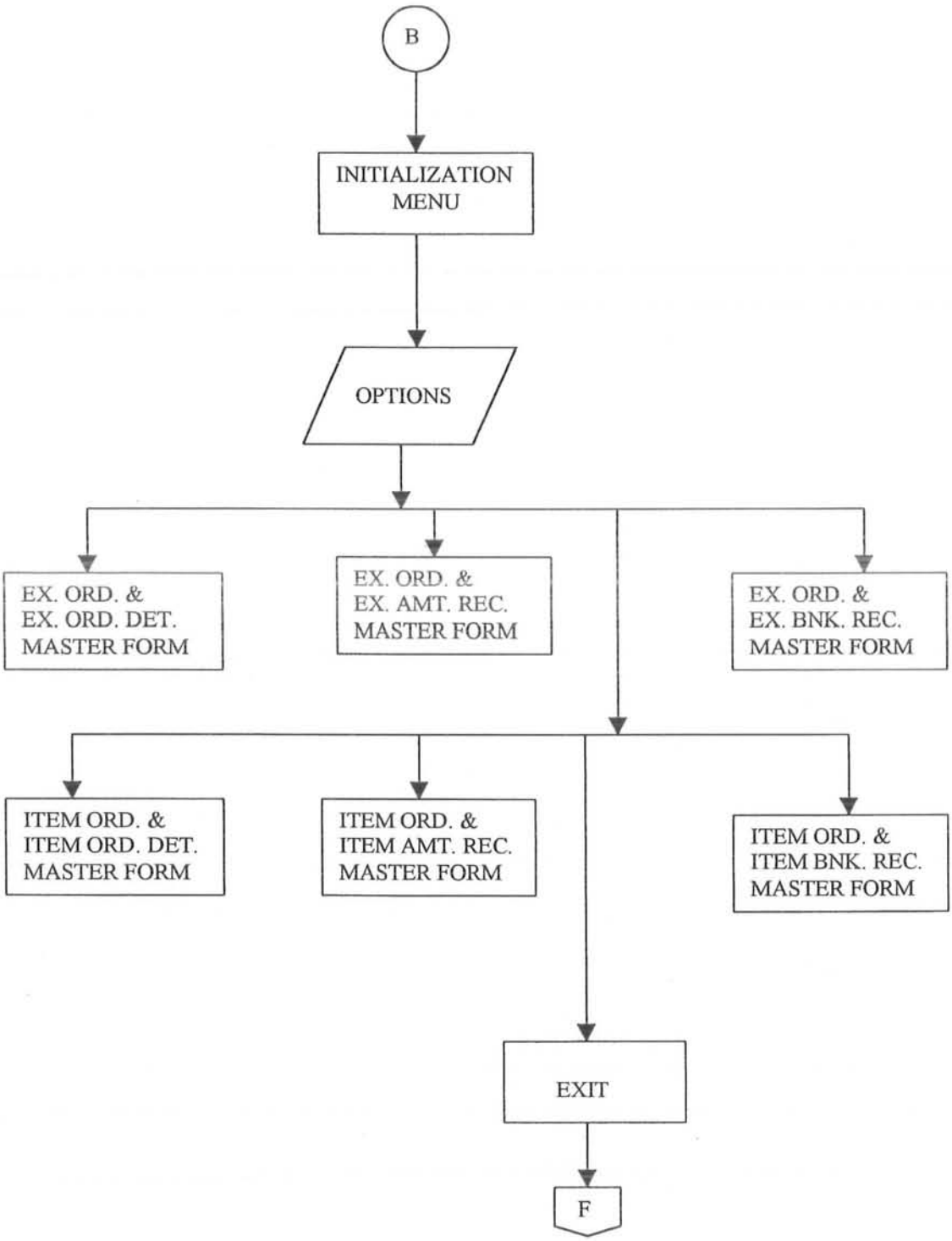
Order Number	Check Nu.	Total	Recieved	Recieving Date	Remaining
A300	CKA300	419318.13	10000	22-MAY-00	409318.13
A300	CKB300	419318.13	20000	25-JUN-00	389318.13

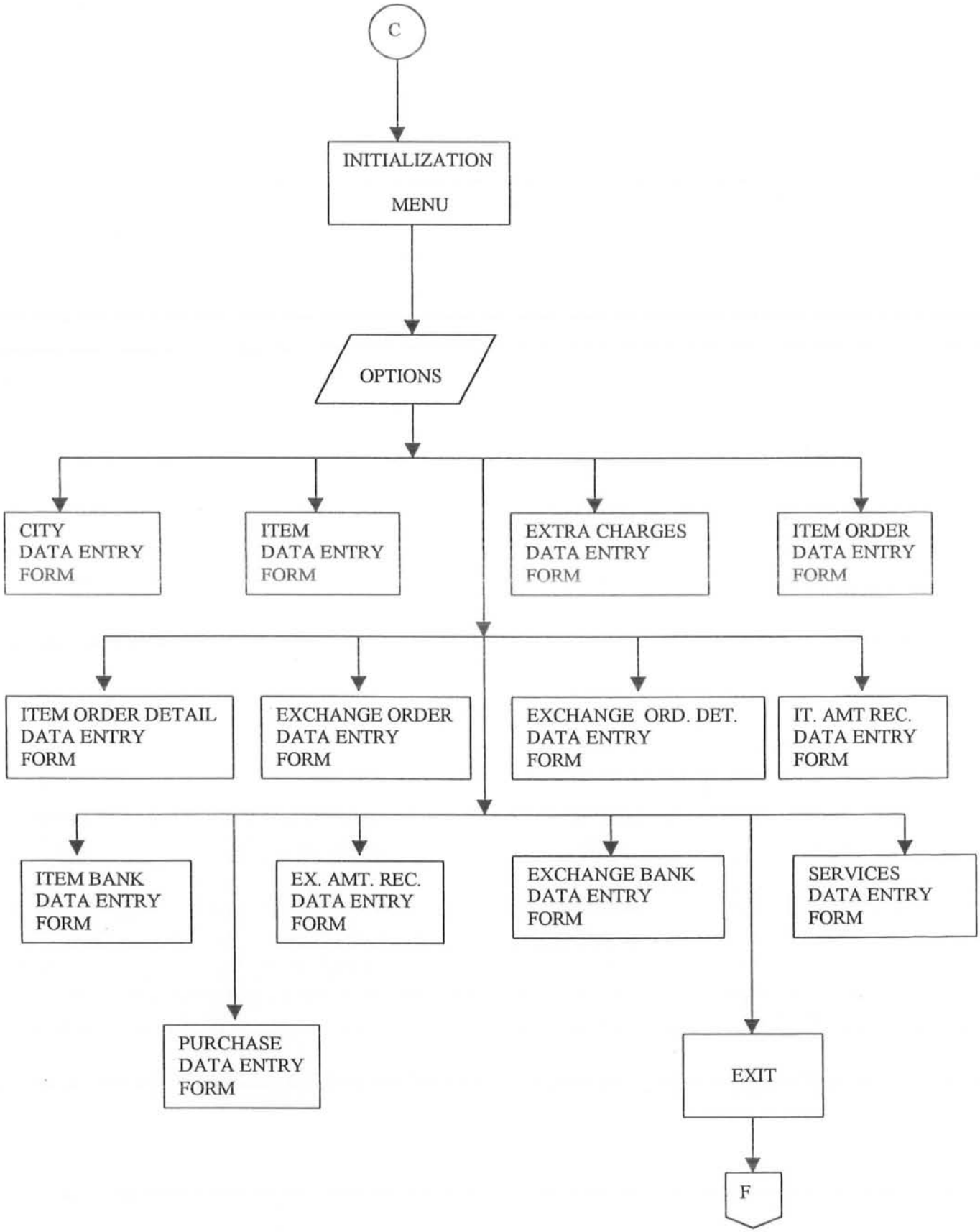
2

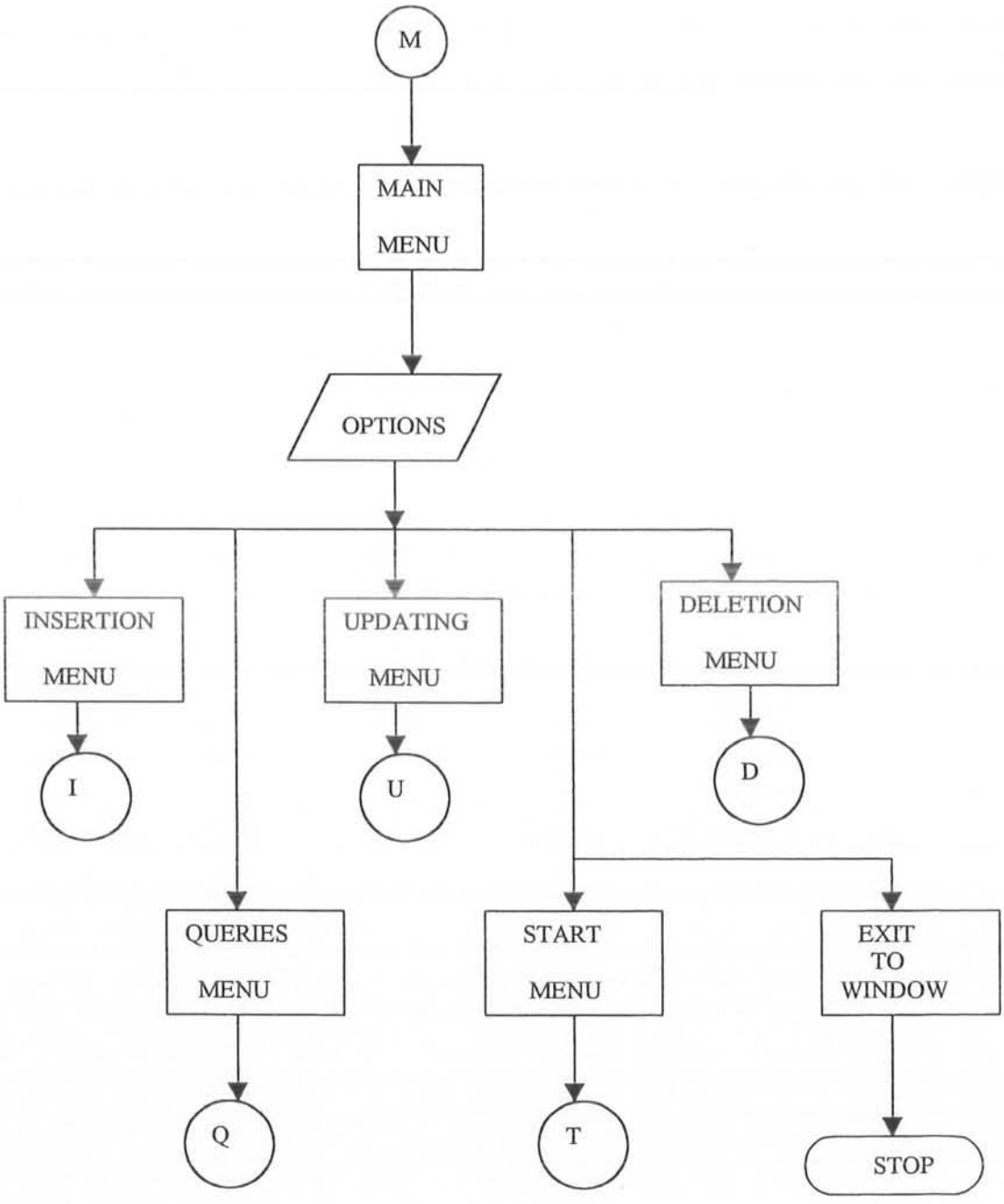
APPENDIX "C"
(FLOW CHARTS)

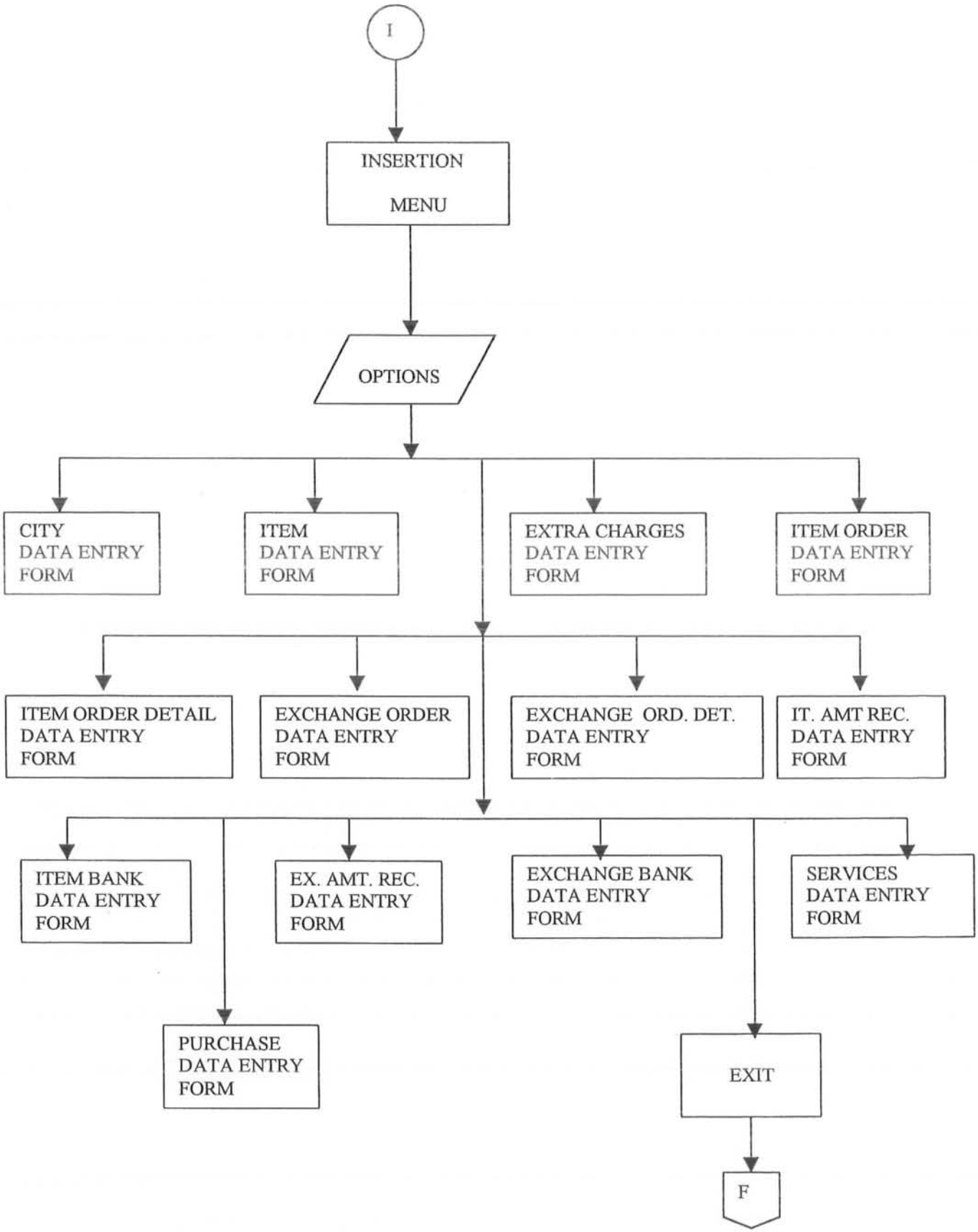

START
TITLE
S
OPTIONS
RUN DATABASE
EXIT DATABASE
STOP
OPTIONS
M
REPORTS
FORMS
EXIT
A
MASTER DETAIL FORMS
DATA ENTRY FORMS
EXIT
B
M

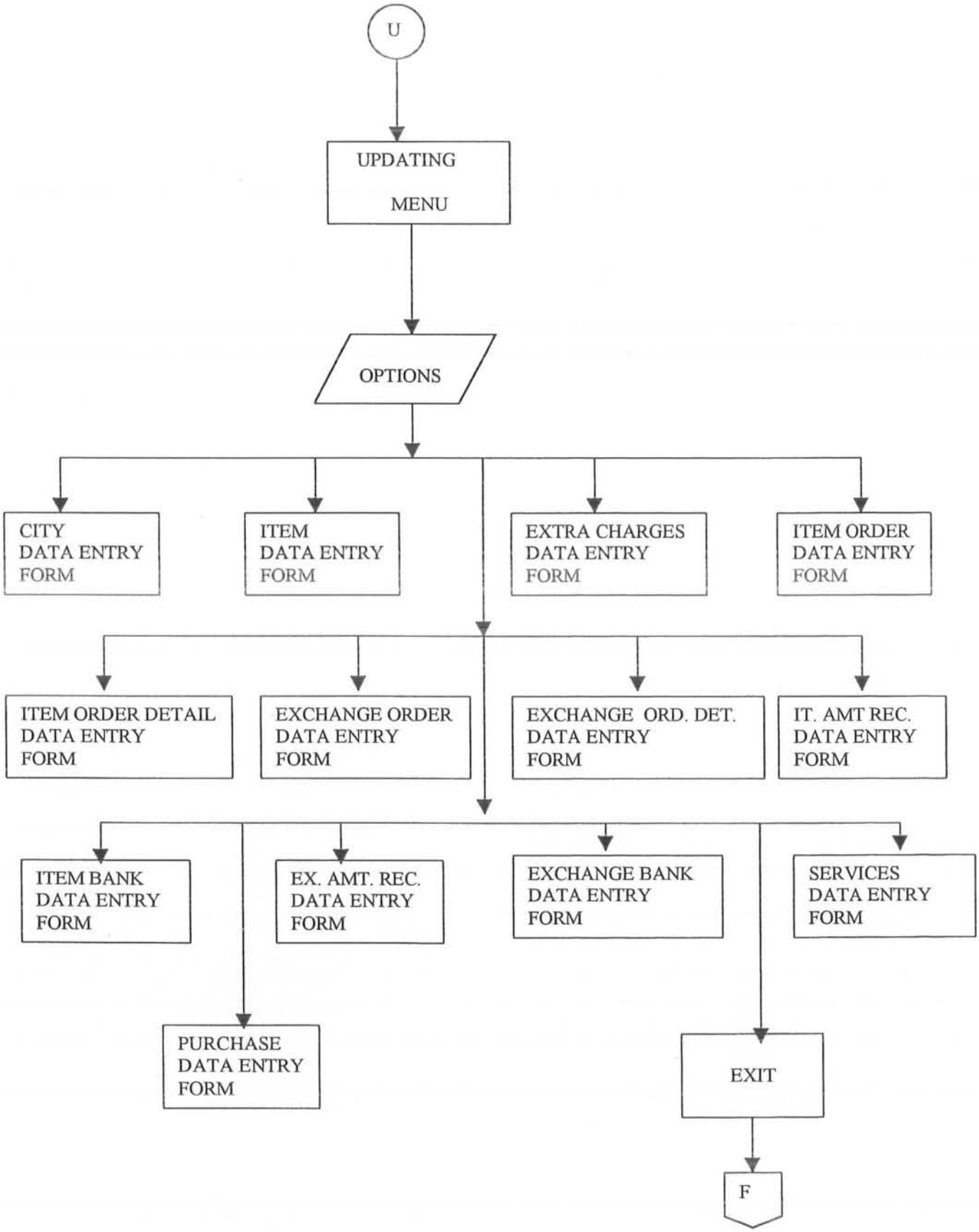

A
INITIALIZATION MENU
OPTIONS
EX. AMT. RECEIVE ORDER WISE
EX. BNK. RECORD DATE WISE
EX. BNK. RECORD ORDER WISE
EX. ORD. DETAIL ORDER WISE
EX. ORD. CUST. & DATE WISE
EX. ORD. STATUS WISE
T. AMT. RECEIVE ORDER WISE
IT. BNK. RECORD DATE WISE
IT. BNK. RECORD ORDER WISE
IT. ORD. DETAIL ORDER WISE
IT. ORD. CUST. & DATE WISE
IT. ORD. STATUS WISE
TOTAL EXCHANGE ORDERS
TOTAL ITEM ORDERS
PURCHASE DATE WISE
TOTAL PURCHASE
TOTAL ITEMS IN 'TIP'
TOTAL EXTRA CHARGES
EXIT
M

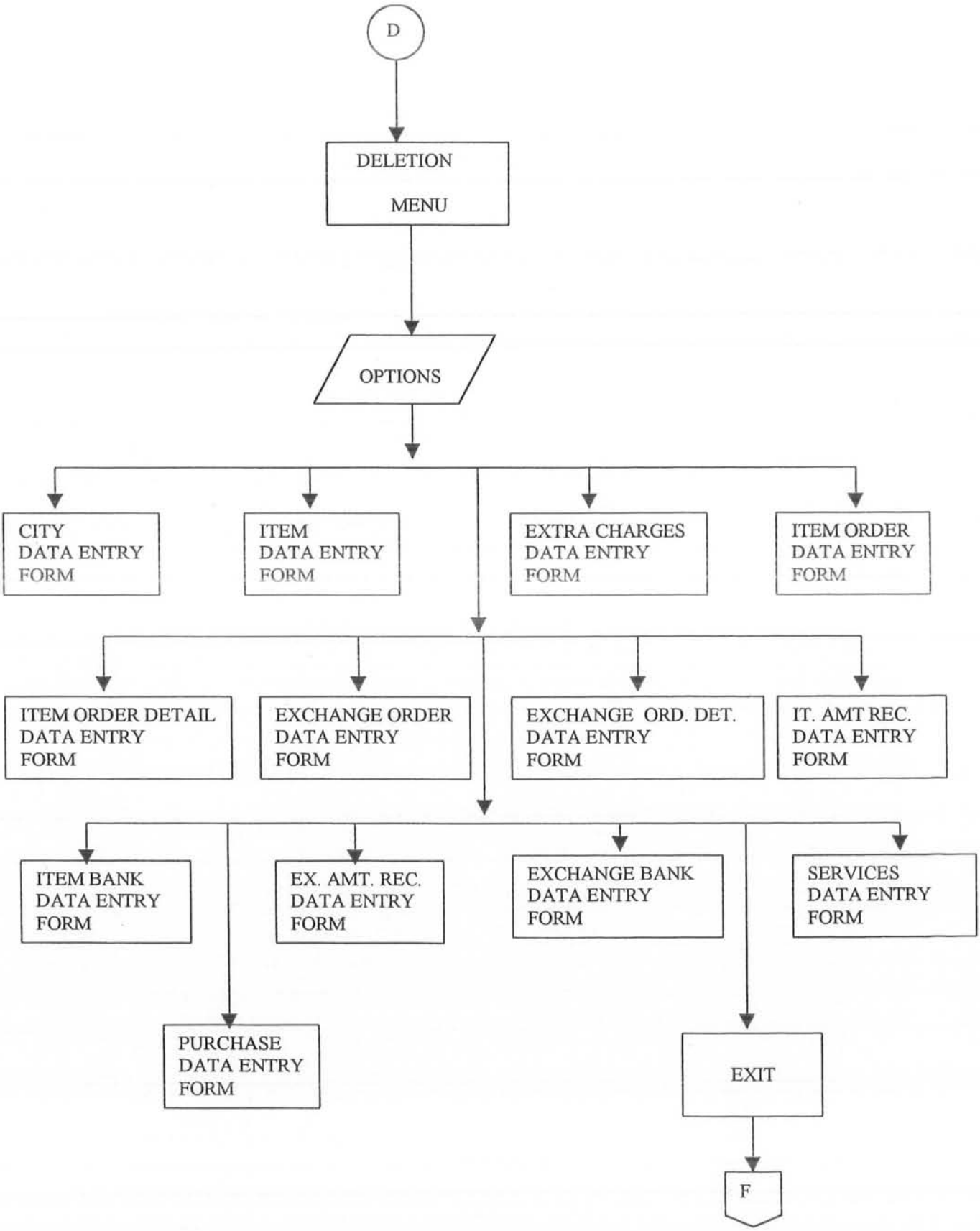

B
INITIALIZATION MENU
OPTIONS
EX. ORD. & EX. ORD. DET. MASTER FORM
EX. ORD. & EX. AMT. REC. MASTER FORM
EX. ORD. & EX. BNK. REC. MASTER FORM
ITEM ORD. & ITEM ORD. DET. MASTER FORM
ITEM ORD. & ITEM AMT. REC. MASTER FORM
ITEM ORD. & ITEM BNK. REC. MASTER FORM
EXIT
F

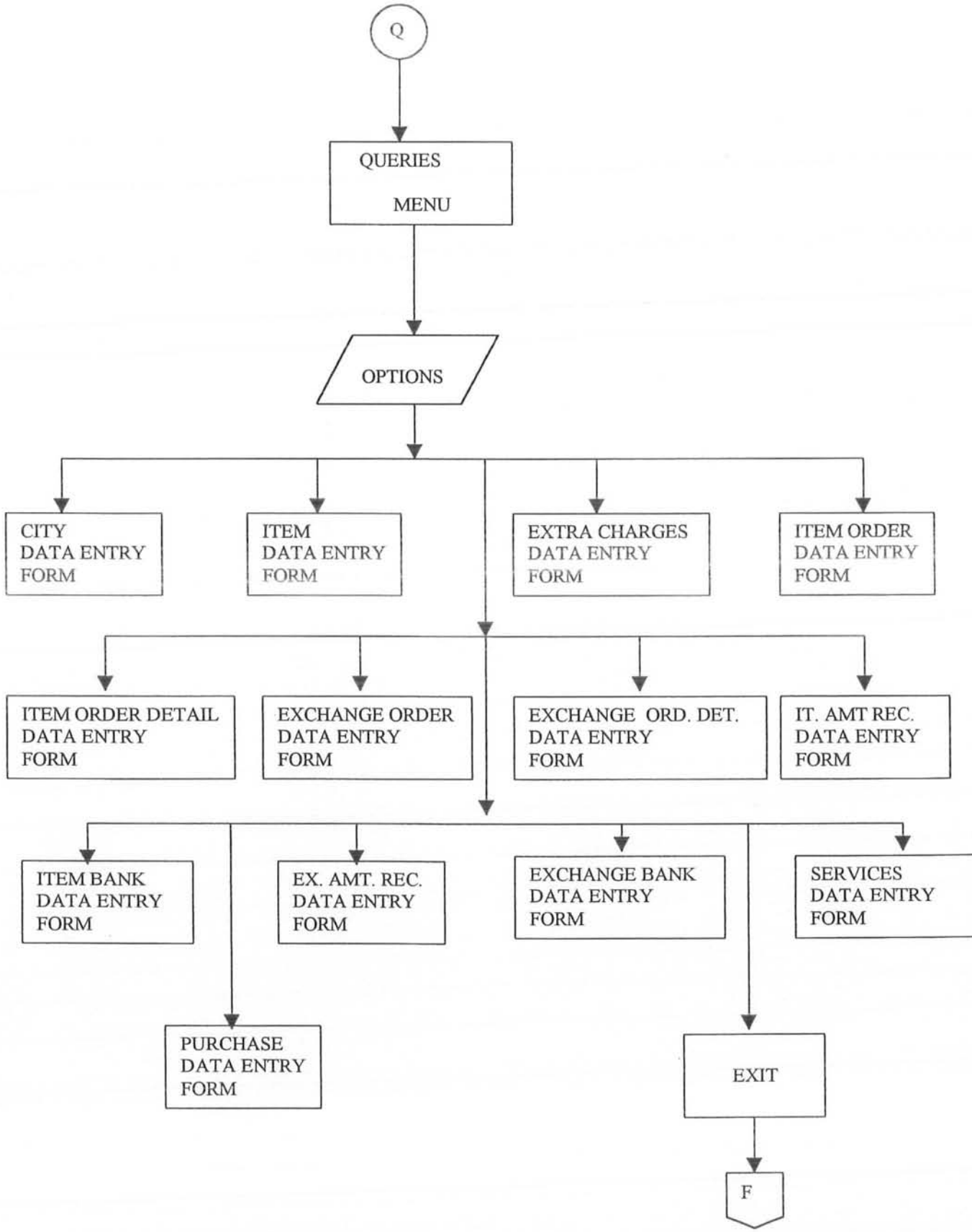

C
INITIALIZATION
MENU
OPTIONS
CITY
DATA ENTRY
FORM
ITEM
DATA ENTRY
FORM
EXTRA CHARGES
DATA ENTRY
FORM
ITEM ORDER
DATA ENTRY
FORM
ITEM ORDER DETAIL
DATA ENTRY
FORM
EXCHANGE ORDER
DATA ENTRY
FORM
EXCHANGE ORD. DET.
DATA ENTRY
FORM
IT. AMT REC.
DATA ENTRY
FORM
ITEM BANK
DATA ENTRY
FORM
EX. AMT. REC.
DATA ENTRY
FORM
EXCHANGE BANK
DATA ENTRY
FORM
SERVICES
DATA ENTRY
FORM
PURCHASE
DATA ENTRY
FORM
EXIT
F


M
MAIN MENU
OPTIONS
INSERTION MENU
UPDATING MENU
DELETION MENU
I
U
D
QUERIES MENU
START MENU
EXIT TO WINDOW
Q
T
STOP


I
INSERTION MENU
OPTIONS
CITY DATA ENTRY FORM
ITEM DATA ENTRY FORM
EXTRA CHARGES DATA ENTRY FORM
ITEM ORDER DATA ENTRY FORM
ITEM ORDER DETAIL DATA ENTRY FORM
EXCHANGE ORDER DATA ENTRY FORM
EXCHANGE ORD. DET. DATA ENTRY FORM
IT. AMT REC. DATA ENTRY FORM
ITEM BANK DATA ENTRY FORM
EX. AMT. REC. DATA ENTRY FORM
EXCHANGE BANK DATA ENTRY FORM
SERVICES DATA ENTRY FORM
PURCHASE DATA ENTRY FORM
EXIT
F


U
UPDATING MENU
OPTIONS
CITY DATA ENTRY FORM
ITEM DATA ENTRY FORM
EXTRA CHARGES DATA ENTRY FORM
ITEM ORDER DATA ENTRY FORM
ITEM ORDER DETAIL DATA ENTRY FORM
EXCHANGE ORDER DATA ENTRY FORM
EXCHANGE ORD. DET. DATA ENTRY FORM
IT. AMT REC. DATA ENTRY FORM
ITEM BANK DATA ENTRY FORM
EX. AMT. REC. DATA ENTRY FORM
EXCHANGE BANK DATA ENTRY FORM
SERVICES DATA ENTRY FORM
PURCHASE DATA ENTRY FORM
EXIT
F


D
DELETION MENU
OPTIONS
CITY DATA ENTRY FORM
ITEM DATA ENTRY FORM
EXTRA CHARGES DATA ENTRY FORM
ITEM ORDER DATA ENTRY FORM
ITEM ORDER DETAIL DATA ENTRY FORM
EXCHANGE ORDER DATA ENTRY FORM
EXCHANGE ORD. DET. DATA ENTRY FORM
IT. AMT REC. DATA ENTRY FORM
ITEM BANK DATA ENTRY FORM
EX. AMT. REC. DATA ENTRY FORM
EXCHANGE BANK DATA ENTRY FORM
SERVICES DATA ENTRY FORM
PURCHASE DATA ENTRY FORM
EXIT
F


Q
QUERIES MENU
OPTIONS
CITY DATA ENTRY FORM
ITEM DATA ENTRY FORM
EXTRA CHARGES DATA ENTRY FORM
ITEM ORDER DATA ENTRY FORM
ITEM ORDER DETAIL DATA ENTRY FORM
EXCHANGE ORDER DATA ENTRY FORM
EXCHANGE ORD. DET. DATA ENTRY FORM
IT. AMT REC. DATA ENTRY FORM
ITEM BANK DATA ENTRY FORM
EX. AMT. REC. DATA ENTRY FORM
EXCHANGE BANK DATA ENTRY FORM
SERVICES DATA ENTRY FORM
PURCHASE DATA ENTRY FORM
EXIT
F

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