

OFFICE AUTOMATION

PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF

M.Sc (APPLIED SCIENCE - COMPUTER TECHNOLOGY)

OF BHARATHIAR UNIVERSITY

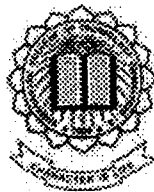
Submitted by

D.Kavitha
Reg. No – 0137Q0039



Guided by

Ms. S.Devaki, B.E., M.S., Assistant Professor

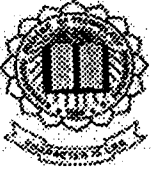


Department of Computer Science and Engineering

Kumaraguru College of Technology
(Affiliated to Bharathiar University)

Coimbatore – 641 006

APRIL 2003



KUMARAGURU COLLEGE OF TECHNOLOGY

(Affiliated to Bharathiar University)
Department of Computer Science and Engineering



Coimbatore – 641006

CERTIFICATE

This is to certify that the project work entitled

“OFFICE AUTOMATION”

Done by

D.Kavitha
Reg. No – 0137Q0039

Submitted in partial fulfillment of the requirement for the award of the degree of
M.Sc (Applied science - Computer Technology) of Bharathiar University.

S. J. Jayaraj
Professor and HOD

S. Arun
Internal Guide

Submitted to University Examination held on 10.5.03

R. Dineth
Internal Examiner
ap/csee/ktf 10.5.03

M. S. Srinivasan
External Examiner

DECLARATION

I here by declare that the project work entitled
“OFFICE AUTOMATION”

done at

**NEW WALK TECHNOLOGIES LIMITED
COIMBATORE**

and submitted to

KUMARAGURU COLLEGE OF TECHNOLOGY
(Affiliated to Bharathiar University)

in partial fulfillment of the requirement for the award of the degree of

M.Sc (APPLIED SCIENCE - COMPUTER TECHNOLOGY)

is a report of work done by me during my period of study in
Kumaraguru College of Technology, Coimbatore – 641 006.

**Under the supervision of
Ms. S.Devaki, B.E., M.S., Assistant Professor, Dept. of CSE**

Name of the candidate

Register Number

Signature of the candidate

D.KAVITHA

0137Q0039




Date : 17/04/03

Date : 03-04-2003

CERTIFICATE

This is to certify that the project work entitled "Office Automation" is done by Ms. Kavitha. D. (Reg No: 0137Q0039) studying M.Sc (Applied Science – Computer Technology), in Kumaraguru College of Technology, Coimbatore during the period of December 2002 – March 2003

We wish all the best to her in future endeavors.


K.R. ShanmugaPrakash
(Managing Director)

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

I would like to express my gratitude to our beloved Principal **Dr.K.K.Padmanabhan**, Ph.D., Kumaraguru College of Technology, Coimbatore, for his Constant encouragement throughout my course.

I wish to thank **Dr.S.Thangasamy**, Ph.D., Head, Department of Computer Science & Engineering, Kumaraguru College of Technology, Coimbatore, for his invaluable guidance and suggestions that encouraged me to complete this project successfully.

I admit my heart full thanks to my project guide **Ms.S.Devaki**, B.E., M.S., Assistant Professor, and our course coordinator **Mr.R.Dinesh**, M.S, Assistant Professor, Department of Computer Science, Kumaraguru College of Technology, Coimbatore, for being supportive throughout the tenure of my project.

I express my profound gratitude to **Mr. R.Shanmugaprakash**, Managing director, New walk technologies Limited, Coimbatore, for providing me a key project in their firm and for his complete co-operation.

I am especially thankful to **Mr. M.Bala**, Project Leader, New walk technologies Limited, for providing me guidance and suggestions throughout the tenure of my Project.

I also take this opportunity to extend my sense of gratitude to all the faculty members, non-teaching staffs of the Computer science Department, K.C.T, Coimbatore, for their guidance and co-operation rendered throughout my course.

SYNOPSIS

SYNOPSIS

This project has been developed keeping in mind the increase in the manual entry. The automation of the system provides an enhanced and effective entry of the data and timing reports. The drawbacks in the current are that all the entry is made manually. It takes more time, increase in manpower, etc., for this reason the consumer is going for automated system.

This system is developed for the quick and easy way of Office management process. We can easily generate reports for sales, purchase, and accounts. It is also used for maintaining purchase items and sales items details. We can also maintain the suppliers and the customer addresses and also to generate report for the current stock of the company. We can also maintain the huge amount of product data. It has a wide range of built-in programs that you can use this system to fit your needs. The system is capable of dealing with larger volume of data, so the backend is chosen to support larger volume of data. The database is refreshed by the application in a finite interval so that the recent changes in the database can also be updated to the system. The user has to fill all the forms manually and they can generate reports. The user can select the appropriate forms through the menus.

It contains an application package that was developed using Visual Basic 6.0 as front end tool & SQL Server 2000 as back end tool.

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INTRODUCTION

1. INTRODUCTION

1.1 Overview of the Project

The project is mainly developed for maintaining accounts and for maintaining customer details and supplier details of the company. It is also used for maintaining purchase items and sales items. The main aim of the project is to automate the process of office transactions and accounts. It has a wide range of built-in programs that you can use this system to fit your needs.

The system is designed to manage the information involved in Office transactions, storage of information and the provision of mechanism for the manipulation of information. In addition, this application reduces the time of operation involved in Office transactions.

The importance of this application is to find a quick & easy way for Office transaction process. They can easily generate report for the sales and purchased items and also for accounts. They can also maintain the huge amount of data about customers, suppliers and the products.

These applications are designed with MS Visual Basic 6.0 as a front end tool and SQL Server 2000 as a back end tool.

1.2 Organization Profile

Newwalk Technologies Limited is reputed for its strong all round technical expertise, efficient support and customer care.

- ❖ Newwalk Technologies Limited is a leading software developer in Coimbatore.
- ❖ The company is specialized in customizing corporate projects.
- ❖ It has a clear vision of a completely integrated infrastructure that provides new perspective to any area requiring IT solutions.
- ❖ The company conducts periodic training programs to meet both the in-house and open market needs.
- ❖ The company is full of spirit with bubbling IT professionals working for the global expansion and growth of the company.

SYSTEM STUDY AND ANALYSIS

2. SYSTEM STUDY AND ANALYSIS

2.1 Existing System

The existing system is a manual system. As the transactions are increasing, the flow of process also increases. The company was unable to take immediate solution to improve the preparation of purchase reports and sales bills. The Sales, Purchase and Accounts reports are generated manually by papers, so there are chances for damage of papers containing information.

Disadvantage of the Existing System

Since at present everything is done manually, it is having a lot of drawbacks. The major drawback of the present system is the bulk amount of physical volume of the data, so information search and retrieval is tedious process. So this process is time consuming process. Due to manual process there is no security for the data. Accounts cannot be maintained correctly, and also it requires high labor charges.

2.2 Proposed System

Considering the above drawbacks of the existing system, the proposed system will be made automated to reduce the time taken and easy to process the Office transactions. Reports can be easily generated and the day to day accounts was maintained easily.

Objectives of the Proposed System

- It requires less manpower.
- This application provides easy way to manage the office transactions.
- Making users job friendlier - by VB's user-friendly controls.
- Improve accuracy - by handling the valuable data's through SQL and its functions.
- It is economically more feasible.

2.3 Study on proposed system

The proposed System has following modules.

The system consists of the following modules

- ❖ Details section
- ❖ Stock section
- ❖ Purchase section
- ❖ Sales section
- ❖ Accounts section

Details section

In this section we are maintaining the suppliers and the customer details. Each supplier has a supplier code. Each detail consists of name, address, contact phone numbers and e-mail ids of their companies. Here we can have the option of searching the details by giving their full name or the starting letters. We can search the suppliers detail by giving their supplier code also. We are using the binary search for the quick searching process.

Stock section

In Stock module we are going to maintain the purchased items, and purchase bending. The information about the remaining stocks also maintained in this module. Here we can generate the report for the purchased items and purchase bending and also for the current stock of the company. Here we can search (through binary search) the remaining stock for each and every product. Every product has its product code; by giving the product code or the name of the product we can search the remaining stock of the product. The product details are also maintained in this section.

Purchase section

In this section we are purchasing the materials from their regular suppliers. The Computer Spare parts supply is only after the purchase order given by the company to the suppliers. (This means the process of the company is started from here only). If there is any fault in the standard of the materials then this purchase is returned to the suppliers but mostly this will not occur.

Sales section

Here we are maintaining the order details from the customer. Here we can also maintain the Quotation details also. More over discount sales are also available here so prices differ according to number of products sold to the customer. After collecting orders from the customers, we are preparing the purchase order. Here we are maintaining the delivery challon, to conform that the product is delivered properly to the customers.

Accounts section

In this section we are maintaining the sales and purchase account details. Here we also maintain the payment bending and receipt (incoming) bending. In this section we are maintaining the day book to keep the daily accounts. We can also calculate the profit/loss of the company at each and every month and also for the current financial year. We can also produce the trial balance sheet.

2.4 Functional Requirements of proposed system

The functional requirements for the different activities are classified as follows,

1. Logon
2. Change Password
3. Updating the details
4. Updating the products

1. Logon:

The user can first logon to enter the application.

Input

The input is Username and password.

2. Change Password:

The user of the application should be able to change his password.

Input

The user has to give his old password and new password. Then retype the new password for confirmation.

3. Updating the Details:

This functional requirement deals with the following functions

- ❖ Adding a new supplier/customer
- ❖ Modifying the name and address of the existing supplier/customer

Input

- ❖ The following should be provided as inputs: supplier/customer name
- ❖ The user should select the name to be modified, and then carries out the required modifications to the details.
- ❖ The user should select the name to be deleted and then delete the supplier/customer details from the database.

4. Updating the product:

This functional requirement deals with the following functions

- ❖ Adding a new product
- ❖ Modifying the name and product details
- ❖ Deleting the existing product

Input

- ❖ The following should be provided as inputs: product name/product number
- ❖ The user should select the name to be modified, and then carries out the required modifications to the product.
- ❖ The user should select the name to be deleted and then delete the product details from the database.

PROGRAMMING ENVIRONMENT

3. PROGRAMMING ENVIRONMENT

3.1 Hardware Requirements

1. Processor Type : Pentium III
2. Processor Speed : 800 MHZ
3. Memory : 64 MB RAM
4. Hard Disk Capacity : 20 GB
5. Monitor : SVGA Monitor
6. Mouse : Logitech Mouse
7. Keyboard : Acer 101 Keys

3.2 Software Requirements

1. Operating System : Windows 98
2. Front - End Tool : Visual Basic 6.0
3. Back - End Tool : SQL Server 2000

3.3 Software Description

Visual Basic – 6.0

An Overview

Visual basic 6.0 is a very popular Microsoft product developed by Microsoft Corporation. This front end tool is mainly used for developing both client server applications and desktop applications. This is work under Windows 98 platforms. It is the advanced language from basic language. Visual basic includes a variety of open active controls for the user interface to design application forms.

Visual Basic 6.0 is a powerful tool for developing windows application in BASIC. VB 6.0 is one of the most flexible and powerful visual computer languages available. Visual Basic is an event oriented language i.e. it wait for the user to take some action before the procedure is executed. The event might be press if a key on the keyboard or the click of the mouse button with these events, the computer waits for a key press or mouse click. VB is an interpreted language because of its immediate response.

What is visual basic?

It is the fastest and easiest way to create applications for Microsoft Windows. Whether you are an experienced professional or brand new to Windows programming, Visual Basic provides you with a complete set of tools to simplify rapid application development.

So what is Visual Basic? The "Visual" part refers to the method used to create the graphical user interface (GUI). Rather than writing numerous lines of code to describe the appearance and location of interface elements, you simply add rebuilt objects into place on screen. If you've ever used a drawing program such as Paint, you already have most of the skills necessary to create an effective user interface.

The "Basic" part refers to the BASIC (Beginners All-Purpose Symbolic Instruction Code) language, a language used by more programmers than any other language in the history of computing. Visual Basic has evolved from the original BASIC language and now contains several hundred statements, functions, and keywords, many of which relate directly to the Windows GUI. Beginners can create useful applications by learning just a few of the keywords, yet the power of the language allows professionals to accomplish anything that can be accomplished using any other Windows programming language.

The Visual Basic programming language is not unique to Visual Basic. The Visual Basic programming system, Applications Edition included in Microsoft Excel, Microsoft Access, and many other Windows applications uses the same language. The Visual Basic Scripting Edition (VBScript) is a widely used scripting language and a

subset of the Visual Basic language. The investment you make in learning Visual Basic will carry over to these other areas.

Whether your goal is to create a small utility for yourself or your work group, a large enterprise-wide system, or even distributed applications spanning the globe via the Internet, Visual Basic has the tools you need.

- ❖ Data access features allow you to create databases, front-end applications, and scalable server-side components for most popular database formats, including Microsoft SQL Server and other enterprise-level databases.
- ❖ ActiveX™ technologies allow you to use the functionality provided by other applications, such as Microsoft Word processor, Microsoft Excel spreadsheet, and other Windows applications. You can even automate applications and objects created using the Professional or Enterprise editions of Visual Basic.
- ❖ Internet capabilities make it easy to provide access to documents and applications across the Internet or intranet from within your application, or to create Internet server applications.
- ❖ Your finished application is a true .exe file that uses a Visual Basic Virtual Machine that you can freely distribute.

VISUAL BASIC EDITIONS

Visual Basic is available in three versions, each geared to meet a specific set of development requirements.

- ❖ The Visual Basic Learning edition allows programmers to easily create powerful applications for Microsoft Windows and Windows NT®. It includes all intrinsic controls, plus grid, tab, and data-bound controls. Documentation provided with this edition includes the Learn VB Now CD plus the Microsoft Developer Network (MSDN™) Library CDs containing full online documentation.

- ❖ The Professional edition provides computer professionals with a full-featured set of tools for developing solutions for others. It includes all the features of the Learning edition, plus additional ActiveX controls, the Internet Information Server Application Designer, integrated Visual Database Tools and Data Environment, Active Data Objects, and the Dynamic HTML Page Designer. Documentation provided with the Professional edition includes the Visual Studio Professional Features book plus Microsoft Developer Network CDs containing full online documentation.

- ❖ The Enterprise edition allows professionals to create robust distributed applications in a team setting. It includes all the features of the Professional edition, plus Back Office tools such as SQL Server, Microsoft Transaction Server, Internet Information Server, Visual SourceSafe, SNA Server, and more. Printed documentation provided with the Enterprise edition includes the Visual Studio Enterprise Features book plus Microsoft Developer Network CDs containing full online documentation.

The user interface is perhaps the most important part of an application; it's certainly the most visible. To users, the interface is the application; they probably aren't aware of the code that is executing behind the scenes. No matter how much time and effort you put into writing and optimizing your code, the usability of your application depends on the interface.

Visual Basic Programming Steps

It involves two steps, they are.

- ❖ The visual programming step.

- ❖ The code-programming step.

During the visual programming step, programs are designed using the tools that come with visual basic package. These tools let to design programs by using the mouse and the keyboard.

In the code-programming step, programs are written using a text editor. The programs are composed of statements written in the visual basic programming language.

SQL Server 2000

Microsoft® SQL Server™ 2000 is a set of components that work together to meet the data storage and analysis needs of the largest Web sites and enterprise data processing systems. The topics in SQL Server Architecture describe how the various components work together to manage data effectively.

Microsoft® SQL Server™ 2000 features include:

❖ **Internet Integration.**

The SQL Server 2000 database engine includes integrated XML support. It also has the scalability, availability, and security features required to operate as the data storage component of the largest Web sites. The SQL Server 2000 programming model is integrated with the Windows DNA architecture for developing Web applications, and SQL Server 2000 supports features such as English Query and the Microsoft Search Service to incorporate user-friendly queries and powerful search capabilities in Web applications.

❖ **Scalability and Availability.**

The same database engine can be used across platforms ranging from laptop computers running Microsoft Windows® 98 through large, multiprocessor servers running Microsoft Windows 2000 Data Center Edition. SQL Server 2000 Enterprise Edition supports features such as federated servers, indexed views, and large

memory support that allow it to scale to the performance levels required by the largest Web sites.

❖ Enterprise-Level Database Features.

The SQL Server 2000 relational database engine supports the features required to support demanding data processing environments. The database engine protects data integrity while minimizing the overhead of managing thousands of users concurrently modifying the database. SQL Server 2000 distributed queries allow you to reference data from multiple sources as if it were a part of a SQL Server 2000 database, while at the same time, the distributed transaction support protects the integrity of any updates of the distributed data. Replication allows you to also maintain multiple copies of data, while ensuring that the separate copies remain synchronized. You can replicate a set of data to multiple, mobile, disconnected users, have them work autonomously, and then merge their modifications back to the publisher.

❖ Ease of installation, deployment, and use.

SQL Server 2000 includes a set of administrative and development tools that improve upon the process of installing, deploying, managing, and using SQL Server across several sites. SQL Server 2000 also supports a standards-based programming model integrated with the Windows DNA, making the use of SQL Server databases and data warehouses a seamless part of building powerful and scalable systems. These features allow you to rapidly deliver SQL Server applications that customers can implement with a minimum of installation and administrative overhead.

❖ Data warehousing.

SQL Server 2000 includes tools for extracting and analyzing summary data for online analytical processing. SQL Server also includes tools for visually designing databases and analyzing data using English-based questions.

Microsoft® SQL Server™ 2000 is designed to work effectively as:

- A central database on a server shared by many users who connect to it over a network. The number of users can range from a handful in one workgroup, to thousands of employees in a large enterprise, to hundreds of thousands of Web users.
- A desktop database that services only applications running on the same desktop.

SYSTEM DESIGN

4. SYSTEM DESIGN

4.1 Input Design

The proposed system consists of the following input design forms

❖ **Customer Master form**

In this form, the details of the customers are entered. The details include the customer's address and phone number for communication. Separate customer number is given to each customer.

❖ **Supplier Master form**

In this form, the details of the suppliers are entered. The details include the supplier's address and phone number for communication. Separate supplier number is given to each customer. The sales tax numbers are also included in this form.

❖ **Account Master form**

In this form, the rules for each type of account are entered. The rules are nothing but the credit or debit for the type of account.

❖ **Product Master form**

In this form, the details of the product are given such as product name, rate of the product and the unit of the product.

4.2 Output Design

The proposed system consists of the following output design forms

- ❖ **Purchase Order**

The company produces the purchase order for purchasing the products. The product order is prepared based on the customer requirements, which was given in the sales order details.

- ❖ **Purchase Bill**

The company produces the purchase bill to the suppliers for the purchased goods. The purchase bill consists of the product name, quantity, rate of the product and the total amount paid to the suppliers. It also consists of supplier details.

- ❖ **Sales Order Details**

The company produces the sales order details based on the customer requirements. The sales order consists of the product name and the quantity of the product. It also consists of customer details.

- ❖ **Invoice**

The company produces the invoice bill to the customers based on their products received. It consists of customer details and also the

product details like product name, quantity, rate of the product, amount of each product, and the total amount of the products received.

❖ **Sales Return**

The sales return is produced when the customer returns the product to the company due to any fault. The sales return consists the sales return consists of the product name and the quantity of the product returned to the company.

The proposed system consists of the following output reports

❖ **Sales report**

The sales report is produced for the sales in the particular month or in the particular period of time. The sales report consists of the products sold, amount of the product and the customer address who received the product.

❖ **Purchase report**

The purchase report consists of the products purchased, amount of products and the supplier address from where the products purchased. The purchase report is produced for the purchase in the particular month or in the particular period of time

❖ Accounts report

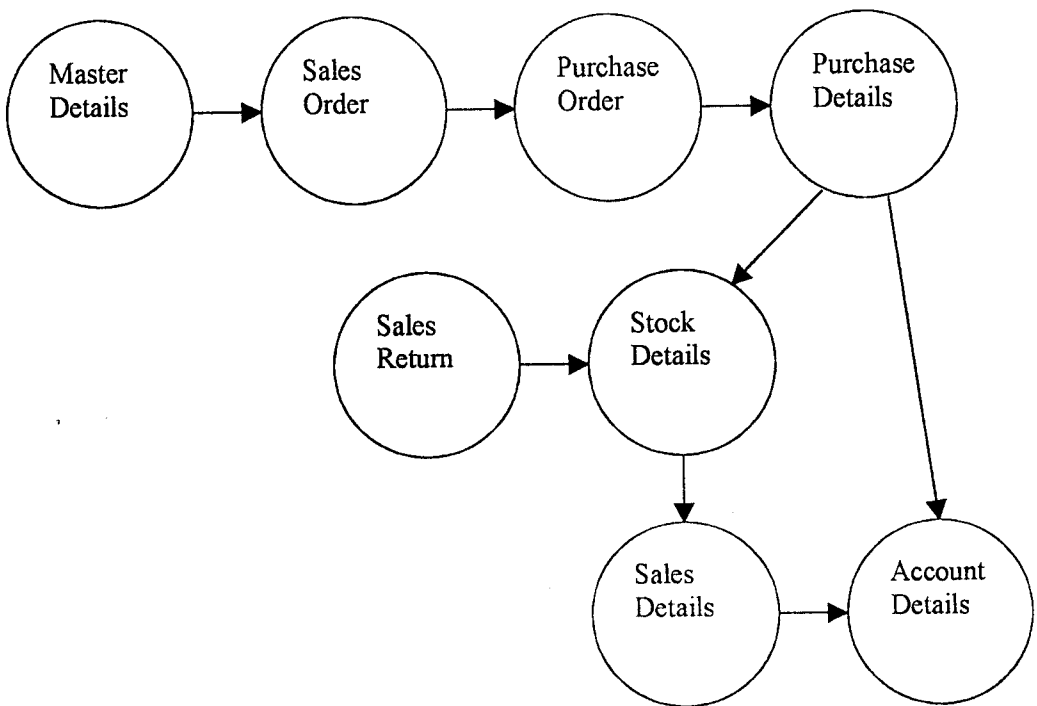
The account report consists of the credit and the debit of the company, the type of account and the name of the account. The accounts report is produced for the accounts in the particular month or in the particular period of time.

❖ Stock report

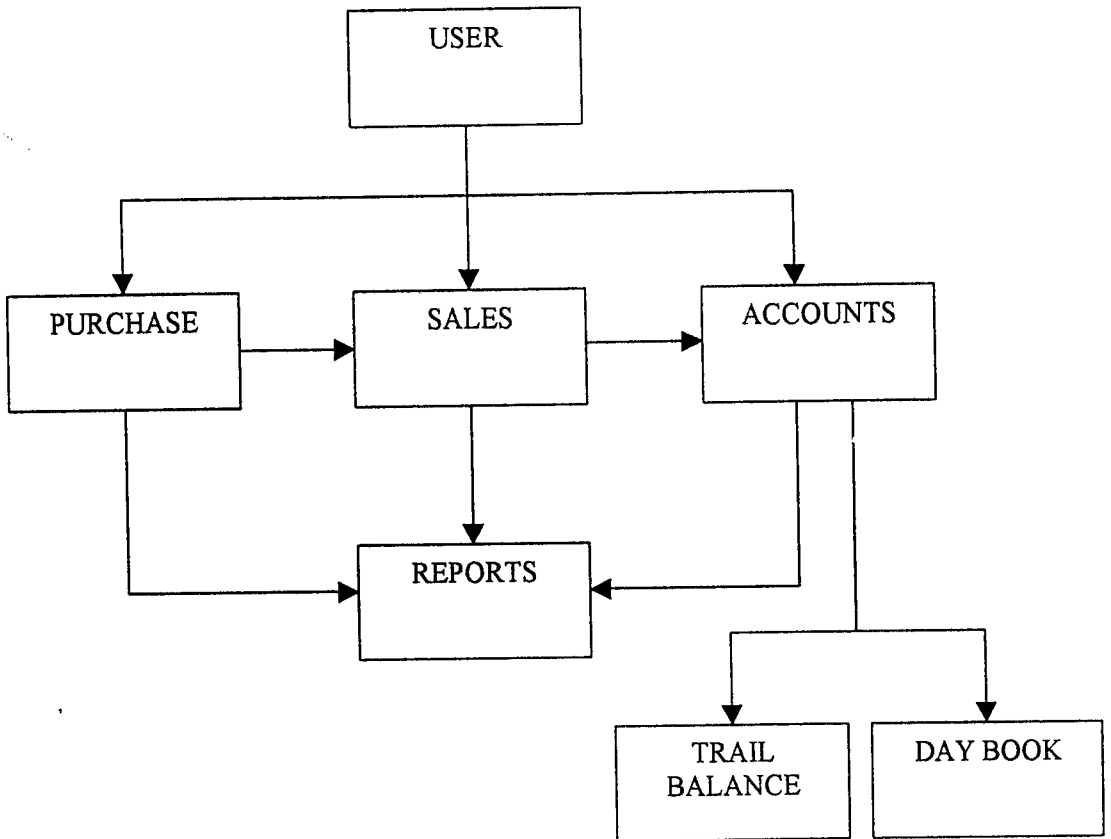
The stock report is produced for the stock details in the particular month or in the particular period of time and it also produced for the particular product or for the entire products. The stock report consists of the product name and the remaining quantity of the products, which are not sold.

4.3 Process Design

Level -0 DFD (Data Flow Diagram)



PROCESS DIAGRAM



4.4 Database Design

USER

FIELD NAME	DATA TYPE	DESCRIPTION
USER NAME	VARCHAR2(30)	Primary Key
PASSWORD	VARCHAR2(30)	

CUSTOMER MASTER

FIELD NAME	DATA TYPE	DESCRIPTION
CUSTOMER NUMBER	NUMBER(4)	Primary Key
NAME	VARCHAR2(30)	
ADDRESS	VARCHAR2(50)	
PIN CODE	NUMBER(6)	
PHONE NUMBER	NUMBER(11)	
FAX NUMBER	NUMBER(11)	
CST NUMBER	NUMBER(6)	
ST NUMBER	NUMBER(6)	

SUPPLIER MASTER

FIELD NAME	DATA TYPE	DESCRIPTION
SUPPLIER NUMBER	NUMBER(4)	Primary Key
NAME	VARCHAR2(30)	
ADDRESS	VARCHAR2(50)	
PIN CODE	NUMBER(6)	
PHONE NUMBER	NUMBER(11)	
FAX NUMBER	NUMBER(11)	
CST NUMBER	NUMBER(6)	
ST NUMBER	NUMBER(6)	

ACCOUNT MASTER

FIELD NAME	DATA TYPE	DESCRIPTION
ACCOUNT	VARCHAR2(30)	Primary Key
TYPE OF ACCOUNT	VARCHAR2(30)	
RULES	CHAR(2)	

PRODUCT MASTER

FIELD NAME	DATA TYPE	DESCRIPTION
PRODUCT NUMBER	NUMBER(4)	Primary Key
PRODUCT NAME	VARCHAR2(10)	
UNIT	VARCHAR2(10)	
RATE	NUMBER(10)	
MAX LEVEL	NUMBER(4)	
MIN LEVEL	NUMBER(4)	
OPENING STOCK	NUMBER(4)	

PURCHASE ORDER

FIELD NAME	DATA TYPE	DESCRIPTION
SUPPLIER NUMBER	NUMBER(4)	Foreign Key
PURCHASE ORDER No.	NUMBER(4)	Primary Key
DATE	DATE	
ADDRESS	VARCHAR2(50)	
PRODUCT NAME	VARCHAR2(10)	
UNIT	VARCHAR2(10)	
QUANTITY	NUMBER(4)	

PURCHASE BILL

FIELD NAME	DATA TYPE	DESCRIPTION
SUPPLIER NUMBER	NUMBER(4)	Foreign Key
PURCHASE NUMBER	NUMBER(4)	Primary Key
ORDER NUMBER	NUMBER(4)	Foreign Key
DATE	DATE	
ADDRESS	VARCHAR2(50)	
PRODUCT NAME	VARCHAR2(10)	
UNIT	VARCHAR2(10)	
QUANTITY	NUMBER(4)	
RATE	NUMBER(10)	
AMOUNT	NUMBER(10)	

SALES ORDER

FIELD NAME	DATA TYPE	DESCRIPTION
CUSTOMER NUMBER	NUMBER(4)	Foreign Key
SALES ORDER No.	NUMBER(4)	Primary Key
DATE	DATE	
ADDRESS	VARCHAR2(50)	
PRODUCT NAME	VARCHAR2(10)	
UNIT	VARCHAR2(10)	
QUANTITY	NUMBER(4)	

SALES RETURN

FIELD NAME	DATA TYPE	DESCRIPTION
CUSTOMER NUMBER	NUMBER(4)	Foreign Key
ADDRESS	VARCHAR2(50)	
SALES RETURN No.	NUMBER(4)	Primary Key
DATE	DATE	
PRODUCT NAME	VARCHAR2(10)	
QUANTITY	NUMBER(4)	

INVOICE

FIELD NAME	DATA TYPE	DESCRIPTION
CUSTOMER NUMBER	NUMBER(4)	Foreign Key
ADDRESS	VARCHAR2(50)	
SALES ORDER No.	NUMBER(4)	Foreign Key
DATE	DATE	
INVOICE NUMBER	NUMBER(4)	Primary Key
FREIGHT PAY	NUMBER(6)	
PRODUCT NAME	VARCHAR2(10)	
QUANTITY	NUMBER(4)	
RATE	NUMBER(10)	
DISCOUNT	NUMBER(10)	
AMOUNT	NUMBER(10)	
TAX	NUMBER(4)	
PACKAGE	NUMBER(4)	
POSTAGE	NUMBER(4)	
TOTAL	NUMBER(10)	
NET AMOUNT	NUMBER(10)	

ACCOUNT DETAIL

FIELD NAME	DATA TYPE	DESCRIPTION
ACCOUNT	VARCHAR2(30)	Foreign Key
TYPE OF ACCOUNT	VARCHAR2(30)	
RULES	CHAR(2)	
NAME OF ACCOUNT	VARCHAR2(30)	
AMOUNT	NUMBER(10)	

SYSTEM TESTING AND IMPLEMENTATION

5. SYSTEM TESTING AND IMPLEMENTATION

Testing and implementation is the final phase of any software development. In this phase most possible errors are identified and rectified to make the system an error-free one. Given here are all the testing and implementation.

5.1 SYSTEM TESTING

It is human ability to perform and communicate with perfection and that has been the reason why software development is always accompanied with software testing. Software testing is a critical element of software quality assurance. It represents the ultimate review of specification, design and coding the software.

Testing is called a destructive activity. It is the process of executing a program in the intent of finding errors. Good testing is that which has the high probability of finding an error which is yet undiscovered. A successful test uncovers a yet undiscovered error in the software. The final goal of testing is to see the system performs its intended purpose satisfactorily. This system has undergone various stages for validations of results and for its integrity.

UNIT TESTING

In unit testing, the program units making up a system are tested. Unit testing first focuses on modules, independent of one another to locate errors. This enables to detect errors in coding and the logic within the module alone. This testing is also used to ensure the integrity of data stored temporarily. Some of the various test cases to test the system are as follows:

- ❖ Giving inconsistent data and out of range values in form level and module level.

- ❖ Rising unhandled exception causes explicitly.
- ❖ Auto generation of codes in normal and query mode.
- ❖ Boundary cases.

Unit Testing for Office Automation

Each module of the system is tested individually. The data are related to Master section, Purchase section, Sales section, Stock section, Accounts section are validated and tested to avoid inconsistency in data. Every module is tested with invalid and redundant data. Unit testing done on all the modules helps to ensure the correct functionality of the modules.

INTEGRATION TESTING

Integration testing is a systematic testing for constructing the program structure, while at the same time conducting tests to uncover errors associated with interfacing. That is the program is constructed and tested in small segments, which makes it easier to isolate and correct. The sandwich approach combines the top-down strategy for the upper levels of the program structure coupled with a bottom-up strategy for subordinate levels.

Integration Testing for Office Automation

The system was developed as 5 different modules and when integrated as a whole, it was tested to check if there was proper flow in the entire system. The system when integrated should update the data entered in the previous module as we enter into the next module.

SYSTEM TESTING

System testing is actually a series of different tests, whose primary purpose is to fully exercise the computer-based system. Although each test has different purpose, we

should verify that all the system elements have been properly integrated and perform the allocated functions.

System Testing for Office Automation

The system was tested after integrating all the 6 modules which were developed individually and tested to check if the flow of data through the system was correct, the testing process worked out smoothly and tested as mentioned above.

PERFORMANCE TESTING

Performance testing is designed to test the run-time performance of the software, within the context of an integrated system.

5.2 SYSTEM IMPLEMENTATION

A crucial phase in the systems life cycle is the successful implementation of the new system design. Implementation is the stage of project when the theoretical design is turned into a working system. Implementation involves creating computer-compatible files, training the operating staff, and installing hardware, terminals and telecommunications network before the system is up and running. A critical factor in conversion is not disrupting the functioning of the organization.

In system implementation, user training is crucial for minimizing resistance to change and giving the new system a chance to prove its worth. The training aids includes user manuals, help screens, data dictionary, job aids etc. There are three types of implementation:

- ❖ Implementation of a computer system to replace a manual system.
- ❖ Implementation of a new computer system to replace an existing one.
- ❖ Implementation of a modified application to replace an existing one, using the same computer.

The newly developed Online Monitoring has to be implemented successfully. Training aids for staffs have been provided in the form of help screens. Since organizations system undergoes continual change, the application will undoubtedly have to be maintained. Modifications and changes will be made to the user requirement in order to keep pace with the changing environment.

Software development is incomplete without any documentation. Documentation for the newly developed system is provided to satisfy the following needs.

- ❖ Protect the system when personnel are promoted, transferred or leave.
- ❖ Represents long-term money savings because it reduced the cost of training.
- ❖ Eases system maintenance by centralizing materials describing the system
- ❖ Provides a permanence reference on the system.

Documentation of the Office Automation has been done at various levels as described below:

Management documentation

Management documentation has the least details but includes

- ❖ An overview of the system
- ❖ System goals and objective.
- ❖ Implementation Details.

Program documentation

The body of every program contains comments explaining the purpose of each module. The comments are included in procedural sections, functions also where complex logic is involved. They may assist maintenance programmers because they reduce the need to read the program line by line when making enhancements.

Refinements based on feedback

The feedback from the operators of the new system will be taken into account and analyzed with great attention and remedial measures will be taken as necessary. Solution will be found for valid & feasible suggestions. The reasons for discarding certain invalid or not-feasible suggestions, if any, will be presented to the user up to their satisfaction

5.3 System Maintenance

Maintenance activities occur after the delivery of the product to the customer. Maintenance phase continues as long as the software product continues to perform useful task. Maintenance activities also involved providing new functional capabilities, improving user displays and correcting problems. The Office Automation is customized software, so it will not require huge maintenance phase.

Maintenance requires the following activities,

- ❖ Preparation of Maintenance Guide
- ❖ Reduce the Maintenance Cost
- ❖ Provide full support to the Customer
- ❖ Familiarity with the Standard boundary conditions
- ❖ Adopt Changes

5.4 Security

Every user system must provide built in features for security and integrity of data. Without safeguards against unauthorized access, fraud, embezzlement, fire and natural disasters, a system could be analyzed to provide protection. Every user of the application has the user_id & the password, so others are unable to enter in to the application. In addition, backup copies of database and recovery restart procedures must be available when needed. The amount of protection depends on the sensitivity of the data, the reliability of the user and the complexity of the system.

CONCLUSION

6. CONCLUSION

The system "Office Automation" has been developed satisfying the requirements specification since it is developed in SQL Server, it provides all security features of relational database. Testing has been carried out to ensure that the system is functioning correctly and it is error free. The project report has described in detail about the software developed for the system. The system is user friendly and has been validated at a number of checkpoints. The various reports generated by this system have proved to be quite useful. The Office Automation reduces the burden of the concern for efficiently maintaining their Sales, Purchase, Accounts and Stock details. The project will be successfully helpful.

SCOPE FOR FUTURE DEVELOPMENT

7. SCOPE FOR FUTURE DEVELOPMENT

The Office Automation helps in easy maintenance of the details of the Office transactions. Reports can be generated quickly. The system also helps to store more number of records. The system can be further designed to include the employees details and also for the payroll preparation.

Proper documentation has been made. Proper modular design has been made and the coding with enough comment statements makes the program self explanatory. This helps in adding or removing new modules to the system.

BIBLIOGRAPHY

8. BIBLIOGRAPHY

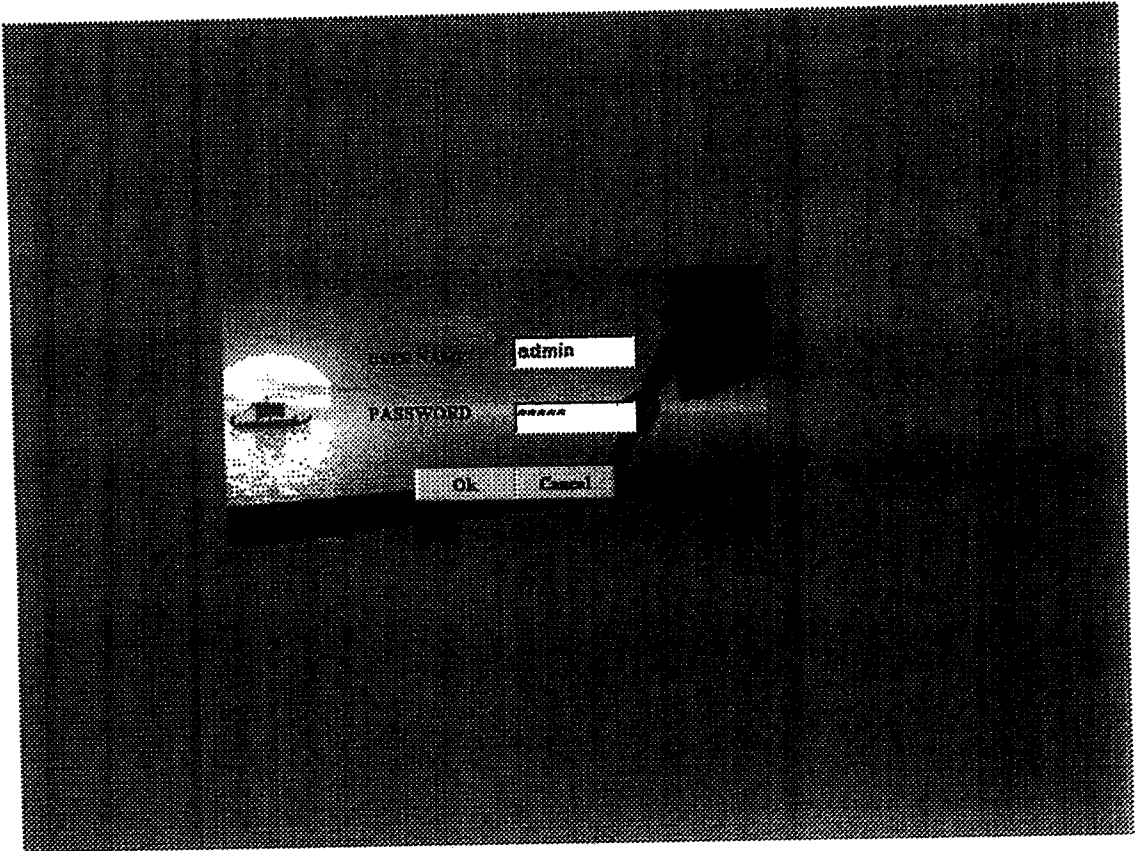
1. Eric A. Smith, Hank Marquis, Valor Whisler, "Visual Basic 6 Bible", IDG Books Worldwide Publications, 1998.
2. John W. Franckowiak, "Visual Basic 6 Database Programming", Hungry Minds, Incorporated Publications, 1998.
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4. Roger S.Pressman, "Software Engineering", Tata Mc Graw Hill Publisher, 1998.
5. Evangelos Petroustsos, "MS SQL Server", IDG Books Worldwide Publications, 1998.

APPENDIX

9. APPENDIX

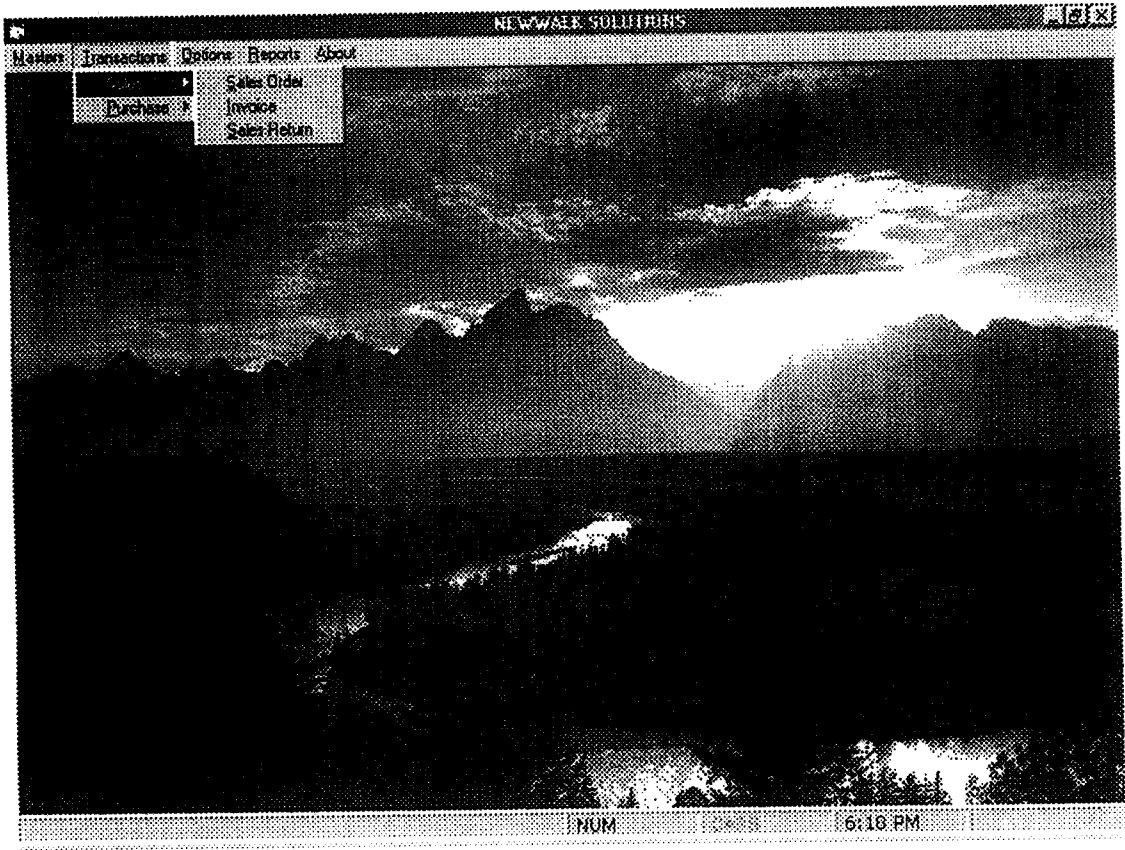
9.1 Sample Screens

LOGON SCREEN



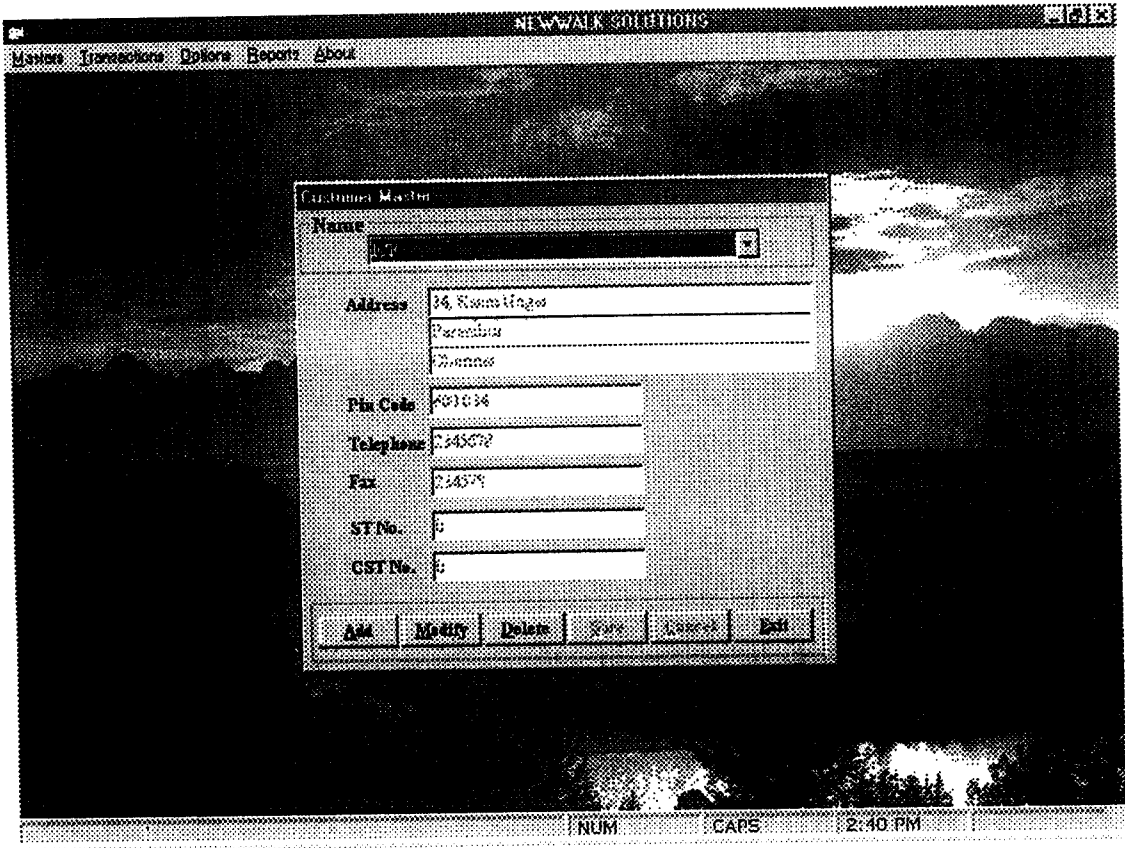
Office Automation

MENU SCREEN

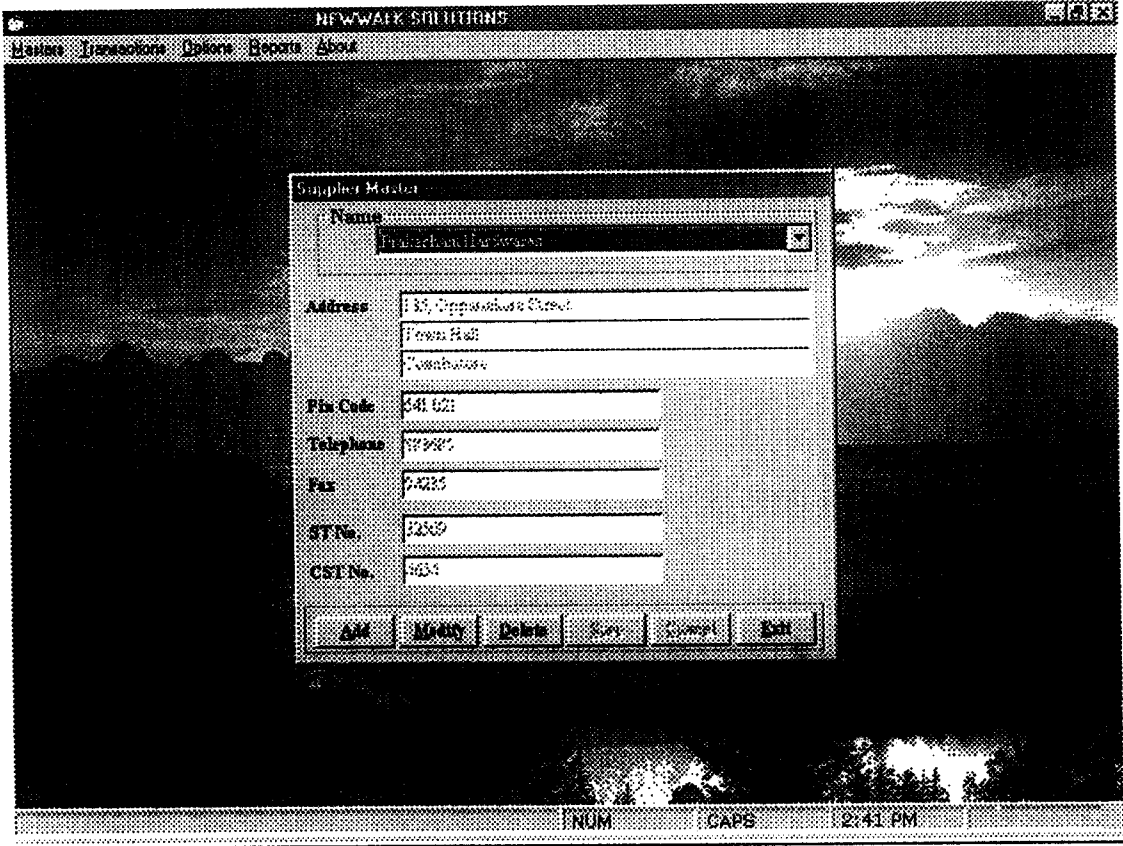


Office Automation

CUSTOMER MASTER

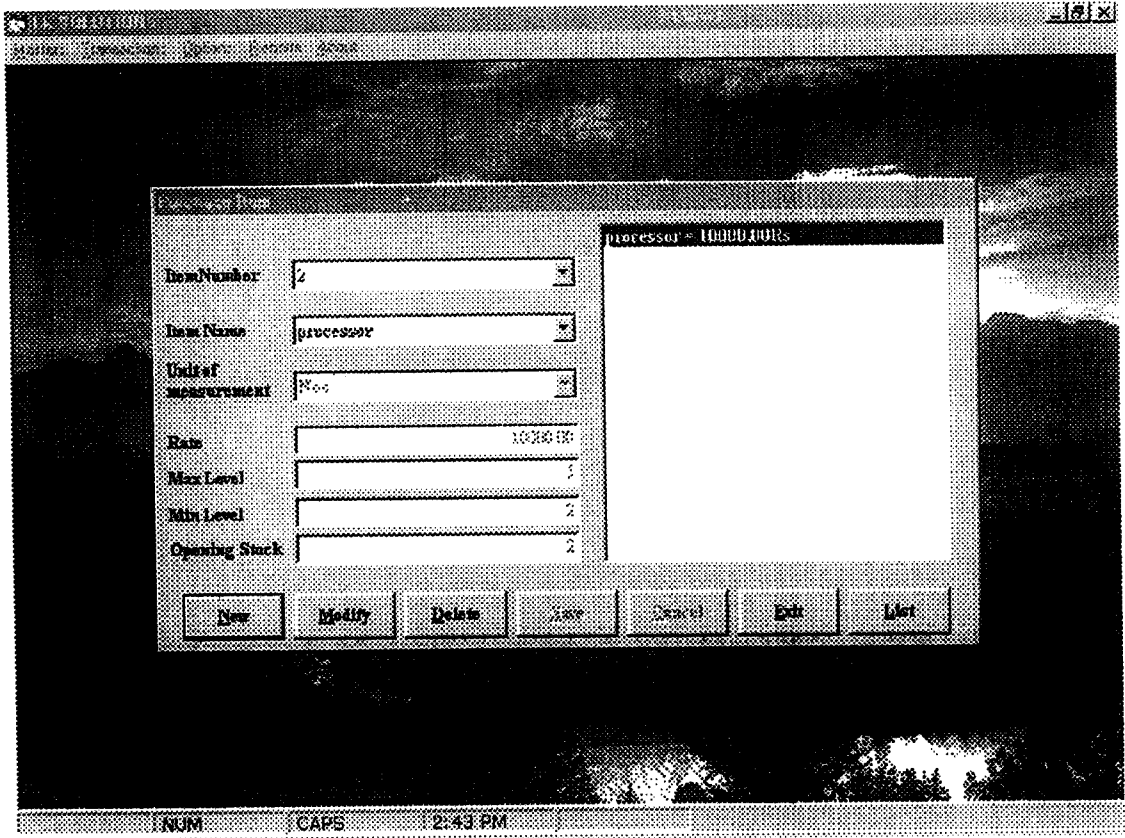


SUPPLIER MASTER



Office Automation

PRODUCT MASTER



SALES ORDER DETAILS

Customer Code: Order No: Date:

M.:

S.No	Item Name	Unit	Quantity

Add Delete Update Print Exit

NUM 2:44 PM

INVOICE

Customer: Ashok Legend Invoice No: 25 Invoice Date: 27/06/2010

Your Order No: 25 Dated: 26/06/2010 Our D.C. No: 2474 Dated: 27/06/2010

Dispatched Through: Loop To: Hota

L.R. No: 2474 Dated: 27/06/2010 Freight: To Pay / Paid Rs: 500

Party's INGST & CST No: 2474 Documents: 00

S.No	Item Name	Quantity	Rate	Discount(%)	Amount
1	Marine Corder	25	5780.00	0.00	144500.00

Tax: 4.0% Packing Forwarding: 50.00 Postage: 50.00 Total: 144600.00

Remarks: Pto Hota/aka Net Amount: 144600.00

Add Modify Delete Save Exit Print

NUM: CAPS 2:45 PM

SALES RETURN DETAILS

Customer Code: Order No: Date:

No. Qty.

S.No	ItemName	Quantity
------	----------	----------

Add Delete Print Exit

NUM CAPE 2:45 PM

PURCHASE ORDER DETAILS

Supplier Code: 7 Order No.: 2 Date: 08/10/2010

Misc.:

15A Produk

45, Jenggaha Street

Kemuning

Tanjong

S.No	ItemName	Unit	Quantity
1	aa		20.00
2	nut	Nos	50.00
3	Zinc Plate		25.00

Add Modify Delete Save Exit

NUM CAPS 2:47 PM

PURCHASE DETAILS

NEWWALK SOLUTIONS

Main Transactions Options Reports About

Purchase Detail

Supplier Code:

Purchase No.:

Order No.:

Date:

Address

Mr.

S.No	ItemName	Unit	Rate	Quantity	Amount

Add Modify Delete Print Exit

NUM CAPS 2:49 PM

GOODS RECEIVED DETAILS

HLVAALK SHREEDHARS

Master Transactions Debit Reports About

Inspection & Goods Received Report

ICRR No. Dt.

Previous ICRR

Invoice

Date

L.N. No.

Dt. No.

Charges for Supplier's A/C

Freight	20
Loading	50
Demurrage	30
Others	0
Rectification	0
TOTAL	100

Dis

M/s.

Purchase Order No.

S.No	Item Name	Unit	Rec Qty	Ret Qty	Accept Qty	Remarks
1	processor	Nos	20	5	20	Not Good

Bank Cash

Amount

ALL Modify Delete Save Exit Print

MUM GAPS 2:50 PM

9.2 Sample Reports

SALES REPORT

NEW WALK SOLUTIONS
COIMBATORE - 641 021
PHONE NO: 2489212

Sales Report Details

Date	S No	Customer	ItemName	Quantity	Rate	Amount
02/21/03	1	ICF	Marine Cooler	200	5780	1156000.00
02/24/03	25	Ashok Leyland	Marine Cooler	25	5780	144500.00
Total Amount						1300500.00

PURCHASE REPORT

The screenshot shows a software window titled "DataReport1" with a status bar at the top indicating "Page 100%". The main content area displays the following information:

NEWWALK SOLUTIONS
COIMBATORE - 641 021
PHONE NO: 2489212

Purchase Report Details

Date	P No	Supplier	ItemName	Quantity	Rate	Amount
10/01/03	5	Rajesh Trading	aa	8	2	16.00
04/03/03	2	TSK Products	processor	20	2	40.00
Total Amount						56.00

The window has a standard Windows-style border with a title bar, menu bar, and status bar. The status bar at the bottom shows "Page 100%" and "Page 100%".

ACCOUNTS REPORT

The screenshot shows a software window titled "DataReport1" with a zoom level of 100%. The report content is as follows:

NEW WALK SOLUTIONS
COMBATORE - 641 021
PHONE NO: 2489212

Accounts Report Details

Date	Account	Type	Rules	AccountName	Debit	Credit
02/21/03	Nominal	Expenses A/c	Dr	EB	1500.00	0.00
02/21/03	Nominal	Expenses A/c	Dr	Telephone	1750.00	0.00
02/21/03	Personal	Incomes	Dr	Raja	2500.00	0.00
02/21/03	Real	Sales A/c	Cr	ICF	0.00	15000.00
Total					5750.00	15000.00

STOCK REPORT

ItemName	Unit	Item No	Maxlevel	MinLevel	Stock	Rate
processor	Nos	2	5	2	2	10000