# COMPUTERIZED STOCK CONTROL SYSTEM IN GOVERNMENT SETUP. A CASE STUDY OF STORE DEPARTMENT NIGER STATE MINISTRY OF FINANCE, MINNA.


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DEPT. OF MATHEMATICS-COMPUTER SCIENCE

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*TITLE PAGE*

# COMPUTERIZED STOCK CONTROL SYSTEM IN GOVERNMENT SETUP

## A CASE STUDY OF STORE DEPARTMENT NIGER STATE MINISTRY OF FINANCE MINNA

A PROJECT SUBMITTED

TO

THE DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE

BY

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(PGD/MCS/98/99/788)

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE OF THE FEDERAL UNIVERSITY OF TECHNOLOGY MINNA.

SEPTEMBER, 2000.

## ***CERTIFICATION***

I certify that this project entitled "Computerized Stock Control System in Government Setup".

A case study of Store Department, Niger State Ministry of Finance, Minna, meets the regulations governing the award of POST GRADUATE DIPLOMA IN COMPUTER SCIENCE OF FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

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DR S. A. REJU

(SUPERVISOR) DATE

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DR S. A. REJU

(HEAD OF DEPARTMENT) DATE

---------- ----------

(EXTERNAL EXAMINER) DATE

## ***DECLARATION***

I hereby declare that this project is an original work, and that no part of it thereof was copied from any past project in this department or any other department from this university or any other University.

**IRAEBHO ABU MASHOOD**

## ***DEDICATION***

**To LATE MALLAM SHIABU ABU, My junior brother.**

## ***ACKNOWLEDGEMENT***

I am grateful to the Almighty Allah, on whose name I commended this work and on whose mercy I am completing it.

My acknowledgement goes to Mrs E. A. SHAIBU Head Mistress Igebo Primary School IBENAFE for her sister's care during my stay at Auchi.

I am also please to acknowledge the contribution of my late brother Shaibu Abu whose financial contribution I commenced this programme but could not live to see its cnd.

My thanks also goes to His Royal Highness, Aliyu Kelvin Danèsi,OBA IDAWESI THE II, OF SOUTH IBIE KINGDOM for His moral and financial assistance.

My greatest acknowledgement goes to my mother who always stands by me in prayer for success in all my endeavors.

I am also grateful to all the lecturers, Staffs and students of the Post Graduate Studies of Computer Science Department FUT, Minna and the H. O. D., Dr S. A. Reju who is my project supervisor for his kind gestures and co-operation.

My gratitude also goes to Umoru Unelat Enny, Alhaji S. . KADIRI, Zubairu Ahmedu and MRS V. N. ANAVBEROKHIA. My sincere gratitude goes to late Alhaji Ismail Abdullahi whom we stated this programme together but could not see the end of it. May the Almighty Allah grant his soul eternal rest.

## ***ABSTRACT***

This project deals with stock control in a government setup. A feasibility study was carried out on the effect of computerized stock control system for a government setup in the store Department of the Niger State Ministry of Finance Minna.

A system was designed and developed to provide management with timely information and ensure proper accountability as a result of timely reports to be generated by the computer for all goods available in the stores for redistribution or sales of scraps to the public.

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# *CHAPTER ONE*

# INTRODUCTION TO STOCK CONTROL SYSTEM

## 1.1 STOCK CONTROL IN NIGER STATE MINISTRY OF FINANCE

Stocks are items of Materials or investment in form of money in the Banks or invested in other Business for the purpose of redistribution in an organization or Government setup with the aim of producing, distributing and effectively carryout the basic function of control or governing the state.

What constitutes stocks in a production company may not necessary means stocks in government setup. In a production company, you may see stocks as work-in-progress, stocks of raw materials and stocks of finished goods and inventory.

However, the scope of this research work is centering round STOCKS CONTROL IN A GOVERNMENT MINISTRY. In Government establishment, stocks are items that make the system operates effectively, such items of stocks nature are listed as follows:-

(i) Office stationeries

(ii) Office equipments

(iii) Fuel and lubricant

(iv) General equipment

(v) Clothes & Textiles Material

(vi) Hospital drugs

(vii) Hospital equipment

(viii) School items and equipment

(ix) Furniture and fittings

(x) Electrical Appliances

(xi) Agricultural equipment

(xii) Water treatment items and equipments e.t.c

STOCKS CONTROL is synonymous to the functions of production control. Materials must be stored in a way that will make up for accuracy in demand forecasts. Stock control system is targeted at keeping proper records of stocks items in a store.

It is a way of safeguarding against running short of raw material or inability to meet demand forecast directly from the assembly line. It involves the costs associated with storage space, handling and insurance, as well as costs associated with product obsolesce, deterioration and depreciation. Stock control answers the following questions:-

(a) What is the optimum size of stocks to carry?

(b) What will be the Economic Order Quantity from a supplier?

(c) What system of controlling stocks should be adopted?

(a) The optimum size of stock may depend on the needs of various sections or units in a government setup and Agency or department. Some

materials are kept at hand in other to absorb discontinuity in production and to handle uncertainty. Stocks must not be allowed to fall below a certain level before replenishment.

The E.O.Q. depends upon two costs:-

1. Preparation Costs and
2. Carrying Costs.

PREPARATION COSTS:- These are fixed costs relating to the starting of production or the setting up of a parastatal or the writing of an order for a purchase and do not vary with the number of items in the lot. Examples of preparations costs are setup cost of raw machines, the clerical cost of writing an order and administrative costs of executive attention in placing a lot into production.

CARRYING COSTS:- These are costs that vary directly with the number of items involved. Carrying cost involves interest on capital, insurance, obsolesce, deterioration, handling, inventory taking and so on.

A lot of formulas have been developed for calculating preparation costs, carrying costs and rate of usage. One of such formulae known is:-

$$Q = \sqrt{\frac{2CD}{HP}}$$

Where Q = Economic size or batch

D = Annual demand for product

C = Delivery Cost per batch

H = Stock-holding Cost P.A. (express as a fraction or % of stock value)

P = Cost price per item.

STOCK CONTROL:- The two principle functions of stock control are :-

( i ) To enable the product or item of materials to be produced or procured in economic quantities.

( ii ) To act as buffer against an unpredictable high rate of use stocks and certain other function at a price equal to the cost of holding stock.

The objective of stock control is to ensure a correct balance between the cost of stock holding and the benefit of from stock holding-Economic Batch Quantities (E B Q).

There are certain advantages to be gained from buying goods in large quantities. It is however, possible to make the size of more than offset by the cost of stock holding. A compromise is sort between too small or too large a batch. That compromise which minimizes the total cost involved is called the Economic Batch Quantity (E B Q).

( C) A number of systems of stock control are available. A most popular one is the Periodic Order System, in which cards indicate the pertinent information concerning usage rate, items on order, items reserved for specific usage and balance at hand. A repetitive and tedious methods of stocks taking is not so reliable, otherwise called manual system is still in use in ministries and Government parastatals in Niger State.

A project to computerize stock control system involves a carefully planned procedure. Plans for specification writing, development, implementation and Re-organization for the automation.

The materials supplied to the Ministries are first coded and entered into supply/purchase file. The stocks file is automatically opened and the items, which are entered into purchase file, and are, copied into it. The stocks file keeps the records of stock balances.

The items that are issued out from store to departments are entered into file and automatically used to locate the stock file. Same goes with purchases file in cases, the system will locate the identical item codes in the stock file and subtract the issue stocks realized it aims from it and automatically update the balance.

The use of Automated System for stock information is aimed at keeping proper record on every item supplied or purchased, issued to various departments and issued out from the center stores, thereby promoting efficiency. The system uses prompt file processing method and sorts in file appropriate order before producing any selected output. It ascertains stock balances after any transaction has taken place, warns when the stock reaches re-order level but allows transaction until it ends balances becomes zero at which level transaction is not possible. Receipts and issues on any stock item can be adjusted. This immediately updates the stock master file (inventory file) thereby keeping it up- to- date. This system has screen output and printer output forms of reports.

Stock Control system have the following general objectives

(i) To enable the most efficient handling of data and provides management with timely information,

(ii) To establish the most desirable distribution of data, services, and equipment throughout the organization,

(iii) To provide responsive service to meet users and customers need,

(iv) To minimize operating cost and maximize potential savings for the company.

(v) To eliminate duplicity as well as conflicting and unnecessary services in an organization.

(vi) To define orderly method of handling transaction activities, using sound organizational procedures.

(vii) To facilitate data interaction between and within various level of management and

(viii) To increase the speed with which reliable data is accessed and available in the system.

This project is aimed at automating stock and general business information management of Ministry of Finance, Niger State, Minna. The fundamental units within the Ministry are: Treasury Division, Inspectorate Unit, Store Unit, General Administrative Unit, Main Account Branch (MAB), Computer Section and Internal Audit Unit.

Attention will be focus on the stores unit, which is charged with the responsibility of controlling stocks.

## 1.2 THE NEW SYSTEM DESIGN CRITERIA

**VOLUME:** The proposed system can handle large amount of data.

**SIMPLICITY**: The proposed system though can handle complex operations, it is simple to use.

**FLEXIBILITY:** The system can operate in a dynamic rather than static environment.

**EFFICIENCY**: The system is designed to be of high efficiency ensuring the best output

of the desired report.

**USER FRIENDLINESS:** The system is menu driven. It simply gives the operator a choice of different transaction for implementation.

**SECURITY:** The security of the system is taken into consideration such that facilities are provided only for authorized user to have access to it.

## 3 PLANS FOR SPECIFICATION

Specification plans involves feasibility study analysis of the step-by-step transactions and pointing out the problems and later suggesting solutions to the problems.

## 1.4 SYSTEMS DEVELOPMENT:

This involves designing the system based on the outcome of the analysis and the recommendations made during the analysis. It also involves testing and implementing the new system to ensure its functionality.

## 1.5 RE-ORGANIZATION:

This involves documentation of the new system. It covers the final report documenting every aspect of the system's operation. The report contains:

(i) Overview of the entire Ministry of Finance, describing the general purpose of the available information.

(ii) Flow charts describing the procedures or series of step used in the processing of data.

(iii) Detailed narratives, which describes each of the systems output, printer spacing charts.

(iv) Financial analysis of both the old and new systems.

(v) Projected cost of both systems currently and in future, as well as the cost saving.

(vi) And a description of the computer system and the periphereral equipment supporting the system.

## 1.6 OBJECTIVES OF THE STUDY:

(a) To enable the most efficient handling of large data and provide management with timely information

(b) To establish the most desirable distribution of services and equipment throughout the establishment,

(c) To provide responsive services to meet both the public and staff needs,

(d) To minimize the operating cost and maximize potential savings for the government,

(e) To eliminate duplicated, conflicting and unnecessary service in the organization,

(f) To define orderly methods of handling transaction activities using sound organizational procedures,

(g) To facilitate data interaction between and within levels of management and

(h) To increase the speed with which reliable data is accessed and available in the system.

## 1.7 FEASIBILITY STUDY:

Feasibility study was conducted to analyses the current manual transaction and stock control in a Government setup such as Ministry of Finance in order to determine whether the proposed computerized system should be developed.

The study was conducted with the maximum co-operation and assistance from Mr Joshua Bepo of Treasury Division and Mr Umoru of Store Department of the Niger State Ministry of Finance.

## 1.8 METHODOLOGY:

The techniques employed for the fact-finding were: Interview, Observation, and Document Inspection or Review.

### INTERVIEW

This is a fact-finding technique used to collect information from individuals/groups. The respondents here are the current users of the existing system too. Interview technique is the best in actual description of the process though time consuming.

### DOCUMENT REVIEW

This fact-finding technique gives first hand information about how the activities

are carried out. It enables the observer to see how goods/documents and processes are carried out and whether or not specified steps are actually followed.

## *CHAPTER TWO*

## 2.0 STOCK CONTROL CASE STUDY

2.1 **PREAMBLE**: Niger State was created from the then North Eastern State in 1976 by the Late Military Head of State, General Murtala Ramat Muhammed. The main aim of creating additional states was to bring the government closer to the people at the grass root and to foster easy and good administration.

Today the state is divided into twenty-five Local Government Areas and into Eight Ministries for efficient administration. The entire Local Government and Ministries are teleguieded by the Ministry of Finance. The Finance Ministry is divided into the following organs:

(a) **OFFICE OF THE COMMISSIONER**: Here you have, The Commissioner, the Permanent Secretary, The Personal Assistance to the Commissioner, The Messenger and Cleaners. The

Commissioner is in charge of all matter relating to account and staff of the organization.

(b) **OFFICE OF THE ACCOUNTANT GENERAL**: This office comprises of both the Accountant General and the Main Account, The Sub-Accounting, The open office and the office of the Personal Assistant to the Accountant General,

(c) **TREASURY DIVISION** : This comprises of Inspectorate Unit, Exco, Cashiers office and Staff Officers office.

(d) **INTERNAL AUDIT:** This office co-ordinates all the various organs in Finance Ministry and check all transaction to ascertain if they compliance to the existing principles and practice.

(e) **CENTER STORE:** This comprises of the main store and the sub-stores.

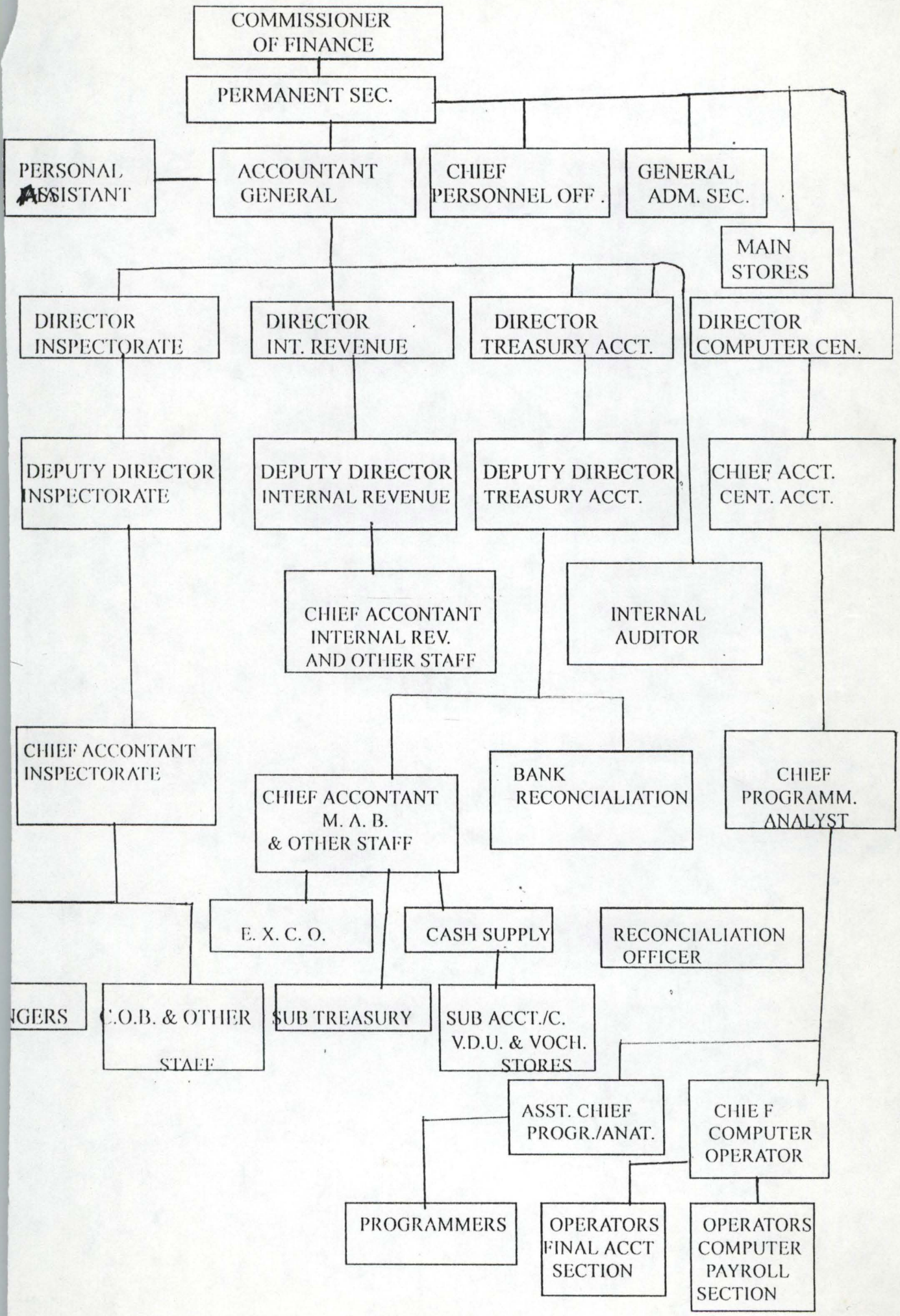
(f) **DATA PROCESSING CENTER:** This office controls the flow of data in the entire Ministry. Collections and analyses of data and soughting and validation are done here.

(g) **PERSONAL OFFICE:** The office is in charge of all personnel matters and comprises of Chief Personnel Officer C. P. O., Staff Officer S. O. Messenger and Typist.

Stock Control in gigantic government body such as Ministry of Finance in Niger State is a tedious task that usually involves operations that are repetitive, of clerical nature and such operation are simple enough for computations.

It is difficult to believe that at this era the government still uses old-fashioned tedious manual stock control system.

**ORGANIZATIONAL CHART OF NIGER STATE MINISTRY OF FINANCE MINNA**


COMMISSIONER OF FINANCE
PERMANENT SEC.
PERSONAL ASSISTANT
ACCOUNTANT GENERAL
CHIEF PERSONNEL OFF .
GENERAL ADM. SEC.
MAIN STORES
DIRECTOR INSPECTORATE
DIRECTOR INT. REVENUE
DIRECTOR TREASURY ACCT.
DIRECTOR COMPUTER CEN.
DEPUTY DIRECTOR INSPECTORATE
DEPUTY DIRECTOR INTERNAL REVENUE
DEPUTY DIRECTOR TREASURY ACCT.
CHIEF ACCT. CENT. ACCT.
CHIEF ACCONTANT INTERNAL REV. AND OTHER STAFF
INTERNAL AUDITOR
CHIEF ACCONTANT INSPECTORATE
CHIEF ACCONTANT M. A. B. & OTHER STAFF
BANK RECONCIALIATION
CHIEF PROGRAMM. ANALYST
E. X. C. O.
CASH SUPPLY
RECONCIALIATION OFFICER
NGERS
C.O.B. & OTHER STAFF
SUB TREASURY
SUB ACCT./C. V.D.U. & VOCH. STORES
ASST. CHIEF PROGR./ANAT.
CHIE F COMPUTER OPERATOR
PROGRAMMERS
OPERATORS FINAL ACCT SECTION
OPERATORS COMPUTER PAYROLL SECTION

2.3 The Ministry of Finance is at present fully functional. The various organs are well established. This eases the operational ability so that stocks (inventory) can be fully and appropriately taken care of.

The stock control unit is charged with the responsibility of stock and non-stock items of the establishment. It also monitors slow, fast and non-mooring stock items.

**CARDEX CARDS**

Information on the Cardex card is regarded as the most important. The cards are kept under locks and access to it is only under authorized Personnel of Stores Division. The cards are of two types one for purchases and receipt and the other for issues. From these cards, the entire activities of the stores are monitored.

Information on the Cardex Card includes: the purchases and receipt of the Ministry as well as issues from the stores to the various department such as RE-ORDER LEVEL is set on the Cardex Card of each material or stock items card. Special request of items not usually used by the Ministry is marked as an EXTRACT on the Cardex Card and the date, quantity and department requesting such specific items entered into the card for record purposes. Information on the Cardex Card is regarded as the most authentic and therefore accorded high security.

**PURCHASES**

All purchases are carried out only after a purchasing order form obtained, filled and approved by the appropriate officers concerned.

## GOODS RECEIVED NOTES (GRN)

When the requested items are purchased and brought to the Ministry, a GOODS RECEIVED NOTES is filled. The G.R.N. contains details about the various stock items received. The stores department also brings to the notice of the supplier in writing that the appropriate and authorized persons from the departments concerned receive such goods supplied subject to inspection.

## INSPECTION FORM

The inspection request form is used for the detailed inspection of the stock items supplied and received by the Ministry. The inspection form states clearly the quantity of goods accepted, rejected and remarks on each.

## STOCK ISSUE VOUCHER

The Store Issue Voucher is used for stock issues. The voucher is in quadruplicate copies and different columns. The white original copy goes to account, yellow-duplicate to stock control, Blue-triplicate goes to the receiver, Green-quadruplicate has no designation while Pink-quadruplicate is the book copy. The voucher contains details about the person to whom issues are made. It also contains gate pass number and date where necessary.

## CODING

To make stocks control easy and fast, items are all coded. This reduces possibility of duplication and long varying description etc. Coding System is also used to avoid legal implication and high costs of replacing what is supplied but not required by the suppliers. Basic criteria for coding are the suppliers. Basic criteria for coding are characteristics and end use. The motor vehicle and other machinery

spare parts have fifteen (15) figures while center store have eight (8) figures in their coding systems. The items are categorized into:

(1) Main group (represented by 3 digits)

(2) Sub-group " " " ")

(3) Sub-sub group " " " ")

## STANDARDIZATION AND VARIETY REDUCTION

This reduces the number of items in stock. It also facilitate what items to buy, which not to and easy of getting suppliers.

## STOCK LEVELS

This is to ensure that items are available at all time in order to maintain the continuity of production. There are three main stock levels in operation:

(a) Maximum Stock Level

(b) Re-order Level and

(c) Minimum Stock Level

## MAXIMUM STOCK LEVEL:

This is the level at which no stock material should be above. An important factor here is the financial position then, possibility of deterioration and technological changes or items getting out of use.

Maximum Level = RQL –(MC X MRP) + ROQ

WHERE

ROL = Re-order Level

MC = Minimum Consumption of material in the period

MRP = Minimum Re-order Period

ROQ = Re-order quantity.

**MINIMUM STOCK LEVEL**

This is the level at which ordering of fresh items is required before the stock items run into minimum stock level.

Factors to consider here are:

(a) Rate of Usage

(b) Lead time (How long it takes t get the supply of the goods ordered)

The Re-order Level is calculated as:

ROL = MC X MRP

WHERE:

ROL = RE-ORDER LEVEL

MC = Maximum Consumption of Material during the period

and

MRP = minimum Re-order period

ROQ = RE-order quantity

**MINIMUM STOCK LEVEL:**

This is the level at which ordering of fresh stock items is required before the stock items runs into minimum stock level.

Factors to consider here are:

(b) Lead time (How long it takes to get the supply of the goods ordered) The Re-order level is calculated as:

Re- order level is calculated as:

Rol= MC x MRP

Where: ROL= RE-order level

MC= Maximum consumption of material during the period and

MRP = Maximum Re-order period.

**ECONOMIC ORDER QUANTITY**:

To know the right and economic quantity of stock items to purchase is very important. Large orders results in high storage costs, highting and heating costs, more capital tied up in inventory, high taxes and insurance costs. With large orders, there is likelihood of damage, deterioration goods and obsolescence. Smaller orders too bring about increased handling costs, less discounts and likelihood of stock out.

The economic order quantity is calculated as:

$$EOQ = \sqrt{\frac{2DCO}{PCS}}$$

Where D = Total Demand

CO = cost of ordering

P = unit price

CS = cost of storage

The economic order quantity is used only where prices are stable for appreciable time.

CS = cost of storage

The economic order quantity is used only where prices are stable for appreciable time.

**RETURNED/ TRANSFERRED ITEM**:

Stock items may be returned if wrongly issued lack of wastage due to mismanagement and control may also return excess material back to store. The returned items are accepted and registered into the stores credit voucher (SCV) which indicates the department / unit returning the items, quantity and conditions of the items returned.

**TRANSFERRED ITEMS**:

T o move items from one store to another, Store Transfer Voucher (STV) is used. The transfer voucher shows which store or location. It also indicates the quality, price, who authorized and received the transferred items. The items are also coded.

**DISUSE/UNSERVICEABLE ITEMS**

When such items are returned to store, the stock control unit simply open a return to store register for the items. No cards are opened for such items.

## *CHAPTER THREE*

# 3.0 COMPUTERIZED STOCK CONTROL SYSTEM DESIGN

## 3.1 FEASIBILITY REPORT

The existing manual system serves as a very good source of information for the development of the computerized systems. The basic functions performed by the manual system involves:

Purchasing (receiving)

Issuing and stock taking

The problems of the existing system are identified as follows:

(1) The manual system is tedious, tiring and highly uninteresting

(2) Administrative delay

(3) High cost of maintenance

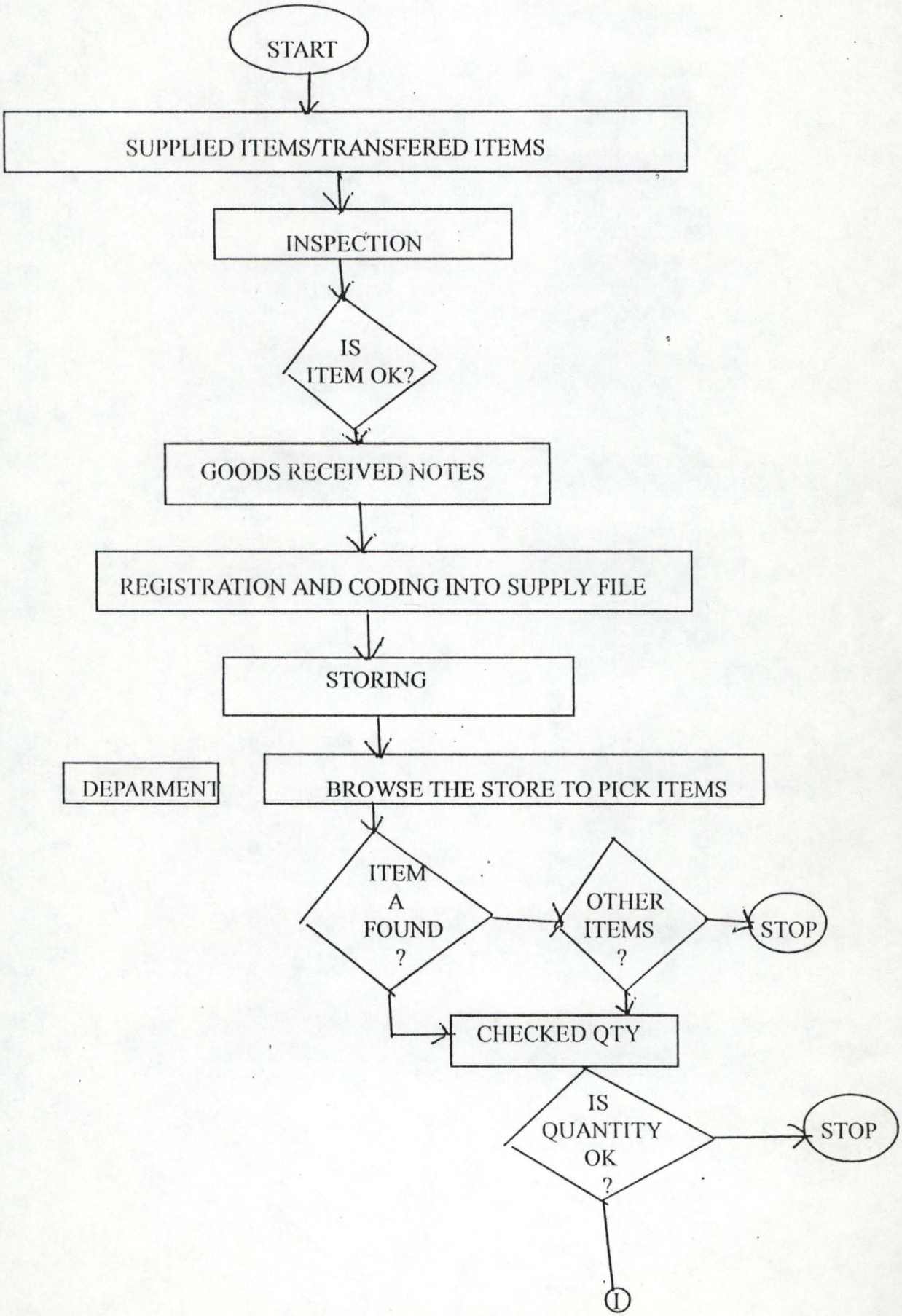
(4) Accessing information is tiring and time consuming

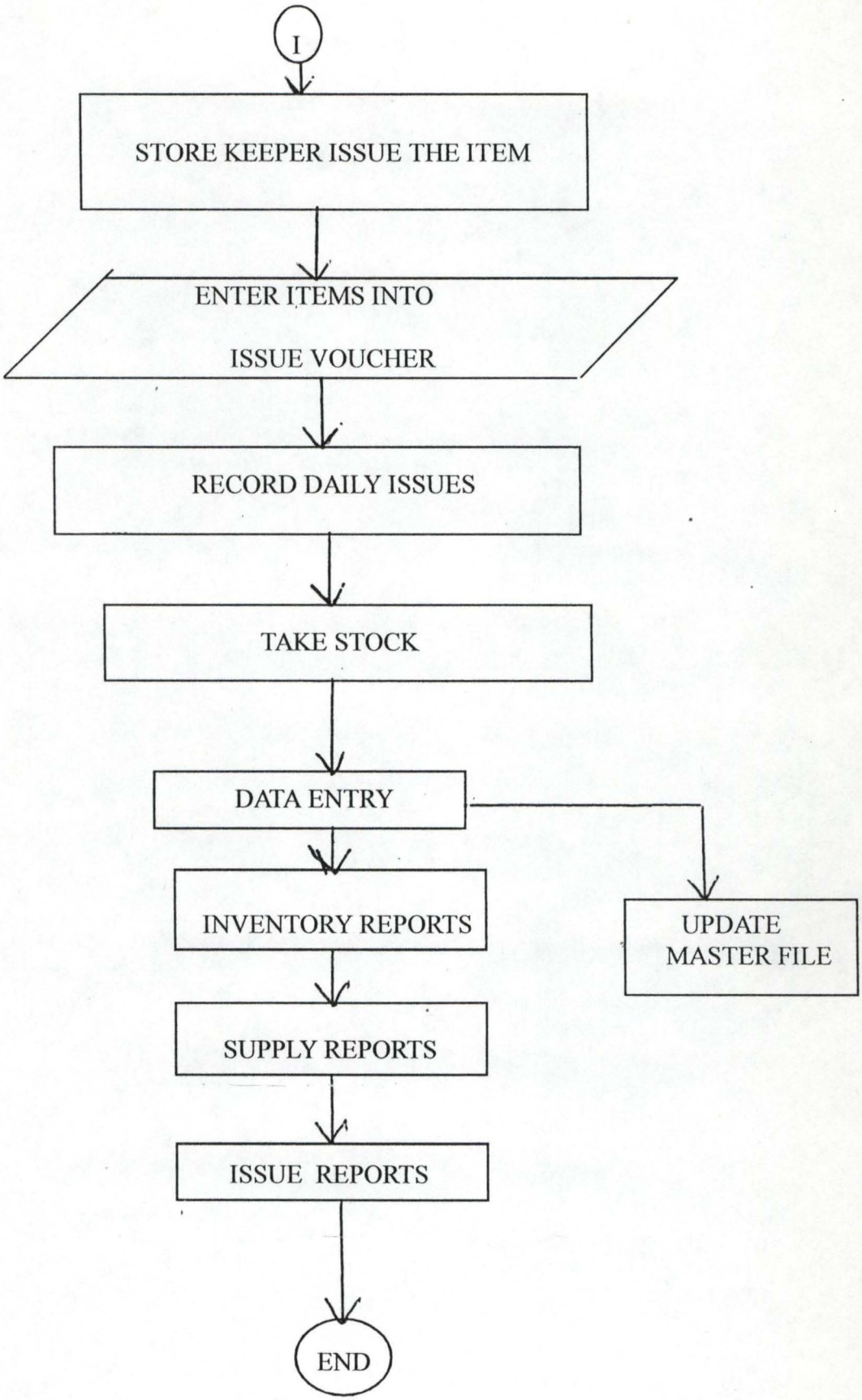
(5) It is ineffective

(6) Misplacement and lost of vital papers due to huge volume of paper to handle

(7) Large human errors due to large volume of data to handle.

## 3.2 FLOW CHART OF THE EXISTING SYSTEM


START
SUPPLIED ITEMS/TRANSFERED ITEMS
INSPECTION
IS ITEM OK?
GOODS RECEIVED NOTES
REGISTRATION AND CODING INTO SUPPLY FILE
STORING
DEPARMENT
BROWSE THE STORE TO PICK ITEMS
ITEM A FOUND ?
OTHER ITEMS ?
STOP
CHECKED QTY
IS QUANTITY OK ?
STOP
I


I
STORE KEEPER ISSUE THE ITEM
ENTER ITEMS INTO
ISSUE VOUCHER
RECORD DAILY ISSUES
TAKE STOCK
DATA ENTRY
INVENTORY REPORTS
UPDATE
MASTER FILE
SUPPLY REPORTS
ISSUE REPORTS
END

## 3.3 LOGICAL MODEL OF THE MANUAL SYSTEM

The logical model explains the general operations of the stores division. It starts from the purchase/supply of items to the stores and subsequent issuing of the items to the various departments requesting them. When items are purchased and supply made the management checks and inspects the supplied items to see if they meet the standard and are acceptable. If acceptable, Goods Received Note is issued to the supplier(s) and the items registered into the supply file. This followed by coding and then storing. Demands from each department are sent to the stores where the items are checked and collected together for the department and issue voucher entered. This is recorded daily and stock taken. At the end of the day's activities, all issues are entered into the issue ledger and the stock is taken. Taking of stock involves balancing and updating inventory of items, which are received and issued out.

## 3.4 RECOMMENDED COMPUTER SYSTEM

A workstation consists of personal computers recommended. The workstation should be of Local Area Network (LAN). The Local Network computing requirements of the Ministry should be of the business profession that is very demanding. There is now urgent need for greater performances to run more sophisticated software at faster speed and for early access to the corporate,

mainframe, however, remote, an on-line remote and on-line public information database.

Though the operator of this system has only to learn a relatively siple sequence of keyboard operations since the processing operation are menu driven, well trained staff are necessary. This will ensure improvements and innovations into the system. A well-trained competent computer operator is therefore essential.

## 3.5 INPUT OF DATA

In data input process, the user works with a screen based image of a form. This has blanks in which data can be entered. It is for the user to enter data at any point on the form. It is for the user to enter data at any point on the form.

## 3.6 DATABASE SYSTEM

The system is a complete database system. A database is a collection of data usually files, arranged in such a way that it is independent of any program or application. The arrangement eliminates data redundancy. Access to files is provided by a database management system.

A database management system DBMS is an organized collection of inter-related data and the set of programmes to access that data. The aim of a database management system is to create an environment that is efficient and convenient for retrieving information from stored database.

A close analysis of the Ministry of Finance stock control system shows clearly that the stock control needs a computerized.

## 3.1 STOCK ITEMS IN MINISTRY OF FINANCE STORES IN GROUP

| S/NO | ITEMS | GROUP |
|---|---|---|
| 1. | OFFICE STATIONERIES | 1 |
| 2. | OFFICE EQUIPMENT | 2 |
| 3. | FUEL AND LUBRICANT | 3 |
| 4. | GENERAL EQUIPMENT | 4 |
| 5. | HOSPITAL EQUIPMENTS | 5 |
| 6. | HOSPITAL DRUGS | 6 |
| 7. | SCHOOLS ITEMS | 7 |
| 8. | SCHOOLS EQUIPMENT | 8 |
| 9. | FURNITURES | 9 |
| 10. | FITTINGS | 10 |
| 11. | ELECTRICAL APPLIANCES | 11 |
| 12. | AGRICULTURAL EQUIPMENTS | 12 |
| 13. | WATER TREATMENT ITEMS | 13 |
| 14. | WATER TREATMENT EQUIPMENT | 14 |
| 15. | MOTOR VEHICLES SPARE PARTS | 15 |
| 16. | MOTORCYCLES SPARE PARTS | 16 |
| 17. | BICYCLES | 17 |

| | | |
|---|---|---|
| 18. | BICYCLES SPARE PARTS | 18 |
| 19. | HARDWARES | 19 |
| 20. | MEASURING & WEIGHT INSTRUMENT | 20 |
| 21. | MATERIALS HANDLING EQUIPMENT | 21 |
| 22. | CHEMICAL | 22 |
| 23. | BUILDING MATERIALS | 23 |
| 24. | PIPES, VALVES AND PLUMBING | 24 |
| 25. | PAINTS &VARNISHES | 25 |
| 26. | SAFETY &FIRE FIGHTING EQUIPMENT | 26 |
| 27. | TOOLS | 27 |
| 28. | TEXTILES | 28 |
| 29. | TOOLS | 29 |
| 30. | MISCELLANEOUS ITEMS | 30 |
| 31 | CLOTHING AND TEXTILES MATERIALS | 31 |

The items above are classified into category with each item being coded.

## 3.8 OBJECTIVES OF DATABASE SYSTEM

1. Reduce data duplication, inconsistency and increase its share ability.
2. Increase the integrity of the data.
3. Increase the speed in implementing system.
4. Improve the standard of the system development.
5. Provide management view of the organization.

## 3.9 THE SYSTEM DEVELOPMENT

In this part, the research project will consider the followings:

1. Input, output and processing requirements
2. Data files
3. System maintenance.

## 3.10 DATABASE FILE DESCRIPTION

There are three types of database files in use, namely:

1. Supply Database file
2. Issue Supply Database file
3. Inventory Supply Database file

### SUPPLY DATABASE FILE

This is the file where items supplied newly to the stores are first recorded, coded and inventory automatically updated by adding the new items to the old stock in the file.

### INVENTORY DATABASE

Keeps all records of the stocks balance, supply records as well as issue records in stores.

### ISSUE DATABASE FILE

Keeps records of all items issued out of stores to various units or departments. As issues are made, the inventory is automatically updated by reducing the items issued from the total quality of items in the inventory file. The item code serves as the identification (ID) Key.

## DATABASE STRUCTURE

## ISSUE DATABASE FILE

| FIELD NO | FIELD DESCRIPTION | FIELD NAME | FIELD TYPE | WIDTH | DEC |
|---|---|---|---|---|---|
| 1 | Items Code | Code | Numeric | 4 | 0 |
| 2 | Sub-code | Sub-code | " | 3 | 0 |
| 3 | Item Category | CAT | Character | 12 | |
| 4 | Items Description | DESCP | " | 35 | |
| 5 | Qty in stock | Qstock | Numeric | 8 | 2 |
| 6 | Qty issued | Qissued | " | 8 | 2 |
| 7 | Issued date | IRDATE | DATE | 8 | |
| 8 | Unit Qty | QUNIT | NUMERIC | 8 | 2 |
| 9 | Extract | Extract | Logic | 1 | |
| 10 | Qty Received | QRec | Numeric | 8 | 2 |
| 11 | Date Received | RDate | DATE | 8 | |
| 12 | Vocab Number | V-Num | Numeric | 5 | |
| 13 | Voucher Number | VOC-Num | " | 5 | |
| 14 | Qty Indented | QIndent | " | 8 | 2 |
| 15 | Indenting Unit | Indent | " | 20 | |

**DATABASE STRUCTURE**

**INVENTORY DATABASE**

| FIELD NO | FIELD DESCRIPTION | FIELD NAME | FIELD TYPE | WIDTH | DEC |
|---|---|---|---|---|---|
| 1 | Item Code | Code | Numeric | 4 | 0 |
| 2 | Sub-Code | Sub-Code | " | 3 | 0 |
| 3 | Item Category | CAT | Character | 12 | 4 |
| 4 | Item Descrption | DESCP | " | 30 | |
| 5 | DATE | RDATE | Date | 8 | 2 |
| 6 | Location | Locate | Character | 15 | 2 |
| 7 | QTY in Stock | Qstock | Numeric | 8 | |
| 8 | Qty Received | QRec | Numeric | 8 | 2 |
| 9 | Date Received | DRec. | Date | 8 | 2 |
| 10 | Qty Issued | QIssued | Numeric | 8 | 2 |
| 11 | Date Issued | RDate | Date | 8 | |
| 12 | Stock Balance | STBAL | Numeric | 15 | 0 |
| 13 | Total Stock | TStock | " | 15 | |
| 14 | Indenting Unit | ID-Unit | Character | 25 | |
| 15 | Date | MRDATE | Numeric | 8 | |

| | | | | | |
|---|---|---|---|---|---|
| 16 | Cost of Item | Cost | Numeric | 8 | |

Stock Balance = Q = QStock + QReceived

QStock = STBal – QIssued.

**DATABASE STRUCTURE**

**SUPPLY DATABASE FILE**

| ITEM NO | ITEM DESCRIPTION | FIELD NAME | FIELD TYPE | ITEM WIDTH | DEC |
|---|---|---|---|---|---|
| 1 | Item Code No | Code | Numeric | 4 | 0 |
| 2 | Item Category | CAT | Character | 12 | 0 |
| 3 | Qty Indented | QIndent | Numeric | 8 | 2 |
| 4 | Qty Instock | QStock | Numeric | 8 | 2 |
| 5 | Qty Received | QRec | Numeric | 8 | 2 |
| 6 | Date | RDate | Date | 8 | |
| 7 | Item Description | DESCP | Character | 35 | |
| 8 | Unit Qty | QUNIT | Numeric | 8 | 2 |
| 9 | Extract | Extract | Logic | 1 | |
| 10 | Sub- code | Sub-Code | Numeric | 3 | |
| 11 | Vocab Number | Voc-Num | " | 5 | 0 |
| 12 | Indenting Unit | ID-Unit | Character | 20 | |
| 13 | Qty Supplied | Supply | Numeric | 8 | 2 |

## 3.11 OUTPUT DESCRIPTION

The computer print charts and information displays system layout sheets are used as the output design aids for the computerized system

The screen output is slighting different from the print chart output due to limited screen space.

## 3.12. ALGORITHHMS FOR THE MODULAR PROGRAM

Begin: Display Data Entry menu

Select option

Case option ="s"

Execute stock menu

End case: case option =I

Execute issue menu

End case: case option = "s"

Execute supply menu

End case: case option = "R"

Execute Report menu

End case

End select

End: Display stock menu

Select option

Case option = 'A'

## *CHAPTER FOUR*

# 4.0 MAIN PROGRAM IMPLEMENTATION

## 4.1 DATABASE FILE DESCRIPTION

```
NIGER STATE MINISTRY OF FINANCE
MINNA, NIGER STATE

COMPUTERISED STOCK CONTROL SYSTEM
M A I N   M E N U
```

---

```
INVENTORY MENU

SUPPLY MENU

ISSUE MENU

REPORT MENU

E X I T

Pls. enter a choice
```

DEVELOPED BY:- IRIAEBHO ABU MASHOOD (PGD/MCS/788)

```
NIGER STATE MINISTRY OF FINANCE
MINNA, NIGER STATE

COMPUTERISED STOCK CONTROL SYSTEM
M A I N   M E N U
```

---

```
INVENTORY MENU

SUPPLY MENU

ISSUE MENU

REPORT MENU

E X I T

Pls. enter a choice
```

DEVELOPED BY:- IRIAEBHO ABU MASHOOD (PGD/MCS/788)

```
NIGER STATE MINISTRY OF FINANCE
MINNA, NIGER STATE

COMPUTERISED STOCK CONTROL SYSTEM
M A I N   M E N U
```

---

NIGER STATE MINISTRY OF FINANCE
COMPUTERISED STOCK CONTROL SYSTEM

ISSUES REPORT

PAGE 1

| DE | ITEM DESCRIPTION | QTY INDENTED | QTY.ISSUED | D A T E | VOUCHER NO | UNIT QT |
|---|---|---|---|---|---|---|
| 11 | STATIONERY | 7.00 | 15 | 05/09/2000 | 786 | 10 |
| 13 | BRAKE LINING | 3.00 | 2 | 01/09/2000 | 459 | 12 |
| 12 | SAE 40 | 10.00 | 18 | 31/08/2000 | 361 | 55 |
| 11 | STATIONERY | 5.00 | 10 | 13/08/2000 | 188 | 10 |
| 13 | BRAKE LINING | 2.00 | 2 | 17/08/2000 | 398 | 9 |

NIGER STATE MINISTRY OF FINANCE

COMPUTERISED STOCK CONTROL SYSTEM
REPORT MENU

INVENTORY REPORT

SUPPLY REPORT

ISSUE REPORT

RETURN TO MAIN MENU

Please enter a choice.

NIGER STATE MINISTRY OF FINANCE

COMPUTERISED STOCK CONTROL SYSTEM
INVENTORY MENU

ADD INVENTORY

MODIFY INVENTORY

DELETE INVENTORY

VIEW INVENTORY

RETURN TO MAIN MENU

Please enter a choice.

NIGER STATE MINISTRY OF FINANCE
MINNA, NIGER STATE

COMPUTERISED STOCK CONTROL SYSTEM
M A I N  M E N U

---

INVENTORY MENU

SUPPLY MENU

ISSUE MENU

REPORT MENU

E X I T

Pls. enter a choice

DEVELOPED BY:- IRIAEBHO ABU MASHOOD (PGD/MCS/788)

NIGER STATE MINISTRY OF FINANCE

COMPUTERISED STOCK CONTROL SYSTEM
SUPPLY MENU

---

ADD SUPPLY

MODIFY SUPPLY

DELETE SUPPLY

VIEW SUPPLY

RETURN TO MAIN MENU

Please enter a choice.

NIGER STATE MINISTRY OF FINANCE

COMPUTERISED STOCK CONTROL SYSTEM

NIGER STATE MINISTRY OF FINANCE
COMPUTERISED STOCK CONTROL SYSTEM

SUPPLY REPORT



| E | ITEM DESCRIPTION | QTY INDENTED | QTY.RECVD | D A T E | QTY SUPPLIED | UNIT QT |
|---|---|---|---|---|---|---|
| 3 | SAE 40 | 4 | 4 | 28/08/2000 | 5 | 12 |
| 1 | STATIONERY | 0 | 100 | 02/09/2000 | 100 | 5 |
| 2 | SAE 40 | 30 | 55 | 10/07/2000 | 374 | 4 |

NIGER STATE MINISTRY OF FINANCE
COMPUTERISED STOCK CONTROL SYSTEM

STOCK INVENTORY REPORT



| DE | ITEM DESCRIPTION | C O S T | QTY.RECVD | QTY.ISSD | STOCK BAL | LOCATION |
|---|---|---|---|---|---|---|
| 11 | STATIONERY | 250.00 | 100.00 | 25.00 | 125 | MINNA |
| 12 | SAE 40 | 850.00 | 55.00 | 18.00 | 37 | MINNA |
| 13 | BRAKE LINING | 600.00 | 4.00 | 4.00 | 5 | MINNA |

```
DATE                :   <15/08/2000>
VOCAB NUMBER        :   <    23>
QUANTITY SUPPLIED:      <     3321>
```

[C]ontinue [E]xit < >

```
        NIGER STATE MINISTRY OF FINANCE
      COMPUTERISED STOCK CONTROL SYSTEM

              ADD SUPPLY DATA
-------------------------------------------------
INVENTORY CODE [0000]=Exit  <1113>
SUB-CODE            :   < 12>
CATEGORY            :   <              >
ITEM DESCRIPTION    :   <BRAKE LINING          >
QUANTITY INDENTED:      <     31>
QUANTITY IN STOCK:      <    90.00>
QUANTITY RECEIVED:      <       50>
UNIT QUANTITY       :   <     10>
INDENTING UNIT      :   <                      >
EXTRACT             :   <T>
DATE                :   <15/08/2000>
VOCAB NUMBER        :   <    23>
QUANTITY SUPPLIED:      <     3321>
```

[C]ontinue [E]xit < >

```
        NIGER STATE MINISTRY OF FINANCE
      COMPUTERISED STOCK CONTROL SYSTEM

              VIEWING SUPPLY DATA
-------------------------------------------------
INVENTORY CODE      :   <    0>
SUB-CODE            :   < 12>
CATEGORY            :   <              >
ITEM DESCRIPTION    :   <STATIONERY            >
QUANTITY INDENTED:      <      0>
QUANTITY IN STOCK:      <     0.00>
QUANTITY RECEIVED:      <      100>
UNIT QUANTITY       :   <      5>
INDENTING UNIT      :   <                      >
EXTRACT             :   <T>
DATE                :   <02/09/2000>
VOCAB NUMBER        :   <     0>
QUANTITY SUPPLIED:      <      100>
```

[C]ontinue [E]xit < >

# *CHAPTER FIVE*

## 5.0 CONCLUSION AND RECOMMENDATION

### 5.1 CONCLUSION

In order to meet modern standard, speed and accuracy of data presentation and pressing in a government setup, there is a clear need for computerization.

Most of the operating systems warrant concurrent processing of on-line and real-time system. Application such as stock inventory, data entries into the system are in on-line, real-time environment.

When data are entered, immediate response is available and vetting is made before the data is processed. All database for all applications are properly maintained and backup for the systems effectiveness. The accuracy is designed to provide management with timely information, and to ensure proper accountability in the Ministry of Finance. The system is enhanced with a timely reports generated for all transaction in stores. The implementation of the proposed system will ensure improvement in stock control in terms of reliability, security, effectiveness and above all privacy.

## 5.2 RECOMMENDATION

When the project was tested, it has been found to effectively and efficiently work as proposed. More so, for implementation at Niger State Ministry and other government parastatals a 486IBM COMPUTER with 66MHZ speed and a hand space with storage capacity of 640MB RAM that is year 2000 compliance is recommended due to the volume of work expected in the stores.

The stores department also desires a printer. I therefore recommend Printer and enhanced keyboard. The inventory reports should be generated on daily basis so as to know the daily balances of the stock items.

I also recommend that a system designer, analyst, and programmer be employed or trained to keep the system functional. Also computer operators should be recruited or members of already existing staffs of the department can be trained on the new system development.

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# APPENDIX

```
*************************************************************************
***** PROGRAM :   COMPUTERISED STOCK CONTROL SYSTEM IN GOVT. SETUP
***** COMPANY :   NIGERI STATE MINISTRY OF FINANCE
***** ADDRESS :   MINNA, NIGER STATE OF NIGERIA
***** PROGRAMMER: IRIAEGHO ABU MASHOOD
***** REG.NO. :   PGD/MCS//788
***** DEPT.    :   MATHEMATICS/COMPUTER SCIENCE
***** DATE     :   JUNE, 2000
*************************************************************************

***** MAIN PROGRAM

SET TALK OFF
SET ECHO OFF
SET STAT OFF
SET DELI ON
SET DELI TO "<>"
SET INTE OFF
PUBLIC I
DO WHILE .T.
CLEAR
@ 2,9 TO 21,65 DOUBLE
@ 3,20 SAY "NIGER STATE MINISTRY OF FINANCE"
@ 4,20 SAY "     MINNA, NIGER STATE"
@ 6,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 7,20 SAY "     M A I N    M E N U"
@ 8,10 TO 8,64
@ 10,28 SAY "INVENTORY MENU"
@ 12,28 SAY "SUPPLY MENU"
@ 14,28 SAY "ISSUE MENU"
@ 16,28 SAY "REPORT MENU"
@ 18,28 SAY "E X I T"
SET COLO TO G+
@ 22,13 SAY "DEVELOPED BY:- IRIAEBHO ABU MASHOOD (PGD/MCS/788)"
SET COLO TO GR+
@ 10,30 SAY "V"
@ 12,28 SAY "S"
@ 14,28 SAY "I"
@ 16,28 SAY "R"
@ 18,28 SAY "E"
SET COLOR TO W+
@ 20,28 SAY "Pls. enter a choice"
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "VSIRE"
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE UPPER(CHR(I)) $ "V"
     DO INVENTM
   CASE UPPER(CHR(I)) $ "S"
     DO SUPPLYM
   CASE UPPER(CHR(I)) $ "I"
     DO ISSUEM
   CASE UPPER(CHR(I)) $ "R"
     DO REPORTM
   CASE UPPER(CHR(I)) $ "E"
```

```
     EXIT
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN

□
```

```
********** REPORT MENU
SET TALK OFF
SET ECHO OFF
SET STAT OFF
DO WHILE .T.
CLEAR
@ 2,9 TO 18,65 DOUBLE
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 6,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 7,20 SAY "           REPORT MENU"
@ 8,10 TO 8,64
@ 10,29 SAY "INVENTORY REPORT"
@ 12,29 SAY "SUPPLY REPORT"
@ 14,29 SAY "ISSUE REPORT"
@ 16,29 SAY "RETURN TO MAIN MENU"
SET COLO TO R+
@ 10,31 SAY "V"
@ 12,29 SAY "S"
@ 14,29 SAY "I"
@ 16,29 SAY "R"
SET COLOR TO W+
@ 19,29 SAY "Please enter a choice."
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "VSIR"
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE UPPER(CHR(I)) $ "V"
     DO INVREPT
   CASE UPPER(CHR(I)) $ "S"
     DO SUPREPT
   CASE UPPER(CHR(I)) $ "I"
     DO ISSREPT
   CASE UPPER(CHR(I)) $ "R"
     EXIT
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN
```

```
********** SUPPLY MENU
SET TALK OFF
SET ECHO OFF
SET STAT OFF
DO WHILE .T.
CLEAR
@ 2,9 TO 19,65 DOUBLE
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 6,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 7,20 SAY "          SUPPLY  MENU"
@ 8,10 TO 8,64
@ 10,29 SAY "ADD SUPPLY"
@ 12,29 SAY "MODIFY SUPPLY"
@ 14,29 SAY "DELETE SUPPLY"
@ 16,29 SAY "VIEW SUPPLY"
@ 18,29 SAY "RETURN TO MAIN MENU"
SET COLO TO R+
@ 10,29 SAY "A"
@ 12,29 SAY "M"
@ 14,29 SAY "D"
@ 16,29 SAY "V"
@ 18,29 SAY "R"
SET COLOR TO W+
@ 20,29 SAY "Please enter a choice."
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "AMDVR"
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE UPPER(CHR(I)) $ "A"
     DO ADDSUP
   CASE UPPER(CHR(I)) $ "M"
     DO MODSUP
   CASE UPPER(CHR(I)) $ "D"
     DO DELSUP
   CASE UPPER(CHR(I)) $ "V"
     DO VIEWSUP
   CASE UPPER(CHR(I)) $ "R"
     EXIT
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN
```

```
*************** CREATE NEW INVENTORY ITEM

USE INVENTORY

DO WHILE .T.

CLEAR
@3,10 TO 21,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
   @7,25 SAY "NEW INVENTORY DATA ENTRY"
SET COLO TO
@09,15 SAY "NEW INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
LOCATE FOR CODE =  MCODE
IF .NOT. EOF()
   @21,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE ALREADY EXISTS !  PRESS ANY
KEY."
   @22,10 SAY SPACE(50)
   LOOP
ENDIF
APPEND BLANK
REPLACE CODE WITH MCODE
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION  :  " GET DESCP PICT "@!"
@13,15 SAY "LOCATION          :  " GET LOCATN PICT "@!"
@14,15 SAY "QUANTITY IN STOCK:   " GET QSTOCK PICT "99999.99"
@15,15 SAY "STOCK BALANCE     :  " GET STBAL PICT "9999999099"
@16,15 SAY "TOTAL STOCK       :  " GET TSTOCK
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "DATE              :  " GET MRDATE PICT "99/99/9999"
@19,15 SAY "COST OF ITEM      :  " GET COST PICT "99999.99"
READ
K=SPACE(1)
@22,15 SAY "     [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   EXIT
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** VIEW ISSUE PROGRAM

USE ISSUE

DO WHILE .NOT. EOF()

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "        VIEWING ISSUE DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE    :  " GET CODE PICT "9999"
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "ITEM CATEGORY     :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY ISSUED   :  " GET QISSUED PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "ISSUE DATE        :  " GET IRDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET V_NUM PICT "99999"
@21,15 SAY "VOUCHER NUMBER    :  " GET VOC_NUM
CLEAR GETS

K=SPACE(1)
@23,15 SAY "     [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   Exit
ENDIF
Skip
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** VIEW SUPPLY PROGRAM

USE SUPPLY

DO WHILE .NOT. EOF()

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
MSUB=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "        VIEWING SUPPLY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE    :  " GET MCODE PICT "9999"
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY RECEIVED:  " GET QREC PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "DATE              :  " GET RDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET VOC_NUM PICT "99999"
@21,15 SAY "QUANTITY SUPPLIED:  " GET QSUPPLY
CLEAR GETS

K=SPACE(1)
@23,15 SAY "     [C]ontinue    [E]xit  " GET K PICT "!"
READ
IF K = "E"
   exit
ENDIF
Skip
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** VIEW INVENTORY ITEM

USE INVENTORY

CLEAR
DO WHILE .NOT. EOF()

@3,10 TO 21,70
@8,11 TO 8,69
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
 @7,20 SAY "     VIEWING INVENTORY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE    :  " GET CODE PICT "9999"
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION  :  " GET DESCP PICT "@!"
@13,15 SAY "LOCATION          :  " GET LOCATN PICT "@!"
@14,15 SAY "QUANTITY IN STOCK:   " GET QSTOCK PICT "99999.99"
@15,15 SAY "STOCK BALANCE     :  " GET STBAL PICT "9999999099"
@16,15 SAY "TOTAL STOCK       :  " GET TSTOCK
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "DATE              :  " GET MRDATE PICT "99/99/9999"
@19,15 SAY "COST OF ITEM      :  " GET COST PICT "99999.99"
CLEAR GETS
K=SPACE(1)
@22,15 SAY "     [C]ontinue    [E]xit  " GET K PICT "!"
READ
IF K = "E"
 EXIT
ENDIF
SKIP
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
CLEAR
C=SPACE(1)
@12,20 SAY "[P]rinter report       [S]creen report" get c pict "!"
Read
If c="P"
 Set Device to print
Else
  Clear
Endif
STORE 0 TO TOTR,TOTI,TOTV,P,SV
STORE 60 TO L
USE SUPPLY
DO WHILE .NOT. EOF()
IF L > 22
P=P+1
@ 1,20 SAY "NIGER STATE MINISTRY OF FINANCE"
@ 2,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 4,20 SAY "          SUPPLY REPORT"
@5,70 SAY "PAGE "+LTRIM(STR(P))
@7,01 SAY REPL('-',79)
@8,01 SAY "CODE"
@8,07 SAY "ITEM DESCRIPTION"
@8,26 SAY "QTY INDENTED"
@8,39 SAY "QTY.RECVD"
@8,49 SAY "D A T E"
@8,58 SAY "QTY SUPPLIED"
@8,71 SAY "UNIT QTY"
@9,01 SAY REPL('-',79)
L=10
ENDIF

@L,01 SAY CODE
@L,07 SAY DESCP
@L,24 SAY QINDENT
@L,39 SAY QREC
@L,49 SAY RDATE
@L,58 SAY QSUPPLY
@L,69 SAY QUNIT

L=L+1
SKIP
ENDDO
L=L+1
@L,1 SAY REPL('-',79)
CLOSE DATABASE
SET DEVICE TO SCREEN
wait
RETURN
```

```
*************** MODIFY SUPPLY PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE SUPPLY

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
MSUB=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "      MODIFYING SUPPLY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
@09,15 SAY "ENTER SUB CODE PLEASE      " GET MSUB
READ

SELE 2
LOCATE FOR CODE =  MCODE .AND. SUB_CODE = MSUB
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            SUPPLY DATA NOT FOUND !  PRESS ANY KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
@09,15 SAY SPACE(40)
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY RECEIVED:  " GET QREC PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "DATE              :  " GET RDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET VOC_NUM PICT "99999"
@21,15 SAY "QUANTITY SUPPLIED:  " GET QSUPPLY
READ
*MDT=SPACE(10)
*STORE 0 TO MREC
*MREC=QREC
*MDT=RDATE
*SELE 1
```

```
*REPL QREC WITH QREC+MREC,DREC WITH MDT, RDATE WITH MDT
*REPL STBAL WITH STBAL+MREC,TSTOCK WITH TSTOCK + MREC

K=SPACE(1)
@23,15 SAY "      [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   EXIT
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** MODIFY ISSUE PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE ISSUE

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "      MODIFYING ISSUE DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
MSUB=0
@09,15 SAY "ENTER SUB CODE PLEASE      " GET MSUB PICT "999"
READ
SELE 2
LOCATE FOR CODE =  MCODE .AND. SUB_CODE = MSUB
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE NOT FOUND !  PRESS ANY KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
SELE 2
@09,15 SAY SPACE(50)
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "ITEM CATEGORY     :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY ISSUED   :  " GET QISSUED PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "ISSUE DATE        :  " GET IRDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET V_NUM PICT "99999"
@21,15 SAY "VOUCHER NUMBER    :  " GET VOC_NUM
READ
*MDT=SPACE(10)
*STORE 0 TO QI
*QI=QISSUED
*MDT=IRDATE
*SELE 1
```

```
*REPL QISSUED WITH QISSUED+QI,IDATE WITH MDT
*REPL STBAL WITH STBAL-QI,TSTOCK WITH TSTOCK - QI

K=SPACE(1)
@23,15 SAY "     [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   EXIT
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** MODIFY INVENTORY ITEM

USE INVENTORY

DO WHILE .T.

CLEAR
@3,10 TO 21,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
 @7,20 SAY "      MODIFY INVENTORY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
LOCATE FOR CODE =  MCODE
IF EOF()
   @21,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE DOES NOT EXIST !  PRESS ANY
KEY."
   @22,10 SAY SPACE(50)
   LOOP
ENDIF
@10,15 SAY "SUB-CODE          :__" GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION  :  " GET DESCP PICT "@!"
@13,15 SAY "LOCATION          :  " GET LOCATN PICT "@!"
@14,15 SAY "QUANTITY IN STOCK:   " GET QSTOCK PICT "99999.99"
@15,15 SAY "STOCK BALANCE     :  " GET STBAL PICT "9999999099"
@16,15 SAY "TOTAL STOCK       :  " GET TSTOCK
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "DATE              :  " GET MRDATE PICT "99/99/9999"
@19,15 SAY "COST OF ITEM      :  " GET COST PICT "99999.99"
READ
K=SPACE(1)
@22,15 SAY "     [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   EXIT
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
CLEAR
C=SPACE(1)
@12,20 SAY "[P]rinter report       [S]creen report" get c pict "!"
Read
If c="P"
 Set Device to print
Else
  Clear
Endif
STORE 0 TO TOTR,TOTI,TOTV,P,SV
STORE 60 TO L
USE ISSUE
DO WHILE .NOT. EOF()
IF L > 22
P=P+1
@ 1,20 SAY "NIGER STATE MINISTRY OF FINANCE"
@ 2,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 4,20 SAY "          ISSUES REPORT"
@5,70 SAY "PAGE "+LTRIM(STR(P))
@7,01 SAY REPL('-',79)
@8,01 SAY "CODE"
@8,07 SAY "ITEM DESCRIPTION"
@8,26 SAY "QTY INDENTED"
@8,39 SAY "QTY.ISSUED"
@8,50 SAY "D A T E"
@8,58 SAY "VOUCHER NO"
@8,71 SAY "UNIT QTY"
@9,01 SAY REPL('-',79)
L=10
ENDIF

@L,01 SAY CODE
@L,07 SAY DESCP
@L,24 SAY QINDENT
@L,39 SAY QISSUED
@L,49 SAY IRDATE
@L,58 SAY VOC_NUM
@L,69 SAY QUNIT

L=L+1
SKIP
ENDDO
L=L+1
@L,1 SAY REPL('-',79)
CLOSE DATABASE
SET DEVICE TO SCREEN
wait
RETURN
```

```
**** Inventory listing report

CLEAR
C=SPACE(1)
@12,20 SAY "[P]rinter report      [S]creen report" get c pict "!"
Read
If c="P"
 Set Device to print
Else
  Clear
Endif

STORE 0 TO TOTR,TOTI,TOTV,P,SV
STORE 60 TO L
USE INVENTORY
DO WHILE .NOT. EOF()
IF L > 22
P=P+1
@ 1,20 SAY "NIGER STATE MINISTRY OF FINANCE"
@ 2,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 4,20 SAY "     STOCK INVENTORY REPORT"
@5,70 SAY "PAGE "+LTRIM(STR(P))
@7,01 SAY REPL('-',79)
@8,01 SAY "CODE"
@8,07 SAY "ITEM DESCRIPTION"
@8,26 SAY "C O S T"
@8,37 SAY "QTY.RECVD"
@8,48 SAY "QTY.ISSD"
@8,58 SAY "STOCK BAL"
@8,69 SAY "LOCATION"
@9,01 SAY REPL('-',79)
L=10
ENDIF

@L,01 SAY CODE
@L,07 SAY DESCP
@L,24 SAY COST
@L,35 SAY QREC
@L,46 SAY QISSUED
@L,62 SAY LTRIM(STR(STBAL))
@L,69 SAY LOCATN
L=L+1
SKIP
ENDDO
L=L+1
@L,1 SAY REPL('-',79)
CLOSE DATABASE
SET DEVICE TO SCREEN
wait
RETURN
```

```
********** INVENTORY MENU
SET TALK OFF
SET ECHO OFF
SET STAT OFF
DO WHILE .T.
CLEAR
@ 2,9 TO 19,65 DOUBLE
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 6,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 7,28 SAY " INVENTORY MENU"
@ 8,10 TO 8,64
@ 10,28 SAY "ADD INVENTORY"
@ 12,28 SAY "MODIFY INVENTORY"
@ 14,28 SAY "DELETE INVENTORY"
@ 16,28 SAY "VIEW INVENTORY"
@ 18,28 SAY "RETURN TO MAIN MENU"
SET COLO TO R+
@ 10,28 SAY "A"
@ 12,28 SAY "M"
@ 14,28 SAY "D"
@ 16,28 SAY "V"
@ 18,28 SAY "R"
SET COLOR TO W+
@ 20,28 SAY "Please enter a choice."
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "AMDVR"
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE UPPER(CHR(I)) $ "A"
     DO ADDINV
   CASE UPPER(CHR(I)) $ "M"
     DO MODINV
   CASE UPPER(CHR(I)) $ "D"
     DO DELINV
   CASE UPPER(CHR(I)) $ "V"
     DO VIEWINV
   CASE UPPER(CHR(I)) $ "R"
     EXIT
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN
```

```
********** ISSUES MENU
SET TALK OFF
SET ECHO OFF
SET STAT OFF
DO WHILE .T.
CLEAR
@ 2,9 TO 19,65 DOUBLE
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 6,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"
@ 7,20 SAY "              ISSUE  MENU"
@ 8,10 TO 8,64
@ 10,29 SAY "ADD ISSUE"
@ 12,29 SAY "MODIFY ISSUE"
@ 14,29 SAY "DELETE ISSUE"
@ 16,29 SAY "VIEW ISSUES"
@ 18,29 SAY "RETURN TO MAIN MENU"
SET COLO TO R+
@ 10,29 SAY "A"
@ 12,29 SAY "M"
@ 14,29 SAY "D"
@ 16,29 SAY "V"
@ 18,29 SAY "R"
SET COLOR TO W+
@ 20,29 SAY "Please enter a choice."
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "AMDVR"
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE UPPER(CHR(I)) $ "A"
     DO ADDISS
   CASE UPPER(CHR(I)) $ "M"
     DO MODISS
   CASE UPPER(CHR(I)) $ "D"
     DO DELISS
   CASE UPPER(CHR(I)) $ "V"
     DO VIEWISS
   CASE UPPER(CHR(I)) $ "R"
     EXIT
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN
```

```
*************** DELETE SUPPLY PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE SUPPLY

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
MSUB=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "      DELETING SUPPLY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
@09,15 SAY "ENTER SUB CODE PLEASE      " GET MSUB
READ

SELE 2
LOCATE FOR CODE =  MCODE .AND. SUB_CODE = MSUB
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            SUPPLY DATA NOT FOUND !  PRESS ANY KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
@09,15 SAY SPACE(40)
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY RECEIVED:  " GET QREC PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "DATE              :  " GET RDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET VOC_NUM PICT "99999"
@21,15 SAY "QUANTITY SUPPLIED:  " GET QSUPPLY
CLEAR GETS
*MDT=SPACE(10)
*STORE 0 TO MREC
*MREC=QREC
*MDT=RDATE
*SELE 1
```

```
*REPL QREC WITH QREC+MREC,DREC WITH MDT, RDATE WITH MDT
*REPL STBAL WITH STBAL+MREC,TSTOCK WITH TSTOCK + MREC

K=SPACE(1)
@23,15 SAY "     [D]elete     [S]ave  " GET K PICT "!"
READ
IF K = "D"
   DELETE
   PACK
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** DELETE ISSUE PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE ISSUE

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "       DELETING ISSUE DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
MSUB=0
@09,15 SAY "ENTER SUB CODE PLEASE      " GET MSUB PICT "999"
READ
SELE 2
LOCATE FOR CODE =  MCODE .AND. SUB_CODE = MSUB
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE NOT FOUND !  PRESS ANY KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
@09,15 SAY SPACE(50)
SELE 2
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "ITEM CATEGORY     :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY ISSUED  :  " GET QISSUED PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "ISSUE DATE        :  " GET IRDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET V_NUM PICT "99999"
@21,15 SAY "VOUCHER NUMBER    :  " GET VOC_NUM
CLEAR GETS

K=SPACE(1)
@23,15 SAY "     [D]elete  [S]ave  " GET K PICT "!"
READ
IF K = "D"
```

```
    DELETE
    PACK
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** DELETE INVENTORY ITEM

USE INVENTORY

DO WHILE .T.

CLEAR
@3,10 TO 21,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
 @7,20 SAY "       DELETE INVENTORY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
LOCATE FOR CODE =  MCODE
IF EOF()
   @21,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE DOES NOT EXIST !  PRESS ANY
KEY."
   @22,10 SAY SPACE(50)
   LOOP
ENDIF
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION  :  " GET DESCP PICT "@!"
@13,15 SAY "LOCATION          :  " GET LOCATN PICT "@!"
@14,15 SAY "QUANTITY IN STOCK:   " GET QSTOCK PICT "99999.99"
@15,15 SAY "STOCK BALANCE     :  " GET STBAL PICT "9999999099"
@16,15 SAY "TOTAL STOCK       :  " GET TSTOCK
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "DATE              :  " GET MRDATE PICT "99/99/9999"
@19,15 SAY "COST OF ITEM      :  " GET COST PICT "99999.99"
CLEAR GETS
K=SPACE(1)
@22,15 SAY "     [D]elete    [S]ave  " GET K PICT "!"
READ
IF K = "D"
 DELETE
 PACK
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** ADD SUPPLY PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE SUPPLY

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "          ADD SUPPLY DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
SELE 1
LOCATE FOR CODE =  MCODE
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE DOES NOT EXIST !  PRESS ANY
KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
SELE 2
APPEND BLANK
       REPLACE CODE WI H MCODE
@10,15 SAY "SUB-CODE          :   " GET SUB_CODE PICT "999"
@11,15 SAY "CATEGORY          :   " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :   " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:   " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:   " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY RECEIVED:   " GET QREC PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :   " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :   " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :   " GET EXTRACT
@19,15 SAY "DATE              :   " GET RDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :   " GET VOC_NUM PICT "99999"
@21,15 SAY "QUANTITY SUPPLIED:   " GET QSUPPLY
READ
MDT=SPACE(10)
STORE 0 TO MREC
MREC=QREC
MDT=RDATE
SELE 1
REPL QREC WITH QREC+MREC,DREC WITH MDT, RDATE WITH MDT
```

```
REPL STBAL WITH STBAL+MREC,TSTOCK WITH TSTOCK + MREC

K=SPACE(1)
@23,15 SAY "      [C]ontinue  [E]xit  " GET K PICT "!"
READ
IF K = "E"
   EXIT
ENDIF
ENDDO
CLOSE DATABASE
CLEAR
RETURN
```

```
*************** ADD ISSUE PROGRAM

SELE 1
USE INVENTORY

SELE 2
USE ISSUE

DO WHILE .T.

CLEAR
@3,10 TO 22,70
@8,11 TO 8,69
MCODE=0
@ 4,20 SAY " NIGER STATE MINISTRY OF FINANCE"
@ 5,20 SAY "COMPUTERISED STOCK CONTROL SYSTEM"

SET COLO TO GR+
@7,20 SAY "          ADDING ISSUE DATA"
SET COLO TO
@09,15 SAY "INVENTORY CODE [0000]=Exit " GET MCODE PICT "9999"
READ
IF MCODE < 0
   LOOP
ENDIF
IF MCODE = 0
   EXIT
ENDIF
SELE 1
LOCATE FOR CODE =  MCODE
IF EOF()
   @22,1 SAY ""
   ? CHR(7)
   WAIT+"            INVENTORY CODE NOT FOUND !  PRESS ANY KEY."
   @23,10 SAY SPACE(50)
   LOOP
ENDIF
SELE 2
APPEND BLANK
       REPLACE CODE WITH MCODE
@10,15 SAY "SUB-CODE          :  " GET SUB_CODE PICT "999"
@11,15 SAY "ITEM CATEGORY     :  " GET CAT PICT "@!"
@12,15 SAY "ITEM DESCRIPTION :  " GET DESCP PICT
"XXXXXXXXXXXXXXXXXXX"
@13,15 SAY "QUANTITY INDENTED:  " GET QINDENT PICT "999999"
@14,15 SAY "QUANTITY IN STOCK:  " GET QSTOCK PICT "99999.99"
@15,15 SAY "QUANTITY ISSUED  :  " GET QISSUED PICT "99999999"
@16,15 SAY "UNIT QUANTITY     :  " GET QUNIT PICT "999999"
@17,15 SAY "INDENTING UNIT    :  " GET ID_UNIT PICT "@!"
@18,15 SAY "EXTRACT           :  " GET EXTRACT
@19,15 SAY "ISSUE DATE        :  " GET IRDATE PICT "99/99/9999"
@20,15 SAY "VOCAB NUMBER      :  " GET V_NUM PICT "99999"
@21,15 SAY "VOUCHER NUMBER    :  " GET VOC_NUM
READ
MDT=SPACE(10)
STORE 0 TO QI
QI=QISSUED
MDT=IRDATE
SELE 1
REPL QISSUED WITH QISSUED+QI,IDATE WITH MDT
REPL STBAL WITH STBAL-QI,TSTOCK WITH TSTOCK - QI
```